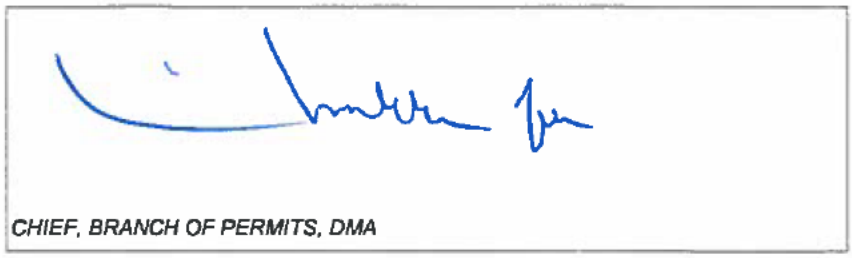
LION SOUTH AFRICAN ESA TROPHY

Permit Number: MA13492C-0

Effective: 08/31/2017 Expires: 08/30/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803



CHIEF, BRANCH OF PERMITS, DMA

Permittee:
RICHARD (b) (6) MCGIFFERT
(b) (6)
TUSCALOOSA, AL (b) (6)
U.S.A.

Authority: Statutes and Regulations: 16 USC 1539(a); 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in South Africa for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2017 hunting season in Khamab Kalahari Reserve, North West Province.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of South Africa for the 2017 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

CONSERVATION FORCE
A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G. TEER, PH.D.
† BART O'GARA, PH.D.
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RCVD DEC 15 2016

December 9, 2016

U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041

Re: Application for Import of Sport-Hunted Lion Trophy:

Dear Chief Van Norman:

Enclosed please find one application to import an African lion trophy from Zimbabwe, which was hunted in the Dande North concession.

Please refer to the documents and responses previously submitted to the DMA by Conservation Force, Zimbabwe's wildlife authorities, professional hunters and operators including Charlton McCallum Safaris (CMS) and the Dande Anti-Poaching Unit (DAPU), professional hunting organizations, and others. We also enclose with this letter two 2016 update reports by DAPU, and respectfully refer to the Custodians of the Wilderness video in the Zambezi Valley, Zimbabwe, which discusses the work of CMS and DAPU. It is available at https://vimeo.com/165256789. This information demonstrates that Zimbabwe's lion hunting program is well-managed, and the hunting enhances the survival of the lion.

Sincerely,

John J. Jackson, III

Attachments:
1. Application
2. DAPU 2016 First Report
3. DAPU 2016 Second Report

3240 S I-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have named, constituted and appointed John J. Jackson, III, Conservation Force, 3240 S. I-10 Service Rd. W., Suite 200, Metairie, Louisiana, 70001, telephone (504) 837-1233, FAX (504) 837-1145, jjw-no@att.net as my attorney and legal representative for all matters concerning my elephant import permit application.

This authority is all inclusive, including, but not limited to permit filing, permit supplementation, reconsideration, administrative appeal and request for time delays or extensions.

I also request that John J. Jackson, III be copied with all correspondence, acknowledgements, notices and decisions concerning my permit during its processing and during any and all steps in its administrative reconsideration or appeal.

DAN ONGNA

11-10-16

DATE

RCVD DEC 15 2016

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1 a. Last name	1 b. First name	1 c. Middle name or initial	1 d. Suffix
ONGNA	DANIEL	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6 a. Telephone number	6 b. Alternate telephone number	6 c. Fax number	6 d. E-mail address
(b) (6)			(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1 a. Name of business, agency, Tribe, or institution	1 b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4 a. Principal officer Last name	4 b. Principal officer First name	4 c. Principal officer Middle name/ initial	4 d. Suffix

5. Principal officer title	6. Primary contact name

7 a. Business telephone number	7 b. Alternate telephone number	7 c. Business fax number	7 d. Business e-mail address

C. All applicants complete address information

1 a. Physical address (Street address, Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1 b. City	1 c. State	1 d. Zip code/Postal code	1 e. County/Province	1 f. Country
Stevens Point	WI	(b) (6)		USA

2 a. Mailing Address (include if different than physical address, include name of contact person if applicable)

2 b. City	2 c. State	2 d. Zip code/Postal code	2 e. County/Province	2 f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☒ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue 16US0799 4C/9 No ☐

3. Certification. I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Daniel Ong — 11/10/2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

   b. Date wildlife is to be hunted:

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A Dande North, Zimbabwe

   b. Date wildlife was hunted:

      July 3, 2016

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

Skin, skull, claws with teeth

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

Zimbabwe ~~Afropride~~ Afropride Freight Express
1303 Picnic Park
Waterfalls, Harare

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:
Business Name: Afropride Freight Expres
Address: 1303 Picnic Park
Address: waterfalls
City: Harare
State/Province:
Country, Postal Code: Zimbabwe

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information provided by Conservation Force, Bubye and Save Valley Conservancies, and Zimbabwe authorities.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Daniel Ogn Date: 11-10-16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

Daniel Ongna
(b) (6) [redacted]
Stevens Point, WI (b) (6) [redacted]

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

DAPU

DANDE ANTI POACHING UNIT

First quarter newsletter 2016

Dear Friends,

Thank you all so much for your support thus far. DAPU has gotten off to an excellent and most productive start in 2016!

Changes

In 2015 Bongi was seriously over worked so Muno has been moved over from the East to help Bongi in the North so we now have them both pretty much full time keeping on top of DAPU.

Alfa who many of you will remember from the East, started off as a general hand, was then promoted to waiter, then cook and now the manager of the East. In the off-season Alfa spent two months apprenticing under Bongi, and we put him through his driver's license and we are happy to say so far he has done an excellent job!

Snaring & general poaching.

January, February, March and April of 2016 has been a fair bit quieter than the same period of 2015 in terms of snares picked up and meat poachers arrested. DAPU has more and more of a structured presence every month and has a much wider informer network.

Summary of successes first quarter 2016.

Month	No. of snares	Dogs shot	Meat Poachers convicted	Elephant poachers	Weapons retrieved		Jail time months
January	300	0	3	0	0	US$821	
February	208	0	0	2	0	US$978	216
March	95	0	0		0	US$97	
April	137	0	1	0	2	US$321	6
	740	0	4	2	2	US$2,217	222

Summary of successes first quarter 2015.

Column1	No. of snares	Dogs shot	Meat Poachers convicted	Elephant poachers	Weapons retrieved	Rewards paid
January	309	0	5	0	0	US$1,518
February	454	0	0	0	0	US$908
March	168	1	1	0	0	US$336
April	210	1	1	0	0	US$420
	1141	2	7	0	0	US$3,182

****For the sake of comparison I have included 2015 statistics for the same period and it shows that snares picked up are down 35%, and meat poachers down by 42% - both are important indicators to us. ****

Elephant poaching.

In February two youngsters were caught and convicted for being in possession of ivory (from Mozambique). Both really young guys and both were sentenced to 9 years in prison. You can see below how pathetic the ivory is yet these folk are so poor that they will risk it.





To date one elephant carcass has been reported in Dande – poached in the "off season" near the Manyemu "cliffs" area. Muno and his Dapu scouts just yesterday arrested one of the locals, dressed up in a stolen National Parks uniform in close proximity of the elephant carcass. He was tried and sentenced to 6 months in prison. He also admitted to being the "guide" for three poachers from Harare who came down to Dande and shot the elephant. Shots were heard in the Broken Bridge area but no carcass was found.



*** Convicted 6 months - stolen National Parks uniform. ***



*** The poached elephant***

Problem Animal Control.

Duties for DAPU scouts also include attending to Problem Animal reports (PAC).

a. Elephant - Due to the severe drought, there has been very little in the way of crops for the elephants to destroy hence genuine PAC reports than usual. The scouts, Bongi, Muno and Alfa have managed to keep on top of all reports and we have not had to shoot any PAC elephants.

b. Lions – Nothing much to report to date. Lots of lions around BUT no PAC. One of our road gangs had a run in with a pride of 12 lion and had to spend the night up trees. Three of the staff had to go to the Angwa Bridge clinic for stitches as the injured themselves whilst climbing!

c. Buffalo – One man was badly injured mid- April by a buffalo in the Dande East. He is currently fighting for his life in a mission hospital.

d. Crocs – Nothing to report yet.

e. Snake bites – Nothing to report yet.

Thanks to SCI and our valued clients, the scouts all have good quality waterproof tents, new uniforms and almost all the kit that they need to do their jobs safely and comfortably. The only urgent outstanding piece of "kit" is boots – and those we are hopeful will be coming from the USA soon.

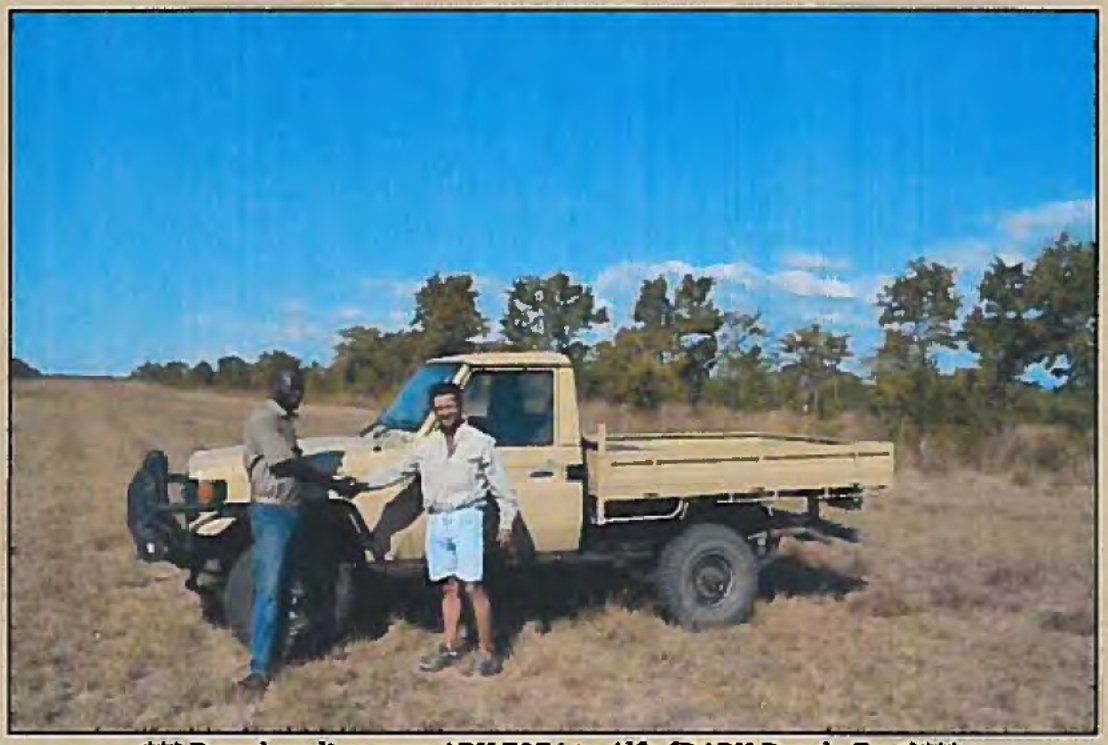
Goals for Second quarter 2016.

1. *Continue with anti-poaching patrols.*
2. *Replace scouts that are not performing.*
3. *Early burning will start in May as soon as it is dry enough.*
4. *Repair firearms where possible or replace*
5. *New boots.*
6. ***Land cruiser (ABK 7074) rebuild.***

As most of you know Safari Club International donated $8,900.00 to DAPU in January of 2016. Buzz and I decided to "retire" (scrap) the oldest cruiser in the fleet – fondly referred to as "Boko Haram" and use what parts we could to bring back to life the second oldest vehicle (Buzz's original hunting vehicle) to become the primary DAPU vehicle in the "East". Well the work is 99% complete, the vehicle looks great and it cost $7,616.00 leaving DAPU with a surplus of $1284.00 - which we have used, on uniforms.

There is no doubt that by every measure we are ahead of where we were at the same time in 2015 and WAY ahead of 2014. All the very best and thank you to all of you whom have helped make DAPU possible!

Buzz and Myles



**** Buzz handing over ABK 7074 to Alfa (DAPU Dande East)****
Thanks to SCI for the re build and Mr. Shores for the new tires!



**** New Tents for DAPU – genuinely waterproof, old fashioned made in Harare****

DAPU Income and Expenses 2016

First quarter.

Income

Clients	**US$12,783.00**
SCI	**US$8,900.00**
CMS	**US$15,071.25**
	US$36,754.25

Expenses

 # 1 Wages, rewards and rations.

	Scouts	Management Bongi Muno & Alfa	Rations	Rewards	Total
January	US$1,100	US$1,605	US$770	US$821	US$4,296
February	US$1,100	US$1,605	US$770	US$978	US$4,453
March	US$1,100	US$1,605	US$770	US$97	US$3,572
April	US$1,100	US$1,605	US$770	US$321	US$3,796
	US$4,400	US$6,420	US$3,080	US$2,217	**US$16,117**

 # 2 2016 DAPU equipment expenses

DAPU Ammunition - National Cartridges	US$362.00
DAPU tents - Mabels Canvas	US$2,242.50
Uniform downsizing	US$330.00
Uniforms	US$1,078.00
Dapu # 1Toyota Land Cruiser AAX 9832 - Grease Junky	US$2,230.75
Dapu # 1Toyota Land Cruiser AAX 9832 - Tineo Enterprises	US$1,078.00
Dapu # 2 ABK 7074 - Alpine panel beaters	US$1,437.00
DAPU # 2 ABK 7074 Burj Auto	US$1,425.00
DAPU # 2 ABK 7074 Grease Junky	US$3,974.00
DAPU # 2 ABK 7074 Windscreen	US$60.00
DAPU # 2 ABK 7074 injector pump Geribran services	US$720.00
	US$14,937.25

 # 3 Vehicles (2).

Mileage ABM 5149 Jan - April 3400 kms x $.5/ km	US$1,700
Mileage AAX 9832 Jan - April = 8000 *.5/km	US$4,000
	US$5,700

Total expenses	**US$36,754**
Shortfall	**US$0**

DAPU

DANDE ANTI POACHING UNIT

Second quarter newsletter 2016

Dear Friends,

Thank you all so much for your continued support! The second quarter has been very promising in terms of snares recovered (less than 2014 and 2015 over the same period) BUT... unfortunately we lost three elephants to poachers in June. Clearly a new "gang" has moved in. National Parks in Chewore had a contact with armed poachers, soon after the discovery of the Dande carcasses and one poacher was killed. Things have been quiet since so we are really hoping that the gang that was taken out, was the one responsible for the Dande poaching. Informants say that they are different gangs – time will tell.

Snaring & general poaching.

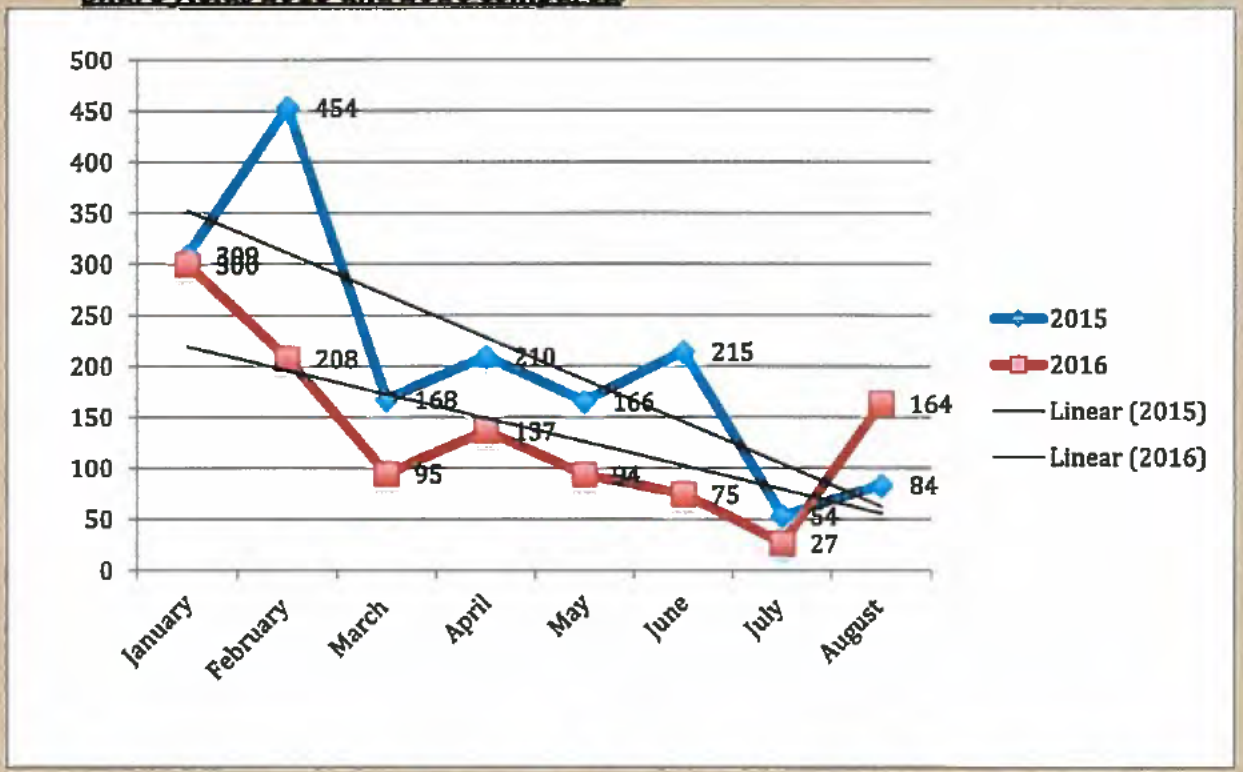
May, June, July and August of 2016 has been a fair bit quieter than the same period of 2015 in terms of snares picked up (22% quieter in fact). In May, DAPU accounted for 5 well-known, different meat poachers - all convicted. At the same time we were able to take 1 x shotgun and 1 x .303 rifle out of circulation.

May to August is always the quietest time of the year in terms of poaching simply because our hunters are out and about, providing excellent coverage of the area. Each hunting party moves with two game scouts/ rangers so those along with trackers, PH's and clients make for a formidable force. DAPU continues to build a more and more of a structured presence every month and has a much wider informer network.

Summary of successes January to August 2016

	No. of snares	Dogs shot	Meat Poachers convicted	Elephant poachers	Traditional Weapons & guns retrieved	Rewards paid	Jail time months
Jan	300	0	3	0	0	US$821	
Feb	208	0	0	2	0	US$978	216
March	95	0	0		0	US$97	
April	137	0	1	0	2	US$321	6
Total	740	0	4	2	2	US$2.217	222
May	94	0	5	0	4	US$1,310	40
June	75	0	0	0	0	US$83	
July	27	0	0	0	2	US$67	
August	164	1	0	0	0	US$254	
Total	360	1	5	0	6	US$1.714	40
Total Y.T.D.	1100	1	9	2	8	US$3,931	262

Snare yields 2015 and 2016 compared



**** It is clear to see the decline during the hunting season and also ... the impending increase as hunting slows down and we head towards Christmas. ****



**** The worst kind – cable snares for buffalo and elephant calves - Cable taken from a vandalized foreign Aid project***.*



**** A poacher with his duiker****

Elephant poaching.

Between the 16th and 19th June 2016, one hunting party found two fresh elephant carcasses in Ward 2 and another hunting party found another carcass in the Chico area of the Dande Safari Area. As already mentioned, shortly after that, National Parks in Chewore North had a "contact" with a gang where they accounted for one poacher (dead). Things have been very quiet since that BUT our informers tell us that they were two separate gangs so time will tell!

Kanyemba remains a transit point for ivory out of Mozambique and Zimbabwe into Zambia and onwards to destinations unknown, so from time to time we get information of ivory moving through – normally that ivory originated in Mozambique or other parts of the Zambezi valley.



**** Muno with one of the poached ele's****

Problem Animal Control.

Duties for DAPU scouts also include attending to Problem Animal reports (PAC).

a. Elephant – There are not many reports – only really along the Kadzi River in the East where elephant bulls tend to enjoy the vegetable gardens along the riverbanks!

b. Lions – Nothing much to report to date. Lots of lions around, and some cattle have been lost BUT no PAC.

c. Buffalo – One man was killed in Kanyemba on the 14th August by a dagga boy and a second person injured by the same bull two weeks prior. The buffalo is still at large.

d. Crocodiles – Nothing to report yet.

e. Snake bites – Nothing to report yet.

f. Hyenas – there are consistent and accurate reports of hyenas killing livestock especially in the East.

"Patrol Kit"

In the previous newsletter we mentioned that we were expecting some boots from the USA. Well they are being shipped in the next week so we will be having some VERY happy scouts by month end!!! Anyone who has done a long walk in inappropriate footwear will know just how vital boots are! In the same shipment we are also receiving handcuffs and water bottles. A huge thank you to Duke McCaa who single handedly organized this!!!

Goals for Second quarter 2016.	Completed?	Goals for third quarter 2016
1. Continue with anti-poaching patrols.	Yes	1. Continue with anti-poaching patrols.
2. Replace scouts that are not performing.	Yes	2. Repair and replace firearms.
3. Early burning will start in May as soon as it is dry enough.	Yes	3. Ramp up patrol effort especially at water.
4. Repair firearms where possible or replace	No	4. Arial surveillance - Flying for Wildlife.
5. New boots.	Yes	

Land cruiser (ABK 7074) re- build.

This has been a big success and has really helped with deployments and rotation of call signs.

Cost savings.

One of our biggest costs is obviously vehicles, which are pretty much irreplaceable. In order to optimize our DAPU vehicle mileage we have had a satellite-tracking unit fitted to AAX 9832, which does the bulk of the Dande North deployments.
We plan to have a unit installed on ABK 7074 when that vehicle next comes to Harare. Obviously these vehicles are used from time to time to deliver groceries or whatever en-route to a deployment! If any of you are interested in specifically sponsoring one of these vehicles we will supply you with the login details and you can track the vehicle live!

Buzz and Myles

DAPU income and Expenses 2016

First and second quarters.

Income

Safari Club International	US$8,900.00
National Capital Safari Club	US$1,500.00
Sylvamus Trust	US$6,000.00
Clients	US$28,388.90
CMS	US$16,119.35
Total income	***US$60,908.25***
	US$60,908.25

Expenses

 # 1 Wages, rewards and rations.

	Scouts	Management Bongi Muno & Alfa	Rations	Rewards	Total
January	US$1,100	US$1,605	US$770	US$821	US$4,296
February	US$1,100	US$1,605	US$770	US$978	US$4,453
March	US$1,100	US$1,605	US$770	US$97	US$3,572
April	US$1,100	US$1,605	US$770	US$321	US$3,796
	US$4,400	US$6,420	US$3,080	US$2,217	US$16,117
May	US$1,100	US$1,605	US$770	US$1,310	US$4,785
June	US$1,100	US$1,605	US$770	US$83	US$3,558
July	US$1,100	US$1,605	US$770	US$87	US$3,542
August	US$1,100	US$1,605	US$770	US$254	US$3,729
	US$4,400	US$6,420	US$3,080	US$1,714	US$15,614

 # 2 2016 DAPU equipment expenses

DAPU Ammunition - National Cartridges	US$362.00
DAPU tents - Mabels Canvas	US$2,242.50
Uniform downsizing	US$330.00
Uniforms	US$1,078.00
Dapu # 1Toyota Land Cruiser AAX 9832 - Grease Junky	US$2,230.75
Dapu # 1Toyota Land Cruiser AAX 9832 - Tineo Enterprises	US$1,078.00
Dapu # 2 ABK 7074 - Alpine panel beaters	US$1,437.00
DAPU # 2 ABK 7074 Burj Auto	US$1,425.00
DAPU # 2 ABK 7074 Grease Junky	US$3,974.00
DAPU # 2 ABK 7074 Windscreen	US$60.00
DAPU # 2 ABK 7074 injector pump Geribran services	US$720.00
	US$14,937.25

 # 3 Vehicles (2).

Mileage ABM 5149 Jan - April 3400 +10297 km,s = 13697 x $.5/ km	US$6,849
Mileage AAX 9832/ ABK 7074 Jan - April = 8000+ 6783 = 14,783 *.5/km	US$7,392
	US$14,240

Total expenses	US$60,908
Shortfall	US$0

RCVD DEC 15 2016

[redacted] [redacted]

(b) (6) [redacted]

(b) (6) [redacted]

Nov 11, 16
DATE

• PAY TO
THE ORDER OF US Fish & Wildlife Service $ 100.00

One hundred DOLLARS

Bull's Eye
CREDIT UNION
STEVENS POINT, WISCONSIN 54481

For [redacted]

Daniel Cox MP

(b) (6) [redacted]

LION ZIMBABWE ESA TROPHY

Permit Number: MA14753C-0

Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

Mary Coglianese
FOR
CHIEF, BRANCH OF PERMITS, DMA

Permittee:

DANIEL (ONGNA
(b) (6)
STEVENS POINT, WI (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD JAN 13 2017

CONSERVATION FORCE
A Force For Wildlife Conservation

† Baron Bertrand des Clers, Ph D.
† James G. Teer, Ph.D.
† Bart O'Gara, Ph.D.
† Don Lindsay

BOARD OF DIRECTORS:
John J. Jackson, III, J.D.
Chrissie Jackson
Philippe Chardonnet, D.V.M.
Bert Klineburger
Shane Mahoney

January 10, 2017

U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041

Re: Applications for Import of Sport-Hunted Lion Trophies from Zambia

Dear Chief Van Norman:

Enclosed please find two applications to import African lion trophies to be hunted in Zambia in 2017. These applicants are hunting with Kwalata Safaris. You received an Operator Enhancement Report from this company on December 13, which demonstrates the company's strong commitment to anti-poaching, habitat protection, community investment, and responsible and sustainable wildlife management. Please consider that report and the other documents submitted by Conservation Force and Zambian authorities and operators in making an enhancement determination for these applications.

Please do not hesitate to contact us if you have questions about these permit applications.

Sincerely,

Regina Lennox

3240 S I-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

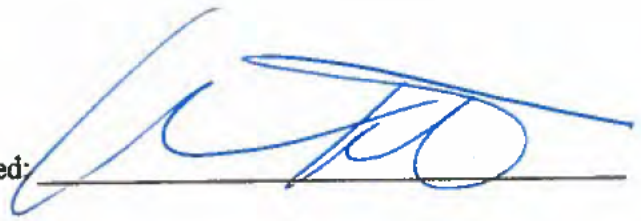
NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a lawfully hunted African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjj@conservationforce.org
E: regina.lennox@conservationforce.org

Signed: 

Name: William KATEX

Date: 1/4/17

RCVD JAN 13 2017

OMB No 1018-0093
Expires 05/31/2017

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Katen	William		

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)			

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code	1.e. County/Province	1.f. Country
Patchogue	New York	(b) (6)		USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code	2.e. County/Province	2.f. Country
Patchogue	New York	(b) (6)		USA

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE in the **amount of $100, nonrefundable processing fee** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 06US129596/9 No ☐

3. Certification. I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (...) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 1/4/17

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Zambia, Lower Lupande Game Management Area, Mfuwe, Eastern Province, Luanga Valley

   b. Date wildlife is to be hunted:

      30 May - 22 June 2017

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	MICHAEL BORMAN
Business Name:	BANGWEULU TAXIDERMY
Address:	4142K CHIFWEMA ROAD, NEW KASAMA
Address:	
City:	LUSAKA
State/Province:	SOUTHERN
Country, Postal Code:	ZAMBIA, 50100

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 1/4/17

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Applicant at 631-553-0037 or John J. Jackson, III or Regina Lennox of Conservation Force at 504-837-1233, jjw-no2@att.net / regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

___ Yes ✓ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD JAN 13 2017

(b) (6) [redacted]

(b) (6) [redacted]

DATE 1/4/17

50-546/214

PAY TO THE ORDER OF U S Fish + Wildlife Service $ 100 00/xx

One Hundred 00/xx DOLLARS

SUFFOLK COUNTY NATIONAL BANK
GOOD RELATIONSHIPS ARE GOOD BUSINESS
www.scnb.com

FOR (b) (6) [redacted]

MP

LION ZAMBIA ESA TROPHY

Permit Number: MA17486C-0

Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

WILLIAM KATEN
(b) (6)
PATCHOGUE, NY (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zambia for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2017 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zambia for the 2017 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD JAN 13 2017

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a lawfully hunted African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjj@conservationforce.org
E: regina.lennox@conservationforce.org

Signed: _____

Name: Richard Bodkin

Date: 1/4/17

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

OMB No. 1018-0093
Expires 05/31/2017

RCVD JAN 13 2017

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Bodkin	Richard		

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)			

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #, no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Remsenburg	New York	(b) (6)		USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
Remsenburg	New York	(b) (6)		USA

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 738514 No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 1/4/17

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Zambia, Lower Lupande Game Management Area, Mfuwe, Eastern Province, Luanga Valley

   b. Date wildlife is to be hunted:

      30 May - 22 June 2017

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	MICHAEL BORMAN
Business Name:	BANGWEULU TAXIDERMY
Address:	4142K CHIFWEMA ROAD, NEW KASAMA
Address:	
City:	LUSAKA
State/Province:	SOUTHERN
Country, Postal Code:	ZAMBIA, 50100

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 1/4/17

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated_ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Applicant or John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net / regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

___ Yes ✓ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

Gmail

Regina Lennox <regina.lennox.cf@gmail.com>

Enhancement information in support of PRTs 03367C, 93398B, etc. (Zambia lion and elephant imports)

1 message

Regina A. Lennox <regina.lennox@conservationforce.org> Tue, Dec 13, 2016 at 12:08 PM

To: "Vannorman, Tim" <tim_vannorman@fws.gov>, darcy_vargas@fws.gov
Cc: "John J. Jackson, III" <jjj@conservationforce.org>

Dear Tim and Darcy,

Attached please find a report from a safari hunting operator in Zambia demonstrating enhancement. You will receive two applications for lion trophy imports from this concession in 2017. We request that you consider this report in making an enhancement finding for those applications, and in making an enhancement finding for the 2016 applications that we previously submitted (Robert Hixson (elephant and lion), Amanda Henson (lion), Stephen Crooks (lion), and Lawrence Rudolph (lion)).

This operator, Kwalata Safari Company, leases a 1,511 km2 concession in the "prime" South Luangwa Safari Area. They employ four trackers, ten anti-poaching scouts, and eight camp staff from local villages. The company supports at least 100 dependents in the area, creating a direct link between conservation hunting, the well-being of the wildlife, and the well-being of the local residents.

Kwalata Safari Company maintains and equips two company anti-poaching teams. These teams conduct daily patrols in the concession, and assist the DNPW (and the lion's prey base) by policing the border of South Luangwa National Park. The company provides rations, petrol, and funds as needed for government rangers, to enhance the rangers' capacity in the park. Further, under the company's contract with local communities, the company funds at least six community scouts and supplies rations for them. Last year, these anti-poaching efforts succeeded in picking up over 1,000 snares, 40 gin traps, and two poisoned licks; arresting ten poachers; and confiscating 14 weapons. **The company invested almost $57,400 in anti-poaching in 2015 alone.** This investment directly protects the lion and its prey base and the critical lion habitat, and therefore benefits the species.

Their community program is equally impressive. The company pledges at least $15,000 per year to each of two villages. Company and village leaders together decide on the projects and the village co-invests through fund-raising or sweat equity. In 2015, the company contributed $18,100 in school renovations for one village and $15,400 for various projects in the second village. The company also distributes at least 50% of game meat harvested to these villages, for the local residents to eat or sell. In 2015, this was valued at $27,500. Finally, the company maintains a fund of client donations to compensate local residents for losses due to dangerous animals. In 2015, they compensated local villagers over $2,600. **The company invested over $63,600 in local communities in 2015 alone.** This investment enhances community tolerance of lion, elephant, and other species, links conservation with improved livelihoods, and reduces human-wildlife conflict. And these benefits have been quantified: in 2015, although the company took 82 reports of problem animals, they did not take a single animal for problem animal control.

Please let us know if you have questions about this information, and please consider it in making enhancement findings for lion **and** elephant imports from Zambia.

Best wishes,
Regina

Regina A. Lennox

Conservation Force
3240 S I-10 Service Road W, Suite 200
Metairie, Louisiana 70001 USA
504-837-1233 (office)
919-452-8652 (cell)
regina.lennox@conservationforce.org

KWALATA SAFARIS-REPORT FOR LION CONSERVATION 2016 - 2.docx
1286K

KWALATA SAFARIS, LTD.
Address, 6980 KATANGA ROAD LUSAKA
Operator email: kwalatapeter@yahoo.com

I. DESCRIPTION OF COMPANY AND CONCESSION

Kwalata Safari Company, Ltd. has been operating in Lower Lupande Concession since April 2002. The concession provides habitat for a range of species including buffalo, lion, hippo, kudu, leopard, elephant, impala, bushbuck, hyena, warthog, zebra, giraffe, and waterbuck. Our concession is about 1511 kilometer squared and is in the South Luangwa Safari Area. Lower Lupande is rated under Zambia Government Legislation as one of the Prime Hunting Blocks in Zambia due to the abundance of wild life and cats. We have a lease with the Wildlife Authority for seven years renewable which started in 2015 after the new allocations of hunting blocks in Zambia with the new Government.

The company is a partnership between Peter Chipman and Zaeed Patel and has been operational for more than fourteen years. We employ three professional hunters, four game trackers, ten anti-poaching scouts and eight camp staff (cooks, cleaning, miscellaneous). Altogether our operations support at least 100 dependents in local villages apart from the local employed camp staff and scouts.

We have a written concession plan with anti-poaching and community components.

II. ANTI-POACHING COMPONENT

Kwalata Safari Company maintains two five-man anti-poaching teams at an annual cost of over $ 25000. Each team is equipped with a four-by-four vehicle, a motorbike, uniforms and boots, tents, rations, and a satellite phone. Our teams closely cooperate with the Wildlife Authority to conduct almost daily patrols of the concession and the border of the South Luangwa National Park. We supply rations at least twice per month to the government game scouts to ensure they are sufficiently equipped for the patrols as well as transport support and more over and above the above mentioned amount per year.

Our contract with the local community requires that part of the revenues paid to the community be used to fund at least six community game scouts, and additionally we supply rations at least twice per month to these scouts.

We heavily patrol our area, conducting approximately one patrol per day by vehicle and foot. In the past year, our teams picked up about 1000 snares, 40 gin traps, and two poisoned licks. Removing snares protects the lion and wildlife population by reducing incidental snaring. Over the past year we arrested more than ten poachers, confiscated three bicycles and five muzzle loaders from them, as well as recovered 14 weapons total. We found two elephant carcasses each having tusks removed, the bones of one impala, some evidence of illegal logging, and a Leopard with a snare wound.

If needed, we subsidize the government game scouts. Every month we provide one week's rations to support a dozen Wildlife Authority scouts and contribute $ 500 in petrol to the Wildlife Authority.

We also send out road crews approximately every two weeks to check the condition of the roads in the concession, to ensure we are able to patrol effectively.



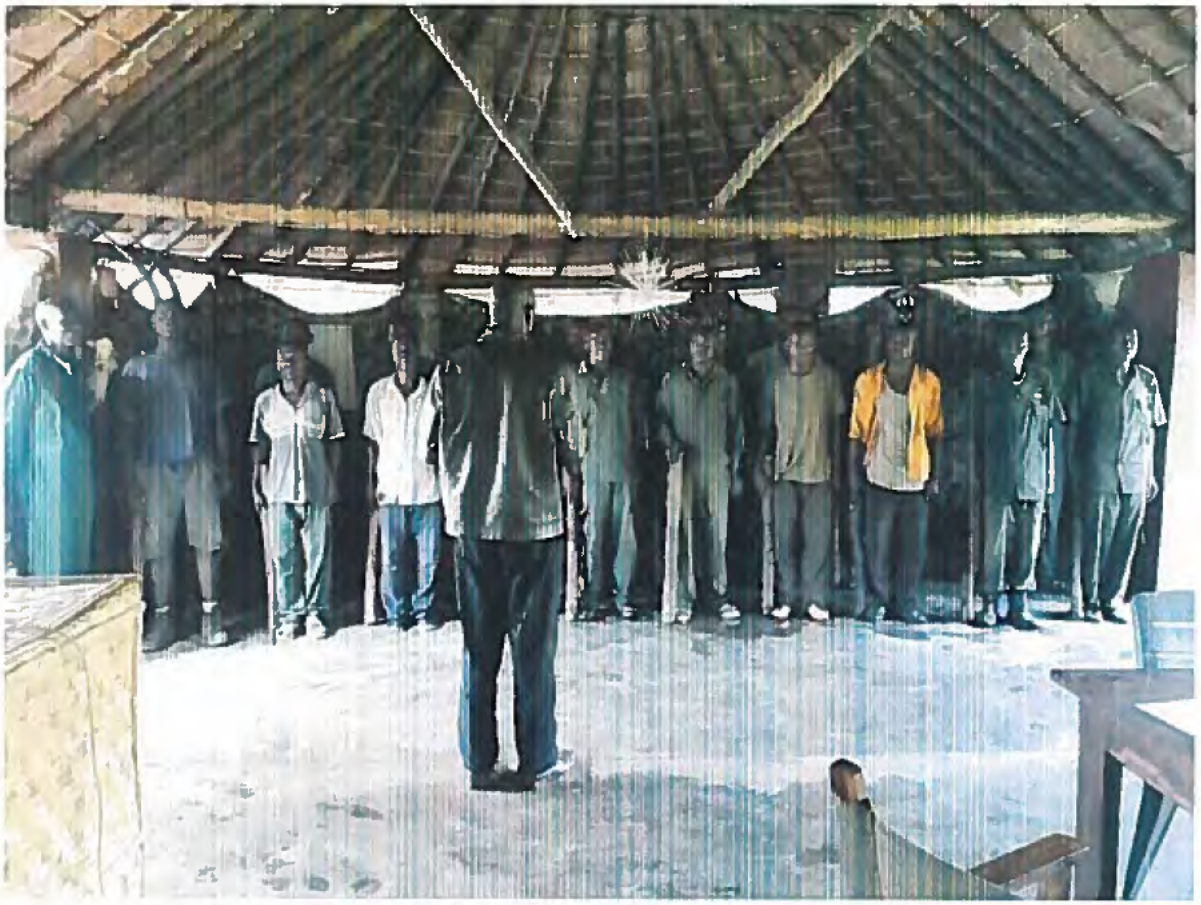
In the picture above wire snares recovered from poachers



In the picture above an elephant which was poached had its tusks removed



In the picture above a Leopard skin recovered from poachers by our vigilant game scouts.



In the picture above our Scouts being prepared to go on Patrols

In 2015 Kwalata Safari Company spent almost $ 57400 in our blocks on anti-poaching patrols, equipment, and assistance to the Wildlife Authority and community scouts, including by providing 6000 liters of diesel for patrol vehicles. We recorded 363 patrol days and well above 2000 patrol hours. And made over $ 4200 in payments of rewards. A breakdown of spending on anti-poaching is below.

Item	Spend (USD)	Notes
Scout salaries	18000	Directly paid and some subsidies to WA
Scout equipment	5000	Clothing, vehicles, rations, phones, tents, etc.
Diesel / petrol	7700	For scouts and WA
Rations for WA and community scouts	6500	
Micro light rental and fuel	16000	Including time donated to WA
Rewards	4200	For information and arrests
TOTAL	$ 57400	

Our concession agreement requires that we have an anti-poaching program/plan and report about it to the Wildlife Authority. The Wildlife Authority considers our contributions in determining whether to renew the concession.

III. COMMUNITY PARTICIPATION

A. Community Assistance Component

We make contributions to the two closest villages which are Malama and Kakumbi.

We pledge an annual contribution of at least $ 15000 in projects to each of two villages. And in return ask for a list of preferred projects of witch we develop a work-plan in consultation with village leaders and citizens to fund and supply projects and require a measure of community contribution to each project either through a council donation or more frequently, through donations of time by workers. In 2015 we funded and supplied the following projects at each village's choice:

Village	Projects	Amounts (USD)

Village 1	Renovations of schools	18100
Village 2	Designing and constructing village office	3100
	Funding youth sports league including transport	1900
	Providing new equipment for village game scouts	800
	Paying teacher salary and school fees for poor children	6100
	Digging new borehole and building pump station	3500
		15400
	TOTAL	$ 33500

In addition to these direct contributions, we pledge to distribute at least 50% of game meat harvested to the villages. The villages have the choice to eat the meat or sell it. In 2011 the value of this meat was $ 30000. 2012 the value was $ 33000. 2015 the value was $ 27500.

Our concession agreement requires we have a community assistance program/plan and report on the program to the Wildlife Authority. The Wildlife Authority considers these contributions in determining whether to renew our lease.

B. Conflict Control

We also take reports from villagers about problem animals and do our best to keep elephant out of community gardens during harvest. We also maintain an approximately $ 12000 fund of client donations which we use for community compensation. In 2015 we received 82 reports of problem animals and we made it through the entire season without a problem animal kill. We paid out $ 2650 in compensation for lost livestock and crops.

IV. HABITAT PROTECTION AND CONSERVATION DEVELOPMENT

We have enhanced water infrastructure for wildlife in our concession by maintaining four pans to increase water supply and carrying capacity of the concession which gives allot of Antelope Species for Lion/Leopard food chain and habitat for their sustainable and healthy survival.

V. OTHER INFORMATION

A. Prey Base

Kwalata Safari Company's anti-poaching efforts, water provision, and fire management have allowed the lion prey base in our concession to grow over the past five years. We estimate that our Buffalo and Plains Game populations have shown an increase of 15-20% per annum. In 2014 our Wildlife Authorities flew over the Game Management Areas in a large-mammal survey and counted more than 1000 buffalo on average.

B. Lion Population Tracking

Lion are notoriously difficult to survey or census. To track the lion population trend in our concession, Kwalata Safari Company maintains a lion sightings record in form of camera pictures taken as well as trail camera pictures, sightings, spoor and footprints on individual, groups and passing through cats. Because we keep tabs on the lion in our concession, we are assured that the regulated, limited off take is sustainable. Our wildlife Authorities have also provided us with a data recording sheet to use on all Lion/Leopard Safaris as off 2015 to take record of sightings and record the activities on the specific safari being done. We have a 100% success on all our hunts.

C. Lion Aging Approach

Kwalata Safari Company has been following an age-based policy for African lion trophies since 2015, when we adopted this Policy after a mutual agreement with our wildlife Authorities and to be conservative in estimating age.

As a result of this, Lions have been passed up by a number of potential Lion before allowing a client to harvest a specimen that we have any doubt is of on age. We also don't allow any client to shoot a lion of which there is any doubt on the age limit if the lion looks anything less than 5 years of age but rather try and shoot a lion that looks more the like of more than 6 years of age.

In 2016, we successfully harvested mature (aged six or older) male lion up to our quota (of two). We have been able to harvest our full quota this year because our selectivity has resulted in more lion reaching an advanced age.

D. ELEPHANT HUNTING

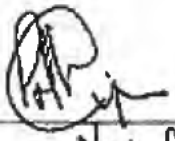
Our Wildlife Authorities have put up a policy not to Harvest any Elephant that has its tusks weighing less than 15 kilograms. In view of this our Professional Hunters are instructed to not harvest an Elephant with weight in tusks of less than 20 kilograms at a minimum and to be very selective when Hunting Elephant by ensuring that they comply with this agreement. The wildlife authorities have put up stringent measures to any Professional Hunter who goes against this rule which may even include withdrawing his Professional Hunting License.

E. U.S. Hunters

Most of our clients are from the United States. These hunters have a conservation ethic and usually contribute above their fees to anti-poaching or our community compensation fund or community assistance programs.

CONCLUSION

Kwalata Safari Company's regulated, confirm that our sustainable-use based hunting program enhances the survival of the Lion and Elephant and we recognize that the Cat and Elephant hunts bought and booked by our American Clients contribute a higher percentage of income in the Safari Hunting and it is our obligation to share these finances with the communities who have played an important role to conserve this resource. We also realize that these species are a renewable resource and as such we will endeavor to provide suitable conditions for the reproduction and sustainability of these species with the allowance of our American Clients to keep coming and hunting the different species in Africa.



Signed: _____

Operator Name: Kwalata Safaris LTD

Title: DIRECTOR

RCVD JAN 13 2017

(b) (6)

(b) (6)

DATE 1/4/17 50-546/214

PAY TO THE ORDER OF U.S Fish + Wildlife Service $ 100 00/100

One Hundred 00/100 DOLLARS

SUFFOLK COUNTY NATIONAL BANK
GOOD RELATIONSHIPS ARE GOOD BUSINESS.
www.scnb.com

FOR (b) (6)

LION ZAMBIA ESA TROPHY

Permit Number: MA17487C-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
RICHARD BODKIN
(b) (6)
REMSENBURG, NY (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zambia for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2017 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zambia for the 2017 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD JAN 13 2017

CONSERVATION FORCE

A Force For Wildlife Conservation

† Baron Bertrand des Clers, Ph.D.
† James G. Teer, Ph.D.
† Bart O'Gara, Ph.D.
† Don Lindsay

BOARD OF DIRECTORS:
John J. Jackson, III, J.D.
Chrissie Jackson
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Bert Klineburger
Shane Mahoney
Dale Towell, Ph.D.

January 5, 2017

U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041

Re: Application for Import of One Sport-Hunted Lion Trophy

Dear Chief Van Norman:

Enclosed please find one application to import an African lion trophy to be hunted in Tanzania in 2017. This applicant is hunting with Danny McCallum Safaris. You received an Operator Enhancement Report from this company in October which demonstrates the company's strong commitment to anti-poaching, habitat protection, community investment, and responsible and sustainable wildlife management. Please consider that report and the other documents submitted by Conservation Force and Tanzanian authorities and operators in making an enhancement determination for this import.

Please do not hesitate to contact us if you have questions about this permit application.

Sincerely,



John J. Jackson, III

3240 S I-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: Todd Cusick

Name: Todd Cusick

Date: December 19, 2016

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

RCVD JAN 13 2017

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Cusick	Todd	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			N/A

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)			

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		
2. Tax identification no.	3. Description of business, agency, Tribe, or institution		
4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title	6. Primary contact name		
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
PROVO	UTAH	(b) (6)		U.S.A.

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee.** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☒

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Todd Cusick — 12/19/2016

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Tanzania, _____ WESTERN TANZANIA, in the LUKWATI GAME RESERVE AREA; nearest city is MBEYA

   b. Date wildlife is to be hunted:

      September 2017

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws.

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:
Business Name: McCALLUM SAFARIS, MIKE ANGELIDES
Address: PO BOX 13226
Address:
City: ARUSHA
State/Province: TANZANIA
Country, Postal Code: AFRICA

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

formation provided by Conservation Force and Tanzanian authorities and operators, CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below) department findings or re to USFWS information re

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: December 19, 2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD JAN 13 2017

(b) (6) [redacted]

(b) (6) [redacted]

12-20-16
Date

Pay to the Order of U.S. Fish + Wildlife Service $ 100.00

Dollars

Wells Fargo Bank, N.A.
Utah
wellsfargo.com

For permit Application

(b) (6) [redacted]

Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import applications / request for information

2 messages

Butzler, Julia <julia_butzler@fws.gov> Tue, Jul 24, 2018 at 4:08 PM
To: jjj@conservationforce.org, cf@conservationforce.org
Cc: Mary Cogliano <mary_cogliano@fws.gov>

Mr. Jackson,

We are in the process of reviewing applications for the import of African lions taken from Tanzania. A number of applicants have named you as the representative for all matters concerning the application. I have attached a list of the applications currently pending for which you have been named as the representative.

As you are aware, the U.S. Fish and Wildlife Service must make a finding that the sport-hunting of lions will enhance the survival of the species. As you know, we are now considering applications on a case-by-case basis, as opposed to making country-wide enhancement findings. As such, we would like to give you the opportunity to submit additional information in support of these application requests. This may include (but is not limited to):

>>population status or trend data on the lion population, both the countrywide population and the local population;

>>information on the fees paid (e.g., licenses or trophy fees), recipients of these fees, and use of fees;

>>information about the safari outfitter, professional hunter, concession holder or land owner and their activities to conserve the species (e.g., habitat management or improvement, anti-poaching activities and success of those efforts, efforts to address human-lion conflict, population monitoring, community benefits). Copies of recent reports submitted to TAWA would be particularly helpful.

Do not hesitate to contact me with questions or clarifications.

Thank you,

--
Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

Please respond to any requests for information or documentation within 45 days from the date of this message; if not received within 45 days, your application will be considered incomplete and will be placed in our inactive files and we will not complete your request for a permit.

TZlionApplications-RepJJackson.xlsx
16K

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:22 AM
To: jjj@conservationforce.org, cf@conservationforce.org, jjw-no2@att.net

Mr. Jackson,

Please use the updated spreadsheet for reference of the applications that name you as their representative.

Thank you,
[Quoted text hidden]

TZlionApplications-RepJJackson.xlsx
17K

Permit number	Applicant business name	Date permit request	Last name	First name	Address 1	City	ST	Zip/ postal code	Country	Telephone	Email
84925C	TURNER, DAVID (b) (6)	3/27/2018	TURNER	DAVID	(b) (6)	MIDDLETON	ID	(b) (6)	US	(b) (6)	
82925C	WRIGHT, JOHN (b) (6)	3/15/2018	WRIGHT	JOHN		AMARILLO	TX		US		
69716C	LINK, KENIA (b) (6)	12/20/2017	LINK	KENIA		WASCOTT	WI		US		
45770C	FOWLER, THEODORE (b) (6)	/1/2017	FOWLER	THEODORE		RALEIGH	NC		US		
40253C	ZILLMER, JOHN (b) (6)	6/8/2017	ZILLMER	JOHN		GLENMOORE	PA		US		
36878C	ENGEL, VICTOR (	5/23/2017	ENGEL	VICTOR		CONCORD	NH		US		
25070C	MARKL, EDWARD (b) (6)	3/7/2017	MARKL	EDWARD		DECATUR	TX		US		
25074C	CROUCH, JACK (b	3/7/2017	CROUCH	JACK		MCLEAN	VA		US		
17490C	CUSICK, TODD (b) (6)	1/13/2017	CUSICK	TODD		PROVO	UT		US		
12625C	CARMICAL, JEFF	11/17/2016	CARMICAL	JEFF		MONTICELLO	AR		US		
12548C	ATKINSON, CARL (b	11/9/2016	ATKINSON	CARL		ORLANDO	FL		US		
11956C	HOWARD, THOMAS (b	11/7/2016	HOWARD	THOMAS		COLUMBUS	MS		US		
08543C	CROUSEN, GUINN (b)	9/28/2016	CROUSEN	GUINN		DALLAS	TX		US		
08545C	NOSLER, JOHN (b) (6)	9/28/2016	NOSLER	JOHN		BEND	OR		US		
08549C	FALKOWSKI, JAMES (b) (6)	9/28/2016	FALKOWSKI	JAMES		COOPER CITY	FL		US		
02148C	HOWARD, THOMAS (b) (6)	7/19/2016	HOWARD	THOMAS		COLUMBUS	MS		US		
92186B	WRIGHT, JOHN (b) (6)	3/21/2016	WRIGHT	JOHN		AMARILLO	TX		US		

CONSERVATION FORCE
A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G. TEER, PH.D.
† BART O'GARA, PH.D.
† DON LINDSAY

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January 16, 2017

U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041

RCVD JAN 18 2017 LB

Re: Applications for Import of Sport-Hunted Trophies from Zambia

Dear Chief Van Norman:

Enclosed please find two applications to import African lion, leopard, and elephant trophies to be hunted in Zambia in 2017. These applicants are hunting with Nyamvu and Mopane Safaris and Ivory Safaris. The operator reports from Nyamvu and Mopane Safaris are enclosed, and you previously received an operator enhancement report from Ivory Safaris. These reports demonstrate the companies' strong commitment to anti-poaching, habitat protection, community investment, and responsible and sustainable wildlife management. I also enclose the 2017 enhancement report from Muchinga Adventures, Ltd., with a CD containing its attachments, to update your file on this operator.

Please consider these reports and the other documents submitted by Conservation Force and Zambian authorities and operators in making an enhancement determination for these applications.

Please do not hesitate to contact us if you have questions about these permit applications.

Sincerely,

Regina Lennox

3240 S I-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

NOTICE OF REPRESENTATION

RCVD JAN 18 2017

LB

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my applications for one permit to import a lawfully hunted African elephant trophy, one permit to import a lawfully hunted African lion trophy, and one permit to import a lawfully hunted African leopard trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my trophies at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjj@conservationforce.org
E: regina.lennox@conservationforce.org

Signed: Dal(b)(6)well

Name: Daniel Welker

Date: 01/06/2017

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

RCVD JAN 18 2017 LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A.	**Complete if applying as an individual**		
1.a. Last name: Welker	1.b. First name: Daniel	1.c. Middle name or initial: (b) (6)	1.d. Suffix
2. Date of birth (mm/dd/yyyy): (b) (6)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
6.a. Telephone number: (b) (6)	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address: (b) (6)

B.	**Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution**		
1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		
2. Tax identification no.	3. Description of business, agency, Tribe, or institution		
4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title	6. Primary contact name		
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C.	**All applicants complete address information**			
1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes): (b) (6)				
1.b. City: Brookshire	1.c. State: Texas	1.d. Zip code/Postal code: (b) (6)	1.e. County/Province	1.f. Country: United States
2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)				
2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D.	**All applicants MUST complete**
1.	Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions***. (50 CFR 13.11(d))
2.	Do you currently have or have you ever had any Federal Fish and Wildlife permits? Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑
3.	Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

(b) (6) Daniel Welker — 01/06/2017

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      South Luangwa, Zambia in Nyamvu & West Petauke Game Management Areas, Nyimba being the closest town, operator and lease holders Nyamvu & Mopane Safaris Ltd.

   b. Date wildlife is to be hunted:

      July 22, 2017 - Aug. 12, 2017

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Michael Borman
Business Name:	Bangweulu Taxidermy
Address:	4142K Chifwema Road, New Kasama
Address:	
City:	Lusaka
State/Province:	Southern
Country, Postal Code:	Zambia, 50100

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see the information submitted by Conservation Force and Zambian authorities and operators

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Da(b) (6)well Date: 01/06/2017

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Applicant or John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233 / cf@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

(b) (6) [redacted]

(b) (6) [redacted]

1-9-17
DATE

Pay to the Order of U.S. Fish + Wildlife Service $ 100.00

One hundred + NO/100 DOLLARS

Comerica Bank

Comerica Bank
www.comerica.com

For

(b) (6) [redacted]

RCVD JAN 18 2017

LION ZAMBIA ESA TROPHY

Permit Number: MA18170C-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
DANIEL (b) (6) WELKER
(b) (6)
BROOKSHIRE, T(b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zambia for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2017 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zambia for the 2017 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

RCVD JAN 18 2017

LS

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA)

Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Turiello	Anthony	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)			

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #, no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Santa Cruz	CA	(b) (6)		U.S.A.

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code	2.e. County/Province	2.f. Country
San Carlos	CA	(b) (6)		U.S.A.

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of C(b) (6)le 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I un[illegible]ny false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 1/11/2017

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Zambia, Chikwa Hunting Block, Luangwa Valley, Eastern Province -- nearest town is Lundazi

   b. Date wildlife is to be hunted:

      July 2017

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Michael W. Borman
Business Name:	Bangweulu Taxidermy Ltd.
Address:	41421K Chifwema Road
Address:	New Kasama
City:	Lusaka
State/Province:	Lusaka Province
Country, Postal Code:	Zambia

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.
Please see information provided by Conservation Force, Zambian authorities, and Zambian operators.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 1/11/2017

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

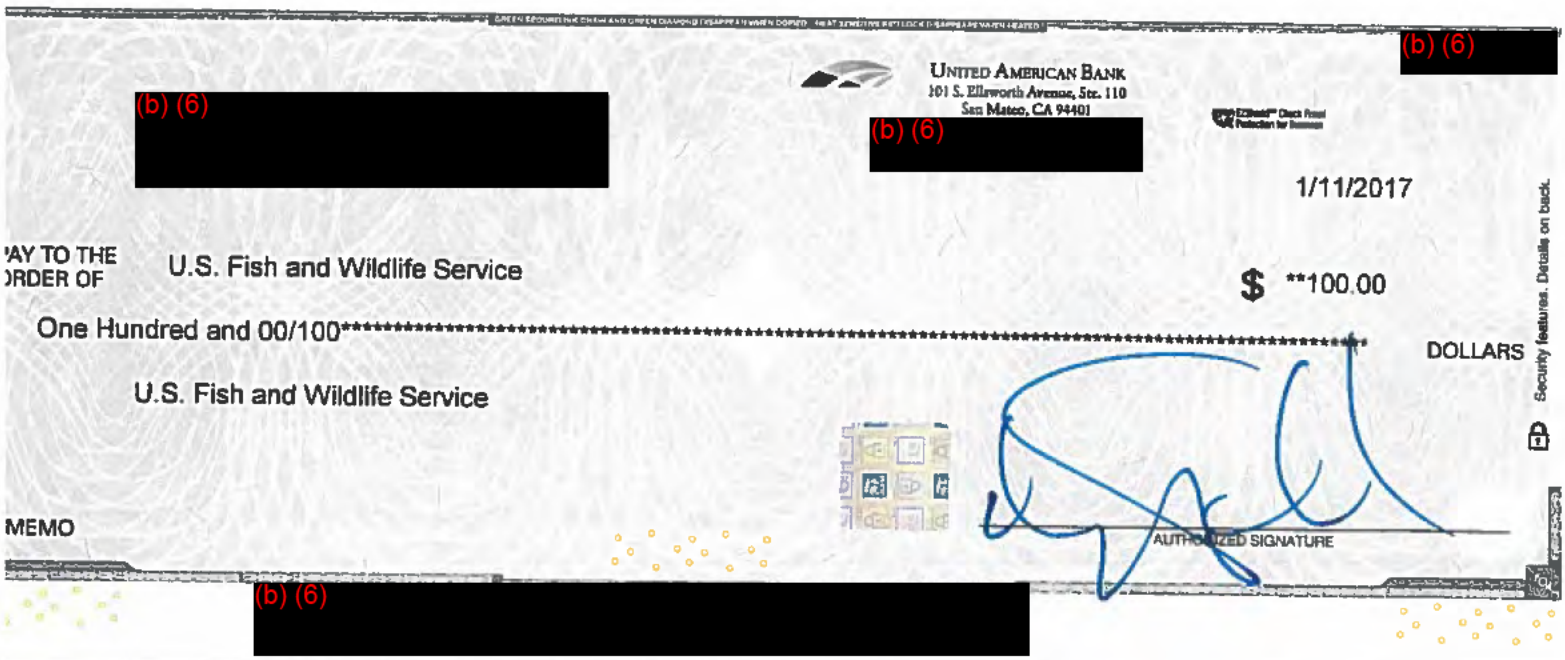
☑ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Applicant, or John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD JAN 18 2017



LION ZAMBIA ESA TROPHY

Permit Number: MA18175C-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
ANTHONY (b) (6) TURIELLO
(b) (6)
SANTA CRUZ, CA (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zambia for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2017 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zambia for the 2017 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

CONSERVATION FORCE

A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G. TEER, PH.D.
† BART O'GARA, PH.D.

BOARD OF DIRECTORS:

JOHN J. JACKSON, III, J.D.
PHILIPPE CHARDONNET, D.V.M.
GERHARD DAMM
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SHANE MAHONEY
DALE TOWEILL, PH.D.

January 26, 2016

Mr. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

Dear Chief Van Norman:

RCVD JAN 28 2016

Enclosed please find four applications for permits authorizing the import of sport-hunted trophies of *P. l. melanochaita* from Zimbabwe. In evaluating these applications, please consider the information on lion conservation and management in Bubye Valley Conservancy, Save Valley Conservancy, and Zimbabwe on the whole already submitted by Conservation Force and others. An index of this information is attached to this letter.

The information submitted by Conservation Force demonstrates that the lion conservation and management program in Zimbabwe, and specifically in Bubye Valley and Save Valley Conservancies, enhances the survival of the species because it addresses the three main threats to lion: (1) loss of habitat, (2) loss of prey base, and (3) human-lion conflict, and more.

First, the information demonstrates that habitat would not otherwise exist for lion in Bubye Valley and Save Valley Conservancies but for the income generated by tourist safari hunting. Both conservancies rely on the income from tourist safari hunting to fund their operations. If hunting stopped, the 1.7 million acres of habitat protected in these conservancies are likely to be lost to the lion, rhino, and prey species.

Second, Bubye Valley and Save Valley Conservancies each engage in extensive anti-poaching operations that protect the lion's prey base. For example, in 2015, Bubye Valley Conservancy spent $590,000 on game scouts and anti-poaching. All of these funds were generated by tourist safari hunting.

Finally, the information shows the significant community assistance programs in place in each of these conservancies. Bubye Valley Conservancy and Save Valley Conservancy each contribute $100,000 annually to local communities in cash, services, game meat, and supplies. This support is used to build schools and clinics, maintain water infrastructure, assist with repairs and maintenance of equipment, fund school books and field trips, increase consumption of protein, and otherwise improve the quality of life for local residents. Because of these benefits, local people are more willing to tolerate lion, and human-lion conflicts are reduced.

We believe the information already in the Fish and Wildlife Service's possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. However, we will continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,

John J. Jackson, III on behalf of
Conservation Force

3240 S 1-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

Enclosures:

- Application submitted on behalf of Steven Chancellor for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of Kent Greenawalt for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of James Horrocks for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of Jeffrey Smithers for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Submitted

NEW INFORMATION ON THE AFRICAN LION

INDEX FOR: ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie (Mazunga Safaris), Email re: Community Assistance Program in BVC (Jan. 20, 2016)	1/26/16
5	Blondie (Mazunga Safaris), BVC – Spreadsheet, Community Assistance 2011 & 2012	1/26/16
6	Zig, Photos of BVC Community Assistance Program	1/26/176
7	ZPHGA, Info on Lion Age Restrictions (Jan. 20, 2016)	1/25/16 Louis M 1/26/16 Us
8	Dr. Byron du Preez et al., Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 22, 2016)	1/26/16
9	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16

RCVD JAN 28 2016

LB

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

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Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

THREATENED-LISTED LION; ~~BU~~ Bubye Valley Con.

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
GREENAWALT	KENT	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)		(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
ROANOKE	VA	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
ROANOKE	VA	(b) (6)	(b) (6)	USA

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee.** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: LEOPARD - CAN NOT RECALL THE NUMBER No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

(b) (6) — 01/20/2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. MELANOCHAITA (AFRICAN LION)

   b. Sex (if known).

      MALE

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild: ZIMBABWE: BUBYE VALLEY CONVERVANCY, BEIT BRIDGE DISTRICT, MATABELELAND SOUTH, NEAREST TOWN IS BEIT BRIDGE AND NEAREST CITY IS BULAWAYO. GPS COORDINATES FOR TOWLA ARE S 21.26478, E 029.53162. HUNTING AREA IS A WILDLIFE CONSERVANCY OF 850,000 ACRES.
   b. Date wildlife is to be hunted:

      AUGUST 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      ALL PARTS INCLUDING SKIN, SKULL, TEETH, AND CLAWS

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted: N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks). NA

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

NA

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: STEVE COLLETTS
Business Name:
Address: 15 JOSIAH CHINAMANO ROAD
Address:
City: BULAWAYO
State/Province:
Country, Postal Code: ZIMBABWE

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.
See documents furnished by Conservation Force, et al.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [redacted] Date: 1/20/16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
JOHN J. JACKSON, III OR REGINA LENNOX of CONSERVATION FORCE. 504-837-1233, jjw-no2@att.net OR REGINA.LENNOX@CONSERVATION FORCE.ORG

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: Kent J. Greenawalt

Name: KENT [redacted] GREENAWALT

Date: January 20, 2016

[redacted] (9) (a)

[redacted] (9) (a)

JANUARY 20, 2016
Date

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Sport-Hunting and Lion *Panthera leo* Conservation in Zimbabwe

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January 31, 2016



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Contents

Summary of Steps Taken by Zimbabwe to Improve the Management of Lion Sport-Hunting **3**

Summary of Lion Sport-Hunting's Contribution to Conservation **3**

Introduction **3**

Lions – *Panthera leo* **5**

Conservation and Sport-Hunting **8**

Zimbabwe's Adaptive Lion Quota Management System **8**
Results of the Adaptive Lion Quota Management System 9
Human-Lion Conflict 11

The Bubye Valley Conservancy **12**
History of the Bubye Valley Conservancy 12
Bubye Valley Conservancy Community Support 12
Bubye Valley Conservancy Lion Monitoring and Management 13
Bubye Valley Conservancy Lion Hunting 13

The Savé Valley Conservancy **16**
History of the Savé Valley Conservancy 16
Savé Valley Conservancy Community Support and Anti-Poaching 17
Savé Valley Conservancy Lion Monitoring and Management 17
Savé Valley Conservancy Lion Hunting 18

The Pros and Cons of Conserving Lions **20**

**Where the Money Goes:
The Finances of Lion Sport-Hunting
and Reinvestment in their Conservation** **22**

Discussion **23**

Conclusion **25**

References **26**

Summary of Steps Taken by Zimbabwe to Improve the Management of Lion Sport-Hunting

i – Banning of all lioness hunting in Zimbabwe
ii – Hunting moratoria around the Gonarezhou and Hwange National Parks
iii – Removal of fixed hunting quotas
iv – Age restrictions on sport-hunted lions
v – Scientifically-based adaptive quota management system

Summary of Lion Sport-Hunting's Contribution to Conservation

i – Lion sport-hunting contributes 33.9% to 42.4% of total revenue on private land
ii – Lion sport-hunting generates up to US$ 557 km^{-2}
iii – Anti-poaching (in particular that of rhinoceroses) costs ∼US$ 216 km^{-2}

Introduction

The United States Fish and Wildlife Service (USFWS) have recently evaluated the conservation status of the lion *Panthera leo* with particular regard to sport-hunting (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). The results of this evaluation have led to the formal protection of two subspecies under the Endangered Species Act, classifying *P. l. leo* as endangered and *P. l. melanochaita* as threatened. Together these subspecies apparently represent all of the lions in Africa (Barnett et al. 2014).

Sport-hunting is a legal activity in which the international import/export of trophies is both sanctioned and carefully controlled by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The USFWS found that the sport-hunting of *P. l. melanochaita* "*if well managed, may provide a benefit to the subspecies*" (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). Here we explore this statement further, and present data from three long-term *in situ* lion research projects; the Bubye Valley Conservation Research Initiative, Savé Val-

ley Conservancy Research, and the Hwange Lion Research Project.

The data presented in this report clearly illustrates the positive conservation benefit that well-managed trophy hunting of lions can have for the species, as well as the importance of hunting in maintaining the wildlife in an area; addressing Point 5 on page 3 of the Federal Fish and Wildlife Permit Application Form (Form 3-200-20) [i.e. "*Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application*"].



Figure 1: The lions pictured here, known as Winston (*standing*) and Geronimo (*lying*), were both collared in March 2012 when they were the dominant males in the Matombosa area and have been continuously monitored ever since as part of the on-going long-term WildCRU Bubye Valley Conservation Research Initiative. In November 2015 Geronimo, who was approximately 9 years old, died after succumbing to injuries sustained from fighting with another male. Winston, also 9 years old, has since lost his dominant status, lost his territory to two 4.5 year old males, become nomadic and avoids contact with other males. As of this report being written, the recent litter of cubs that both Winston and Geronimo sired are still alive.

Most importantly, since July 2013 there has been a continuous self-imposed internal reform of the lion hunting industry in Zimbabwe that is actively participated in and supported by all of the relevant stakeholders, including; the Zimbabwe Parks and Wildlife Management Authority (ZPWMA), non-governmental organisations, professional hunters, safari operators, scientists and researchers.

Here we discuss the results of this process in terms of robust evidence regarding the sustainability and self-regulation of lion hunting in Zimbabwe.



Figure 2: Winston and Geronimo's cubs.

Lions – *Panthera leo*

The IUCN Red List have recently reclassified lions as Vulnerable (remaining as such since 1996; IUCN 2015), estimating that there are between 20,000 and 30,000 free-ranging lions left (Bauer et al. 2015a) in less than 25% of their historic range (IUCN 2006). However, this generalised classification does not take into account an apparent conservation dichotomy: sample subpopulations of lions in Botswana, Namibia, South Africa and Zimbabwe have in fact increased overall (Bauer et al. 2015a). Lions were historically present throughout Africa, some of Europe, the Middle East and Asia (Bauer and Van Der Merwe 2004), but current conservation strongholds remain only in parts of eastern

and southern Africa (Brassine and Parker 2012; Nowell and Jackson 1996). The current lion population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals [Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley Complex: 600], though the actual number would be larger if there were data available for the countries minor lion areas that are yet to be surveyed] (ZPWMA 2015).

The lion is a uniquely social felid, forming coalitions of up to nine males associated with one or more female prides that may consist of more than 20 individuals (Macdonald et al. 2010; Schaller 1972). Lions are infamously infanticidal (Schaller 1972), where males will kill unrelated cubs so as to bring the female into oestrus and present an opportunity to sire their own litter, which is often used as an argument against sport-hunting of the species (e.g. Packer et al. 2010), where it is feared that the removal of dominant males causes cub mortality that eventually results in lowered population recruitment and survival (Packer et al. 2009). Infanticide, however, does not result from sport-hunting when age-appropriate males, past their prime and no longer territorial or with dependent cubs, are harvested (Whitman et al. 2004). Moreover, the fission-fusion nature of lion society (Mosser and Packer 2009; Pusey and Packer 1987) means that infanticide may still occur when the dominant males are simply not present there and then to defend their cubs (B. du Preez, pers. obs.).

In the 1990's, lions were successfully reintroduced into private areas in parts of their former range, where they achieved high reproductive and survival rates (Miller and Funston 2014). However, the resultant population growth inevitably led to the potential problem of overabundance (Funston 2008) and low genetic diversity (Trinkel et al. 2010), with both of these issues requiring active and intensive management (Hunter et al. 2007) and ultimately reducing the conservation value of these lion populations (Miller and Funston 2014). The ability to translocate lions originally facilitated the relief of overpopulation, but as the available areas for relocations were used up, sport-hunting and euthanasia have subsequently become the main methods of lion population control (Miller and Funston 2014).

The lion is the apex predator wherever it occurs (Macdonald et al. 2010), and is an ideal conservation umbrella; being large, charismatic and easily observable (e.g. Williams et al. 2000). Lions are important to commercial wildlife ventures, which risk losing significant market share where they cannot offer them to clients (Lindsey et al. 2007), and are thus prioritised in conservation; exploiting their charisma to attract tourists and raise the funds required in ensuring that wildlife areas remain viable. The lion is also a particularly valuable species in the sport-hunting industry, rivalled only in demand by buffalo *Syncerus caffer* and leopard *Panthera pardus* (Creel and Creel 1997), and are therefore prevalent in private wildlife areas (Packer et al. 2013) where their populations can achieve exponential growth rates given the protection and resources afforded by well-managed operations (Smuts et al. 1978; Loveridge et al. 2007b; Kettles and Slotow 2009; Miller and Funston 2014).

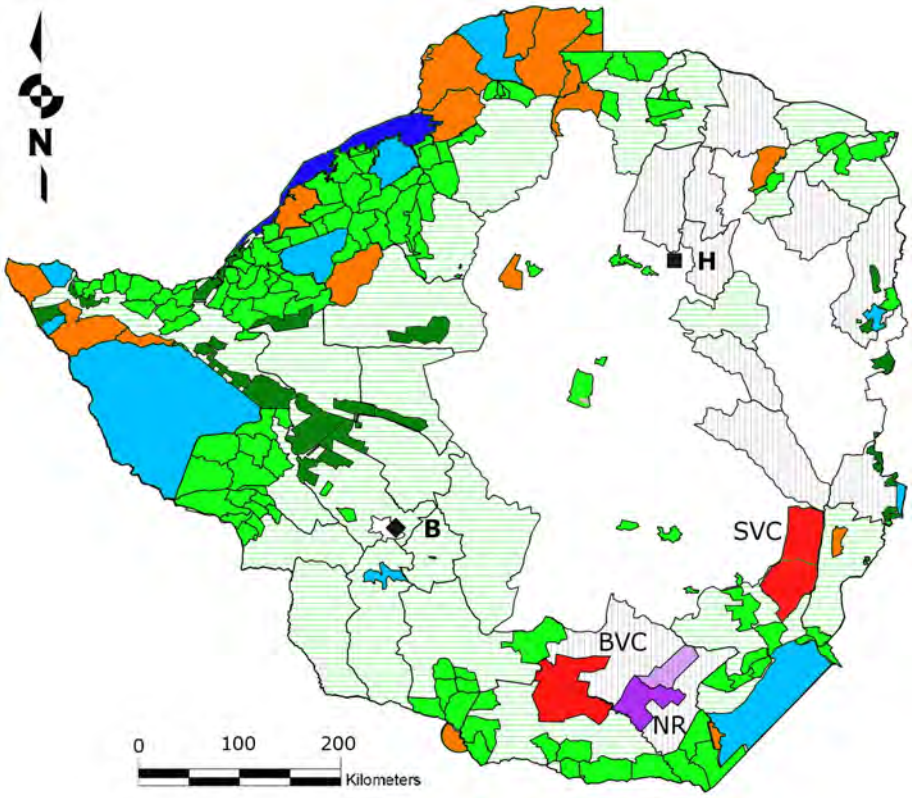

Figure 3: Map of Zimbabwe's main wildlife areas: [*i*] National Parks are represented in light blue; [*ii*] Safari areas are represented in orange; [*iii*] Forestry areas are represented in dark green; [*iv*] Community and Private wildlife areas are represented in light green; [*v*] Communal Land (CAMPFIRE Areas) in which sport-hunting may occur is represented by light green horizontal stripes; [*vi*] Communal Land in which sport-hunting does not occur is represented by grey vertical stripes. [*vii*] The Bubye Valley [BVC] and Savé Valley [SVC] Conservancies are represented in red. [*viii*]The Nuanetsi Ranch [NR] on which sport-hunting takes place is represented in dark purple (light purple represents the Nuanetsi Ranch cattle area); [*ix*] Lake Kariba is represented in dark blue. Harare (the capital city) is represented by a black square and letter '**H**'. Bulawayo is represented by a black diamond and letter '**B**'. Sport-hunting may occur in areas: *ii*, *iii*, *iv*, *v*, *vii* & *viii*

The ability of lions to rapidly increase in abundance is an aspect of their ecology that is often overlooked. Lion populations can achieve exponential growth rates (Miller and Funston 2015; Groom and Watermeyer 2015; du Preez et al. in prep.), and the problems associated with high lion densities fast present themselves and require significant investment in their solution (Hunter et al. 2007; Kettles and Slotow 2009; Loveridge et al. 2007; Packer et al. 2013; Smuts 1978). Whilst unregulated sport-hunting of lions (in particular that of dominant males and pride females) may result in population declines (e.g. Packer et al. 2010; Packer et al. 2009), restricting offtake to only males over

a certain age (i.e. have already bred and/or are no longer dominant) has no impact on lion population persistence, irrespective of quota size (Whitman et al. 2004). Such is the situation currently facing both the Bubye Valley and Savé Valley Conservancies, where the lion populations continue to grow despite sport-hunting and increasing quotas. Whilst sport-hunting may not alleviate over-population in these areas, it does somewhat offset the cost of keeping lions. Culling of lions may be the only realistic option for controlling numbers in larger areas, as the use of contraceptives is likely to be inefficient and expensive. Because of fears about public sentiment associated with sport-hunting, it has now become common practice for managers to cull excess lions in more than 45 wildlife areas in South Africa to which lions have been introduced, and which resulted in the wasteful destruction of about 200 lions in 2012 (Miller and Funston 2014).

Conservation and Sport-Hunting

There is more land area in Africa conserved for hunting than there is in all of Africa's formally protected areas combined: approximately 1.4 million km^2, which exceeds the total area covered by national parks by 22% (Lindsey et al. 2007). For wildlife conservation to be successful outside of national parks, these areas must be self-sufficient and able to generate sufficient revenue to cover the considerable costs of protecting the habitat and wildlife therein (Lindsey et al. 2006). Indeed, conservation would benefit from an incentive to utilise land for wildlife rather than the alternatives of livestock grazing, agriculture, and deforestation.

The international trade of lions, including trophies, is controlled by a strict CITES licensing system on the basis that this trade does not endanger the ultimate survival of the population (https://www.cites.org/eng/disc/how.php [accessed 2015-01-19]). The positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-take; neither of which generally jeopardise populations, and also suggest that hunting could play a role in population recovery (Leader-Williams et al. 2005).

The recommendation of setting uniform harvest limits, e.g. 1 lion 2,000 km^{-2} (Lindsey et al. 2012; Packer et al. 2010), may be overly simplistic, affect the economics of wildlife based landscape use, and disincentivise investment in conservation (Lindsey et al. 2007). A more practical approach to sustainably setting realistic lion sport-hunting quotas could involve using a positive/negative feedback method that calculates a fluid quota per area based on the previous season's performance. Such an adaptive quota management system has already been implemented in Zimbabwe.

Zimbabwe's Adaptive Lion Quota Management System

An adaptive quota management system for lion hunting based on the ages of lions hunted was agreed on in July 2013 in Harare, Zimbabwe, during a meeting hosted by the Zimbabwe Parks and Wildlife Management Authority (ZPWMA) and an independent non-governmental conservation organisation. The points system is summarised in Table 1.

Table 1: *Points allocated to hunting blocks arising from the harvest of lions of different ages*

	≥ 6 years	No trophy	5 years old	4 years old	< 4 years	Failure to submit return, or incomplete return
For quotas of ≥3	4	3	3	2	-3	0
For quotas of 2	4	3	3	2	0	0
For quotas of 1	6	3	3	2	0	0
Resultant quota	*These points are added up and divided by 3 to yield the quota for next year*					

During 2013, operators were requested to submit hunt returns and photos as a trial run to get the system up and running. In 2014 operators were requested to do the same but were informed that the age of the lions hunted in 2014 would determine their lion quotas in 2015. The 2015 lion hunt results would thus also determine the 2016 quota.

Results of the Adaptive Lion Quota Management System

In 2015 there was a marked increase in the age of lions hunted in Zimbabwe as a whole. Notably, only one lion of <4 years of age was hunted and the large majority of lions were 5 years or older (Figure 4). In 2013, only 28% of the lions hunted were 5 years or older, in 2014 that figure had risen to 49% and in 2015 to 77.3% (Figure 5). The proportion of lions hunted that were less that 5 years of age dropped overall between 2013 and 2015 (Figure 6). For this achievement, credit is due to the hunting community for showing greater selectivity of harvest. A word of caution however, is that the majority of lions hunted were on the cusp of 5 - 6 years of age and were not older than six years. Restricting hunting to individuals that are at least six (and preferably older) is desirable from a biological perspective due to the reduced risk of the loss of pride males and infanticide of cubs associated with the harvest of such individuals (Whitman et al. 2004).

In 2015 the Zimbabwe national lion hunting quota was set at 85 lions. Of this 85, only 39 were hunted in 2015, and based on the resultant score from aging the trophies, and the fact that operators chose not to hunt lions of inadequate age (see Figures 4, 5 & 6), the recommended quota for 2016 was set at 75 [Harare 2015-11-11]. (The Rural District Council areas in which lions occur are currently exempted from the age restrictions, as was agreed upon at the 2013 lion management meeting in Harare, as a means of ensuring that impoverished communities obtain the opportunity to benefit from the presence of lions, recognising the potential negative impacts the species has on the livelihoods of livestock farmers).

Using these figures and estimating the average value of a lion safari at approximately US$ 80,000 then a 50% offtake (35 lions) would generate US$ 2,800,000 annually. If management costs are approximately \$150 km^{-2} (V. Booth, pers. comm.), then the lion safaris alone can support 18,600 km^{-2} of wildlife habitat in Zimbabwe.

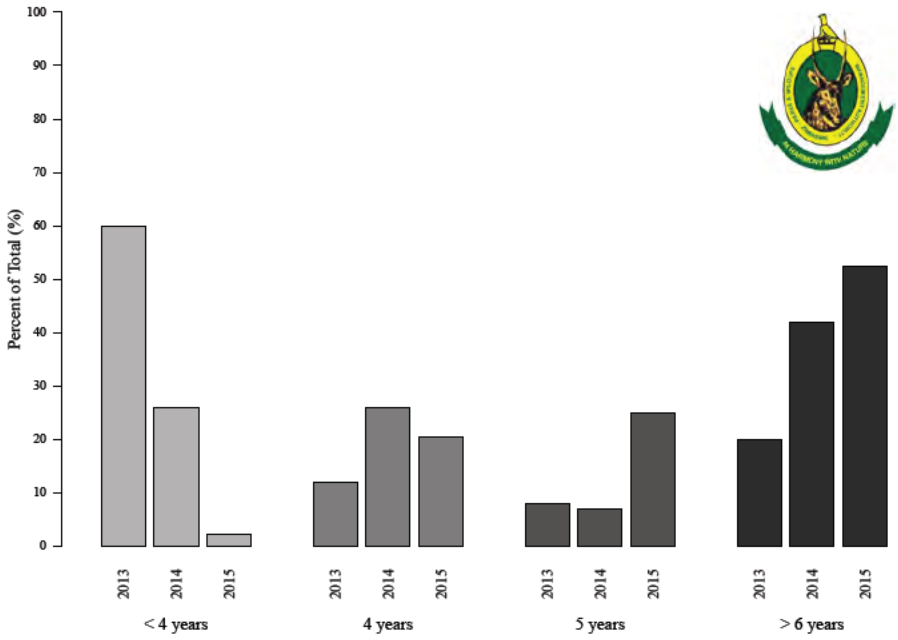

Figure 4: The percentage of lions hunted in each age class in 2013, 2014 and 2015 in Zimbabwe.

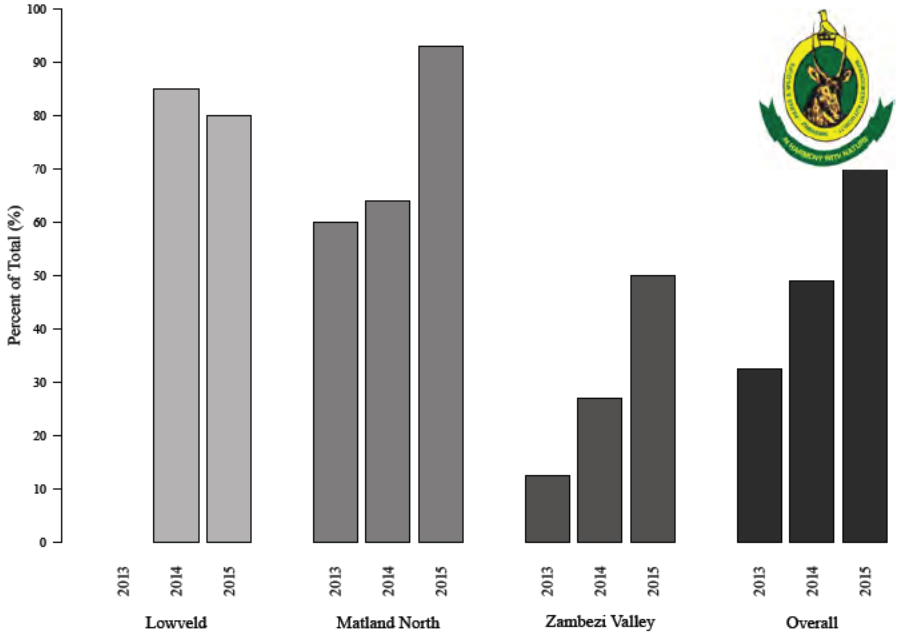

Figure 5: The proportion of lions hunted that were 5 years or older in the three main lion-hunting areas of Zimbabwe.

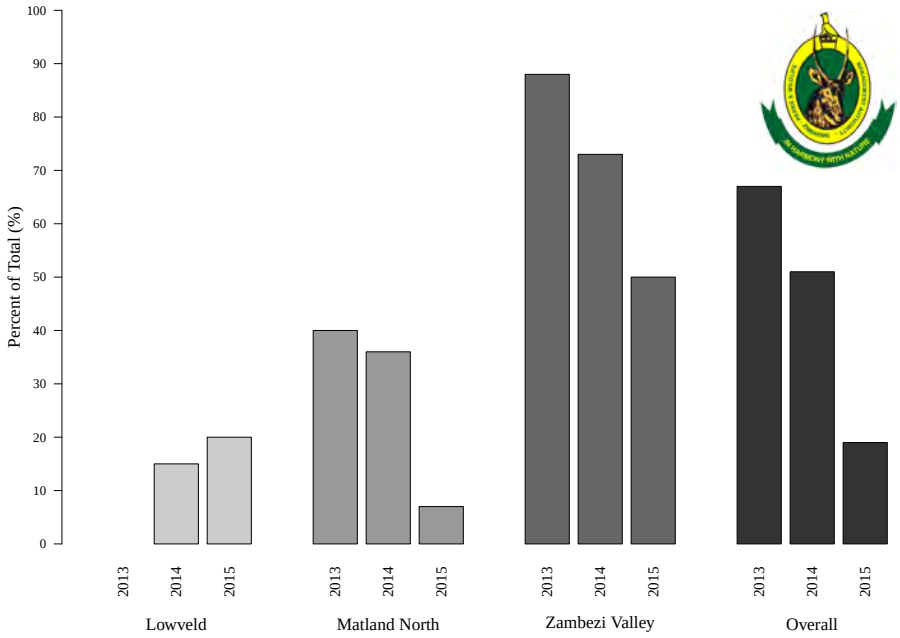

Figure 6: The proportion of lions hunted that were less than 5 years of age in the three main lion-hunting areas of Zimbabwe.

Table 2: *Human and Lion Conflict (2009 - 2011) in Zimbabwe, including human mortality caused by lion (CAMPFIRE Association, 2012)*

District	Total incidents	Livestock killed	*People Injured*	*People Killed*
Hurungwe	5	1	*2*	*2*
Chiredzi	25	136	*0*	*0*
Mbire	5	7	*0*	*5*
Binga	9	39	*0*	*0*
Total	**44**	**183**	***2***	***7***

Human-Lion Conflict

The lion is a flagship species and powerful symbol of Africa; yet living with lions poses hardships for many communities (e.g. Table 2). In some areas, the lion is a major predator on domestic livestock, inevitably leading to conflicts with local herders. Both sides suffer in this situation.

Outside of protected areas, the lion's prey base is much reduced, which results in relatively greater chance of encountering livestock. Co-existence of lions with people may be enhanced by giving value to lions through tourism and hunting promoted in communal lands under the Communal Area Management Programme for Indigenous Resources (CAMPFIRE). This hunting contributes to the conservation of lions via the financial revenue generated, which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs.

The Bubye Valley Conservancy

History of the Bubye Valley Conservancy

Towards the end of the nineteenth century, the Liebig's Extract of Meat Company (LEMCO) founded an extensive cattle ranch in the Zimbabwean lowveld, to the detriment of the indigenous wildlife that was initially eliminated because of competition for grazing with the livestock, as well as a risk of disease transmission from buffalo and wildebeest *Connochaetes taurinus*. As their natural prey base became depleted, the predators were subsequently persecuted when they began to prey on the livestock. Some wildlife persisted in small pockets of remote habitat, however lion, elephant *Loxodonta africana*, buffalo and rhinoceros *Diceros bicornis* [black] & *Ceratotherium simum* [white] were all completely eradicated. A monoculture of cattle dominated the landscape and impacted on the environment for the better part of a century.

Then, in 1992, Zimbabwe suffered one of the worst droughts on record, a relatively short time after the devastating one of 1983 that LEMCO was still trying to recover from. The frequency and severity of the droughts effectively reduced confidence in the economic viability of cattle ranching in the area, and the Bubye Valley Conservancy was subsequently founded in 1994 with the realisation that endemic wildlife, which are better adapted than livestock to cope with the local climate, could be successfully commercialised (Child 1988; Bond 1993).

The conversion from cattle ranching back to a wildlife area was neither straightforward nor cheap, requiring a significant initial investment and annual running costs. In just 20 years of operation the Bubye Valley Conservancy now protects the world's third largest black rhinoceros population, one of Zimbabwe's largest lion populations, a large and increasing elephant population, and abundant game.

Sport-hunting is an essential step in converting areas that were previously dedicated to livestock farming into non-consumptive tourism areas (Child 1993), and was fundamental to the formation of Bubye Valley Conservancy and allowing the wildlife populations to recover. The Samanyanga area of the Bubye Valley Conservancy, probably the most scenic section, was originally set aside for non-consumptive photographic tourism, but made an annual loss for several years, before, largely due to Zimbabwe's land reform program and resultant instability in the country, it was reverted back to sport-hunting as the only practical and economically viable option (K. Leathem, pers. comm.). Sustainable sport-hunting provides the sole economic incentive to continue operating the Bubye Valley Conservancy as a wildlife conservation area.

Bubye Valley Conservancy Community Support

The Bubye Valley Conservancy donates over 45 tonnes of meat from sport-hunting to the local communities each year. This meat donation is worth over US$ 100,000 per year, and the communities are free to decide how they use it. In addition to this, the Conservancy also supports several schools, clinics, and community projects in the three surrounding districts of Mwenezi, Maranda and Jopempe. The local community thus

sees a direct benefit from the wildlife on the Bubye Valley Conservancy, but is also empowered by job opportunities created both with these special projects, as well as on the Conservancy. A summary of the Bubye Valley Conservancy community support effort between 2011 and 2015 is provided in Table 4.

Bubye Valley Conservancy Lion Monitoring and Management

After originally being eradicated by cattle ranchers in the area, 13 lions were reintroduced to the Bubye Valley Conservancy in 1999, and four young males broke into the Conservancy that same year. From the original 17 animals present in 1999, the Bubye Valley Conservancy lion population was estimated at approximately 280 individuals in 2009 when robust population surveys were initiated by a research team from the University of Oxford Wildlife Conservation Research Unit (WildCRU), and this population has continued to grow. Today it is estimated that there are over 500 lions on the Bubye Valley Conservancy (du Preez et al. 2015). The exponentially increasing Bubye Valley Conservancy lion population currently exists at one of the highest densities in Africa (∼0.187 lions km^{-2}: du Preez et al. 2015; Figure 7), greater than that of the Serengeti, Tanzania (0.100 lions km^{-2}: Pusey and Packer 1987; Spong 2002), Selous, Tanzania (0.080 - 0.130 lions km^{-2}: Creel and Creel 1996, 1997), Kruger National Park, South Africa (0.096 - 0.112 lions km^{-2}: Mills 1995), and Hwange National Park, Zimbabwe (0.027 lions km^{-2}: Loveridge et al. 2007). This equates to one of the largest contiguous lion populations in Zimbabwe.

Bubye Valley Conservancy Lion Hunting

The Bubye Valley Conservancy offsets the cost of lion predation on its wildlife via sport-hunting of the species, and which began in 2002. In 2014, the lion hunting quota allocated to the Bubye Valley Conservancy by ZPWMA was 10 individuals. Based on the fact that the entire quota was harvested and that maximum points were scored for each individual trophy (more than six years in age), the allocated quota was raised to 13 lions for 2015. Only 12 out of 13 lions were hunted in 2015 due to a late cancellation; nevertheless eight lions over six years old and four lions of five years old were harvested and the resultant points justifying a quota of 15 lions for 2016.

Table 3: *The Bubye Valley Conservancy annual lion hunting quota and offtake from 2002 to 2015.*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Approved quota	1	2	3	2	2	2	3	3	5	8	12	10	10	13
Quota taken	1	2	3	2	2	2	2	3	5	8	12	10	10	12
Percentage success	100	100	100	100	100	100	67	100	100	100	100	100	100	92

Note that while the lion hunting quota for Zimbabwe has been voluntarily reduced by the national steering committee, the Bubye Valley Conservancy lion hunting quota has been successively raised twice based on both hunt success and age of lions hunted and the resultant points scored under the national adaptive quota management system (Table 3).

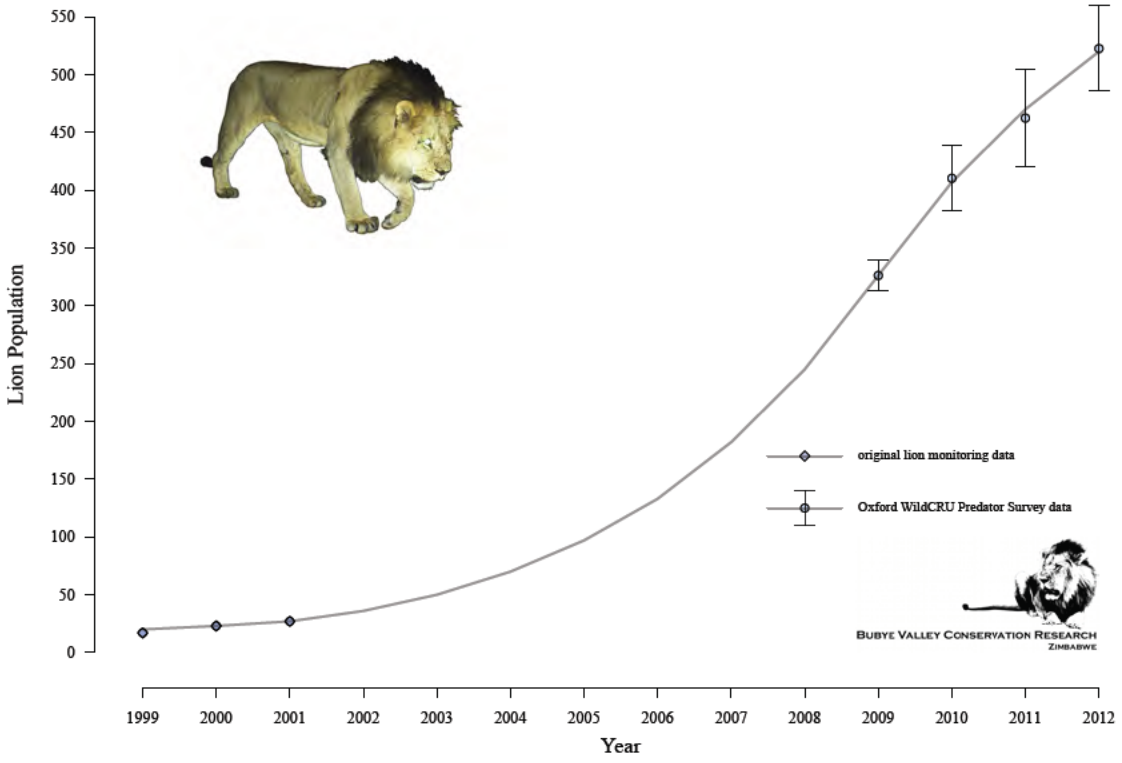

Figure 7: The Bubye Valley Conservancy lion population has grown exponentially since the reintroduction of lions in 1999. Diamonds represent the known lion abundance from monitoring of the original individuals introduced; Points indicate lion abundance calculated from spoor transect analyses; error bars represent the standard error of the mean.

Table 4: *Summary of the Bubye Valley Conservancy support to the surrounding local communities (2011 - 2015)*

Boreholes:	- 1 x Jompembi Village 2 - 1 x Penemene - 1 x Jompembi Village 4 - 1 x Nyimani village (Mwenezi) - 1 x Driehoek School - 1 x Mgaladhivha School - 2 x Mtetengwe to supply water to the clinic site - 2 new bush pumps (complete) purchased and installed at Village 2 & Village 3 and troughs built at both sites *Drinking trough for cattle built at Village 2 borehole* *All boreholes equiped with new bushpumps, piping and cylinders* *Boreholes at Village 3, Mtetengwe, Mdzwiti, Vumani and Penemene and Makado Police post repaired and maintained* *All new piping and pumps etc. are supplied by BVC*
Buildings:	- Mtetengwe Clinic's main building built - 3 x F13 staff houses built *Clinic and House fenced - everything funded and built by BVC* *The clinic is a standard large Government clinic - male & female wards + maternity ward and outpatients* *Storerooms, offices etc. also built* *All houses and buildings are electrified, painted and supplied with running water* - Mtetengwe School school office block and staff room built and painted *All classroom windows repaired and the schools second borehole repaired.* - Secure engine house was built at the second borehole site - Borehole equipped with BH15S mono pump unit driven by a rebuilt Lister LT 1 engine - 5000 litre header tank and stand errected - new 5000 litre header tank purchased and fitted - pipeline laid to connect the borehole to the clinic - another pipeline connected to the same borehole to supply the Mtetengwe school with fresh water - New coldroom and refrigeration unit purchased and fitted at the Lutumba butchery *Part of aid program to get the Beit Bridge RDC self funding projects up and running* - New coldroom and refrigeration unit was purchased and fitted at the Rutenga butchery *Part of aid program to get the Mwenezi RDC self funding projects up and running*
Meat Donations:	- BVC donates meat on a regularly basis to the Mwenezi Orphange - Numerous donations of meat were made to support school sports days & speech nights/prize giving events *Both Beit Bridge & Mwenezi districts* - 1600 kgs of meat has been donated each month since July 2011 to a Maranda trust *Administered by Chiefs andlocal headmen* *Excess meat sold and funds used for community projects* *Classroom roof replaced at Vhongwe school* *4 new classroom blocks constructed at other schools using funds from these monthly allocations* - 1000 kgs of meat per month is been donated to Beit Bridge communities since April 2014 - 1000 kgs of meat per month is been donated to Mwenezi communities since August 2013
Miscellaneous:	- Sports uniforms for the Penemene school team purchased ($2600) *Sports uniforms required for inter-schools sports* - Transport the soccor teams representing Mgaladivha, Jompembi and Tongwe *To Lutumba for the inter-school competitions* - 2 sets of soccer goal posts & 2 sets of Netball poles were made for Mgaladivha School *New soccer field graded by BVC* - 2m security fencing supplied to Penemene School - Second hand door and window frames donated to Mapiri school (ex Mazunga School) - 1 new 3 1/2 " rod pump cylinder was purchased and fitted to the Vumhani borehole *All repairs to b/holes in the Vumhani area are done by BVC* - 26 bags of cement were donated to Mgaladivha School - Fencing donated to the Mgaladivha School - Supplied 10 x 5/8" mono shafts for the Botalele Clinic (Maranda) borehole - Water supply to Mlelezi Clinic - 400 m pipeline laid to supply the Nyimani Villarge's cattle with water *3.5 m drinking trough build for this same project* - 60 bags cement donated to the Welkom for repairs to a dam wall - 6 loads of riversand and 20 cement donated to Vumani Preschool - Various school renovations in both the Beit Bridge and Maranda areas
Current Projects:	- Construction of a School admin block at Mgaladhivha School - Supply of 24 loads of riversand to Mdzwiti School (value $1200) - All roofing materials supplied to Mdzwiti School - Supply roofing materials, cement, all window and door frames for Vumani Preschool

The Savé Valley Conservancy

History of the Savé Valley Conservancy

The Savé Valley was a wildlife-rich wilderness until the early 1900's, when the first cattle ranching initiatives started in the area. The establishment of Devuli Ranch and Angus Ranch in 1920 paved the way for seven decades of commercial cattle ranching in the area we know today as the Savé Valley Conservancy. Roads were cut, fences erected and an everlasting 'battle' ensued against the wildlife, especially against all predators.

The large predators, especially lions, were virtually eradicated (Pole 1999). However, by the late 1980's, declining range productivity, depressions and droughts forced the landowners to consider alternative options. Around that time, empirical evidence of the competitive advantage of wildlife over livestock began to emerge (Child 1988; Bond 1993), especially in arid areas (Jansen et al 1992; Cumming 1993), and wildlife was finally given serious consideration as a viable land use option.

In 1989, a proposal was drawn up (du Toit 1989) to turn what was then the Sabi Valley Intensive Conservation Area into a wildlife conservancy. The plan was to create a single large wildlife area, especially for the re-establishment of endangered species and overexploited species, with cattle remaining the primary income generator. The Savé Valley Conservancy was constitutionally inaugurated in June 1991, and following the severe 1991/1992 drought, wildlife ranching became the primary land-use. At the time this was the largest private wildlife conservancy in the world (3,410 km^2).

The conservancy members then restocked the wildlife, removed all internal fencing, erected a common perimeter fence and developed effective security systems. A double, electrified, veterinary-approved fence was completed in 1995, and the following decade saw a massive investment in wildlife re-stocking and security systems.

Sport-hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhinoceros now found there. Gradually, some of the ranchers shifted more into ecotourism. One property, Senuko Ranch, completed a 16 bed up-market lodge with a view of marketing non-consumptive safaris, offering game drives and bush walks and specializing in rhino walks and African wild dog *Lycaon pictus* den visits. Lodge occupancy rose from 0% in 1996 to 62% by the end of 1999.

However, the Zimbabwean land reform program, which was initiated in February 2000, soon made a strong negative impression in the international community, and resulted in travel bans and warning from most of Zimbabwe's source markets. This, together with the political instability meant that the wildlife industry and ecotourism industry collapsed over-night: sport-hunting became the only economically viable land use option, and has remained the only tangible source of income to the landowners of the Savé Valley Conservancy. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancellation of

the confirmed bookings. After four years of seeking alternative markets, the lodge could achieve no higher than 17% occupancy, and in 2005 moved back into a hunting-based operation.

A more direct impact of the land reform program for the Savé Valley Conservancy was the loss of 33% of the area of the conservancy to invading subsistence farmers (Lindsey et al 2008). The loss of land was catastrophic and the related pressure from wire snare poaching was extreme. In the following eight years (2001 to 2009), 10,520 illegal hunting incidences were recorded, 84,396 wire snares were removed and at least 6,454 wild animals killed (Lindsey et al. 2011).

Savé Valley Conservancy Community Support and Anti-Poaching

In 2012, conservancy members provided over US$ 100,000 worth of support to adjacent villages or farmers in the resettled areas. Assistance included drilling boreholes, maintaining boreholes, dredging of dams, assisting with building projects in clinics and schools, assisting with repairs, maintenance and materials at schools, education initiatives, school field trips, provision of computer equipment in schools, craft programs and regular donations of meat.

Moreover, the conservancy recently entered into a mutually dependent agreement with the Chiefs representing the communities surrounding the Savé Valley Conservancy. The agreement links the communities to the Natural Resource Utilisation that occurs through the business operation of the conservancy and opens up opportunities for the local indigenous populations to share in any wealth creation. This agreement strengthens relations between the conservancy and the surrounding local communities and creates an environment that helps to protect, conserve and sustain the natural assets of the area. The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from trophy lion hunting constitute a significant portion of inflow and thus an important part of the community benefits. Any reduction would seriously jeopardise the growth of this infant positive relationship and community empowerment initiative.

The Savé Valley Conservancy is thus pioneering private-community partnerships in Zimbabwe, and trade restrictions on lion trophies will indirectly adversely affect these already seriously impoverished communities through a reduction in available income to share with communities. This is very likely to have a knock on impact on the lions themselves with a significantly reduced tolerance and an increase in retaliatory poisoning of lions for livestock predation. Without a demonstration of income from lions, the political pressure from the surrounding communities to remove them from the conservancy altogether will be a challenge to resist.

Savé Valley Conservancy Lion Monitoring and Management

After the Conservancy was formed, and persecution stopped, lions, mainly males, recolonized the area and their numbers started to increase in the late 1990's / early 2000's. Few lionesses were observed until 2003, when small family groups and male-female pairs were seen, and by 2004 - 2005 there were some reports of cubs. During this period 13

lions were also reintroduced into the Savé Valley Conservancy. After an initial lag phase the lion population on the Savé Valley Conservancy has increased dramatically and at present is growing exponentially (Figure 8; Groom and Watermeyer 2015).

Monitoring of the lion population began in 1999 (Pole 1999) with track index or call-up surveys being conducted sporadically until 2006. From 2007 to present, annual conservancy-wide track index surveys have been conducted using a standardized methodology (Groom and Watermeyer 2015). The resulting population estimates were verified in 2011 by a baited lion call-up survey and a collation of managers' estimates, all of which provided similar results.

Prey availability models (Hayward et al. 2007) suggest that the carrying capacity for the lion population in the Savé Valley Conservancy is approximately 271 lions. The population estimate for 2015 was 284 lions, suggesting lions have reached their ecological carrying capacity, even whilst being responsibly hunted.

A professional lion management plan was commissioned by the conservancy in 2011 (Funston 2011), to provide the Savé Valley Conservancy members with a science-based plan to help them ethically and sustainably manage their lion population. This plan specifically advocates the use of hunting as a conservation management tool. It also demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals.

Savé Valley Conservancy Lion Hunting

Lions have been hunted in the Savé Valley Conservancy since 2002, although that was largely for removal of problem animals. Hunting began properly in 2005 with quotas increasing annually to a maximum of seven per year from 2009 onwards (Table 5), with the quota being raised to ten for 2016 based on trophy ages.

Despite offtakes of lions through sport-hunting, the lion population has continued to increase in the Conservancy. The revenue generated from hunting lions has enabled landowners to invest in proper land management, anti-poaching, water provision and fence maintenance, all of which benefit the lion population (especially as lions seem to be vulnerable to being caught in wire snares; Becker et al 2013; R. Groom, pers. obs.).

Table 5: *The Savé Valley Conservancy annual lion hunting quota and offtake from 2002 to 2015.*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Approved quota	5	5	1	3	3	4	6	7	7	7	4	2	3	5
Quota taken	1	0	1	3	3	3	3	6	5	3	4	1	3	5
Percentage success	20	0	100	100	100	75	50	86	71	43	100	50	100	100

Sport-hunting of lions brings considerable revenue to the Conservancy, revenue that is vital for the continued functioning of the area for wildlife conservation. Without the costs of lions being offset by the income from sport-hunting, landowners cannot reasonably be expected to tolerate such high lion densities, and their numbers would have to be reduced significantly.

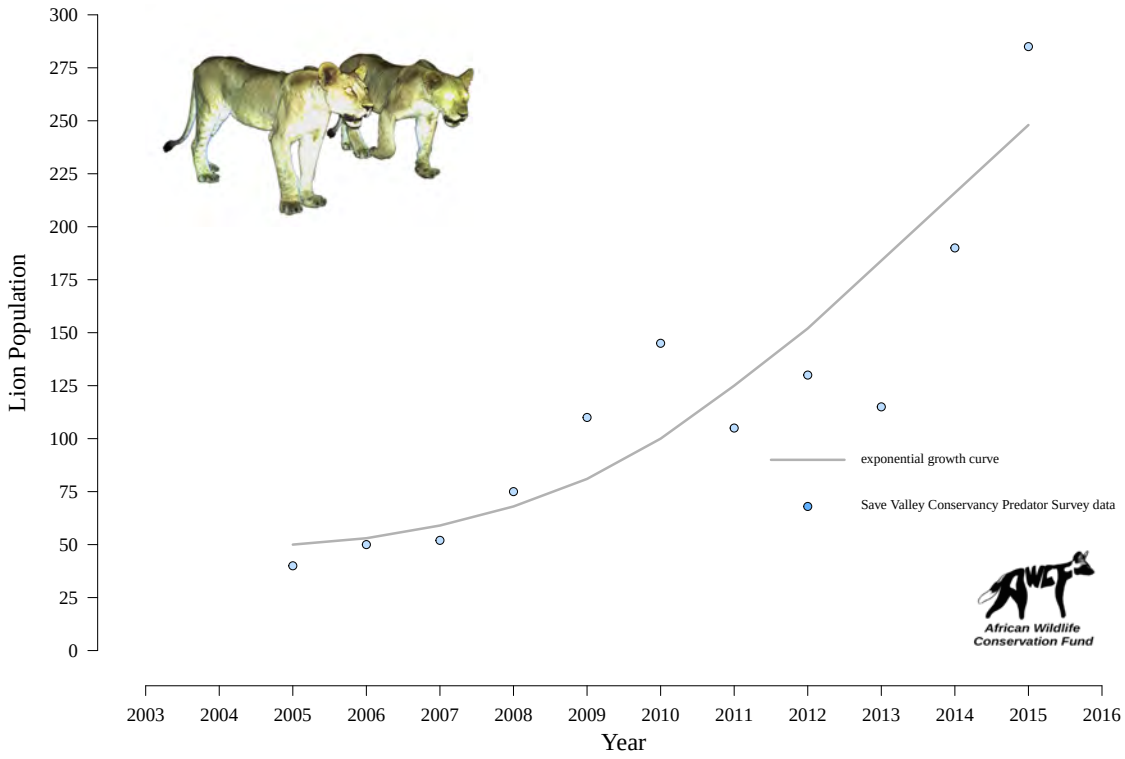

Figure 8: The Savé Valley Conservancy lion population, like that of the Bubye Valley Conservancy, has grown exponentially. Points indicate estimated lion abundance calculated from field surveys; the line represents the exponential growth curve.

The Pros and Cons of Conserving Lions

The saturation of lions in wildlife areas on both state and private land is positive for their future conservation security; but it is also critical to that of incidentally conserved endangered species, such as both species of rhinoceros on private wildlife conservancies in Zimbabwe (Lindsey et al. 2009; Suzuki 2001), which benefit from the same resources and protection that are incentivised and provided by the revenue generated from sport-hunting. The Bubye Valley Conservancy now boasts the world's third largest black rhinoceros population (N. Anderson [Lowveld Rhino Trust], pers. comm.), which is classified as Key 1 by the African Rhino Specialist Group and means that this population is considered key to the overall survival of the species. The Savé Valley Conservancy has the second largest black rhinoceros population in Zimbabwe after Bubye. These are not coincidences. These rhinoceros (and other endangered species, such as wild dog) strongholds are the result of the incidental conservation benefits derived entirely from sport-hunting activities - there are no photographic tourists visiting either the Bubye Valley or Savé Valley Conservancies, and the rhinoceros are not hunted. Having rhinoceros on the land therefore generates no revenue - and in fact there is a significant cost associated with protecting these animals; US$ 590,000 (not including incentive and reward bonuses donated for these purposes) was spent on anti-poaching by the Bubye Valley Conservancy during 2015 (K. Leathem, pers. comm.), and US$ 546,000 is spent annually on anti-poaching by the Savé Valley Conservancy (Lindsey et al. 2012). This expense is covered mainly by the revenue generated by sport-hunting with additional donations from the clients; and most importantly, the habitat for the rhinoceros is preserved by maintaining the land as a conservation area, as opposed to converting it into agricultural or grazing land for example.

However, the high densities of lion populations achieved within commercial wildlife areas have the potential for intense intraguild persecution. Lions are aggressively competitive, and research on the relationship between lions and leopards has shown that high densities of lions can negatively affect leopard population density, demographic structure, cub survival, and spatial ecology down to even the step-wise decisions that leopards make regarding habitat use and behaviour based on both the actual and potential risk of encountering lions (du Preez 2014; du Preez 2015). Leopards are a generalist species that are able to cope with persecution by adapting their behaviour and ecological niche, and even they suffer under a burgeoning lion population; ecological specialists and endangered species, such as cheetah *Acinonyx jubatus* and wild dog, do not fare nearly as well under such intense competitive pressure. In fact, competition with lions has been directly linked to reductions in cheetah (e.g. Durant 1998, 2000; Laurenson 1995) and wild dog (e.g. Creel 2001; Creel and Creel 1996; Vucetich and Creel 1999) densities, both of which face local extinction where lion abundance, and the respective level of persecution, is high. Excessive lion densities may also result in population declines of ungulate prey (e.g. Wegge et al. 2009). It is vital to holistic conservation that wildlife managers can understand and deal with the level of impact that lions exert on other species; particularly those that

are elusive difficult to observe, and which face decline if not carefully monitored. To this end, a conservation research initiative in partnership with WildCRU was established on the Bubye Valley Conservancy in 2009, and research conducted on the Savé Valley Conservancy since 2007.

Based on the number of kills made (du Preez et al. in prep.) and the current value of the meat (K. Leathem, pers. comm.), the Bubye Valley Conservancy lion population consumes hundreds of thousands of dollars worth of prey each year. These lions are mainly tolerated because of their ability to generate the revenue that helps to offset this expense - although it is estimated that economically it is still not worth keeping the lions whose cost outweighs their value (Funston et al. 2013).

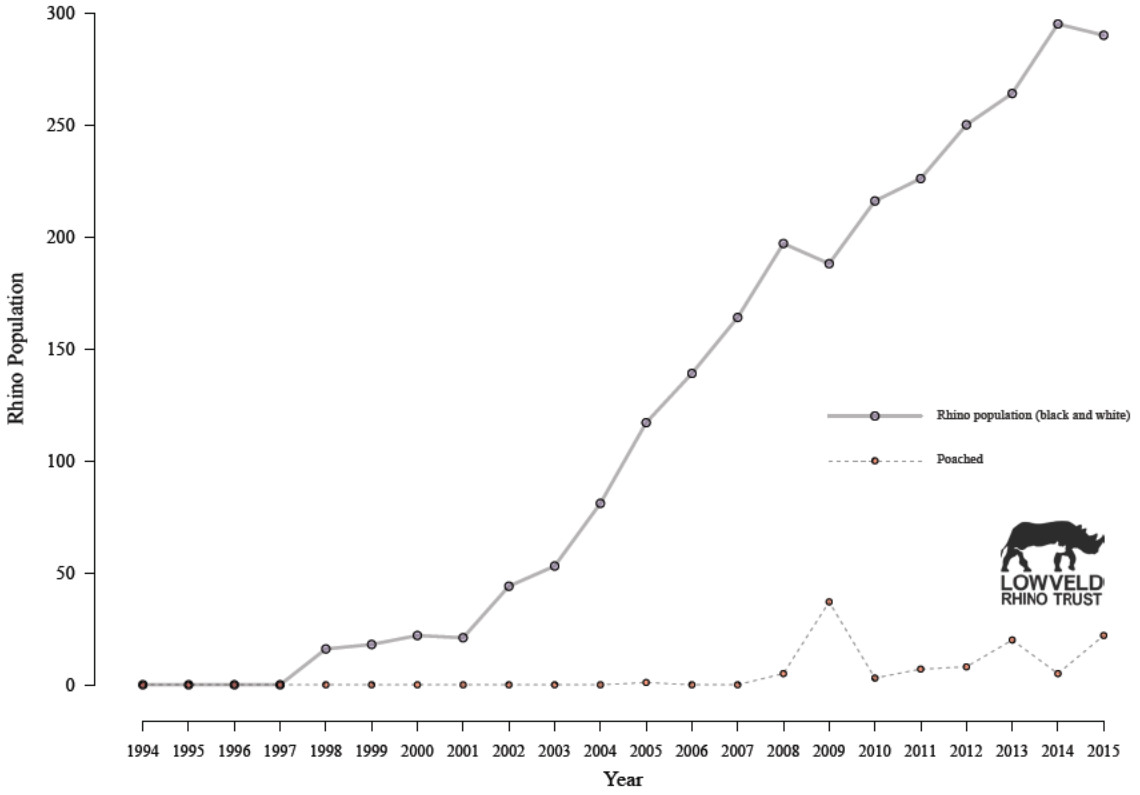

Figure 9: The Bubye Valley Conservancy black rhino population is rated as Key 1 by the African Rhino Specialist Group which means that the population is considered key to the overall survival of the species.

Where the Money Goes: The Finances of Lion Sport-Hunting and Reinvestment in their Conservation

Break-down of the finances involved in a typical lion hunt on the Bubye Valley Conservancy:

Lion Trophy fee: US$ 42,000
Lion Hunt Daily rate: US$ 2,950 day^{-1}
(Minimum lion hunt duration: 18 days [*total daily rate of US$ 53,100 lion hunt^{-1}*])

Additional costs include:
ZPWMA scout
Observers
Bait used
Other trophy species taken during the lion hunt, etc.
[*These additional costs average approximately US$ 6,500 lion hunt^{-1}*]

Bubye Valley Conservancy - Lion Sport-Hunting Revenue Generated (2015):

((18 days × 2,950 day^{-1}) + 42,000 trophy fee + 6,500 additional costs) × 12 lions
= **US$ 1,219,200**

Lion sport-hunting therefore represents approximately 33.9% of the Bubye Valley Conservancy's total annual revenue generation (which includes post-hunt meat and hide sales).

All of the revenue generated from lion sport-hunting on the Bubye Valley Conservancy has gone back into the running costs of the Conservancy, which is all part of conservation, and which includes: anti-poaching and fence monitoring and maintenance (approximately US$ 506,000 year^{-1}), research (approximately US$ 34,700 year^{-1} not including client and sponsor donations), and community support assistance (approximately US$ 210,000 year^{-1}).

[*No profit after costs has been declared, nor dividends taken by shareholders, since the Bubye Valley Conservancy was formed in 1994. All revenue generated to date has been spent on running costs, improvements and restocking.*]

Discussion

Here we have shown that since their reintroduction after historical eradication, both the Bubye Valley and Savé Valley Conservancies' lion populations have increased exponentially - not despite sport-hunting, but because of sport-hunting and the incentive it provides for protection.

The success of the Bubye Valley and Savé Valley Conservancies, in terms of both of their hunted lion and non-hunted rhinoceros populations, may also provide the motivation for other areas in the country to sustainably manage their wildlife resource. A case in point is the Nuanetsi Ranch, a wildlife area that is also a legacy of failed cattle ranching, located almost directly between the Bubye Valley and Savé Valley Conservancies in Zimbabwe (Figure 3). At present there is a single lion on the Nuanetsi Ranch but management is not able to justify introducing more due to the current uncertainty over the future of lion hunting (B. Lees-May [Nuanetsi Ranch Conservator], pers. comm.). The Nuanetsi Ranch is a wildlife area of 1,489 km^2, and could conceivably sustainably hold between 201 and 278 lions (based on the most recently estimated lion densities of the Savé Valley [0.135 lions km^{-2}; Groom and Watermeyer 2015]; and Bubye Valley [0.187 lions km^{-2}; du Preez et al. 2015] Conservancies respectively). However, the Nuanetsi Ranch has invested in building up an abundant wildlife population, which is sport-hunted, and the management will not risk losing a significant amount of valuable game, that could otherwise be sold as trophies or meat, to a species from which it can not recuperate lost revenue, and instead that requires further investment in control measures (B. Lees-May [Nuanetsi Ranch Conservator], pers. comm.).

Between 2005 and 2015 the United States market has represented 70.4% of the total Zimbabwean lion sport-hunting industry (http://trade.cites.org/en/cites_trade/ [accessed 2015-01-19]), though in reality it constituted over 90% for both the Bubye Valley and Savé Valley Conservancies. If this market was effectively lost due an inability of prospective clients to import their trophies, based on the economics involved it would become unviable to continue managing the Bubye Valley Conservancy as a wildlife area in its current form, and lions would either have to be re-exterminated, or at least severely reduced via culling; or else what is the largest privately owned wildlife area in the world would be converted back into a cattle ranching area (K. Leathem, pers. comm.). This is the reality of any business, in that it needs to cover costs and pay staff and cannot run at a loss for luxury of conservation. Child (1993) states "*A refusal to treat wildlife in the same way as other resources and maintenance of centralised protectionist management prejudices its survival. Only by raising its commercial value will wildlife be able to compete for space on the scarce African landscape. Trade bans which detract from wildlife's commercial value prejudice its chances of survival in the long term*".

Although the USFWS understandably categorises lion conservation by country for simplicity, rather than individual properties, the Bubye Valley and Savé Valley Conservancies currently and deservedly hunt more than a third of the total Zimbabwean lion quota between them. Here we have shown that this sport-hunting does not negatively affect the lion population, which remains in positive growth despite off-take. In addition

to this, other areas, such as the Nuanetsi Ranch, could be incentivised to invest in lion conservation if the ability to sustainably utilise the lions as a resource was guaranteed.

The USFWS identified five primary factors that threaten lion survival in the wild, namely: habitat loss; loss of prey; retaliatory killing due to increased human-lion conflicts; inadequate regulatory mechanisms; and weak management of protected areas (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). Each and every point on this list, which notably does not include sport-hunting, supports the fact that incentivising tolerance for lions through sustainable use would enhance the species' overall survival.

As responsible conservationists, we are not arguing against tight regulation of sport-hunting, especially with regard to sensitive species such as lions, and we support the need for transparency and accountability within the industry. However, this reform is a process being driven from within, as any indiscretion is an affront on all stakeholders. For example, long-term lion monitoring by WildCRU in Hwange National Park (HNP), Matabeleland North, Zimbabwe, documented a 'vacuum effect' and reduction in male lion density in the Park as a result of sport-hunting in the surrounding areas (Loveridge et al. 2007). A result of this research was the recommendation that ZPWMA implement a hunting moratorium in western Zimbabwe, which was accepted and enforced from 2005 to 2008 (Davidson 2009). Subsequent monitoring of the HNP lion population showed that the perturbation effects caused by sport-hunting were reversed during the moratorium, and sport-hunting was reinstated at a reduced, more sustainable quota (Davidson 2009). This example demonstrates both the relationship between independent researchers and ZP-WMA, and that the research assists ZP-WMA in robust decision making. This study has also shown that the lion population was able to recover quickly, and that a blanket-ban would have been as unnecessary as it would have been detrimental to overall lion conservation in the country.

In addition to the self-imposed hunting moratorium in the Matabeleland North district, Zimbabwe has voluntarily stopped sport-hunting of any lioness. The fixed-quota concept, in which hunting quotas had to be paid for upfront before the hunting season even began, and which was resultantly attributed to poor quality trophies and young animals being hunted, has also been abandoned. The adaptive quota management system for lion hunting based on the ages of lions hunted has been accepted and embraced by all stakeholders. This adaptive quota management system has not only led to a reduced national lion hunting quota, but has also resulted in a significant increase in the age of harvested lions to a level that is considered to have minimal ecological impact, being old individuals that are no longer contributing to the gene pool nor protecting cubs.

The IUCN Red List lion conservation status has remained unchanged for 20 years even in the face of Africa's ever-changing landscape. Despite fears that lion abundance is decreasing overall, in southern Africa it is in fact increasing (Bauer et al. 2015b).

Conclusion

Given the evidence presented, the arguments against sport-hunting would appear to be based more in emotion than logic and reality (e.g. Lindsey et al. 2015). Conservation, however, is not about individuals within populations, but the overall populations themselves. Sustainable sport-hunting of lions is just that: *sustainable* - and ironically, without it, the lions themselves become unsustainable. Conservation objectives need to be balanced with both social and economic factors if they are to be achieved.

The USFWS states "Well-managed conservation programs use trophy hunting revenues to sustain lion conservation, research and anti-poaching activitie" (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). The Bubye Valley and Savé Valley Conservancies both fully meet each one of these conditions: clearly contributing to lion conservation in Zimbabwe; having long-term conservation research programs; and self-funded anti-poaching units.

The histories regarding the formation of both the Bubye Valley and Savé Valley Conservancies were both presented in this report, despite being remarkably similar; the point being that lion conservation in both areas, and many others, has the same fate either way. The Bubye Valley and Savé Valley Conservancies are both excellent examples of focussed and determined efforts to make wildlife based land use viable in an otherwise cattle dominated landscape. However, the fact remains that the cost of having lions, both ecologically and financially, is high. Simply increasing the abundance of one species at the expense of another cannot be considered a conservation success.

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LION ZIMBABWE ESA TROPHY

Permit Number: MA86471B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
KENT (b) GREENAWALT
(b) (6)
ROANOKE, VA (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

CONSERVATION FORCE

A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G. TEER, PH.D.
† BART O'GARA, PH.D.

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January 26, 2016

Mr. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

Dear Chief Van Norman:

RCVD JAN 28 2016

Enclosed please find four applications for permits authorizing the import of sport-hunted trophies of *P. l. melanochaita* from Zimbabwe. In evaluating these applications, please consider the information on lion conservation and management in Bubye Valley Conservancy, Save Valley Conservancy, and Zimbabwe on the whole already submitted by Conservation Force and others. An index of this information is attached to this letter.

The information submitted by Conservation Force demonstrates that the lion conservation and management program in Zimbabwe, and specifically in Bubye Valley and Save Valley Conservancies, enhances the survival of the species because it addresses the three main threats to lion: (1) loss of habitat, (2) loss of prey base, and (3) human-lion conflict, and more.

First, the information demonstrates that habitat would not otherwise exist for lion in Bubye Valley and Save Valley Conservancies but for the income generated by tourist safari hunting. Both conservancies rely on the income from tourist safari hunting to fund their operations. If hunting stopped, the 1.7 million acres of habitat protected in these conservancies are likely to be lost to the lion, rhino, and prey species.

Second, Bubye Valley and Save Valley Conservancies each engage in extensive anti-poaching operations that protect the lion's prey base. For example, in 2015, Bubye Valley Conservancy spent $590,000 on game scouts and anti-poaching. All of these funds were generated by tourist safari hunting.

Finally, the information shows the significant community assistance programs in place in each of these conservancies. Bubye Valley Conservancy and Save Valley Conservancy each contribute $100,000 annually to local communities in cash, services, game meat, and supplies. This support is used to build schools and clinics, maintain water infrastructure, assist with repairs and maintenance of equipment, fund school books and field trips, increase consumption of protein, and otherwise improve the quality of life for local residents. Because of these benefits, local people are more willing to tolerate lion, and human-lion conflicts are reduced.

We believe the information already in the Fish and Wildlife Service's possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. However, we will continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,

John J. Jackson, III on behalf of
Conservation Force

3240 S I-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

Enclosures:

- Application submitted on behalf of Steven Chancellor for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of Kent Greenawalt for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of James Horrocks for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of Jeffrey Smithers for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Submitted

NEW INFORMATION ON THE AFRICAN LION

INDEX FOR: ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie (Mazunga Safaris), Email re: Community Assistance Program in BVC (Jan. 20, 2016)	1/26/16
5	Blondie (Mazunga Safaris), BVC – Spreadsheet, Community Assistance 2011 & 2012	1/26/16
6	Zig, Photos of BVC Community Assistance Program	1/26/176
7	ZPHGA, Info on Lion Age Restrictions (Jan. 20, 2016)	1/25/16 Louis M 1/26/16 Us
8	Dr. Byron du Preez et al., Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 22, 2016)	1/26/16
9	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

RCVD JAN 28 2016

LB

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Threatened-Listed Lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Chancellor	Steven	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)		(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Evansville	Indiana	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
Same

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: **US43277A/9** No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I und(b) (6) at any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 1-19-16

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera Leo Melanochaita

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
   Zimbabwe: Bubye Valley Conservancy, Beit Bridge District, Matabeleland South. Nearest town is Beit Bridge and nearest city is Bulawayo. GPS coordinates for Towla are S 2126478 , E 02953162. Hunting area is a wildlife conservancy consisting of 850.000 acres.
   b. Date wildlife is to be hunted:

      July 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: **Steve Colletts**
Business Name:
Address: **15 Josiah Chinamano Road**
Address:
City: **Bulawayo**
State/Province: **Zimbabwe**
Country, Postal Code:

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [redacted] (b) (6) Date: 1-19-16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John J. Jackson, III or Regina Lennox of Conservation Force 504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

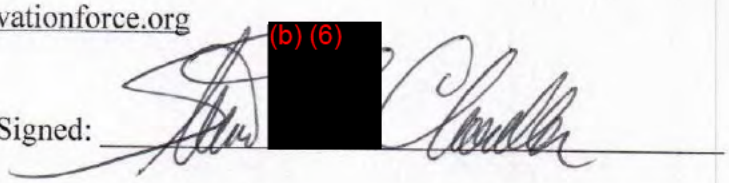
NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: 

Name: _____

Date: _____

[redacted] (b) (6)

OLD NATIONAL BANK
Evansville, Indiana

[redacted] (b) (6)

[redacted] (b) (6)

1/20/2016

PAY TO THE ORDER OF U. S. Fish and Wildlife Service $ **100.00

One Hundred and 00/100********** DOLLARS

U. S. Fish and Wildlife Service

Security features. Details on back.

MEMO

Carmen Tessmand
AUTHORIZED SIGNATURE

[redacted] (b) (6)

1-28-16

Sport-Hunting and Lion *Panthera leo* Conservation in Zimbabwe

Dr Byron du Preez[†1], Dr Rosemary Groom[‡2], Olivia Mufute[§3] and Roseline Mandisodza-Chikerema[¶3]

[1]Bubye Valley Conservation Research Initiative
[2]African Wildlife Conservation Fund
[3]Zimbabwe Parks and Wildlife Management Authority

January 31, 2016



*
† byron.d.dupreez@gmail.com
‡ rosemary@africanwildlifeconservationfund.org
§ omufute@zimparks.co.zw
¶ mandisodzar@gmail.com

Contents

Summary of Steps Taken by Zimbabwe to Improve the Management of Lion Sport-Hunting **3**

Summary of Lion Sport-Hunting's Contribution to Conservation **3**

Introduction **3**

Lions – *Panthera leo* **5**

Conservation and Sport-Hunting **8**

Zimbabwe's Adaptive Lion Quota Management System **8**
Results of the Adaptive Lion Quota Management System 9
Human-Lion Conflict 11

The Bubye Valley Conservancy **12**
History of the Bubye Valley Conservancy 12
Bubye Valley Conservancy Community Support 12
Bubye Valley Conservancy Lion Monitoring and Management 13
Bubye Valley Conservancy Lion Hunting 13

The Savé Valley Conservancy **16**
History of the Savé Valley Conservancy 16
Savé Valley Conservancy Community Support and Anti-Poaching 17
Savé Valley Conservancy Lion Monitoring and Management 17
Savé Valley Conservancy Lion Hunting 18

The Pros and Cons of Conserving Lions **20**

**Where the Money Goes:
The Finances of Lion Sport-Hunting
and Reinvestment in their Conservation** **22**

Discussion **23**

Conclusion **25**

References **26**

Summary of Steps Taken by Zimbabwe to Improve the Management of Lion Sport-Hunting

i – Banning of all lioness hunting in Zimbabwe
ii – Hunting moratoria around the Gonarezhou and Hwange National Parks
iii – Removal of fixed hunting quotas
iv – Age restrictions on sport-hunted lions
v – Scientifically-based adaptive quota management system

Summary of Lion Sport-Hunting's Contribution to Conservation

i – Lion sport-hunting contributes 33.9% to 42.4% of total revenue on private land
ii – Lion sport-hunting generates up to US$ 557 km^{-2}
iii – Anti-poaching (in particular that of rhinoceroses) costs ∼US$ 216 km^{-2}

Introduction

The United States Fish and Wildlife Service (USFWS) have recently evaluated the conservation status of the lion *Panthera leo* with particular regard to sport-hunting (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). The results of this evaluation have led to the formal protection of two subspecies under the Endangered Species Act, classifying *P. l. leo* as endangered and *P. l. melanochaita* as threatened. Together these subspecies apparently represent all of the lions in Africa (Barnett et al. 2014).

Sport-hunting is a legal activity in which the international import/export of trophies is both sanctioned and carefully controlled by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The USFWS found that the sport-hunting of *P. l. melanochaita* "*if well managed, may provide a benefit to the subspecies*" (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). Here we explore this statement further, and present data from three long-term *in situ* lion research projects; the Bubye Valley Conservation Research Initiative, Savé Val-

ley Conservancy Research, and the Hwange Lion Research Project.

The data presented in this report clearly illustrates the positive conservation benefit that well-managed trophy hunting of lions can have for the species, as well as the importance of hunting in maintaining the wildlife in an area; addressing Point 5 on page 3 of the Federal Fish and Wildlife Permit Application Form (Form 3-200-20) [i.e. "*Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application*"].



Figure 1: The lions pictured here, known as Winston (*standing*) and Geronimo (*lying*), were both collared in March 2012 when they were the dominant males in the Matombosa area and have been continuously monitored ever since as part of the on-going long-term WildCRU Bubye Valley Conservation Research Initiative. In November 2015 Geronimo, who was approximately 9 years old, died after succumbing to injuries sustained from fighting with another male. Winston, also 9 years old, has since lost his dominant status, lost his territory to two 4.5 year old males, become nomadic and avoids contact with other males. As of this report being written, the recent litter of cubs that both Winston and Geronimo sired are still alive.

Most importantly, since July 2013 there has been a continuous self-imposed internal reform of the lion hunting industry in Zimbabwe that is actively participated in and supported by all of the relevant stakeholders, including; the Zimbabwe Parks and Wildlife Management Authority (ZPWMA), non-governmental organisations, professional hunters, safari operators, scientists and researchers.

Here we discuss the results of this process in terms of robust evidence regarding the sustainability and self-regulation of lion hunting in Zimbabwe.



Figure 2: Winston and Geronimo's cubs.

Lions – *Panthera leo*

The IUCN Red List have recently reclassified lions as Vulnerable (remaining as such since 1996; IUCN 2015), estimating that there are between 20,000 and 30,000 free-ranging lions left (Bauer et al. 2015a) in less than 25% of their historic range (IUCN 2006). However, this generalised classification does not take into account an apparent conservation dichotomy: sample subpopulations of lions in Botswana, Namibia, South Africa and Zimbabwe have in fact increased overall (Bauer et al. 2015a). Lions were historically present throughout Africa, some of Europe, the Middle East and Asia (Bauer and Van Der Merwe 2004), but current conservation strongholds remain only in parts of eastern

and southern Africa (Brassine and Parker 2012; Nowell and Jackson 1996). The current lion population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals [Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley Complex: 600], though the actual number would be larger if there were data available for the countries minor lion areas that are yet to be surveyed] (ZPWMA 2015).

The lion is a uniquely social felid, forming coalitions of up to nine males associated with one or more female prides that may consist of more than 20 individuals (Macdonald et al. 2010; Schaller 1972). Lions are infamously infanticidal (Schaller 1972), where males will kill unrelated cubs so as to bring the female into oestrus and present an opportunity to sire their own litter, which is often used as an argument against sport-hunting of the species (e.g. Packer et al. 2010), where it is feared that the removal of dominant males causes cub mortality that eventually results in lowered population recruitment and survival (Packer et al. 2009). Infanticide, however, does not result from sport-hunting when age-appropriate males, past their prime and no longer territorial or with dependent cubs, are harvested (Whitman et al. 2004). Moreover, the fission-fusion nature of lion society (Mosser and Packer 2009; Pusey and Packer 1987) means that infanticide may still occur when the dominant males are simply not present there and then to defend their cubs (B. du Preez, pers. obs.).

In the 1990's, lions were successfully reintroduced into private areas in parts of their former range, where they achieved high reproductive and survival rates (Miller and Funston 2014). However, the resultant population growth inevitably led to the potential problem of overabundance (Funston 2008) and low genetic diversity (Trinkel et al. 2010), with both of these issues requiring active and intensive management (Hunter et al. 2007) and ultimately reducing the conservation value of these lion populations (Miller and Funston 2014). The ability to translocate lions originally facilitated the relief of overpopulation, but as the available areas for relocations were used up, sport-hunting and euthanasia have subsequently become the main methods of lion population control (Miller and Funston 2014).

The lion is the apex predator wherever it occurs (Macdonald et al. 2010), and is an ideal conservation umbrella; being large, charismatic and easily observable (e.g. Williams et al. 2000). Lions are important to commercial wildlife ventures, which risk losing significant market share where they cannot offer them to clients (Lindsey et al. 2007), and are thus prioritised in conservation; exploiting their charisma to attract tourists and raise the funds required in ensuring that wildlife areas remain viable. The lion is also a particularly valuable species in the sport-hunting industry, rivalled only in demand by buffalo *Syncerus caffer* and leopard *Panthera pardus* (Creel and Creel 1997), and are therefore prevalent in private wildlife areas (Packer et al. 2013) where their populations can achieve exponential growth rates given the protection and resources afforded by well-managed operations (Smuts et al. 1978; Loveridge et al. 2007b; Kettles and Slotow 2009; Miller and Funston 2014).

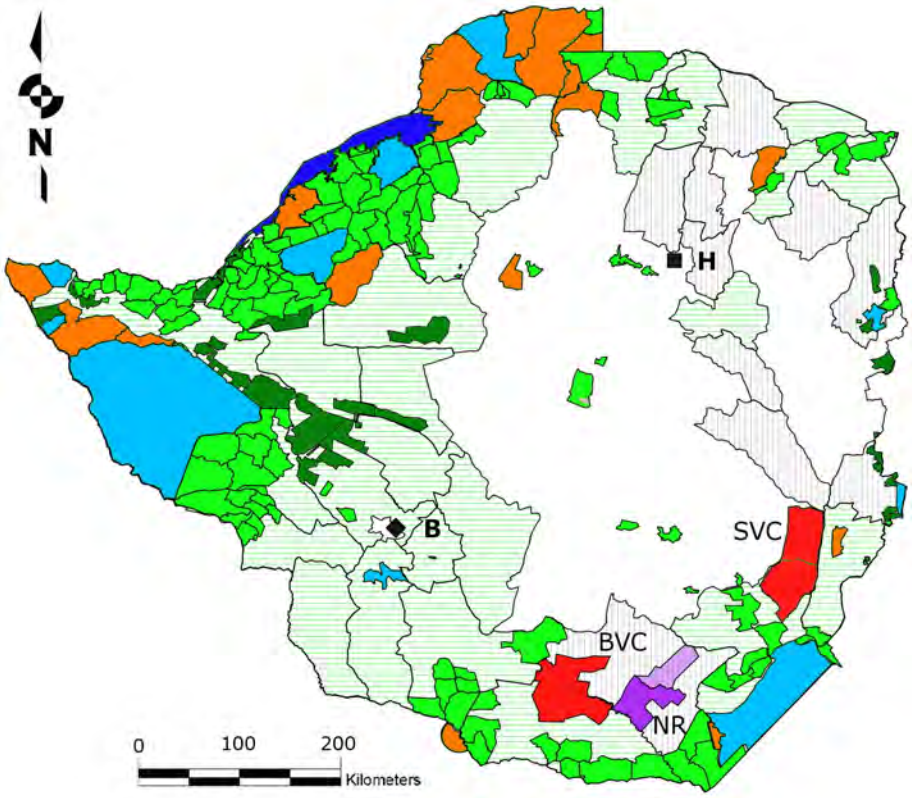


Figure 3: Map of Zimbabwe's main wildlife areas: [*i*] National Parks are represented in light blue; [*ii*] Safari areas are represented in orange; [*iii*] Forestry areas are represented in dark green; [*iv*] Community and Private wildlife areas are represented in light green; [*v*] Communal Land (CAMPFIRE Areas) in which sport-hunting may occur is represented by light green horizontal stripes; [*vi*] Communal Land in which sport-hunting does not occur is represented by grey vertical stripes. [*vii*] The Bubye Valley [BVC] and Savé Valley [SVC] Conservancies are represented in red. [*viii*]The Nuanetsi Ranch [NR] on which sport-hunting takes place is represented in dark purple (light purple represents the Nuanetsi Ranch cattle area); [*ix*] Lake Kariba is represented in dark blue. Harare (the capital city) is represented by a black square and letter '**H**'. Bulawayo is represented by a black diamond and letter '**B**'. Sport-hunting may occur in areas: *ii*, *iii*, *iv*, *v*, *vii* & *viii*

The ability of lions to rapidly increase in abundance is an aspect of their ecology that is often overlooked. Lion populations can achieve exponential growth rates (Miller and Funston 2015; Groom and Watermeyer 2015; du Preez et al. in prep.), and the problems associated with high lion densities fast present themselves and require significant investment in their solution (Hunter et al. 2007; Kettles and Slotow 2009; Loveridge et al. 2007; Packer et al. 2013; Smuts 1978). Whilst unregulated sport-hunting of lions (in particular that of dominant males and pride females) may result in population declines (e.g. Packer et al. 2010; Packer et al. 2009), restricting offtake to only males over

a certain age (i.e. have already bred and/or are no longer dominant) has no impact on lion population persistence, irrespective of quota size (Whitman et al. 2004). Such is the situation currently facing both the Bubye Valley and Savé Valley Conservancies, where the lion populations continue to grow despite sport-hunting and increasing quotas. Whilst sport-hunting may not alleviate over-population in these areas, it does somewhat offset the cost of keeping lions. Culling of lions may be the only realistic option for controlling numbers in larger areas, as the use of contraceptives is likely to be inefficient and expensive. Because of fears about public sentiment associated with sport-hunting, it has now become common practice for managers to cull excess lions in more than 45 wildlife areas in South Africa to which lions have been introduced, and which resulted in the wasteful destruction of about 200 lions in 2012 (Miller and Funston 2014).

Conservation and Sport-Hunting

There is more land area in Africa conserved for hunting than there is in all of Africa's formally protected areas combined: approximately 1.4 million km^2, which exceeds the total area covered by national parks by 22% (Lindsey et al. 2007). For wildlife conservation to be successful outside of national parks, these areas must be self-sufficient and able to generate sufficient revenue to cover the considerable costs of protecting the habitat and wildlife therein (Lindsey et al. 2006). Indeed, conservation would benefit from an incentive to utilise land for wildlife rather than the alternatives of livestock grazing, agriculture, and deforestation.

The international trade of lions, including trophies, is controlled by a strict CITES licensing system on the basis that this trade does not endanger the ultimate survival of the population (https://www.cites.org/eng/disc/how.php [accessed 2015-01-19]). The positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-take; neither of which generally jeopardise populations, and also suggest that hunting could play a role in population recovery (Leader-Williams et al. 2005).

The recommendation of setting uniform harvest limits, e.g. 1 lion 2,000 km^{-2} (Lindsey et al. 2012; Packer et al. 2010), may be overly simplistic, affect the economics of wildlife based landscape use, and disincentivise investment in conservation (Lindsey et al. 2007). A more practical approach to sustainably setting realistic lion sport-hunting quotas could involve using a positive/negative feedback method that calculates a fluid quota per area based on the previous season's performance. Such an adaptive quota management system has already been implemented in Zimbabwe.

Zimbabwe's Adaptive Lion Quota Management System

An adaptive quota management system for lion hunting based on the ages of lions hunted was agreed on in July 2013 in Harare, Zimbabwe, during a meeting hosted by the Zimbabwe Parks and Wildlife Management Authority (ZPWMA) and an independent non-governmental conservation organisation. The points system is summarised in Table 1.

Table 1: *Points allocated to hunting blocks arising from the harvest of lions of different ages*

	≥ 6 years	No trophy	5 years old	4 years old	< 4 years	Failure to submit return, or incomplete return
For quotas of ≥3	4	3	3	2	-3	0
For quotas of 2	4	3	3	2	0	0
For quotas of 1	6	3	3	2	0	0
Resultant quota	*These points are added up and divided by 3 to yield the quota for next year*					

During 2013, operators were requested to submit hunt returns and photos as a trial run to get the system up and running. In 2014 operators were requested to do the same but were informed that the age of the lions hunted in 2014 would determine their lion quotas in 2015. The 2015 lion hunt results would thus also determine the 2016 quota.

Results of the Adaptive Lion Quota Management System

In 2015 there was a marked increase in the age of lions hunted in Zimbabwe as a whole. Notably, only one lion of <4 years of age was hunted and the large majority of lions were 5 years or older (Figure 4). In 2013, only 28% of the lions hunted were 5 years or older, in 2014 that figure had risen to 49% and in 2015 to 77.3% (Figure 5). The proportion of lions hunted that were less that 5 years of age dropped overall between 2013 and 2015 (Figure 6). For this achievement, credit is due to the hunting community for showing greater selectivity of harvest. A word of caution however, is that the majority of lions hunted were on the cusp of 5 - 6 years of age and were not older than six years. Restricting hunting to individuals that are at least six (and preferably older) is desirable from a biological perspective due to the reduced risk of the loss of pride males and infanticide of cubs associated with the harvest of such individuals (Whitman et al. 2004).

In 2015 the Zimbabwe national lion hunting quota was set at 85 lions. Of this 85, only 39 were hunted in 2015, and based on the resultant score from aging the trophies, and the fact that operators chose not to hunt lions of inadequate age (see Figures 4, 5 & 6), the recommended quota for 2016 was set at 75 [Harare 2015-11-11]. (The Rural District Council areas in which lions occur are currently exempted from the age restrictions, as was agreed upon at the 2013 lion management meeting in Harare, as a means of ensuring that impoverished communities obtain the opportunity to benefit from the presence of lions, recognising the potential negative impacts the species has on the livelihoods of livestock farmers).

Using these figures and estimating the average value of a lion safari at approximately US$ 80,000 then a 50% offtake (35 lions) would generate US$ 2,800,000 annually. If management costs are approximately \$150 km^{-2} (V. Booth, pers. comm.), then the lion safaris alone can support 18,600 km^{-2} of wildlife habitat in Zimbabwe.

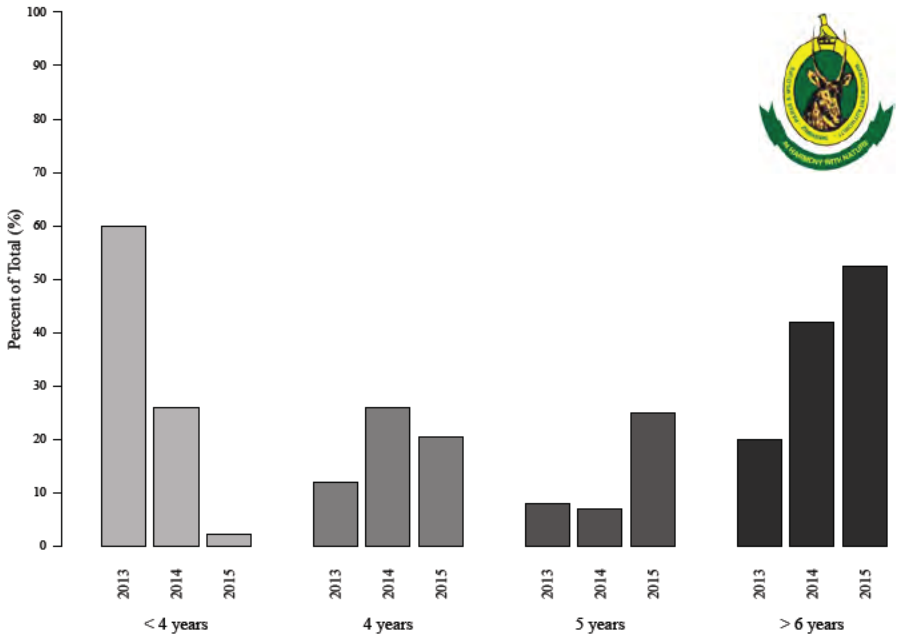


Figure 4: The percentage of lions hunted in each age class in 2013, 2014 and 2015 in Zimbabwe.

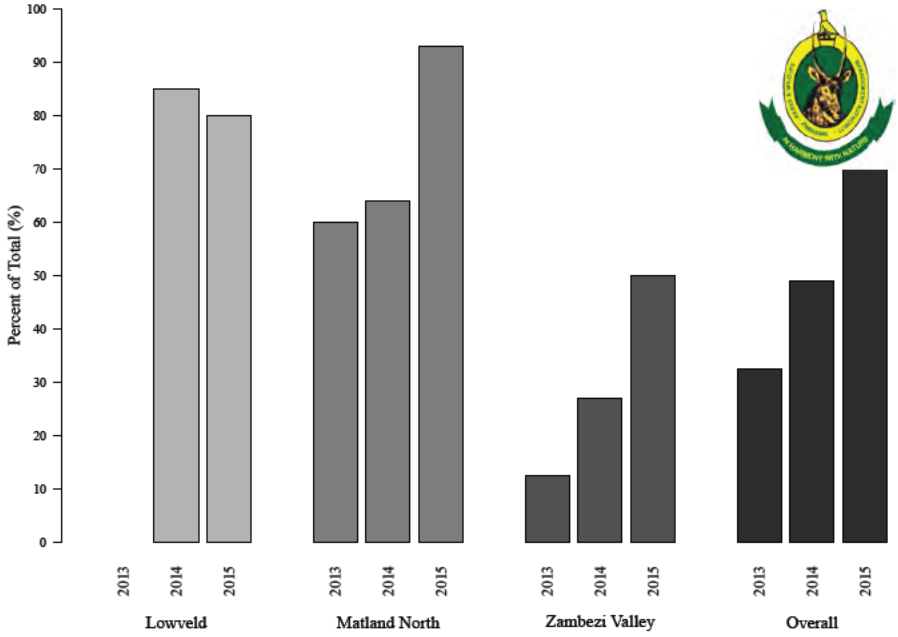


Figure 5: The proportion of lions hunted that were 5 years or older in the three main lion-hunting areas of Zimbabwe.

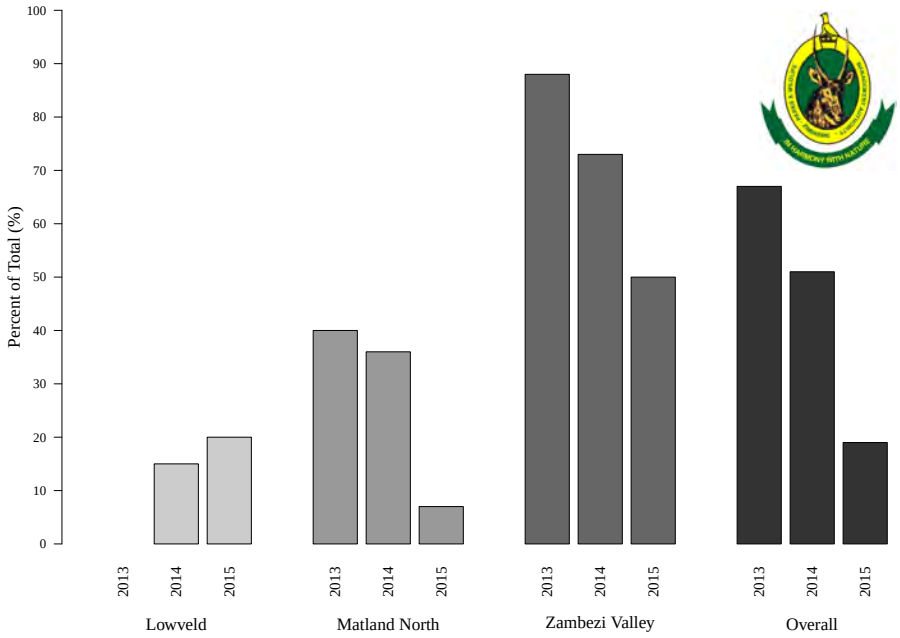


Figure 6: The proportion of lions hunted that were less than 5 years of age in the three main lion-hunting areas of Zimbabwe.

Table 2: *Human and Lion Conflict (2009 - 2011) in Zimbabwe, including human mortality caused by lion (CAMPFIRE Association, 2012)*

District	Total incidents	Livestock killed	*People Injured*	*People Killed*
Hurungwe	5	1	*2*	*2*
Chiredzi	25	136	*0*	*0*
Mbire	5	7	*0*	*5*
Binga	9	39	*0*	*0*
Total	**44**	**183**	***2***	***7***

Human-Lion Conflict

The lion is a flagship species and powerful symbol of Africa; yet living with lions poses hardships for many communities (e.g. Table 2). In some areas, the lion is a major predator on domestic livestock, inevitably leading to conflicts with local herders. Both sides suffer in this situation.

Outside of protected areas, the lion's prey base is much reduced, which results in relatively greater chance of encountering livestock. Co-existence of lions with people may be enhanced by giving value to lions through tourism and hunting promoted in communal lands under the Communal Area Management Programme for Indigenous Resources (CAMPFIRE). This hunting contributes to the conservation of lions via the financial revenue generated, which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs.

The Bubye Valley Conservancy

History of the Bubye Valley Conservancy

Towards the end of the nineteenth century, the Liebig's Extract of Meat Company (LEMCO) founded an extensive cattle ranch in the Zimbabwean lowveld, to the detriment of the indigenous wildlife that was initially eliminated because of competition for grazing with the livestock, as well as a risk of disease transmission from buffalo and wildebeest *Connochaetes taurinus*. As their natural prey base became depleted, the predators were subsequently persecuted when they began to prey on the livestock. Some wildlife persisted in small pockets of remote habitat, however lion, elephant *Loxodonta africana*, buffalo and rhinoceros *Diceros bicornis* [black] & *Ceratotherium simum* [white] were all completely eradicated. A monoculture of cattle dominated the landscape and impacted on the environment for the better part of a century.

Then, in 1992, Zimbabwe suffered one of the worst droughts on record, a relatively short time after the devastating one of 1983 that LEMCO was still trying to recover from. The frequency and severity of the droughts effectively reduced confidence in the economic viability of cattle ranching in the area, and the Bubye Valley Conservancy was subsequently founded in 1994 with the realisation that endemic wildlife, which are better adapted than livestock to cope with the local climate, could be successfully commercialised (Child 1988; Bond 1993).

The conversion from cattle ranching back to a wildlife area was neither straightforward nor cheap, requiring a significant initial investment and annual running costs. In just 20 years of operation the Bubye Valley Conservancy now protects the world's third largest black rhinoceros population, one of Zimbabwe's largest lion populations, a large and increasing elephant population, and abundant game.

Sport-hunting is an essential step in converting areas that were previously dedicated to livestock farming into non-consumptive tourism areas (Child 1993), and was fundamental to the formation of Bubye Valley Conservancy and allowing the wildlife populations to recover. The Samanyanga area of the Bubye Valley Conservancy, probably the most scenic section, was originally set aside for non-consumptive photographic tourism, but made an annual loss for several years, before, largely due to Zimbabwe's land reform program and resultant instability in the country, it was reverted back to sport-hunting as the only practical and economically viable option (K. Leathem, pers. comm.). Sustainable sport-hunting provides the sole economic incentive to continue operating the Bubye Valley Conservancy as a wildlife conservation area.

Bubye Valley Conservancy Community Support

The Bubye Valley Conservancy donates over 45 tonnes of meat from sport-hunting to the local communities each year. This meat donation is worth over US$ 100,000 per year, and the communities are free to decide how they use it. In addition to this, the Conservancy also supports several schools, clinics, and community projects in the three surrounding districts of Mwenezi, Maranda and Jopempe. The local community thus

sees a direct benefit from the wildlife on the Bubye Valley Conservancy, but is also empowered by job opportunities created both with these special projects, as well as on the Conservancy. A summary of the Bubye Valley Conservancy community support effort between 2011 and 2015 is provided in Table 4.

Bubye Valley Conservancy Lion Monitoring and Management

After originally being eradicated by cattle ranchers in the area, 13 lions were reintroduced to the Bubye Valley Conservancy in 1999, and four young males broke into the Conservancy that same year. From the original 17 animals present in 1999, the Bubye Valley Conservancy lion population was estimated at approximately 280 individuals in 2009 when robust population surveys were initiated by a research team from the University of Oxford Wildlife Conservation Research Unit (WildCRU), and this population has continued to grow. Today it is estimated that there are over 500 lions on the Bubye Valley Conservancy (du Preez et al. 2015). The exponentially increasing Bubye Valley Conservancy lion population currently exists at one of the highest densities in Africa (∼0.187 lions km^{-2}: du Preez et al. 2015; Figure 7), greater than that of the Serengeti, Tanzania (0.100 lions km^{-2}: Pusey and Packer 1987; Spong 2002), Selous, Tanzania (0.080 - 0.130 lions km^{-2}: Creel and Creel 1996, 1997), Kruger National Park, South Africa (0.096 - 0.112 lions km^{-2}: Mills 1995), and Hwange National Park, Zimbabwe (0.027 lions km^{-2}: Loveridge et al. 2007). This equates to one of the largest contiguous lion populations in Zimbabwe.

Bubye Valley Conservancy Lion Hunting

The Bubye Valley Conservancy offsets the cost of lion predation on its wildlife via sport-hunting of the species, and which began in 2002. In 2014, the lion hunting quota allocated to the Bubye Valley Conservancy by ZPWMA was 10 individuals. Based on the fact that the entire quota was harvested and that maximum points were scored for each individual trophy (more than six years in age), the allocated quota was raised to 13 lions for 2015. Only 12 out of 13 lions were hunted in 2015 due to a late cancellation; nevertheless eight lions over six years old and four lions of five years old were harvested and the resultant points justifying a quota of 15 lions for 2016.

Table 3: *The Bubye Valley Conservancy annual lion hunting quota and offtake from 2002 to 2015.*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Approved quota	1	2	3	2	2	2	3	3	5	8	12	10	10	13
Quota taken	1	2	3	2	2	2	2	3	5	8	12	10	10	12
Percentage success	100	100	100	100	100	100	67	100	100	100	100	100	100	92

Note that while the lion hunting quota for Zimbabwe has been voluntarily reduced by the national steering committee, the Bubye Valley Conservancy lion hunting quota has been successively raised twice based on both hunt success and age of lions hunted and the resultant points scored under the national adaptive quota management system (Table 3).

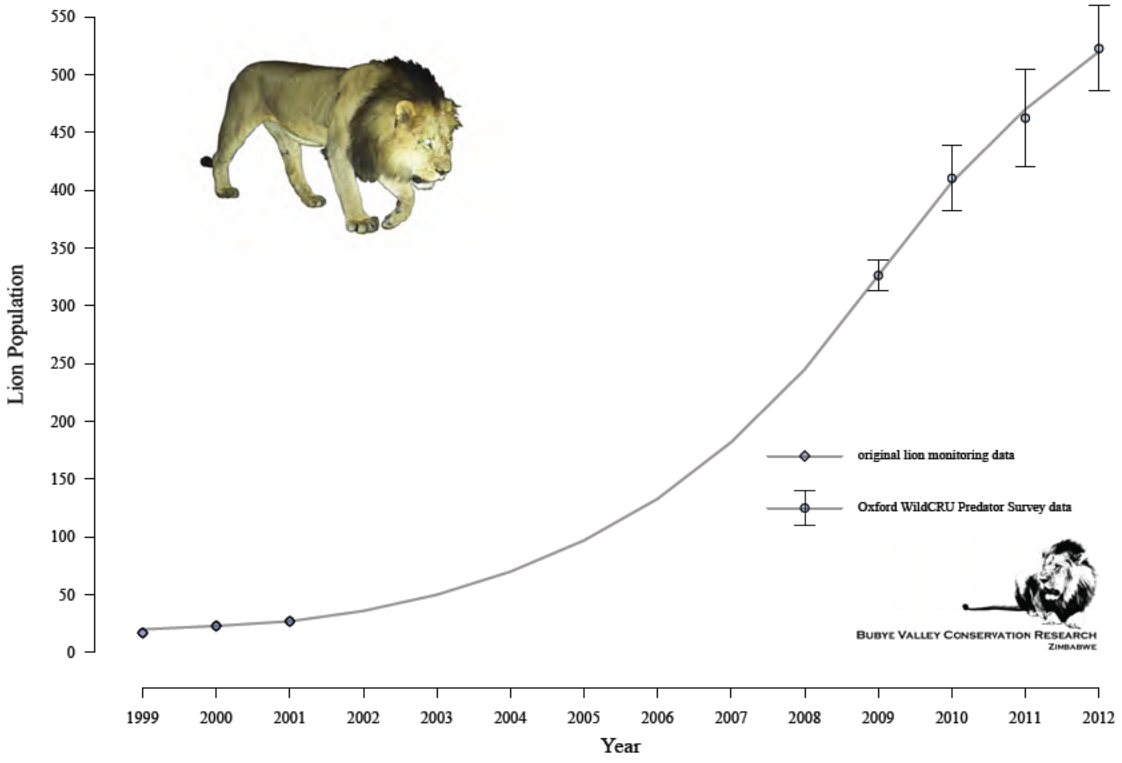


Figure 7: The Bubye Valley Conservancy lion population has grown exponentially since the reintroduction of lions in 1999. Diamonds represent the known lion abundance from monitoring of the original individuals introduced; Points indicate lion abundance calculated from spoor transect analyses; error bars represent the standard error of the mean.

Table 4: *Summary of the Bubye Valley Conservancy support to the surrounding local communities (2011 - 2015)*

Boreholes:	- 1 x Jompembi Village 2 - 1 x Penemene - 1 x Jompembi Village 4 - 1 x Nyimani village (Mwenezi) - 1 x Driehoek School - 1 x Mgaladhivha School - 2 x Mtetengwe to supply water to the clinic site - 2 new bush pumps (complete) purchased and installed at Village 2 & Village 3 and troughs built at both sites *Drinking trough for cattle built at Village 2 borehole* *All boreholes equiped with new bushpumps, piping and cylinders* *Boreholes at Village 3, Mtetengwe, Mdzwiti, Vumani and Penemene and Makado Police post repaired and maintained* *All new piping and pumps etc. are supplied by BVC*
Buildings:	- Mtetengwe Clinic's main building built - 3 x F13 staff houses built *Clinic and House fenced - everything funded and built by BVC* *The clinic is a standard large Government clinic - male & female wards + maternity ward and outpatients* *Storerooms, offices etc. also built* *All houses and buildings are electrified, painted and supplied with running water* - Mtetengwe School school office block and staff room built and painted *All classroom windows repaired and the schools second borehole repaired.* - Secure engine house was built at the second borehole site - Borehole equipped with BH15S mono pump unit driven by a rebuilt Lister LT 1 engine - 5000 litre header tank and stand errected - new 5000 litre header tank purchased and fitted - pipeline laid to connect the borehole to the clinic - another pipeline connected to the same borehole to supply the Mtetengwe school with fresh water - New coldroom and refrigeration unit purchased and fitted at the Lutumba butchery *Part of aid program to get the Beit Bridge RDC self funding projects up and running* - New coldroom and refrigeration unit was purchased and fitted at the Rutenga butchery *Part of aid program to get the Mwenezi RDC self funding projects up and running*
Meat Donations:	- BVC donates meat on a regularly basis to the Mwenezi Orphange - Numerous donations of meat were made to support school sports days & speech nights/prize giving events *Both Beit Bridge & Mwenezi districts* - 1600 kgs of meat has been donated each month since July 2011 to a Maranda trust *Administered by Chiefs andlocal headmen* *Excess meat sold and funds used for community projects* *Classroom roof replaced at Vhongwe school* *4 new classroom blocks constructed at other schools using funds from these monthly allocations* - 1000 kgs of meat per month is been donated to Beit Bridge communities since April 2014 - 1000 kgs of meat per month is been donated to Mwenezi communities since August 2013
Miscellaneous:	- Sports uniforms for the Penemene school team purchased ($2600) *Sports uniforms required for inter-schools sports* - Transport the soccor teams representing Mgaladivha, Jompembi and Tongwe *To Lutumba for the inter-school competitions* - 2 sets of soccer goal posts & 2 sets of Netball poles were made for Mgaladivha School *New soccer field graded by BVC* - 2m security fencing supplied to Penemene School - Second hand door and window frames donated to Mapiri school (ex Mazunga School) - 1 new 3 1/2 " rod pump cylinder was purchased and fitted to the Vumhani borehole *All repairs to b/holes in the Vumhani area are done by BVC* - 26 bags of cement were donated to Mgaladivha School - Fencing donated to the Mgaladivha School - Supplied 10 x 5/8" mono shafts for the Botalele Clinic (Maranda) borehole - Water supply to Mlelezi Clinic - 400 m pipeline laid to supply the Nyimani Villarge's cattle with water *3.5 m drinking trough build for this same project* - 60 bags cement donated to the Welkom for repairs to a dam wall - 6 loads of riversand and 20 cement donated to Vumani Preschool - Various school renovations in both the Beit Bridge and Maranda areas
Current Projects:	- Construction of a School admin block at Mgaladhivha School - Supply of 24 loads of riversand to Mdzwiti School (value $1200) - All roofing materials supplied to Mdzwiti School - Supply roofing materials, cement, all window and door frames for Vumani Preschool

The Savé Valley Conservancy

History of the Savé Valley Conservancy

The Savé Valley was a wildlife-rich wilderness until the early 1900's, when the first cattle ranching initiatives started in the area. The establishment of Devuli Ranch and Angus Ranch in 1920 paved the way for seven decades of commercial cattle ranching in the area we know today as the Savé Valley Conservancy. Roads were cut, fences erected and an everlasting 'battle' ensued against the wildlife, especially against all predators.

The large predators, especially lions, were virtually eradicated (Pole 1999). However, by the late 1980's, declining range productivity, depressions and droughts forced the landowners to consider alternative options. Around that time, empirical evidence of the competitive advantage of wildlife over livestock began to emerge (Child 1988; Bond 1993), especially in arid areas (Jansen et al 1992; Cumming 1993), and wildlife was finally given serious consideration as a viable land use option.

In 1989, a proposal was drawn up (du Toit 1989) to turn what was then the Sabi Valley Intensive Conservation Area into a wildlife conservancy. The plan was to create a single large wildlife area, especially for the re-establishment of endangered species and overexploited species, with cattle remaining the primary income generator. The Savé Valley Conservancy was constitutionally inaugurated in June 1991, and following the severe 1991/1992 drought, wildlife ranching became the primary land-use. At the time this was the largest private wildlife conservancy in the world (3,410 km^2).

The conservancy members then restocked the wildlife, removed all internal fencing, erected a common perimeter fence and developed effective security systems. A double, electrified, veterinary-approved fence was completed in 1995, and the following decade saw a massive investment in wildlife re-stocking and security systems.

Sport-hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhinoceros now found there. Gradually, some of the ranchers shifted more into ecotourism. One property, Senuko Ranch, completed a 16 bed up-market lodge with a view of marketing non-consumptive safaris, offering game drives and bush walks and specializing in rhino walks and African wild dog *Lycaon pictus* den visits. Lodge occupancy rose from 0% in 1996 to 62% by the end of 1999.

However, the Zimbabwean land reform program, which was initiated in February 2000, soon made a strong negative impression in the international community, and resulted in travel bans and warning from most of Zimbabwe's source markets. This, together with the political instability meant that the wildlife industry and ecotourism industry collapsed over-night: sport-hunting became the only economically viable land use option, and has remained the only tangible source of income to the landowners of the Savé Valley Conservancy. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancellation of

the confirmed bookings. After four years of seeking alternative markets, the lodge could achieve no higher than 17% occupancy, and in 2005 moved back into a hunting-based operation.

A more direct impact of the land reform program for the Savé Valley Conservancy was the loss of 33% of the area of the conservancy to invading subsistence farmers (Lindsey et al 2008). The loss of land was catastrophic and the related pressure from wire snare poaching was extreme. In the following eight years (2001 to 2009), 10,520 illegal hunting incidences were recorded, 84,396 wire snares were removed and at least 6,454 wild animals killed (Lindsey et al. 2011).

Savé Valley Conservancy Community Support and Anti-Poaching

In 2012, conservancy members provided over US$ 100,000 worth of support to adjacent villages or farmers in the resettled areas. Assistance included drilling boreholes, maintaining boreholes, dredging of dams, assisting with building projects in clinics and schools, assisting with repairs, maintenance and materials at schools, education initiatives, school field trips, provision of computer equipment in schools, craft programs and regular donations of meat.

Moreover, the conservancy recently entered into a mutually dependent agreement with the Chiefs representing the communities surrounding the Savé Valley Conservancy. The agreement links the communities to the Natural Resource Utilisation that occurs through the business operation of the conservancy and opens up opportunities for the local indigenous populations to share in any wealth creation. This agreement strengthens relations between the conservancy and the surrounding local communities and creates an environment that helps to protect, conserve and sustain the natural assets of the area. The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from trophy lion hunting constitute a significant portion of inflow and thus an important part of the community benefits. Any reduction would seriously jeopardise the growth of this infant positive relationship and community empowerment initiative.

The Savé Valley Conservancy is thus pioneering private-community partnerships in Zimbabwe, and trade restrictions on lion trophies will indirectly adversely affect these already seriously impoverished communities through a reduction in available income to share with communities. This is very likely to have a knock on impact on the lions themselves with a significantly reduced tolerance and an increase in retaliatory poisoning of lions for livestock predation. Without a demonstration of income from lions, the political pressure from the surrounding communities to remove them from the conservancy altogether will be a challenge to resist.

Savé Valley Conservancy Lion Monitoring and Management

After the Conservancy was formed, and persecution stopped, lions, mainly males, recolonized the area and their numbers started to increase in the late 1990's / early 2000's. Few lionesses were observed until 2003, when small family groups and male-female pairs were seen, and by 2004 - 2005 there were some reports of cubs. During this period 13

lions were also reintroduced into the Savé Valley Conservancy. After an initial lag phase the lion population on the Savé Valley Conservancy has increased dramatically and at present is growing exponentially (Figure 8; Groom and Watermeyer 2015).

Monitoring of the lion population began in 1999 (Pole 1999) with track index or call-up surveys being conducted sporadically until 2006. From 2007 to present, annual conservancy-wide track index surveys have been conducted using a standardized methodology (Groom and Watermeyer 2015). The resulting population estimates were verified in 2011 by a baited lion call-up survey and a collation of managers' estimates, all of which provided similar results.

Prey availability models (Hayward et al. 2007) suggest that the carrying capacity for the lion population in the Savé Valley Conservancy is approximately 271 lions. The population estimate for 2015 was 284 lions, suggesting lions have reached their ecological carrying capacity, even whilst being responsibly hunted.

A professional lion management plan was commissioned by the conservancy in 2011 (Funston 2011), to provide the Savé Valley Conservancy members with a science-based plan to help them ethically and sustainably manage their lion population. This plan specifically advocates the use of hunting as a conservation management tool. It also demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals.

Savé Valley Conservancy Lion Hunting

Lions have been hunted in the Savé Valley Conservancy since 2002, although that was largely for removal of problem animals. Hunting began properly in 2005 with quotas increasing annually to a maximum of seven per year from 2009 onwards (Table 5), with the quota being raised to ten for 2016 based on trophy ages.

Despite offtakes of lions through sport-hunting, the lion population has continued to increase in the Conservancy. The revenue generated from hunting lions has enabled landowners to invest in proper land management, anti-poaching, water provision and fence maintenance, all of which benefit the lion population (especially as lions seem to be vulnerable to being caught in wire snares; Becker et al 2013; R. Groom, pers. obs.).

Table 5: *The Savé Valley Conservancy annual lion hunting quota and offtake from 2002 to 2015.*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Approved quota	5	5	1	3	3	4	6	7	7	7	4	2	3	5
Quota taken	1	0	1	3	3	3	3	6	5	3	4	1	3	5
Percentage success	20	0	100	100	100	75	50	86	71	43	100	50	100	100

Sport-hunting of lions brings considerable revenue to the Conservancy, revenue that is vital for the continued functioning of the area for wildlife conservation. Without the costs of lions being offset by the income from sport-hunting, landowners cannot reasonably be expected to tolerate such high lion densities, and their numbers would have to be reduced significantly.

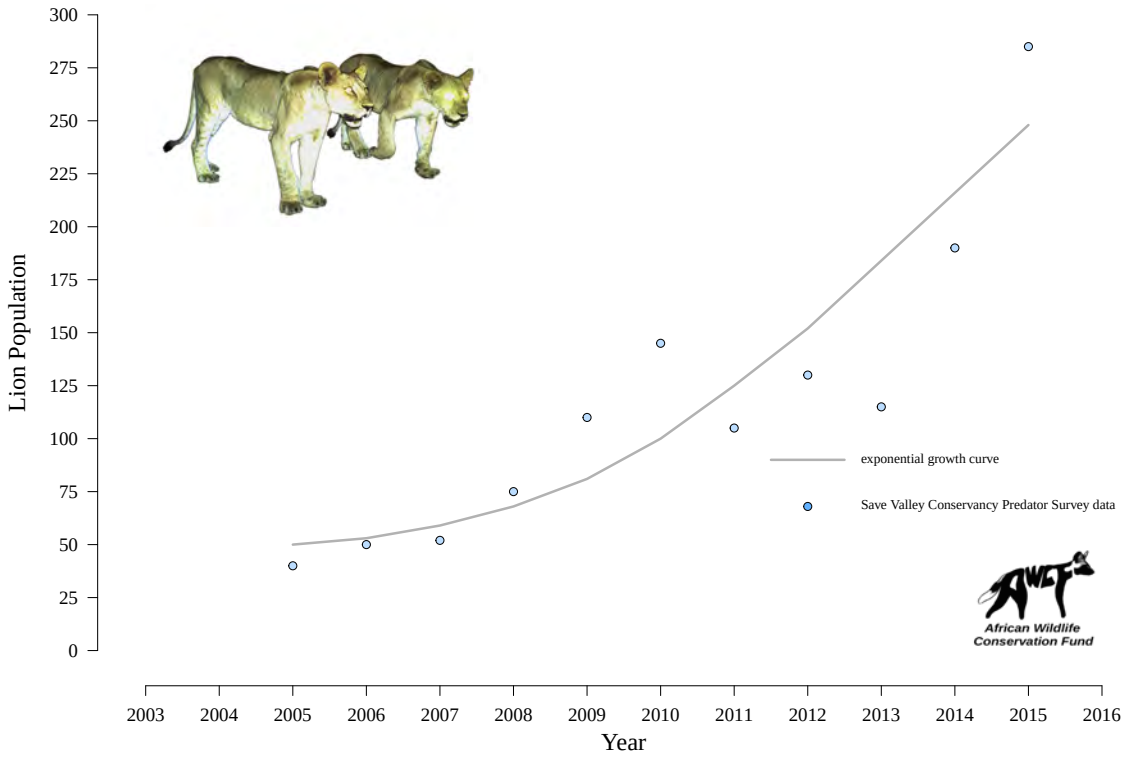


Figure 8: The Savé Valley Conservancy lion population, like that of the Bubye Valley Conservancy, has grown exponentially. Points indicate estimated lion abundance calculated from field surveys; the line represents the exponential growth curve.

The Pros and Cons of Conserving Lions

The saturation of lions in wildlife areas on both state and private land is positive for their future conservation security; but it is also critical to that of incidentally conserved endangered species, such as both species of rhinoceros on private wildlife conservancies in Zimbabwe (Lindsey et al. 2009; Suzuki 2001), which benefit from the same resources and protection that are incentivised and provided by the revenue generated from sport-hunting. The Bubye Valley Conservancy now boasts the world's third largest black rhinoceros population (N. Anderson [Lowveld Rhino Trust], pers. comm.), which is classified as Key 1 by the African Rhino Specialist Group and means that this population is considered key to the overall survival of the species. The Savé Valley Conservancy has the second largest black rhinoceros population in Zimbabwe after Bubye. These are not coincidences. These rhinoceros (and other endangered species, such as wild dog) strongholds are the result of the incidental conservation benefits derived entirely from sport-hunting activities - there are no photographic tourists visiting either the Bubye Valley or Savé Valley Conservancies, and the rhinoceros are not hunted. Having rhinoceros on the land therefore generates no revenue - and in fact there is a significant cost associated with protecting these animals; US$ 590,000 (not including incentive and reward bonuses donated for these purposes) was spent on anti-poaching by the Bubye Valley Conservancy during 2015 (K. Leathem, pers. comm.), and US$ 546,000 is spent annually on anti-poaching by the Savé Valley Conservancy (Lindsey et al. 2012). This expense is covered mainly by the revenue generated by sport-hunting with additional donations from the clients; and most importantly, the habitat for the rhinoceros is preserved by maintaining the land as a conservation area, as opposed to converting it into agricultural or grazing land for example.

However, the high densities of lion populations achieved within commercial wildlife areas have the potential for intense intraguild persecution. Lions are aggressively competitive, and research on the relationship between lions and leopards has shown that high densities of lions can negatively affect leopard population density, demographic structure, cub survival, and spatial ecology down to even the step-wise decisions that leopards make regarding habitat use and behaviour based on both the actual and potential risk of encountering lions (du Preez 2014; du Preez 2015). Leopards are a generalist species that are able to cope with persecution by adapting their behaviour and ecological niche, and even they suffer under a burgeoning lion population; ecological specialists and endangered species, such as cheetah *Acinonyx jubatus* and wild dog, do not fare nearly as well under such intense competitive pressure. In fact, competition with lions has been directly linked to reductions in cheetah (e.g. Durant 1998, 2000; Laurenson 1995) and wild dog (e.g. Creel 2001; Creel and Creel 1996; Vucetich and Creel 1999) densities, both of which face local extinction where lion abundance, and the respective level of persecution, is high. Excessive lion densities may also result in population declines of ungulate prey (e.g. Wegge et al. 2009). It is vital to holistic conservation that wildlife managers can understand and deal with the level of impact that lions exert on other species; particularly those that

are elusive difficult to observe, and which face decline if not carefully monitored. To this end, a conservation research initiative in partnership with WildCRU was established on the Bubye Valley Conservancy in 2009, and research conducted on the Savé Valley Conservancy since 2007.

Based on the number of kills made (du Preez et al. in prep.) and the current value of the meat (K. Leathem, pers. comm.), the Bubye Valley Conservancy lion population consumes hundreds of thousands of dollars worth of prey each year. These lions are mainly tolerated because of their ability to generate the revenue that helps to offset this expense - although it is estimated that economically it is still not worth keeping the lions whose cost outweighs their value (Funston et al. 2013).

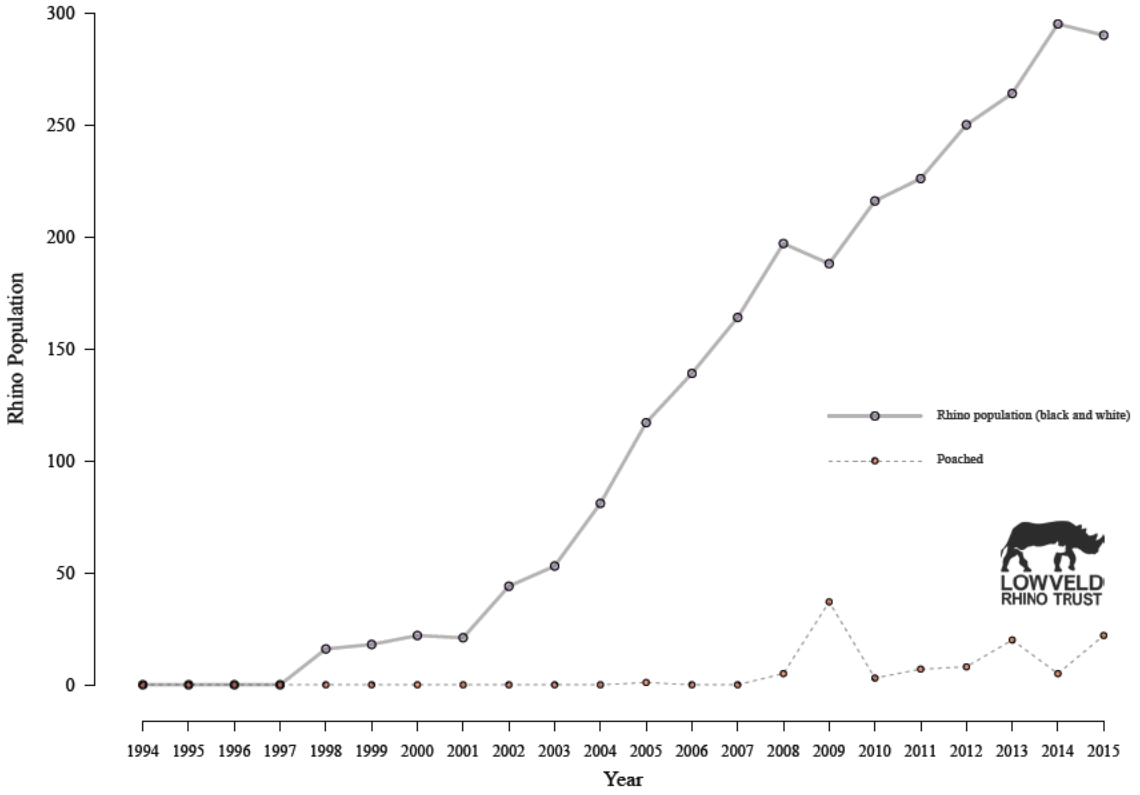


Figure 9: The Bubye Valley Conservancy black rhino population is rated as Key 1 by the African Rhino Specialist Group which means that the population is considered key to the overall survival of the species.

Where the Money Goes: The Finances of Lion Sport-Hunting and Reinvestment in their Conservation

Break-down of the finances involved in a typical lion hunt on the Bubye Valley Conservancy:

Lion Trophy fee: US$ 42,000
Lion Hunt Daily rate: US$ 2,950 day^{-1}
(Minimum lion hunt duration: 18 days [*total daily rate of US$ 53,100 lion hunt^{-1}*])

Additional costs include:
ZPWMA scout
Observers
Bait used
Other trophy species taken during the lion hunt, etc.
[*These additional costs average approximately US$ 6,500 lion hunt^{-1}*]

Bubye Valley Conservancy - Lion Sport-Hunting Revenue Generated (2015):

((18 days × 2,950 day^{-1}) + 42,000 trophy fee + 6,500 additional costs) × 12 lions
= **US$ 1,219,200**

Lion sport-hunting therefore represents approximately 33.9% of the Bubye Valley Conservancy's total annual revenue generation (which includes post-hunt meat and hide sales).

All of the revenue generated from lion sport-hunting on the Bubye Valley Conservancy has gone back into the running costs of the Conservancy, which is all part of conservation, and which includes: anti-poaching and fence monitoring and maintenance (approximately US$ 506,000 year^{-1}), research (approximately US$ 34,700 year^{-1} not including client and sponsor donations), and community support assistance (approximately US$ 210,000 year^{-1}).

[*No profit after costs has been declared, nor dividends taken by shareholders, since the Bubye Valley Conservancy was formed in 1994. All revenue generated to date has been spent on running costs, improvements and restocking.*]

Discussion

Here we have shown that since their reintroduction after historical eradication, both the Bubye Valley and Savé Valley Conservancies' lion populations have increased exponentially - not despite sport-hunting, but because of sport-hunting and the incentive it provides for protection.

The success of the Bubye Valley and Savé Valley Conservancies, in terms of both of their hunted lion and non-hunted rhinoceros populations, may also provide the motivation for other areas in the country to sustainably manage their wildlife resource. A case in point is the Nuanetsi Ranch, a wildlife area that is also a legacy of failed cattle ranching, located almost directly between the Bubye Valley and Savé Valley Conservancies in Zimbabwe (Figure 3). At present there is a single lion on the Nuanetsi Ranch but management is not able to justify introducing more due to the current uncertainty over the future of lion hunting (B. Lees-May [Nuanetsi Ranch Conservator], pers. comm.). The Nuanetsi Ranch is a wildlife area of 1,489 km^2, and could conceivably sustainably hold between 201 and 278 lions (based on the most recently estimated lion densities of the Savé Valley [0.135 lions km^{-2}; Groom and Watermeyer 2015]; and Bubye Valley [0.187 lions km^{-2}; du Preez et al. 2015] Conservancies respectively). However, the Nuanetsi Ranch has invested in building up an abundant wildlife population, which is sport-hunted, and the management will not risk losing a significant amount of valuable game, that could otherwise be sold as trophies or meat, to a species from which it can not recuperate lost revenue, and instead that requires further investment in control measures (B. Lees-May [Nuanetsi Ranch Conservator], pers. comm.).

Between 2005 and 2015 the United States market has represented 70.4% of the total Zimbabwean lion sport-hunting industry (http://trade.cites.org/en/cites_trade/ [accessed 2015-01-19]), though in reality it constituted over 90% for both the Bubye Valley and Savé Valley Conservancies. If this market was effectively lost due an inability of prospective clients to import their trophies, based on the economics involved it would become unviable to continue managing the Bubye Valley Conservancy as a wildlife area in its current form, and lions would either have to be re-exterminated, or at least severely reduced via culling; or else what is the largest privately owned wildlife area in the world would be converted back into a cattle ranching area (K. Leathem, pers. comm.). This is the reality of any business, in that it needs to cover costs and pay staff and cannot run at a loss for luxury of conservation. Child (1993) states "*A refusal to treat wildlife in the same way as other resources and maintenance of centralised protectionist management prejudices its survival. Only by raising its commercial value will wildlife be able to compete for space on the scarce African landscape. Trade bans which detract from wildlife's commercial value prejudice its chances of survival in the long term*".

Although the USFWS understandably categorises lion conservation by country for simplicity, rather than individual properties, the Bubye Valley and Savé Valley Conservancies currently and deservedly hunt more than a third of the total Zimbabwean lion quota between them. Here we have shown that this sport-hunting does not negatively affect the lion population, which remains in positive growth despite off-take. In addition

to this, other areas, such as the Nuanetsi Ranch, could be incentivised to invest in lion conservation if the ability to sustainably utilise the lions as a resource was guaranteed.

The USFWS identified five primary factors that threaten lion survival in the wild, namely: habitat loss; loss of prey; retaliatory killing due to increased human-lion conflicts; inadequate regulatory mechanisms; and weak management of protected areas (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). Each and every point on this list, which notably does not include sport-hunting, supports the fact that incentivising tolerance for lions through sustainable use would enhance the species' overall survival.

As responsible conservationists, we are not arguing against tight regulation of sport-hunting, especially with regard to sensitive species such as lions, and we support the need for transparency and accountability within the industry. However, this reform is a process being driven from within, as any indiscretion is an affront on all stakeholders. For example, long-term lion monitoring by WildCRU in Hwange National Park (HNP), Matabeleland North, Zimbabwe, documented a 'vacuum effect' and reduction in male lion density in the Park as a result of sport-hunting in the surrounding areas (Loveridge et al. 2007). A result of this research was the recommendation that ZPWMA implement a hunting moratorium in western Zimbabwe, which was accepted and enforced from 2005 to 2008 (Davidson 2009). Subsequent monitoring of the HNP lion population showed that the perturbation effects caused by sport-hunting were reversed during the moratorium, and sport-hunting was reinstated at a reduced, more sustainable quota (Davidson 2009). This example demonstrates both the relationship between independent researchers and ZP-WMA, and that the research assists ZP-WMA in robust decision making. This study has also shown that the lion population was able to recover quickly, and that a blanket-ban would have been as unnecessary as it would have been detrimental to overall lion conservation in the country.

In addition to the self-imposed hunting moratorium in the Matabeleland North district, Zimbabwe has voluntarily stopped sport-hunting of any lioness. The fixed-quota concept, in which hunting quotas had to be paid for upfront before the hunting season even began, and which was resultantly attributed to poor quality trophies and young animals being hunted, has also been abandoned. The adaptive quota management system for lion hunting based on the ages of lions hunted has been accepted and embraced by all stakeholders. This adaptive quota management system has not only led to a reduced national lion hunting quota, but has also resulted in a significant increase in the age of harvested lions to a level that is considered to have minimal ecological impact, being old individuals that are no longer contributing to the gene pool nor protecting cubs.

The IUCN Red List lion conservation status has remained unchanged for 20 years even in the face of Africa's ever-changing landscape. Despite fears that lion abundance is decreasing overall, in southern Africa it is in fact increasing (Bauer et al. 2015b).

Conclusion

Given the evidence presented, the arguments against sport-hunting would appear to be based more in emotion than logic and reality (e.g. Lindsey et al. 2015). Conservation, however, is not about individuals within populations, but the overall populations themselves. Sustainable sport-hunting of lions is just that: *sustainable* - and ironically, without it, the lions themselves become unsustainable. Conservation objectives need to be balanced with both social and economic factors if they are to be achieved.

The USFWS states "Well-managed conservation programs use trophy hunting revenues to sustain lion conservation, research and anti-poaching activitie" (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). The Bubye Valley and Savé Valley Conservancies both fully meet each one of these conditions: clearly contributing to lion conservation in Zimbabwe; having long-term conservation research programs; and self-funded anti-poaching units.

The histories regarding the formation of both the Bubye Valley and Savé Valley Conservancies were both presented in this report, despite being remarkably similar; the point being that lion conservation in both areas, and many others, has the same fate either way. The Bubye Valley and Savé Valley Conservancies are both excellent examples of focussed and determined efforts to make wildlife based land use viable in an otherwise cattle dominated landscape. However, the fact remains that the cost of having lions, both ecologically and financially, is high. Simply increasing the abundance of one species at the expense of another cannot be considered a conservation success.

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CHIEF, BRANCH OF PERMITS, DMA

Permittee:

STEVEN (b) (6) CHANCELLOR
(b) (6)
EVANSVILLE, IN (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

CONSERVATION FORCE

A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G. TEER, PH.D.
† BART O'GARA, PH.D.

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January 26, 2016

Mr. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

Dear Chief Van Norman:

RCVD JAN 28 2016

Enclosed please find four applications for permits authorizing the import of sport-hunted trophies of *P. l. melanochaita* from Zimbabwe. In evaluating these applications, please consider the information on lion conservation and management in Bubye Valley Conservancy, Save Valley Conservancy, and Zimbabwe on the whole already submitted by Conservation Force and others. An index of this information is attached to this letter.

The information submitted by Conservation Force demonstrates that the lion conservation and management program in Zimbabwe, and specifically in Bubye Valley and Save Valley Conservancies, enhances the survival of the species because it addresses the three main threats to lion: (1) loss of habitat, (2) loss of prey base, and (3) human-lion conflict, and more.

First, the information demonstrates that habitat would not otherwise exist for lion in Bubye Valley and Save Valley Conservancies but for the income generated by tourist safari hunting. Both conservancies rely on the income from tourist safari hunting to fund their operations. If hunting stopped, the 1.7 million acres of habitat protected in these conservancies are likely to be lost to the lion, rhino, and prey species.

Second, Bubye Valley and Save Valley Conservancies each engage in extensive anti-poaching operations that protect the lion's prey base. For example, in 2015, Bubye Valley Conservancy spent $590,000 on game scouts and anti-poaching. All of these funds were generated by tourist safari hunting.

Finally, the information shows the significant community assistance programs in place in each of these conservancies. Bubye Valley Conservancy and Save Valley Conservancy each contribute $100,000 annually to local communities in cash, services, game meat, and supplies. This support is used to build schools and clinics, maintain water infrastructure, assist with repairs and maintenance of equipment, fund school books and field trips, increase consumption of protein, and otherwise improve the quality of life for local residents. Because of these benefits, local people are more willing to tolerate lion, and human-lion conflicts are reduced.

We believe the information already in the Fish and Wildlife Service's possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. However, we will continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,

John J. Jackson, III on behalf of
Conservation Force

3240 S I-10 Service Rd. W, Suite 200, Metairie, Louisiana 70001-6911, USA
Telephone: (504) 837-1233 • Fax (504) 837-1145 • E-mail: jjj@conservationforce.org
www.conservationforce.org

Enclosures:

- Application submitted on behalf of Steven Chancellor for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of Kent Greenawalt for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of James Horrocks for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Application submitted on behalf of Jeffrey Smithers for a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Submitted

NEW INFORMATION ON THE AFRICAN LION

INDEX FOR: ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie (Mazunga Safaris), Email re: Community Assistance Program in BVC (Jan. 20, 2016)	1/26/16
5	Blondie (Mazunga Safaris), BVC – Spreadsheet, Community Assistance 2011 & 2012	1/26/16
6	Zig, Photos of BVC Community Assistance Program	1/26/176
7	ZPHGA, Info on Lion Age Restrictions (Jan. 20, 2016)	1/25/16 Louis M 1/26/16 Us
8	Dr. Byron du Preez et al., Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 22, 2016)	1/26/16
9	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

RCVD JAN 28 2016

LP

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Threatened listed
Zimbabwe lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Horrocks	James	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6) (home)	(b) (6) (mobile)		(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Highland	Utah	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter A, chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

(b) (6)

Signature (in blue ink) of applicant or person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 01/20/2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melanochaita (African Lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Zimbabwe - Bubye Valley Conservancy (850,000 acres), Beit Bridge District, Matabeleland South – GPS co-ords for Towla S21.26.478 , E 029.53.162. Nearest Town - Beit Bridge and nearest City - Bulawayo.

   b. Date wildlife is to be hunted:

      October 5th to 24th, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      Skin, skull, and claws for a life size mount

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Stephen Collett
Business Name:	Collett's Wildlife Artistry
Address:	15 Josiah Chinamano Ave.
Address:	Belmont
City:	Bulawayo
State/Province:	Matabeleland South
Country, Postal Code:	Zimbabwe, N/A

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ (b)(6) _____ Date: 01/20/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

   N/A

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

    ☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
    James (b) Horrocks, (b) (6) (hm), (b) (6) (work), (b) (6) (mobile), (b) (6)

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

    ☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: _____ (b) (6)

Name: James (b) (6) Horrocks

Date: 01/19/2016

9/-8e-1

[redacted] (b) (6)

[redacted] (b) (6)

HIGHLAND, [redacted]

Jan. 17, 2016
Date

Pay to the Order of U. S. Fish & Wildlife Service $ 150.00

one hundred fifty & 00/100 Dollars

Security Features Details on Back.

Bank of American Fork
PLEASANT GROVE OFFICE • 801.796.8079
290 EAST STATE • PLEASANT GROVE, UTAH 84062

Cindy Hancock MP

[redacted] (b) (6)

Hancock Center

Sport-Hunting and Lion *Panthera leo* Conservation in Zimbabwe

Dr Byron du Preez[†1], Dr Rosemary Groom[‡2], Olivia Mufute[§3] and Roseline Mandisodza-Chikerema[¶3]

[1]Bubye Valley Conservation Research Initiative
[2]African Wildlife Conservation Fund
[3]Zimbabwe Parks and Wildlife Management Authority

January 31, 2016



*
† byron.d.dupreez@gmail.com
‡ rosemary@africanwildlifeconservationfund.org
§ omufute@zimparks.co.zw
¶ mandisodzar@gmail.com

Contents

Summary of Steps Taken by Zimbabwe to Improve the Management of Lion Sport-Hunting **3**

Summary of Lion Sport-Hunting's Contribution to Conservation **3**

Introduction **3**

Lions – *Panthera leo* **5**

Conservation and Sport-Hunting **8**

Zimbabwe's Adaptive Lion Quota Management System **8**
Results of the Adaptive Lion Quota Management System 9
Human-Lion Conflict 11

The Bubye Valley Conservancy **12**
History of the Bubye Valley Conservancy 12
Bubye Valley Conservancy Community Support 12
Bubye Valley Conservancy Lion Monitoring and Management 13
Bubye Valley Conservancy Lion Hunting 13

The Savé Valley Conservancy **16**
History of the Savé Valley Conservancy 16
Savé Valley Conservancy Community Support and Anti-Poaching 17
Savé Valley Conservancy Lion Monitoring and Management 17
Savé Valley Conservancy Lion Hunting 18

The Pros and Cons of Conserving Lions **20**

**Where the Money Goes:
The Finances of Lion Sport-Hunting
and Reinvestment in their Conservation** **22**

Discussion **23**

Conclusion **25**

References **26**

Summary of Steps Taken by Zimbabwe to Improve the Management of Lion Sport-Hunting

i – Banning of all lioness hunting in Zimbabwe
ii – Hunting moratoria around the Gonarezhou and Hwange National Parks
iii – Removal of fixed hunting quotas
iv – Age restrictions on sport-hunted lions
v – Scientifically-based adaptive quota management system

Summary of Lion Sport-Hunting's Contribution to Conservation

i – Lion sport-hunting contributes 33.9% to 42.4% of total revenue on private land
ii – Lion sport-hunting generates up to US$ 557 km^{-2}
iii – Anti-poaching (in particular that of rhinoceroses) costs ∼US$ 216 km^{-2}

Introduction

The United States Fish and Wildlife Service (USFWS) have recently evaluated the conservation status of the lion *Panthera leo* with particular regard to sport-hunting (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). The results of this evaluation have led to the formal protection of two subspecies under the Endangered Species Act, classifying *P. l. leo* as endangered and *P. l. melanochaita* as threatened. Together these subspecies apparently represent all of the lions in Africa (Barnett et al. 2014).

Sport-hunting is a legal activity in which the international import/export of trophies is both sanctioned and carefully controlled by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The USFWS found that the sport-hunting of *P. l. melanochaita* "*if well managed, may provide a benefit to the subspecies*" (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). Here we explore this statement further, and present data from three long-term *in situ* lion research projects; the Bubye Valley Conservation Research Initiative, Savé Val-

ley Conservancy Research, and the Hwange Lion Research Project.

The data presented in this report clearly illustrates the positive conservation benefit that well-managed trophy hunting of lions can have for the species, as well as the importance of hunting in maintaining the wildlife in an area; addressing Point 5 on page 3 of the Federal Fish and Wildlife Permit Application Form (Form 3-200-20) [i.e. "*Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application*"].



Figure 1: The lions pictured here, known as Winston (*standing*) and Geronimo (*lying*), were both collared in March 2012 when they were the dominant males in the Matombosa area and have been continuously monitored ever since as part of the on-going long-term WildCRU Bubye Valley Conservation Research Initiative. In November 2015 Geronimo, who was approximately 9 years old, died after succumbing to injuries sustained from fighting with another male. Winston, also 9 years old, has since lost his dominant status, lost his territory to two 4.5 year old males, become nomadic and avoids contact with other males. As of this report being written, the recent litter of cubs that both Winston and Geronimo sired are still alive.

Most importantly, since July 2013 there has been a continuous self-imposed internal reform of the lion hunting industry in Zimbabwe that is actively participated in and supported by all of the relevant stakeholders, including; the Zimbabwe Parks and Wildlife Management Authority (ZPWMA), non-governmental organisations, professional hunters, safari operators, scientists and researchers.

Here we discuss the results of this process in terms of robust evidence regarding the sustainability and self-regulation of lion hunting in Zimbabwe.



Figure 2: Winston and Geronimo's cubs.

Lions – *Panthera leo*

The IUCN Red List have recently reclassified lions as Vulnerable (remaining as such since 1996; IUCN 2015), estimating that there are between 20,000 and 30,000 free-ranging lions left (Bauer et al. 2015a) in less than 25% of their historic range (IUCN 2006). However, this generalised classification does not take into account an apparent conservation dichotomy: sample subpopulations of lions in Botswana, Namibia, South Africa and Zimbabwe have in fact increased overall (Bauer et al. 2015a). Lions were historically present throughout Africa, some of Europe, the Middle East and Asia (Bauer and Van Der Merwe 2004), but current conservation strongholds remain only in parts of eastern

and southern Africa (Brassine and Parker 2012; Nowell and Jackson 1996). The current lion population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals [Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley Complex: 600], though the actual number would be larger if there were data available for the countries minor lion areas that are yet to be surveyed] (ZPWMA 2015).

The lion is a uniquely social felid, forming coalitions of up to nine males associated with one or more female prides that may consist of more than 20 individuals (Macdonald et al. 2010; Schaller 1972). Lions are infamously infanticidal (Schaller 1972), where males will kill unrelated cubs so as to bring the female into oestrus and present an opportunity to sire their own litter, which is often used as an argument against sport-hunting of the species (e.g. Packer et al. 2010), where it is feared that the removal of dominant males causes cub mortality that eventually results in lowered population recruitment and survival (Packer et al. 2009). Infanticide, however, does not result from sport-hunting when age-appropriate males, past their prime and no longer territorial or with dependent cubs, are harvested (Whitman et al. 2004). Moreover, the fission-fusion nature of lion society (Mosser and Packer 2009; Pusey and Packer 1987) means that infanticide may still occur when the dominant males are simply not present there and then to defend their cubs (B. du Preez, pers. obs.).

In the 1990's, lions were successfully reintroduced into private areas in parts of their former range, where they achieved high reproductive and survival rates (Miller and Funston 2014). However, the resultant population growth inevitably led to the potential problem of overabundance (Funston 2008) and low genetic diversity (Trinkel et al. 2010), with both of these issues requiring active and intensive management (Hunter et al. 2007) and ultimately reducing the conservation value of these lion populations (Miller and Funston 2014). The ability to translocate lions originally facilitated the relief of overpopulation, but as the available areas for relocations were used up, sport-hunting and euthanasia have subsequently become the main methods of lion population control (Miller and Funston 2014).

The lion is the apex predator wherever it occurs (Macdonald et al. 2010), and is an ideal conservation umbrella; being large, charismatic and easily observable (e.g. Williams et al. 2000). Lions are important to commercial wildlife ventures, which risk losing significant market share where they cannot offer them to clients (Lindsey et al. 2007), and are thus prioritised in conservation; exploiting their charisma to attract tourists and raise the funds required in ensuring that wildlife areas remain viable. The lion is also a particularly valuable species in the sport-hunting industry, rivalled only in demand by buffalo *Syncerus caffer* and leopard *Panthera pardus* (Creel and Creel 1997), and are therefore prevalent in private wildlife areas (Packer et al. 2013) where their populations can achieve exponential growth rates given the protection and resources afforded by well-managed operations (Smuts et al. 1978; Loveridge et al. 2007b; Kettles and Slotow 2009; Miller and Funston 2014).

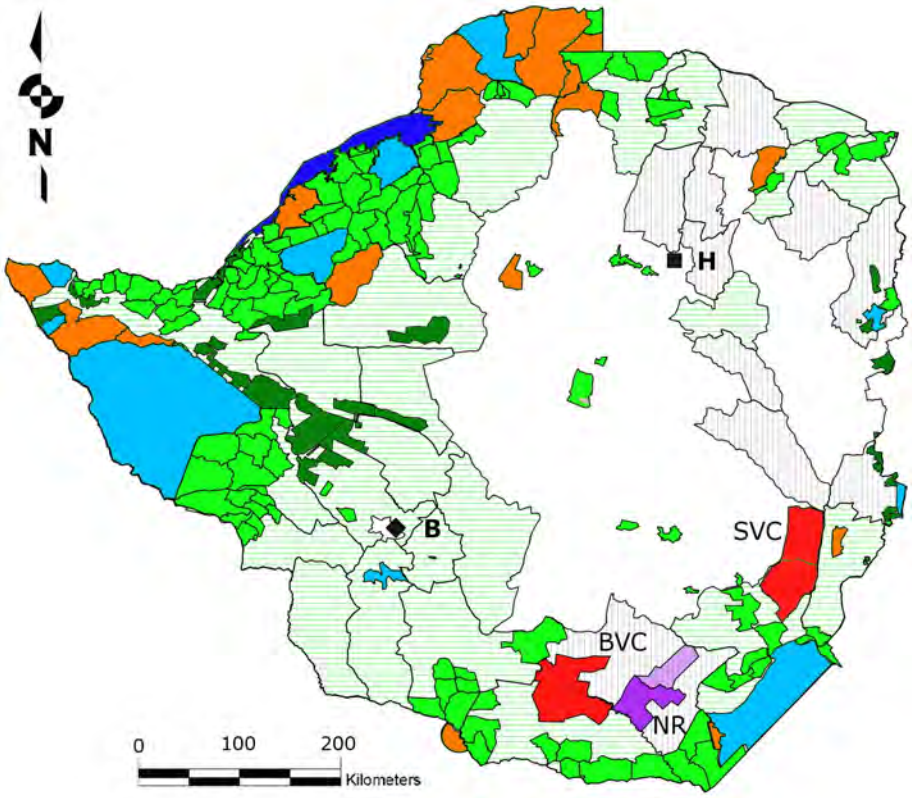

Figure 3: Map of Zimbabwe's main wildlife areas: [*i*] National Parks are represented in light blue; [*ii*] Safari areas are represented in orange; [*iii*] Forestry areas are represented in dark green; [*iv*] Community and Private wildlife areas are represented in light green; [*v*] Communal Land (CAMPFIRE Areas) in which sport-hunting may occur is represented by light green horizontal stripes; [*vi*] Communal Land in which sport-hunting does not occur is represented by grey vertical stripes. [*vii*] The Bubye Valley [BVC] and Savé Valley [SVC] Conservancies are represented in red. [*viii*]The Nuanetsi Ranch [NR] on which sport-hunting takes place is represented in dark purple (light purple represents the Nuanetsi Ranch cattle area); [*ix*] Lake Kariba is represented in dark blue. Harare (the capital city) is represented by a black square and letter '**H**'. Bulawayo is represented by a black diamond and letter '**B**'. Sport-hunting may occur in areas: *ii*, *iii*, *iv*, *v*, *vii* & *viii*

The ability of lions to rapidly increase in abundance is an aspect of their ecology that is often overlooked. Lion populations can achieve exponential growth rates (Miller and Funston 2015; Groom and Watermeyer 2015; du Preez et al. in prep.), and the problems associated with high lion densities fast present themselves and require significant investment in their solution (Hunter et al. 2007; Kettles and Slotow 2009; Loveridge et al. 2007; Packer et al. 2013; Smuts 1978). Whilst unregulated sport-hunting of lions (in particular that of dominant males and pride females) may result in population declines (e.g. Packer et al. 2010; Packer et al. 2009), restricting offtake to only males over

a certain age (i.e. have already bred and/or are no longer dominant) has no impact on lion population persistence, irrespective of quota size (Whitman et al. 2004). Such is the situation currently facing both the Bubye Valley and Savé Valley Conservancies, where the lion populations continue to grow despite sport-hunting and increasing quotas. Whilst sport-hunting may not alleviate over-population in these areas, it does somewhat offset the cost of keeping lions. Culling of lions may be the only realistic option for controlling numbers in larger areas, as the use of contraceptives is likely to be inefficient and expensive. Because of fears about public sentiment associated with sport-hunting, it has now become common practice for managers to cull excess lions in more than 45 wildlife areas in South Africa to which lions have been introduced, and which resulted in the wasteful destruction of about 200 lions in 2012 (Miller and Funston 2014).

Conservation and Sport-Hunting

There is more land area in Africa conserved for hunting than there is in all of Africa's formally protected areas combined: approximately 1.4 million km^2, which exceeds the total area covered by national parks by 22% (Lindsey et al. 2007). For wildlife conservation to be successful outside of national parks, these areas must be self-sufficient and able to generate sufficient revenue to cover the considerable costs of protecting the habitat and wildlife therein (Lindsey et al. 2006). Indeed, conservation would benefit from an incentive to utilise land for wildlife rather than the alternatives of livestock grazing, agriculture, and deforestation.

The international trade of lions, including trophies, is controlled by a strict CITES licensing system on the basis that this trade does not endanger the ultimate survival of the population (https://www.cites.org/eng/disc/how.php [accessed 2015-01-19]). The positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-take; neither of which generally jeopardise populations, and also suggest that hunting could play a role in population recovery (Leader-Williams et al. 2005).

The recommendation of setting uniform harvest limits, e.g. 1 lion 2,000 km^{-2} (Lindsey et al. 2012; Packer et al. 2010), may be overly simplistic, affect the economics of wildlife based landscape use, and disincentivise investment in conservation (Lindsey et al. 2007). A more practical approach to sustainably setting realistic lion sport-hunting quotas could involve using a positive/negative feedback method that calculates a fluid quota per area based on the previous season's performance. Such an adaptive quota management system has already been implemented in Zimbabwe.

Zimbabwe's Adaptive Lion Quota Management System

An adaptive quota management system for lion hunting based on the ages of lions hunted was agreed on in July 2013 in Harare, Zimbabwe, during a meeting hosted by the Zimbabwe Parks and Wildlife Management Authority (ZPWMA) and an independent non-governmental conservation organisation. The points system is summarised in Table 1.

Table 1: *Points allocated to hunting blocks arising from the harvest of lions of different ages*

	≥ 6 years	No trophy	5 years old	4 years old	< 4 years	Failure to submit return, or incomplete return
For quotas of ≥3	4	3	3	2	-3	0
For quotas of 2	4	3	3	2	0	0
For quotas of 1	6	3	3	2	0	0
Resultant quota	*These points are added up and divided by 3 to yield the quota for next year*					

During 2013, operators were requested to submit hunt returns and photos as a trial run to get the system up and running. In 2014 operators were requested to do the same but were informed that the age of the lions hunted in 2014 would determine their lion quotas in 2015. The 2015 lion hunt results would thus also determine the 2016 quota.

Results of the Adaptive Lion Quota Management System

In 2015 there was a marked increase in the age of lions hunted in Zimbabwe as a whole. Notably, only one lion of <4 years of age was hunted and the large majority of lions were 5 years or older (Figure 4). In 2013, only 28% of the lions hunted were 5 years or older, in 2014 that figure had risen to 49% and in 2015 to 77.3% (Figure 5). The proportion of lions hunted that were less that 5 years of age dropped overall between 2013 and 2015 (Figure 6). For this achievement, credit is due to the hunting community for showing greater selectivity of harvest. A word of caution however, is that the majority of lions hunted were on the cusp of 5 - 6 years of age and were not older than six years. Restricting hunting to individuals that are at least six (and preferably older) is desirable from a biological perspective due to the reduced risk of the loss of pride males and infanticide of cubs associated with the harvest of such individuals (Whitman et al. 2004).

In 2015 the Zimbabwe national lion hunting quota was set at 85 lions. Of this 85, only 39 were hunted in 2015, and based on the resultant score from aging the trophies, and the fact that operators chose not to hunt lions of inadequate age (see Figures 4, 5 & 6), the recommended quota for 2016 was set at 75 [Harare 2015-11-11]. (The Rural District Council areas in which lions occur are currently exempted from the age restrictions, as was agreed upon at the 2013 lion management meeting in Harare, as a means of ensuring that impoverished communities obtain the opportunity to benefit from the presence of lions, recognising the potential negative impacts the species has on the livelihoods of livestock farmers).

Using these figures and estimating the average value of a lion safari at approximately US$ 80,000 then a 50% offtake (35 lions) would generate US$ 2,800,000 annually. If management costs are approximately \$150 km^{-2} (V. Booth, pers. comm.), then the lion safaris alone can support 18,600 km^{-2} of wildlife habitat in Zimbabwe.

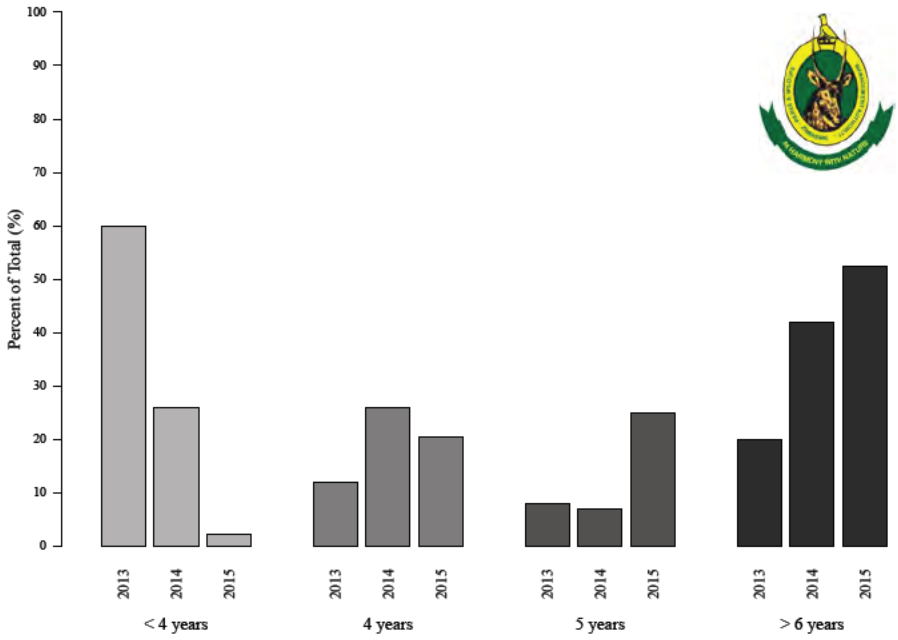

Figure 4: The percentage of lions hunted in each age class in 2013, 2014 and 2015 in Zimbabwe.

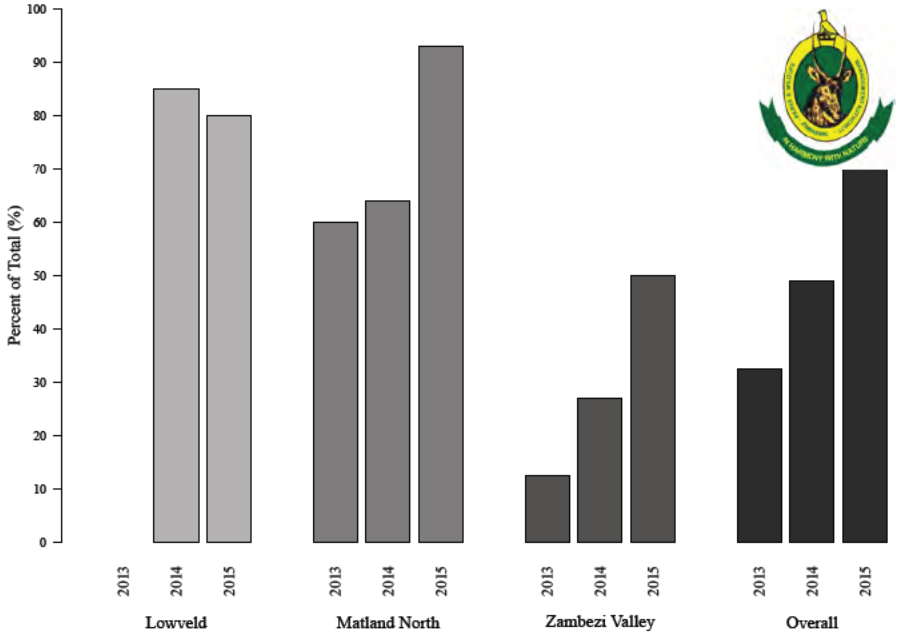

Figure 5: The proportion of lions hunted that were 5 years or older in the three main lion-hunting areas of Zimbabwe.

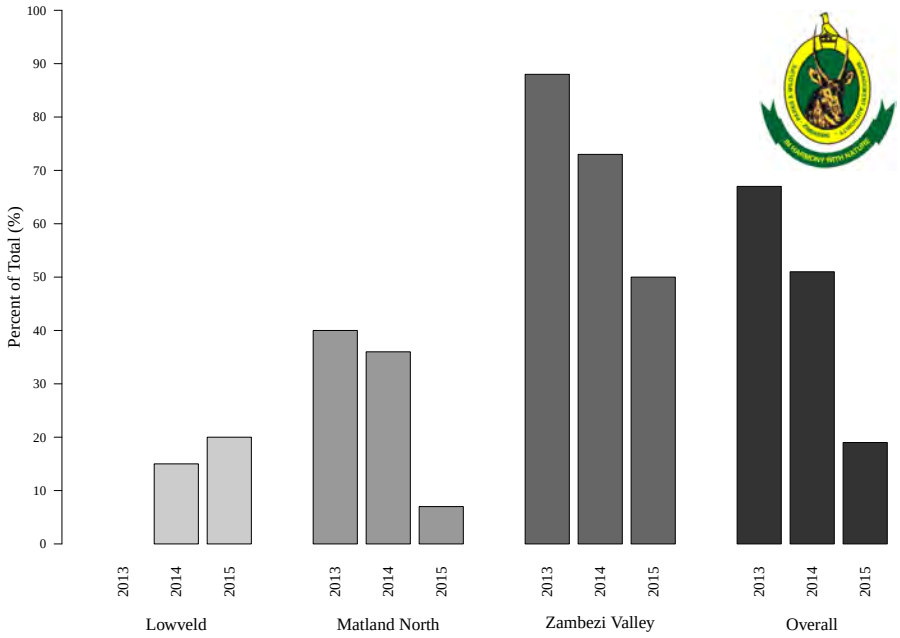

Figure 6: The proportion of lions hunted that were less than 5 years of age in the three main lion-hunting areas of Zimbabwe.

Table 2: *Human and Lion Conflict (2009 - 2011) in Zimbabwe, including human mortality caused by lion (CAMPFIRE Association, 2012)*

District	Total incidents	Livestock killed	*People Injured*	*People Killed*
Hurungwe	5	1	*2*	*2*
Chiredzi	25	136	*0*	*0*
Mbire	5	7	*0*	*5*
Binga	9	39	*0*	*0*
Total	**44**	**183**	***2***	***7***

Human-Lion Conflict

The lion is a flagship species and powerful symbol of Africa; yet living with lions poses hardships for many communities (e.g. Table 2). In some areas, the lion is a major predator on domestic livestock, inevitably leading to conflicts with local herders. Both sides suffer in this situation.

Outside of protected areas, the lion's prey base is much reduced, which results in relatively greater chance of encountering livestock. Co-existence of lions with people may be enhanced by giving value to lions through tourism and hunting promoted in communal lands under the Communal Area Management Programme for Indigenous Resources (CAMPFIRE). This hunting contributes to the conservation of lions via the financial revenue generated, which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs.

The Bubye Valley Conservancy

History of the Bubye Valley Conservancy

Towards the end of the nineteenth century, the Liebig's Extract of Meat Company (LEMCO) founded an extensive cattle ranch in the Zimbabwean lowveld, to the detriment of the indigenous wildlife that was initially eliminated because of competition for grazing with the livestock, as well as a risk of disease transmission from buffalo and wildebeest *Connochaetes taurinus*. As their natural prey base became depleted, the predators were subsequently persecuted when they began to prey on the livestock. Some wildlife persisted in small pockets of remote habitat, however lion, elephant *Loxodonta africana*, buffalo and rhinoceros *Diceros bicornis* [black] & *Ceratotherium simum* [white] were all completely eradicated. A monoculture of cattle dominated the landscape and impacted on the environment for the better part of a century.

Then, in 1992, Zimbabwe suffered one of the worst droughts on record, a relatively short time after the devastating one of 1983 that LEMCO was still trying to recover from. The frequency and severity of the droughts effectively reduced confidence in the economic viability of cattle ranching in the area, and the Bubye Valley Conservancy was subsequently founded in 1994 with the realisation that endemic wildlife, which are better adapted than livestock to cope with the local climate, could be successfully commercialised (Child 1988; Bond 1993).

The conversion from cattle ranching back to a wildlife area was neither straightforward nor cheap, requiring a significant initial investment and annual running costs. In just 20 years of operation the Bubye Valley Conservancy now protects the world's third largest black rhinoceros population, one of Zimbabwe's largest lion populations, a large and increasing elephant population, and abundant game.

Sport-hunting is an essential step in converting areas that were previously dedicated to livestock farming into non-consumptive tourism areas (Child 1993), and was fundamental to the formation of Bubye Valley Conservancy and allowing the wildlife populations to recover. The Samanyanga area of the Bubye Valley Conservancy, probably the most scenic section, was originally set aside for non-consumptive photographic tourism, but made an annual loss for several years, before, largely due to Zimbabwe's land reform program and resultant instability in the country, it was reverted back to sport-hunting as the only practical and economically viable option (K. Leathem, pers. comm.). Sustainable sport-hunting provides the sole economic incentive to continue operating the Bubye Valley Conservancy as a wildlife conservation area.

Bubye Valley Conservancy Community Support

The Bubye Valley Conservancy donates over 45 tonnes of meat from sport-hunting to the local communities each year. This meat donation is worth over US$ 100,000 per year, and the communities are free to decide how they use it. In addition to this, the Conservancy also supports several schools, clinics, and community projects in the three surrounding districts of Mwenezi, Maranda and Jopempe. The local community thus

sees a direct benefit from the wildlife on the Bubye Valley Conservancy, but is also empowered by job opportunities created both with these special projects, as well as on the Conservancy. A summary of the Bubye Valley Conservancy community support effort between 2011 and 2015 is provided in Table 4.

Bubye Valley Conservancy Lion Monitoring and Management

After originally being eradicated by cattle ranchers in the area, 13 lions were reintroduced to the Bubye Valley Conservancy in 1999, and four young males broke into the Conservancy that same year. From the original 17 animals present in 1999, the Bubye Valley Conservancy lion population was estimated at approximately 280 individuals in 2009 when robust population surveys were initiated by a research team from the University of Oxford Wildlife Conservation Research Unit (WildCRU), and this population has continued to grow. Today it is estimated that there are over 500 lions on the Bubye Valley Conservancy (du Preez et al. 2015). The exponentially increasing Bubye Valley Conservancy lion population currently exists at one of the highest densities in Africa (∼0.187 lions km^{-2}: du Preez et al. 2015; Figure 7), greater than that of the Serengeti, Tanzania (0.100 lions km^{-2}: Pusey and Packer 1987; Spong 2002), Selous, Tanzania (0.080 - 0.130 lions km^{-2}: Creel and Creel 1996, 1997), Kruger National Park, South Africa (0.096 - 0.112 lions km^{-2}: Mills 1995), and Hwange National Park, Zimbabwe (0.027 lions km^{-2}: Loveridge et al. 2007). This equates to one of the largest contiguous lion populations in Zimbabwe.

Bubye Valley Conservancy Lion Hunting

The Bubye Valley Conservancy offsets the cost of lion predation on its wildlife via sport-hunting of the species, and which began in 2002. In 2014, the lion hunting quota allocated to the Bubye Valley Conservancy by ZPWMA was 10 individuals. Based on the fact that the entire quota was harvested and that maximum points were scored for each individual trophy (more than six years in age), the allocated quota was raised to 13 lions for 2015. Only 12 out of 13 lions were hunted in 2015 due to a late cancellation; nevertheless eight lions over six years old and four lions of five years old were harvested and the resultant points justifying a quota of 15 lions for 2016.

Table 3: *The Bubye Valley Conservancy annual lion hunting quota and offtake from 2002 to 2015.*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Approved quota	1	2	3	2	2	2	3	3	5	8	12	10	10	13
Quota taken	1	2	3	2	2	2	2	3	5	8	12	10	10	12
Percentage success	100	100	100	100	100	100	67	100	100	100	100	100	100	92

Note that while the lion hunting quota for Zimbabwe has been voluntarily reduced by the national steering committee, the Bubye Valley Conservancy lion hunting quota has been successively raised twice based on both hunt success and age of lions hunted and the resultant points scored under the national adaptive quota management system (Table 3).

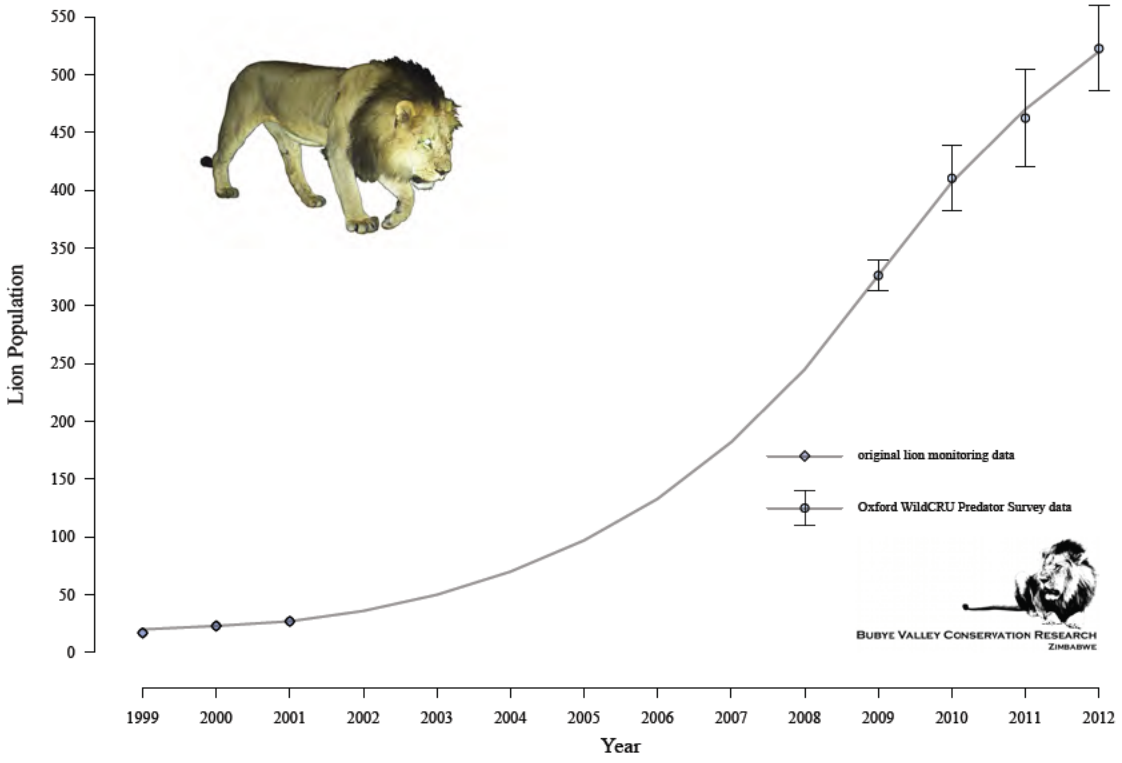

Figure 7: The Bubye Valley Conservancy lion population has grown exponentially since the reintroduction of lions in 1999. Diamonds represent the known lion abundance from monitoring of the original individuals introduced; Points indicate lion abundance calculated from spoor transect analyses; error bars represent the standard error of the mean.

Table 4: *Summary of the Bubye Valley Conservancy support to the surrounding local communities (2011 - 2015)*

Boreholes:	- 1 x Jompembi Village 2 - 1 x Penemene - 1 x Jompembi Village 4 - 1 x Nyimani village (Mwenezi) - 1 x Driehoek School - 1 x Mgaladhivha School - 2 x Mtetengwe to supply water to the clinic site - 2 new bush pumps (complete) purchased and installed at Village 2 & Village 3 and troughs built at both sites *Drinking trough for cattle built at Village 2 borehole* *All boreholes equiped with new bushpumps, piping and cylinders* *Boreholes at Village 3, Mtetengwe, Mdzwiti, Vumani and Penemene and Makado Police post repaired and maintained* *All new piping and pumps etc. are supplied by BVC*
Buildings:	- Mtetengwe Clinic's main building built - 3 x F13 staff houses built *Clinic and House fenced - everything funded and built by BVC* *The clinic is a standard large Government clinic - male & female wards + maternity ward and outpatients* *Storerooms, offices etc. also built* *All houses and buildings are electrified, painted and supplied with running water* - Mtetengwe School school office block and staff room built and painted *All classroom windows repaired and the schools second borehole repaired.* - Secure engine house was built at the second borehole site - Borehole equipped with BH15S mono pump unit driven by a rebuilt Lister LT 1 engine - 5000 litre header tank and stand errected - new 5000 litre header tank purchased and fitted - pipeline laid to connect the borehole to the clinic - another pipeline connected to the same borehole to supply the Mtetengwe school with fresh water - New coldroom and refrigeration unit purchased and fitted at the Lutumba butchery *Part of aid program to get the Beit Bridge RDC self funding projects up and running* - New coldroom and refrigeration unit was purchased and fitted at the Rutenga butchery *Part of aid program to get the Mwenezi RDC self funding projects up and running*
Meat Donations:	- BVC donates meat on a regularly basis to the Mwenezi Orphange - Numerous donations of meat were made to support school sports days & speech nights/prize giving events *Both Beit Bridge & Mwenezi districts* - 1600 kgs of meat has been donated each month since July 2011 to a Maranda trust *Administered by Chiefs andlocal headmen* *Excess meat sold and funds used for community projects* *Classroom roof replaced at Vhongwe school* *4 new classroom blocks constructed at other schools using funds from these monthly allocations* - 1000 kgs of meat per month is been donated to Beit Bridge communities since April 2014 - 1000 kgs of meat per month is been donated to Mwenezi communities since August 2013
Miscellaneous:	- Sports uniforms for the Penemene school team purchased ($2600) *Sports uniforms required for inter-schools sports* - Transport the soccor teams representing Mgaladivha, Jompembi and Tongwe *To Lutumba for the inter-school competitions* - 2 sets of soccer goal posts & 2 sets of Netball poles were made for Mgaladivha School *New soccer field graded by BVC* - 2m security fencing supplied to Penemene School - Second hand door and window frames donated to Mapiri school (ex Mazunga School) - 1 new 3 1/2 " rod pump cylinder was purchased and fitted to the Vumhani borehole *All repairs to b/holes in the Vumhani area are done by BVC* - 26 bags of cement were donated to Mgaladivha School - Fencing donated to the Mgaladivha School - Supplied 10 x 5/8" mono shafts for the Botalele Clinic (Maranda) borehole - Water supply to Mlelezi Clinic - 400 m pipeline laid to supply the Nyimani Villarge's cattle with water *3.5 m drinking trough build for this same project* - 60 bags cement donated to the Welkom for repairs to a dam wall - 6 loads of riversand and 20 cement donated to Vumani Preschool - Various school renovations in both the Beit Bridge and Maranda areas
Current Projects:	- Construction of a School admin block at Mgaladhivha School - Supply of 24 loads of riversand to Mdzwiti School (value $1200) - All roofing materials supplied to Mdzwiti School - Supply roofing materials, cement, all window and door frames for Vumani Preschool

The Savé Valley Conservancy

History of the Savé Valley Conservancy

The Savé Valley was a wildlife-rich wilderness until the early 1900's, when the first cattle ranching initiatives started in the area. The establishment of Devuli Ranch and Angus Ranch in 1920 paved the way for seven decades of commercial cattle ranching in the area we know today as the Savé Valley Conservancy. Roads were cut, fences erected and an everlasting 'battle' ensued against the wildlife, especially against all predators.

The large predators, especially lions, were virtually eradicated (Pole 1999). However, by the late 1980's, declining range productivity, depressions and droughts forced the landowners to consider alternative options. Around that time, empirical evidence of the competitive advantage of wildlife over livestock began to emerge (Child 1988; Bond 1993), especially in arid areas (Jansen et al 1992; Cumming 1993), and wildlife was finally given serious consideration as a viable land use option.

In 1989, a proposal was drawn up (du Toit 1989) to turn what was then the Sabi Valley Intensive Conservation Area into a wildlife conservancy. The plan was to create a single large wildlife area, especially for the re-establishment of endangered species and overexploited species, with cattle remaining the primary income generator. The Savé Valley Conservancy was constitutionally inaugurated in June 1991, and following the severe 1991/1992 drought, wildlife ranching became the primary land-use. At the time this was the largest private wildlife conservancy in the world (3,410 km^2).

The conservancy members then restocked the wildlife, removed all internal fencing, erected a common perimeter fence and developed effective security systems. A double, electrified, veterinary-approved fence was completed in 1995, and the following decade saw a massive investment in wildlife re-stocking and security systems.

Sport-hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhinoceros now found there. Gradually, some of the ranchers shifted more into ecotourism. One property, Senuko Ranch, completed a 16 bed up-market lodge with a view of marketing non-consumptive safaris, offering game drives and bush walks and specializing in rhino walks and African wild dog *Lycaon pictus* den visits. Lodge occupancy rose from 0% in 1996 to 62% by the end of 1999.

However, the Zimbabwean land reform program, which was initiated in February 2000, soon made a strong negative impression in the international community, and resulted in travel bans and warning from most of Zimbabwe's source markets. This, together with the political instability meant that the wildlife industry and ecotourism industry collapsed over-night: sport-hunting became the only economically viable land use option, and has remained the only tangible source of income to the landowners of the Savé Valley Conservancy. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancellation of

the confirmed bookings. After four years of seeking alternative markets, the lodge could achieve no higher than 17% occupancy, and in 2005 moved back into a hunting-based operation.

A more direct impact of the land reform program for the Savé Valley Conservancy was the loss of 33% of the area of the conservancy to invading subsistence farmers (Lindsey et al 2008). The loss of land was catastrophic and the related pressure from wire snare poaching was extreme. In the following eight years (2001 to 2009), 10,520 illegal hunting incidences were recorded, 84,396 wire snares were removed and at least 6,454 wild animals killed (Lindsey et al. 2011).

Savé Valley Conservancy Community Support and Anti-Poaching

In 2012, conservancy members provided over US$ 100,000 worth of support to adjacent villages or farmers in the resettled areas. Assistance included drilling boreholes, maintaining boreholes, dredging of dams, assisting with building projects in clinics and schools, assisting with repairs, maintenance and materials at schools, education initiatives, school field trips, provision of computer equipment in schools, craft programs and regular donations of meat.

Moreover, the conservancy recently entered into a mutually dependent agreement with the Chiefs representing the communities surrounding the Savé Valley Conservancy. The agreement links the communities to the Natural Resource Utilisation that occurs through the business operation of the conservancy and opens up opportunities for the local indigenous populations to share in any wealth creation. This agreement strengthens relations between the conservancy and the surrounding local communities and creates an environment that helps to protect, conserve and sustain the natural assets of the area. The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from trophy lion hunting constitute a significant portion of inflow and thus an important part of the community benefits. Any reduction would seriously jeopardise the growth of this infant positive relationship and community empowerment initiative.

The Savé Valley Conservancy is thus pioneering private-community partnerships in Zimbabwe, and trade restrictions on lion trophies will indirectly adversely affect these already seriously impoverished communities through a reduction in available income to share with communities. This is very likely to have a knock on impact on the lions themselves with a significantly reduced tolerance and an increase in retaliatory poisoning of lions for livestock predation. Without a demonstration of income from lions, the political pressure from the surrounding communities to remove them from the conservancy altogether will be a challenge to resist.

Savé Valley Conservancy Lion Monitoring and Management

After the Conservancy was formed, and persecution stopped, lions, mainly males, recolonized the area and their numbers started to increase in the late 1990's / early 2000's. Few lionesses were observed until 2003, when small family groups and male-female pairs were seen, and by 2004 - 2005 there were some reports of cubs. During this period 13

lions were also reintroduced into the Savé Valley Conservancy. After an initial lag phase the lion population on the Savé Valley Conservancy has increased dramatically and at present is growing exponentially (Figure 8; Groom and Watermeyer 2015).

Monitoring of the lion population began in 1999 (Pole 1999) with track index or call-up surveys being conducted sporadically until 2006. From 2007 to present, annual conservancy-wide track index surveys have been conducted using a standardized methodology (Groom and Watermeyer 2015). The resulting population estimates were verified in 2011 by a baited lion call-up survey and a collation of managers' estimates, all of which provided similar results.

Prey availability models (Hayward et al. 2007) suggest that the carrying capacity for the lion population in the Savé Valley Conservancy is approximately 271 lions. The population estimate for 2015 was 284 lions, suggesting lions have reached their ecological carrying capacity, even whilst being responsibly hunted.

A professional lion management plan was commissioned by the conservancy in 2011 (Funston 2011), to provide the Savé Valley Conservancy members with a science-based plan to help them ethically and sustainably manage their lion population. This plan specifically advocates the use of hunting as a conservation management tool. It also demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals.

Savé Valley Conservancy Lion Hunting

Lions have been hunted in the Savé Valley Conservancy since 2002, although that was largely for removal of problem animals. Hunting began properly in 2005 with quotas increasing annually to a maximum of seven per year from 2009 onwards (Table 5), with the quota being raised to ten for 2016 based on trophy ages.

Despite offtakes of lions through sport-hunting, the lion population has continued to increase in the Conservancy. The revenue generated from hunting lions has enabled landowners to invest in proper land management, anti-poaching, water provision and fence maintenance, all of which benefit the lion population (especially as lions seem to be vulnerable to being caught in wire snares; Becker et al 2013; R. Groom, pers. obs.).

Table 5: *The Savé Valley Conservancy annual lion hunting quota and offtake from 2002 to 2015.*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Approved quota	5	5	1	3	3	4	6	7	7	7	4	2	3	5
Quota taken	1	0	1	3	3	3	3	6	5	3	4	1	3	5
Percentage success	20	0	100	100	100	75	50	86	71	43	100	50	100	100

Sport-hunting of lions brings considerable revenue to the Conservancy, revenue that is vital for the continued functioning of the area for wildlife conservation. Without the costs of lions being offset by the income from sport-hunting, landowners cannot reasonably be expected to tolerate such high lion densities, and their numbers would have to be reduced significantly.

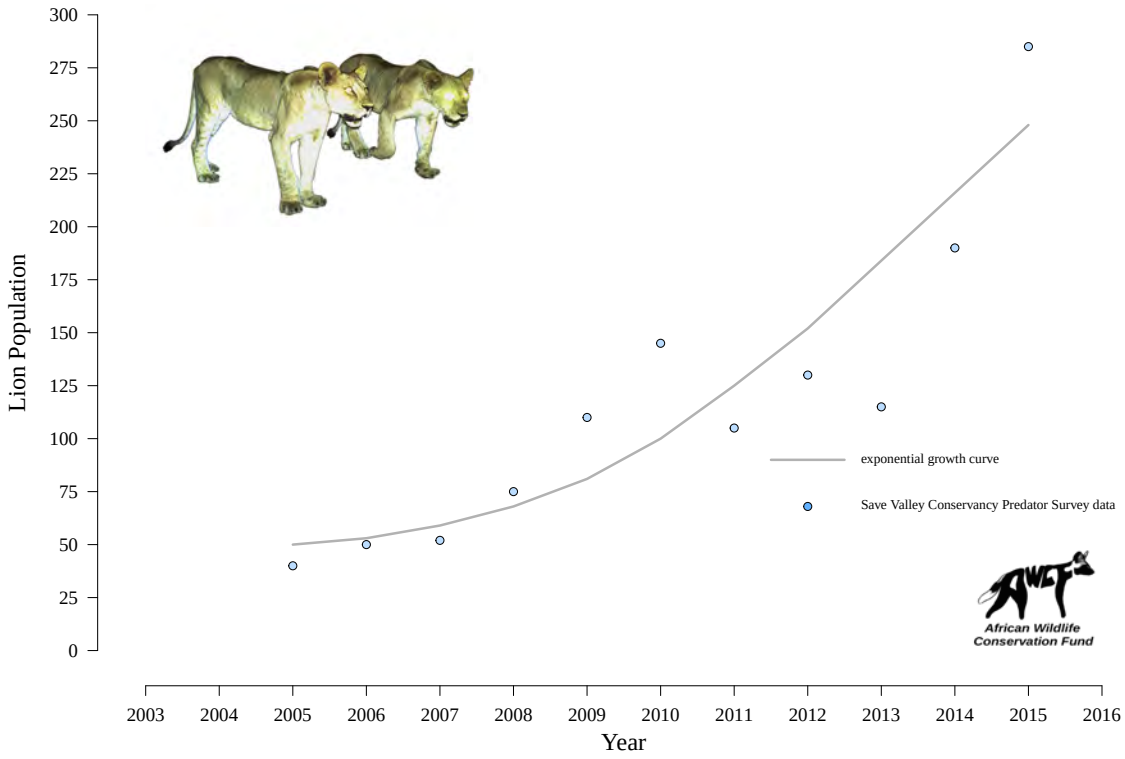

Figure 8: The Savé Valley Conservancy lion population, like that of the Bubye Valley Conservancy, has grown exponentially. Points indicate estimated lion abundance calculated from field surveys; the line represents the exponential growth curve.

The Pros and Cons of Conserving Lions

The saturation of lions in wildlife areas on both state and private land is positive for their future conservation security; but it is also critical to that of incidentally conserved endangered species, such as both species of rhinoceros on private wildlife conservancies in Zimbabwe (Lindsey et al. 2009; Suzuki 2001), which benefit from the same resources and protection that are incentivised and provided by the revenue generated from sport-hunting. The Bubye Valley Conservancy now boasts the world's third largest black rhinoceros population (N. Anderson [Lowveld Rhino Trust], pers. comm.), which is classified as Key 1 by the African Rhino Specialist Group and means that this population is considered key to the overall survival of the species. The Savé Valley Conservancy has the second largest black rhinoceros population in Zimbabwe after Bubye. These are not coincidences. These rhinoceros (and other endangered species, such as wild dog) strongholds are the result of the incidental conservation benefits derived entirely from sport-hunting activities - there are no photographic tourists visiting either the Bubye Valley or Savé Valley Conservancies, and the rhinoceros are not hunted. Having rhinoceros on the land therefore generates no revenue - and in fact there is a significant cost associated with protecting these animals; US$ 590,000 (not including incentive and reward bonuses donated for these purposes) was spent on anti-poaching by the Bubye Valley Conservancy during 2015 (K. Leathem, pers. comm.), and US$ 546,000 is spent annually on anti-poaching by the Savé Valley Conservancy (Lindsey et al. 2012). This expense is covered mainly by the revenue generated by sport-hunting with additional donations from the clients; and most importantly, the habitat for the rhinoceros is preserved by maintaining the land as a conservation area, as opposed to converting it into agricultural or grazing land for example.

However, the high densities of lion populations achieved within commercial wildlife areas have the potential for intense intraguild persecution. Lions are aggressively competitive, and research on the relationship between lions and leopards has shown that high densities of lions can negatively affect leopard population density, demographic structure, cub survival, and spatial ecology down to even the step-wise decisions that leopards make regarding habitat use and behaviour based on both the actual and potential risk of encountering lions (du Preez 2014; du Preez 2015). Leopards are a generalist species that are able to cope with persecution by adapting their behaviour and ecological niche, and even they suffer under a burgeoning lion population; ecological specialists and endangered species, such as cheetah *Acinonyx jubatus* and wild dog, do not fare nearly as well under such intense competitive pressure. In fact, competition with lions has been directly linked to reductions in cheetah (e.g. Durant 1998, 2000; Laurenson 1995) and wild dog (e.g. Creel 2001; Creel and Creel 1996; Vucetich and Creel 1999) densities, both of which face local extinction where lion abundance, and the respective level of persecution, is high. Excessive lion densities may also result in population declines of ungulate prey (e.g. Wegge et al. 2009). It is vital to holistic conservation that wildlife managers can understand and deal with the level of impact that lions exert on other species; particularly those that

are elusive difficult to observe, and which face decline if not carefully monitored. To this end, a conservation research initiative in partnership with WildCRU was established on the Bubye Valley Conservancy in 2009, and research conducted on the Savé Valley Conservancy since 2007.

Based on the number of kills made (du Preez et al. in prep.) and the current value of the meat (K. Leathem, pers. comm.), the Bubye Valley Conservancy lion population consumes hundreds of thousands of dollars worth of prey each year. These lions are mainly tolerated because of their ability to generate the revenue that helps to offset this expense - although it is estimated that economically it is still not worth keeping the lions whose cost outweighs their value (Funston et al. 2013).

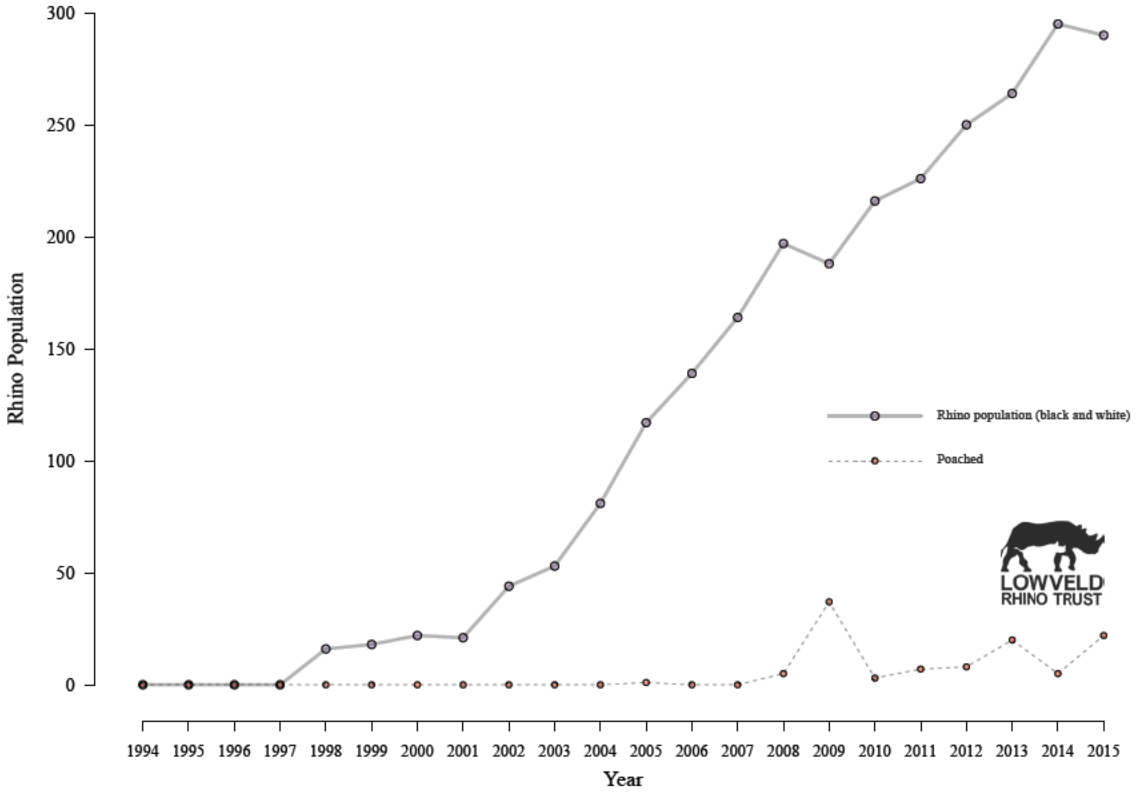

Figure 9: The Bubye Valley Conservancy black rhino population is rated as Key 1 by the African Rhino Specialist Group which means that the population is considered key to the overall survival of the species.

Where the Money Goes: The Finances of Lion Sport-Hunting and Reinvestment in their Conservation

Break-down of the finances involved in a typical lion hunt on the Bubye Valley Conservancy:

Lion Trophy fee: US$ 42,000
Lion Hunt Daily rate: US$ 2,950 day^{-1}
(Minimum lion hunt duration: 18 days [*total daily rate of US$ 53,100 lion hunt^{-1}*])

Additional costs include:
ZPWMA scout
Observers
Bait used
Other trophy species taken during the lion hunt, etc.
[*These additional costs average approximately US$ 6,500 lion hunt^{-1}*]

Bubye Valley Conservancy - Lion Sport-Hunting Revenue Generated (2015):

((18 days × 2,950 day^{-1}) + 42,000 trophy fee + 6,500 additional costs) × 12 lions
= **US$ 1,219,200**

Lion sport-hunting therefore represents approximately 33.9% of the Bubye Valley Conservancy's total annual revenue generation (which includes post-hunt meat and hide sales).

All of the revenue generated from lion sport-hunting on the Bubye Valley Conservancy has gone back into the running costs of the Conservancy, which is all part of conservation, and which includes: anti-poaching and fence monitoring and maintenance (approximately US$ 506,000 year^{-1}), research (approximately US$ 34,700 year^{-1} not including client and sponsor donations), and community support assistance (approximately US$ 210,000 year^{-1}).

[*No profit after costs has been declared, nor dividends taken by shareholders, since the Bubye Valley Conservancy was formed in 1994. All revenue generated to date has been spent on running costs, improvements and restocking.*]

Discussion

Here we have shown that since their reintroduction after historical eradication, both the Bubye Valley and Savé Valley Conservancies' lion populations have increased exponentially - not despite sport-hunting, but because of sport-hunting and the incentive it provides for protection.

The success of the Bubye Valley and Savé Valley Conservancies, in terms of both of their hunted lion and non-hunted rhinoceros populations, may also provide the motivation for other areas in the country to sustainably manage their wildlife resource. A case in point is the Nuanetsi Ranch, a wildlife area that is also a legacy of failed cattle ranching, located almost directly between the Bubye Valley and Savé Valley Conservancies in Zimbabwe (Figure 3). At present there is a single lion on the Nuanetsi Ranch but management is not able to justify introducing more due to the current uncertainty over the future of lion hunting (B. Lees-May [Nuanetsi Ranch Conservator], pers. comm.). The Nuanetsi Ranch is a wildlife area of 1,489 km^2, and could conceivably sustainably hold between 201 and 278 lions (based on the most recently estimated lion densities of the Savé Valley [0.135 lions km^{-2}; Groom and Watermeyer 2015]; and Bubye Valley [0.187 lions km^{-2}; du Preez et al. 2015] Conservancies respectively). However, the Nuanetsi Ranch has invested in building up an abundant wildlife population, which is sport-hunted, and the management will not risk losing a significant amount of valuable game, that could otherwise be sold as trophies or meat, to a species from which it can not recuperate lost revenue, and instead that requires further investment in control measures (B. Lees-May [Nuanetsi Ranch Conservator], pers. comm.).

Between 2005 and 2015 the United States market has represented 70.4% of the total Zimbabwean lion sport-hunting industry (http://trade.cites.org/en/cites_trade/ [accessed 2015-01-19]), though in reality it constituted over 90% for both the Bubye Valley and Savé Valley Conservancies. If this market was effectively lost due an inability of prospective clients to import their trophies, based on the economics involved it would become unviable to continue managing the Bubye Valley Conservancy as a wildlife area in its current form, and lions would either have to be re-exterminated, or at least severely reduced via culling; or else what is the largest privately owned wildlife area in the world would be converted back into a cattle ranching area (K. Leathem, pers. comm.). This is the reality of any business, in that it needs to cover costs and pay staff and cannot run at a loss for luxury of conservation. Child (1993) states "*A refusal to treat wildlife in the same way as other resources and maintenance of centralised protectionist management prejudices its survival. Only by raising its commercial value will wildlife be able to compete for space on the scarce African landscape. Trade bans which detract from wildlife's commercial value prejudice its chances of survival in the long term*".

Although the USFWS understandably categorises lion conservation by country for simplicity, rather than individual properties, the Bubye Valley and Savé Valley Conservancies currently and deservedly hunt more than a third of the total Zimbabwean lion quota between them. Here we have shown that this sport-hunting does not negatively affect the lion population, which remains in positive growth despite off-take. In addition

to this, other areas, such as the Nuanetsi Ranch, could be incentivised to invest in lion conservation if the ability to sustainably utilise the lions as a resource was guaranteed.

The USFWS identified five primary factors that threaten lion survival in the wild, namely: habitat loss; loss of prey; retaliatory killing due to increased human-lion conflicts; inadequate regulatory mechanisms; and weak management of protected areas (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). Each and every point on this list, which notably does not include sport-hunting, supports the fact that incentivising tolerance for lions through sustainable use would enhance the species' overall survival.

As responsible conservationists, we are not arguing against tight regulation of sport-hunting, especially with regard to sensitive species such as lions, and we support the need for transparency and accountability within the industry. However, this reform is a process being driven from within, as any indiscretion is an affront on all stakeholders. For example, long-term lion monitoring by WildCRU in Hwange National Park (HNP), Matabeleland North, Zimbabwe, documented a 'vacuum effect' and reduction in male lion density in the Park as a result of sport-hunting in the surrounding areas (Loveridge et al. 2007). A result of this research was the recommendation that ZPWMA implement a hunting moratorium in western Zimbabwe, which was accepted and enforced from 2005 to 2008 (Davidson 2009). Subsequent monitoring of the HNP lion population showed that the perturbation effects caused by sport-hunting were reversed during the moratorium, and sport-hunting was reinstated at a reduced, more sustainable quota (Davidson 2009). This example demonstrates both the relationship between independent researchers and ZP-WMA, and that the research assists ZP-WMA in robust decision making. This study has also shown that the lion population was able to recover quickly, and that a blanket-ban would have been as unnecessary as it would have been detrimental to overall lion conservation in the country.

In addition to the self-imposed hunting moratorium in the Matabeleland North district, Zimbabwe has voluntarily stopped sport-hunting of any lioness. The fixed-quota concept, in which hunting quotas had to be paid for upfront before the hunting season even began, and which was resultantly attributed to poor quality trophies and young animals being hunted, has also been abandoned. The adaptive quota management system for lion hunting based on the ages of lions hunted has been accepted and embraced by all stakeholders. This adaptive quota management system has not only led to a reduced national lion hunting quota, but has also resulted in a significant increase in the age of harvested lions to a level that is considered to have minimal ecological impact, being old individuals that are no longer contributing to the gene pool nor protecting cubs.

The IUCN Red List lion conservation status has remained unchanged for 20 years even in the face of Africa's ever-changing landscape. Despite fears that lion abundance is decreasing overall, in southern Africa it is in fact increasing (Bauer et al. 2015b).

Conclusion

Given the evidence presented, the arguments against sport-hunting would appear to be based more in emotion than logic and reality (e.g. Lindsey et al. 2015). Conservation, however, is not about individuals within populations, but the overall populations themselves. Sustainable sport-hunting of lions is just that: *sustainable* - and ironically, without it, the lions themselves become unsustainable. Conservation objectives need to be balanced with both social and economic factors if they are to be achieved.

The USFWS states "Well-managed conservation programs use trophy hunting revenues to sustain lion conservation, research and anti-poaching activitie" (http://www.fws.gov/endangered/what-we-do/lion.html [accessed 2015-01-19]). The Bubye Valley and Savé Valley Conservancies both fully meet each one of these conditions: clearly contributing to lion conservation in Zimbabwe; having long-term conservation research programs; and self-funded anti-poaching units.

The histories regarding the formation of both the Bubye Valley and Savé Valley Conservancies were both presented in this report, despite being remarkably similar; the point being that lion conservation in both areas, and many others, has the same fate either way. The Bubye Valley and Savé Valley Conservancies are both excellent examples of focussed and determined efforts to make wildlife based land use viable in an otherwise cattle dominated landscape. However, the fact remains that the cost of having lions, both ecologically and financially, is high. Simply increasing the abundance of one species at the expense of another cannot be considered a conservation success.

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LION ZIMBABWE ESA TROPHY

Permit Number: MA86474B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
JAMES (b) HORRORKS
(b) (6)
HIGHLAND, UT (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD FEB 01 2016

LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Riggs	Keith	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	N/A

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	N/A	N/A	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Magnolia	Texas	(b) (6)	(b) (6)	U.S.A.

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 767644 No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge (b) (6) belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Keith Riggs — 1/21/2016

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melancochaita lion

   b. Sex (if known).

      male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Tanzania, Lukwati North Game Reserve, -7.377434 deg 32.654560 deg, Mbeya

   b. Date wildlife is to be hunted:

      July 18 - August 7,2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      Skin, skull, claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Danny McCallum
Business Name:	Safari Royal
Address:	P.O. Box 13226
Address:	
City:	Arusha
State/Province:	
Country, Postal Code:	Tanzania

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Ruth (b) (6) Date: 1/21/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☑ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Keith Riggs, (b) (6) [redacted]

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

US Fish and Wildlife Service Permit Question #5

Lion populations in Africa are on the decline. "The major threats to lions are habitat destruction, declines in the species they prey on, and increased conflicts between humans and lions. Banning trophy hunting or restricting imports wouldn't address these challenges. In fact, it could do more to endanger wildlife than save it. Consider what happened in Kenya after it banned hunting in 1977. Since then, Kenya's populations of wild large animals have declined 60%-70%, according to wildlife economist Mike Norton-Griffiths. Kenya's lion populations have fallen to 2,000 from 20,000 a half century ago. Hunting bans in Tanzania and Zambia have produced similar results", per the Wall Street Journal, *How Trophy Hunting Can Save Lion.*

Tanzania's wildlife conservation depends on legal and sustainable hunting to a great extent for its long term survival. Trophy hunting provides revenue to the Wildlife Division for conservation and anti-poaching in remote areas that would otherwise be unsupported. (Most hunting areas are unsuitable to photo-tourism.)

Revenue from hunting directly supports Tanzania's Ministry of Natural Resources and Tourism to manage wildlife and it's habitat. Hunting gives value to the wildlife and land they inhabit. This value transforms into habitat preservation and acts as a deterrent against poaching.

I have booked my safari with Safari Royal because they are committed to supporting the Government of Tanzania in its endeavors to protect the fauna and flora of this country for future generations. Throughout the year Safari Royal provide and fund transport, fuel and manpower for regular anti-poaching exercises.

Community development is also an important part of their program. Funds are applied to support the village communities surrounding their hunting areas by backing projects of their choice, such as the building of schools, medical facilities and water wells.

US Fish and Wildlife Service Permit Question #5 (Continued)

Tanzania has taken steps to make lion hunting more sustainable in recent years and off-takes have declined significantly. Tanzania has reduced lion quotas from 520 during 2008/2009 to 315 in 2012. Safari Royal will receive 2 lion quotas for 2016 which they will market only 1.

Tanzania has implemented a six year minimum age limit for trophy lions on a national scale. Danny McCallum of Safari Royal employs state of the art game cameras to help age trophy lions. Additionally, Danny McCallum has been guiding safaris since 1967 and will use his extensive knowledge and experience to comply with all Tanzania wildlife laws and regulations in his dedication to the conservation of wildlife.

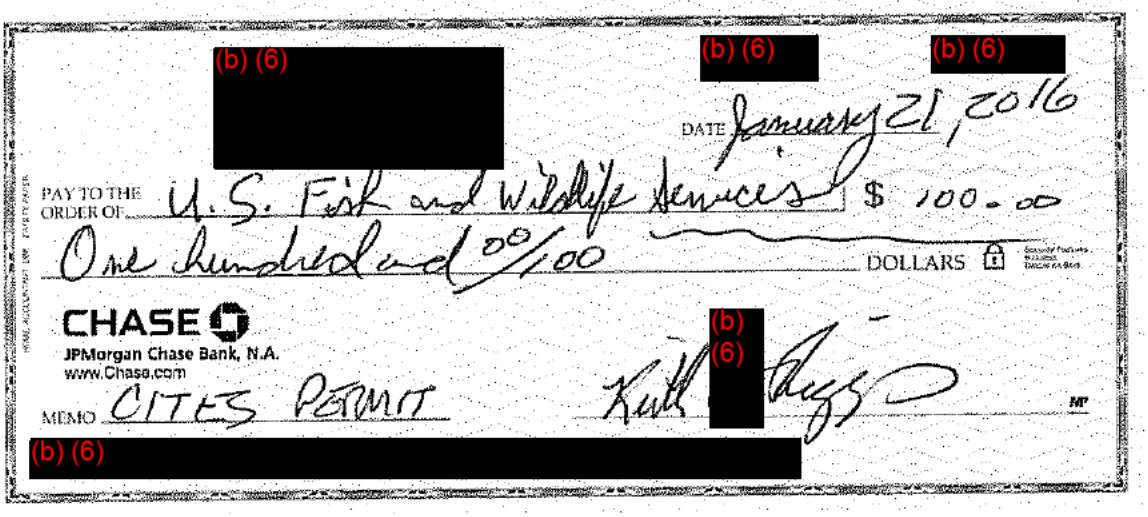
Tanzania has a minimum lion hunt length of 21 day for one hunter. I have booked a 26 day hunting safari and 2 day photographic safari with Safari Royal for one hunter and one observer. The revenues to Tanzania from my lion safari are as follows:

a. Tanzania's Ministry of Natural Resources and Tourism (Licenses, Conservation fees, Observer fees and approximate game fees) $25,000.
c. Anti-poaching exercises $5,200 (in addition to providing transport, fuel and manpower).
d. Contributions to local communities for building of schools, medical facilities and water wells $1,000.

Total Potential Revenue for Conservation and Community Development from my lion safari is $31,200.

Lion conservation succeeds when it provides incentives for local people to protect lions and their habitat. When trophy hunting is done responsibly and legally, trophy hunting is a way to ensure African lions are here to stay.

(Keith (b) iggs)



(b) (6)

(b) (6)

(b) (6)

DATE January 21, 2016

PAY TO THE ORDER OF U.S. Fish and Wildlife Services $ 100.00

One hundred and 00/100 DOLLARS

CHASE

JPMorgan Chase Bank, N.A.
www.Chase.com

(b) (6)

MEMO CITES PERMIT

(b) (6)

(b) (6)

RCVD FEB 01 2016

Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import application / request for information

1 message

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:47 AM
To (b) (6)

We are in the process of reviewing applications for the import of African lions taken from Tanzania.

The U.S. Fish and Wildlife Service must make a finding that the sport-hunting of lions will enhance the survival of the species. We are now considering applications on a case-by-case basis, as opposed to making country-wide enhancement findings that were developed in the past. As such, we would like to give you the opportunity to submit additional information in support of your application. This may include (but is not limited to):

>>population status or trend data on the lion population, both the countrywide population and the local population;

>>information on the fees paid (e.g., licenses or trophy fees), recipients of these fees, and use of fees;

>>information about the safari outfitter, professional hunter, concession holder or land owner and their activities to conserve the species (e.g., habitat management or improvement, anti-poaching activities and success of those efforts, efforts to address human-lion conflict, population monitoring, community benefits). Copies of recent reports submitted to TAWA would be particularly helpful.

Do not hesitate to contact me with questions or clarifications.

Thank you,

--
Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

Please respond to any requests for information or documentation within 45 days from the date of this message; if not received within 45 days, your application will be considered incomplete and will be placed in our inactive files and we will not complete your request for a permit.

Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import application / request for information

2 messages

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:47 AM
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Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

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Keith Riggs <(b) (6) Wed, Aug 1, 2018 at 11:13 AM
Reply-To: Keith Riggs (b) (6)
To: "Butzler, Julia" <julia_butzler@fws.gov>
Cc: Theresa Riggs (b) (6)

Hello Julia,

I did not take a lion from Tanzania in 2016, therefore I do not need an import permit for Tanzania. Please withdraw my request for Import of Sport-Hunted Trophies PRT permit identification number:** US86634B/9.

I did take a lion from Zimbabwe in 2018 and I do need an an import permit for Zimbabwe. My request for Import of Sport-Hunted Trophies from Zimbabwe is still valid.

Best Regards,

Keith (Riggs
(b) (6)

From: "Butzler, Julia" <julia_butzler@fws.gov>
To: (b) (6)
Sent: Wednesday, July 25, 2018 9:47 AM
Subject: Tanzania lion / import application / request for information
[Quoted text hidden]

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

OMB No. 1018-0093
Expires 05/31/2017

RCVD FEB 05 2016

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
BUKER	ROBERT	(b) (6)	(b) (6)

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)			

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
MOORE HAVEN	FL	(b) (6)		USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☒

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge (b) (6) I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Robert (b) (6) — Jan 31, 2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melanochaita South African lion

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      South Africa, Greater Makalali Private Game Reserve, 1009 Hoedspruit, 1380 (Mailing Address) Gravelotte District

      See enclosed supporting documents

   b. Date wildlife is to be hunted:

      2016 (Depending on permit acquisition)

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      Hide and skull to be imported for life size taxidermy to be completed by Hibler Taxidermy 209 S. 5th St. Kingsville, TX 78363

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:
Business Name: Bull's Eye Taxidermy
Address: PO Box 1124
Address:
City: Vaalwater
State/Province: Limpopo / South Africa
Country, Postal Code: South Africa, 0530

We will be using: Coppersmith's Clearing House
15904 International Plaza Dr.
Houston, TX 77032
281-442-4800

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Robert (b)(6) Bulut Date: Jan 31, 2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

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9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

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☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

Robert Johnson
(b) (6) [redacted]

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

The Greater Makalali Private Game Reserve

TO: The Department of Environmental Affairs & Tourism
ATT: Mr Dirk de Klerk
Cc: Messrs. Roelof Niemann & John Luyt (Duke Safaris)
FROM: Ross Kettles
DATE: 21 January 2015

Dear Mr De Klerk

MOTIVATION TO HUNT 2 MALE LIONS (*PANTHERA LEO*)

Background

The Greater Makalali Private game Reserve (GMPGR) is a 22 000 hectare private game reserve in the Gravelotte district of the Limpopo Province. The GMPGR currently hosts a population of 37 lions.

Motivation

Our motivation to hunt these animals is based on the fact that there are currently 37 lions on the reserve, and attempts to sell excess animals live have failed, due to the applicants not being able to obtain permits and a lack of new venues suitable to host lions. In addition, our decision to hunt this lion is based on the fact that these specific 2 animals are 12 years old and have sired many cubs over the 6 years they have help tenure over the dominant lion pride on the reserve. For genetic reasons, they thus have to be removed before in-breeding depression becomes a factor we have to manage.

Property and delegated Person

Property:	Greater Makalali Private Game Reserve
Responsible Person:	Ross Kettles (ID 690417 5054 986)
Postal Address:	P.O. Box 1009 Hoedspruit 1380
Residential Address:	Greater Makalali Private Game Reserve, Gravelotte District
Contact Details:	Tel: 079 695 8372 Fax: (015) 79 31739

Email:
rosskettles@radioactivewifi.co.za

Please refer to the attached documentation (Application Form).

I trust the above meets with your approval. Please do not hesitate to contact the Undersigned should you have any queries.

Yours faithfully



ROSS KETTLES

Warden: Makalali Private Game Reserve



The Greater Makalali Private Game Reserve

LION MANAGEMENT PLAN©

Compiled by Audrey Delsink & Ross Kettles
Lead Agency: Makalali Private Game Reserve

In accordance with the

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004
(ACT 10 of 2004)

NATIONAL NORMS AND STANDARDS FOR THE DEVELOPMENT OF THE BIODIVERSITY MANAGEMENT PLANS FOR SPECIES (BMP-S)

TABLE OF CONTENTS

1. Abbreviations & Acronyms
2. Glossary
3. Foreword
4. Executive Summary
5. Introduction

a) Section A

1. General
   - I. Farm name and number
   - II. Exact size of property
   - III. Name & Contact details of Mangers
   - IV. Name of ecologist
   - V. Land-uses on neighbouring properties
   - VI. Future expansion
   - VII. Perimeter Fence
   - VIII. Release bomas

2. Ecological information
   - I. General climate of GMPGR
   - II. Map of area
   - III. Available water bodies
   - IV. Geology
   - V. Land types
   - VI. Vegetation
   - VII. Carrying capacity of herbivores
   - VIII. Game numbers
   - IX. Stocking rate model
   - X. Potential prey species, projection of prey species population and predation
   - XI. Lion population
   - XII. Origin of wild cheetah to be introduced

b) Section B

1. Management Goals and Objectives
   - I. GMPGR Objectives
   - II. Main reasons for lion introduction
   - III. Management of lion
   - IV. Disposal of surplus lion
   - V. Research and Monitoring
   - VI. Action Plan
   - VII. Insurance in respect of outbreaks

c) Section C

1. Species introduction
   - I. Conservation status

- IUCN Red Data List
- CITES

II. Taxonomy
III. Distribution
IV. Habitat requirements
V. Biology
VI. Ecology
VII. Ex situ populations and their status
VIII. Species role in ecosystem
IX. Known diseases
X. Population statistics and trends
XI. Threats
    - Assessment and magnitude of threat
    - Prioritisation of threats
XII. Utilisation

6. References

1. ABBREVIATIONS & ACRONYMS

CITES	Convention on International Trade in Endangered Species
GMPGR	Greater Makalali Private Game Reserve (Refers to all the properties, both those that are and are not parties to the Constitution)
IUCN	International Union for Conservation
MLWT	Makalali Land & Wildlife Trust
MGR	Makalali Private Game Reserve (the properties bound by the Constitution i.e. excluding Pidwa Wilderness (Pidwa North and South and Langa Langa)
SCI	Siyafunda Conservation Initiative (resident volunteer program on GMPGR which assists in data collection and research)
TOPS	Threatened or Protected Species

2. GLOSSARY

Biodiversity Act: means the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)

IUCN Red List status: means the conservation status of the species based on the IUCN Red List categories and criteria

Large predator: A large predator means a specimen of the following species (DEAT 2005):

- *Acinonyx jubatus*: cheetah
- *Hyaena brunnea*: brown hyaena
- *Crocuta crocuta*: spotted hyaena
- *Lycaon pictus*: wild dog
- *Panthera leo:* lion
- *Panthera pardus:* leopard

Listed threatened or protected species: means a species listed as a threatened or protected species in terms of section 56(1) of the Biodiversity Act (DEAT 2007)

Permit: means a permit issued by an issuing authority, authorising a restricted activity involving a specimen of a listed threatened or protected species (DEAT 2007)

Permit application: means an application in terms of –

(a) regulation 6 for the issuing of a permit;

(b) regulation 38 for the renewal of a permit;
(c) regulation 41 for the amendment of a permit
(DEAT 2007)

Vulnerable species: Indigenous species facing a high risk of extinction in the wild in the medium-term future, although they are not a critically endangered species or an endangered species (DEAT 2007)

Wild large predator: A large predator is considered wild if it:

- it is free-ranging,
- it lives on wild prey populations, which do not require to be supplemented in numbers or with food,
- its own diet is not supplemented with food artificially,
- it occurs in its natural habitat within the historical distribution range of the particular species, and the particular species' social requirements must be met at all times
(DEAT 2005)

3. FOREWORD

Lions are the second largest members of the cat family in the world. They are tan in colour and have a slightly white under-body, with a tuft of black hair at the end of their tails.

Most cat species live a fundamentally solitary existence, but the lion is an exception. It has developed a social system based on teamwork and a division of labour within the pride, and an extended but closed family unit centres around a group of related females. The average pride consists of about 15 individuals, including five to 10 females with their young and two or three territorial males that are usually brothers or pride mates.

Subspecies: The extinct Barbary and Cape lions were once treated as subspecies (*P.l.leo* and *P.l. melanochaita*). All lions are currently considered monotypic.

Distribution: According to (Nowell and Jackson 1996) the lion, formerly occurring from northern Africa (Algeria, Egypt, Libya, Morocco and Tunisia) to southern Africa and through south-western Asia, is now widespread only in Botswana, C.A.R., Ethiopia, Kenya, Tanzania, former Zaire and Zambia. Its status in Angola, Mozambique, Sudan and Somalia

must be clarified (Nowell and Jackson 1996), while it is thought to be more or less sparsely distributed in Benin, Burkina Faso, northern Cameroon, southern Chad, southern Congo, northern Ivory Coast, northern Ghana, northern Guinea, eastern Guinea Bissau, southern Mali, northern Nigeria and Uganda. On the contrary in Burundi, Malawi, Niger, Rwanda, Senegal and South Africa populations are believed to be confined to protected areas. It is virtually extinct in Djibouti, Gabon, Lesotho, Mauritania, Swaziland and Togo.

Diet: Lions prey mainly on large animals such as Zebra, Wildebeest, Buffalo, Gemsbok and even Giraffe. Smaller prey like Impala, Steenbok and even Porcupine are taken when the opportunity arises. The task of hunting is often left to the lionesses of the pride, which hunt as a team.

Breeding: Lions are non-seasonal breeders, yet females of a pride often synchronize births. After a gestation period of 110 days, one to four cubs are born. Cubs start taking meat after ten weeks. Females suckle their own and one another's cubs for up to six months. After birth, cubs are hidden for six weeks after which mothers bring them to the pride's crèche. The young remain dependant on the organisational success of the pride for up to three years.

Behaviour: Prides consist of two to 12 related females and their young, and dominant males. Such males may form coalitions of two to six, and collectively hold tenure over prides. The roar of the Lion is an impressive sound and is perhaps the sound most associated with the African wild.

Apart from roaring, Lions also communicate by scent-marking their surroundings, and even by their facial expressions and body postures. Lions display their aggression by showing their impressive canine teeth, retracting their ears and displaying the dark patch behind the ears, their tails twitching in irritation.

Categorical-discrete (CD) distribution model

Found in a wide variety of environments, the species appears to be absent only from rain forest and the interior of the Sahara desert. Optimal habitat types are represented by woodlands and thick bush, scrub and grass complexes; also found in montane moorland (Nowell and Jackson 1996); (Yalden, Largen et al. 1980).

4. EXECUTIVE SUMMARY

With its ongoing research and monitoring activities through the Greater Makalali Land & Wildlife Trust, resident volunteer programs (Siyafunda Conservation Initiative and Askari) and independent ecological surveys, the GMPGR is an excellent venue for the release and hosting of wild lion. The GMPGR believes that through the regular supplementing of its current lion population, it will become a vital tool in the management of this threatened species.

5. INTRODUCTION

a) Section A

General (Kettles and Delsink 2007)

I. Farm name and number

Commonly Used Name of Property:
The Greater Makalali Private Game Reserve (GMPGR)

Portion 14 of the Farm Harmony 140KT
Portion 64 of the Farm harmony 140KT
Portion 58 of the Farm Harmony 140KT
Portion 80 of the Farm Harmony 140KT
Portion 93 of the Farm Harmony 140KT
Portion 59 of the Farm Harmony 140KT
Portion 26 of the Farm Harmony 140KT
Portion 27 of the Farm Harmony 140KT
Portion 32 of the Farm Harmony 140KT
Portion 33 of the Farm Harmony 140KT
Portion 36 of the Farm Harmony 140KT
Portion 16 of the Farm Selati Ranch 143KT
Portion 11 of the Farm Selati Ranch 143KT
Portion 12 of the Farm Selati Ranch 143KT
Portion 16 of the Farm Selati Ranch 143KT
The Farm Mpande 165KT
The Farm Manantji 166KT
The Farm Makalali 167KT
The Farm Langa Langa 141KT

II. Exact size of property as at June 2011
22 500 hectares (excludes a 2 000 ha buffalo camp and 2 500 ha property Langa Langa)

III. Name & Contact details of Mangers
Greater Makalali Private Game Reserve:

Ross Kettles (M.Endev.):
Tel: 087 806 2096
Cell: 079 695 8372
Email: rosskettles@radioactivewifi.co.za
Reserve Warden

Greater Makalali Private Game Reserve:
Audrey Delsink: (Msc.)
Tel: 087 806 2096
Cell: 083 390 0337
Email: auds@radioactivewifi.co.za
GMPGR Reserve Ecologist

Name of ecologist
Dr Mike Peel
Agricultural Range & Forage Institute
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E-Mail: mikep@arc.agric.za Web site: www.arc.agric.za

Audrey Delsink
(SACNASP.Pr.Nat.Sc.)

IV. Land-uses on neighbouring properties
The GMPGR is primarily surrounded by game farmers and other private game reserves (Selati to the north, Karongwe to the west, Lutopi to the east).

V. Future expansion
Good opportunities for expansion exist (Fig 1).

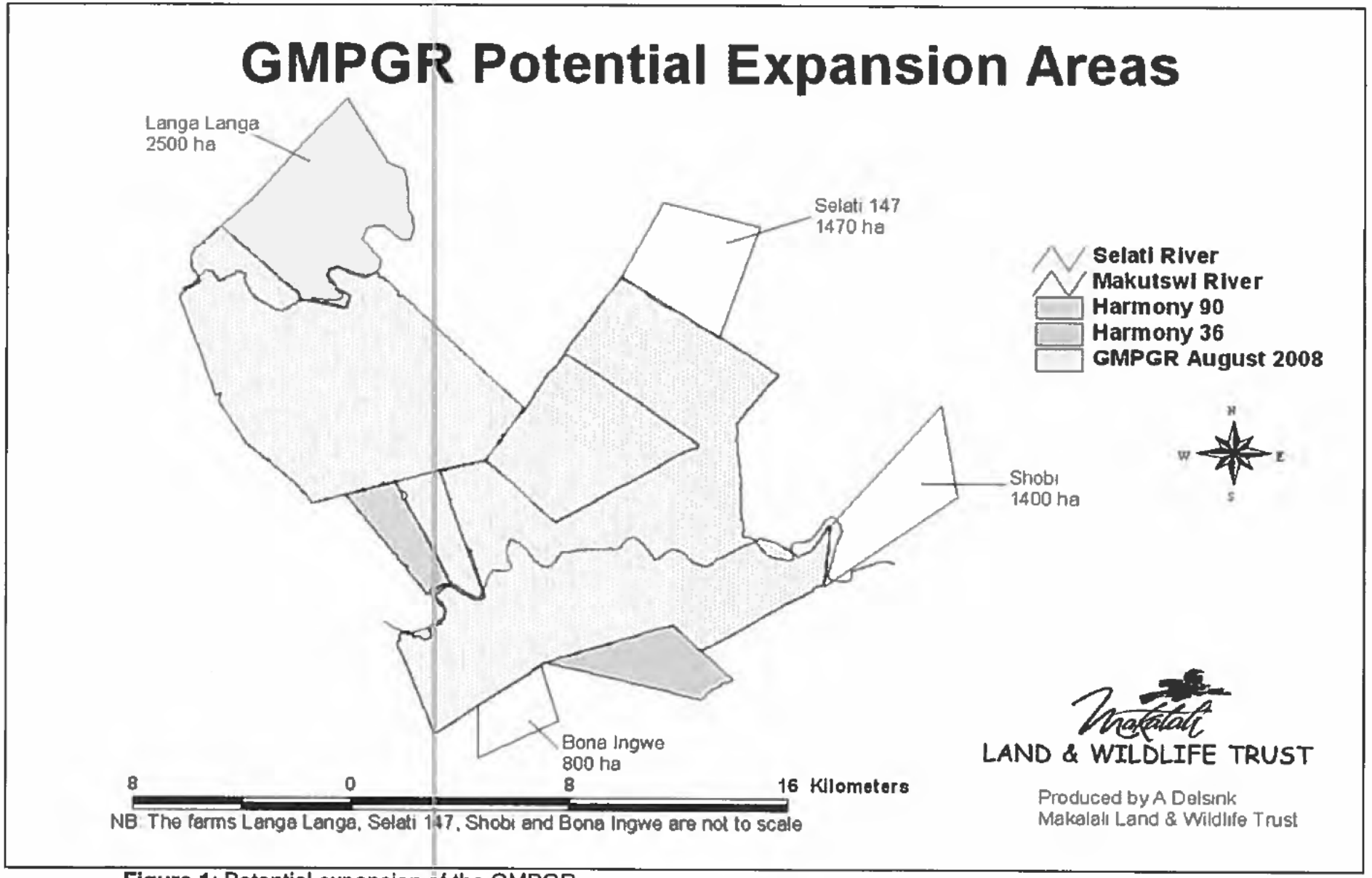

Figure 1: Potential expansion of the GMPGR

VI. Perimeter Fence

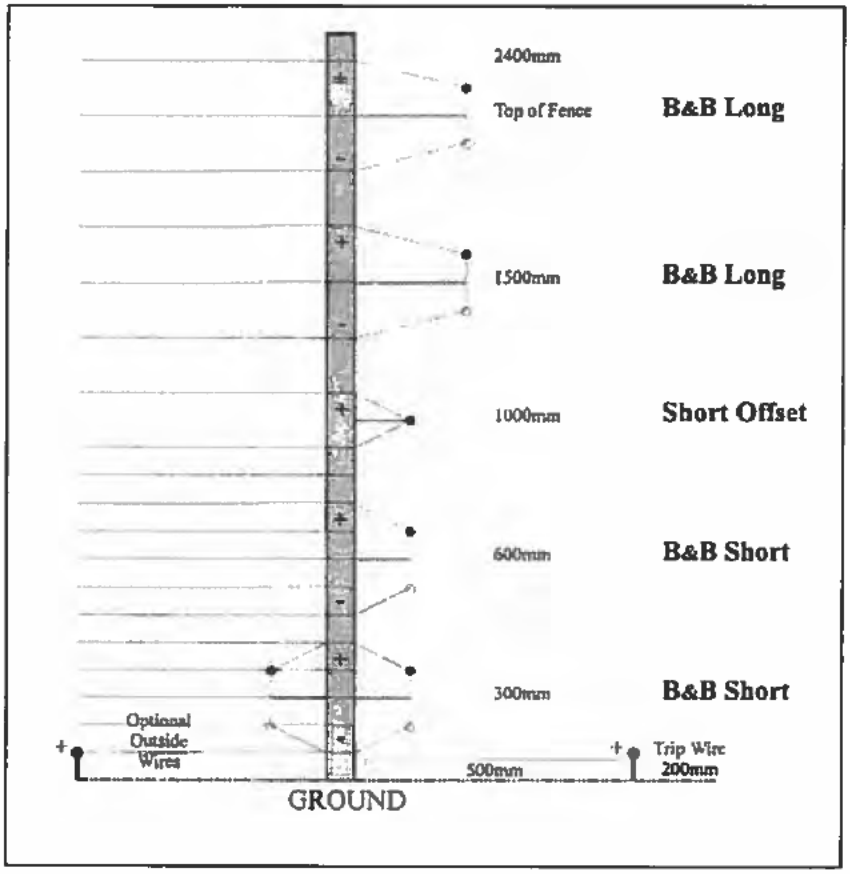

Figure 2. Diagram Illustrating Fence Electrification Requirements (Staffix Electric Fencing Limited)

Bottom Strand:	300mm above the ground with 225mm offset bracket
Second Strand:	600mm above the ground with 225mm offset bracket.
Third Strand:	1000mm above the ground with 450mm offset bracket.
Fourth Strand:	1500mm above the ground with 450mm offset bracket
Top Strand:	2400mm above the ground with 450mm offset bracket.
Earth Strands:	Spaced 110mm apart from each live wire.

In addition to the electric wires mounted on the fence itself, a trip wire is erected 500mm in front of the fence at a height of 150mm. This is achieved by cutting Y-standards to the desired length, hammering them into the ground and attaching "Nail-On" insulted bobbins, manufactured by Meps Electronics®. A Meps 500 Super Energizer® is used to electrify the wires, and a voltage in excess of 4500 volts is maintained.

VII. Release bomas

All lion relocated to the GMPGR will first be introduced into a boma prior to release into the main reserve. In terms of DEAT protocol, wild large predators may only be temporarily kept in a release camp prior to release. This release camp is subject to fencing specifications prescribed by the provincial conservation authority in whose area of jurisdiction the intended action falls.

VIII. Boma protocol

1. Feeding whilst in the Release Camp/Temporary holding area

Whilst in the temporary holding area, lions will be fed fresh carcasses; primarily warthog and impala. These prey species will be culled on the GMPGR. As the carcasses will be entire, there will be no need to supplement with extra calcium, vitamins or essential fatty acids. Whole prey items should be small enough, or fed at suitable intervals, to permit consumption in total. Although little information concerning the contribution of gut contents in prey items to overall nutrition of predators is available, complete rather than selective consumption of prey species is recommended to prevent previously documented nutrient imbalances (i.e., rickets in carnivores fed muscle or organ meat exclusively; hypervitaminosis A from excess liver ingestion). Observations of captive lion feeding suggest gut contents are often consumed in total. This will be monitored within the holding areas, and any unutilized or remaining portions will be removed.

The carcasses must be physically dropped from a vehicle in the feeding area. Care must be taken to use a designated feeding vehicle i.e. not a game drive vehicle, as the lion learn to distinguish between vehicles with and without food, and this could be problematic post release.

Ecological information (Kettles and Delsink 2007)

XIII. General climate of GMPGR

The area falls within a summer rainfall region (October to April), with an average rainfall of 450mm. The area is reasonably hot and dry. The area seldom receives frost, and generally, the temperatures vary between 7°C and 36°C, with extreme winter morning occasionally being 2°C and summer day time temperatures reaching in excess of 45°C.

XIV. Map of area

Refer to Figure below.

XV. Available water bodies

The GMPGR is bisected by the perennial Makhutswi River in the South and the Selati River in the north (Fig 3). A number of earth dams and pans occur, most of which hold water during the wet season. Rotational pumping of selected waterholes is practised during the dry season. Figure 4 illustrates all the dams/pans and rivers within the GMPGR. However, at the time of producing this document, the waterholes for the Langa Langa farm where not on hand.

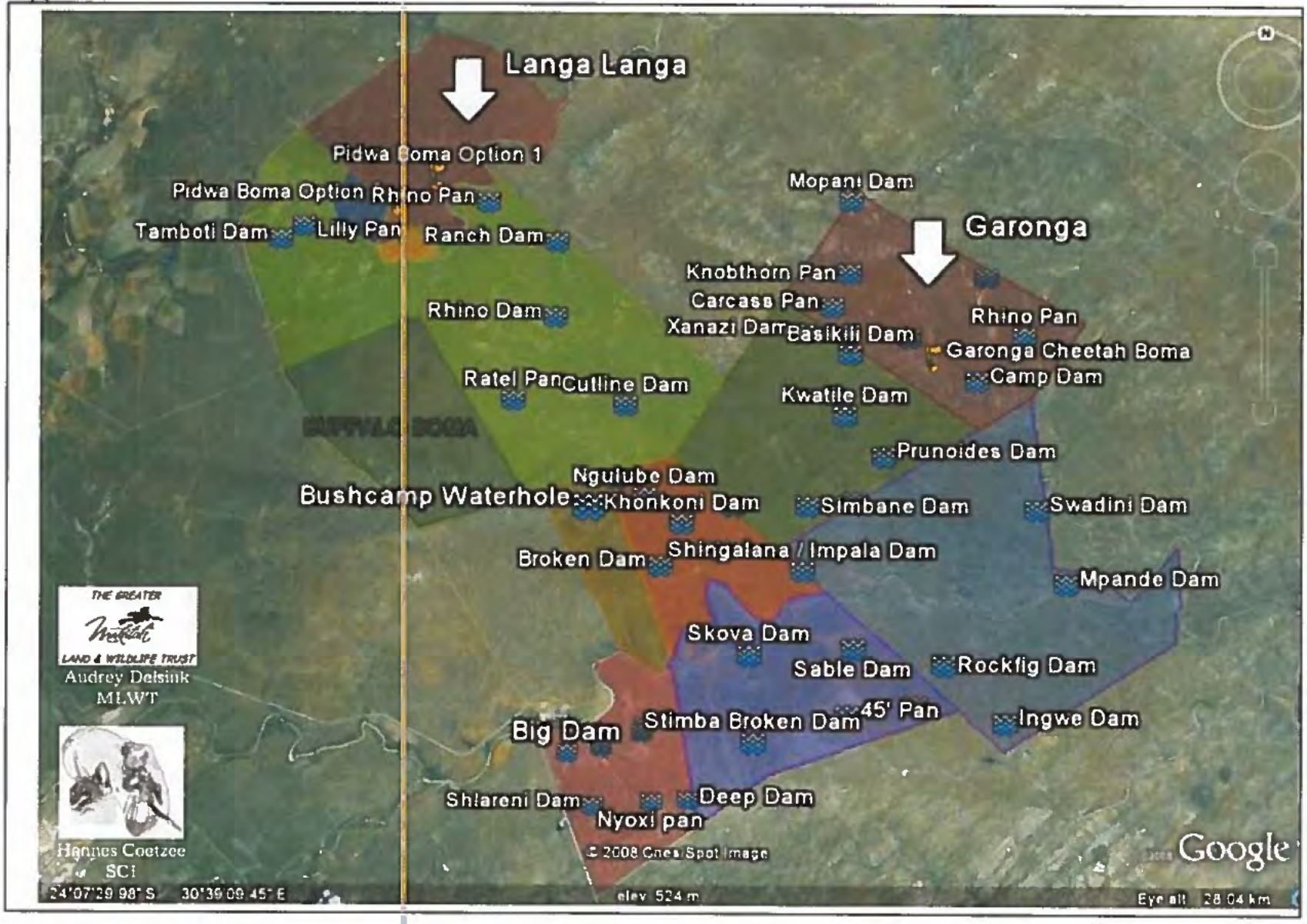

Figure 4: Waterholes within the GMPGR (at time of producing this report, waterholes for Langa Langa were not on hand)

XVI. Geology

This region is underlain by the basement gneisses and granites. The eastern and south western parts of the reserve are dominated by lithology type (ZM), the Makhutswi Gneiss Complex, which can be described as biotite gneiss which is a white to grey, massive equigranular, medium-fine-grained rock consisting of quartz, plagioclase and biotite with small amounts of microline and sphene and occasionally some piorites. It is characterised by its homogeneity and lack of xenoliths and migmatitic textures but it may include pegmatite veins. This is interspersed by lithology type (ZO).

Lithology type (ZO) dominates the central northern part of the reserve. Interlaced in this are conglomerate quartzite, grit, quartz-chlorite, schist, quartz-muscovite-schist and banded-iron formation.

The south-western part of the reserve is dominated by lithology type (VH). This consists of light grey, coarse-grained, coarse-rich, biotite-muscovite granite.

Lithology type (O) occurs in the far west, the far north and the central north of the reserve. It is described as surficial deposit including alluvium and scree.

Mineral deposits of magnesite, mica and tantalum and niobium are present (RFI 2007)

XVII. Land types

Land type FB180, FB186, FB175 and FB177 are present in the reserve. Land type FB is dominated by Glenrosa and/or Mispah soil forms. This group includes pedologically young landscapes that are not principally rock, alluvial or Aeolian and where the dominant soil forming processes have been rock-weathering, the formation of orthic top soil horizons and clay eluviations giving rise to lithocutanic horizons. Lime is rare or absent in the upland soils but is widespread in the bottomland soils (RFI 2007).

XVIII. Vegetation

The main vegetation types are Mixed Lowveld Bushveld and Mopane Bushveld. These vegetation types typify what can be broadly referred to as a semi-arid savanna ecosystem. Savanna

is defined as vegetation in which two broad categories of plant are overwhelmingly important, grasses and woody plants (trees and shrubs). The grasses occur in a layer up to about 1 meter above the ground level. This layer usually includes a small number of non-grass species; lumped together under the title forbes (weeds). A detailed vegetation map exists for the original Makalali property only i.e. excluding Pidwa North/South and Langa Langa. Refer to Appendix 2 (Druce 2000). A new vegetation map is currently being compiled for the entire area (R. Slotow pers.comm).

XIX. Carrying capacity of herbivores

Grazer habitat suitability and thus grazer distribution patterns through the distribution of the eight most dominant grass species, herbaceous biomass and species richness was predicted for the southern GMPGR (van Strien 2006). Resource maps for zebra and wildebeest in the wet season were produced (van Strien 2006) (Fig 5). Wildebeest and zebra generally prefer open areas, as reflected in the resource map. There is a high prevalence of wildebeest on the Garonga property which is characterised by open plains – ideal for the planned cheetah release.

An abundance map of *Panicum maximum* in the southern GMPGR was created (van Strien 2006). This grass species has a high grazing value and occurs predominantly in shade, and damp fertile soils along riverbeds and under trees (van Strien 2006).

NB: Vegetation surveys are conducted on the southern GMPGR excluding Pidwa North and South, as Pidwa elected not to participate in these and the above MSc study.

Table 1 compares the vegetation condition of a number of important grass parameters on MGR (mean value) and three reserves (with their property number in the larger data set) in the area (RFI 2007):

Grass Paratmeter (mean)	MGR	Reserv 22	Reserve 16a	Reserve 26	MGR rank out of 4 in 06/07 season
Perennial (%)	87	70	77	75	1
Cover (distance -mm)	75	104	79	60	2
Cover (tuft size – mm)	38	23	31	24	1
Standing crop (kg/ha)	1099	506	1189	1415	3

The above illustrates that MGR ranks high when compared to three surrounding reserves of similar ecological potential (RFI 2007).

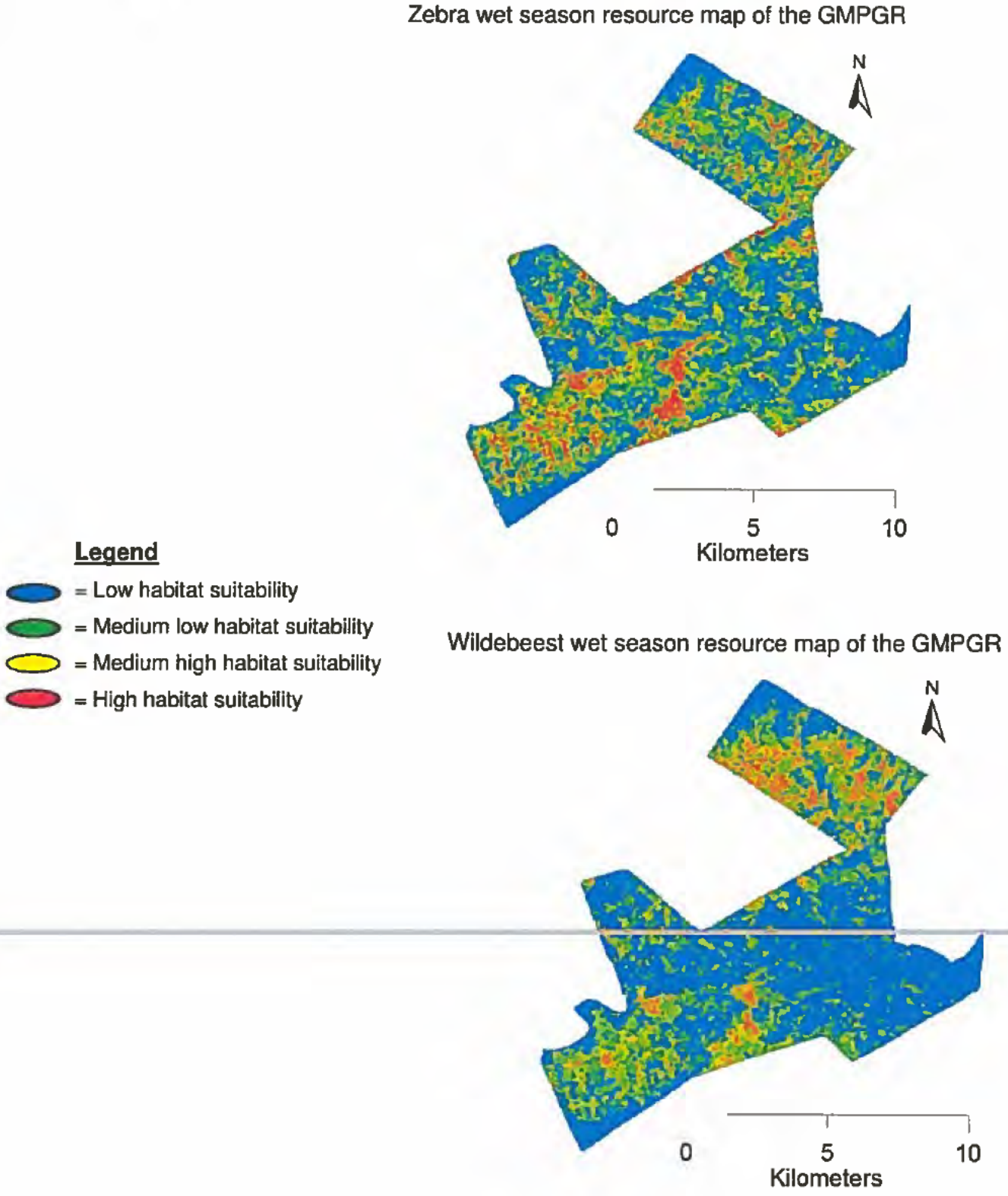

Figure 5: Resource maps for zebra and wildebeest in the wet season for the southern GMPGR (van Strien 2006)

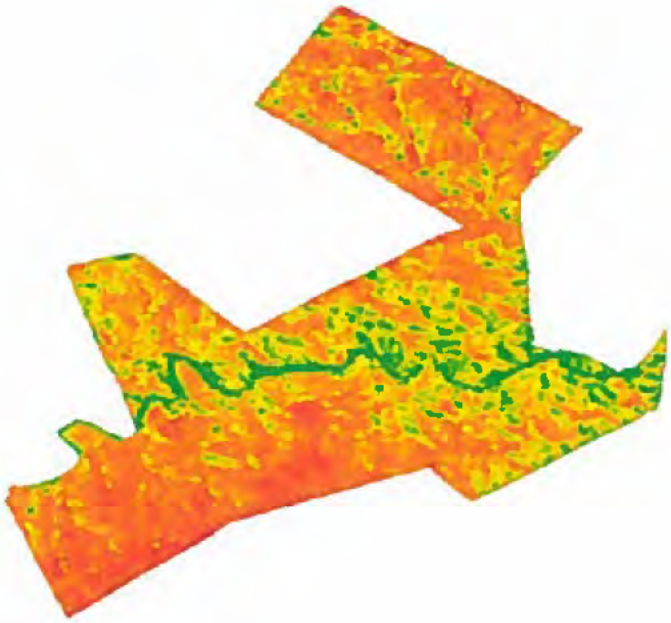

Figure 6: The abundance map of Panicum maximum in the GMPGR as predicted from the significant predictor variables altitude and Landsat band 5. The abundance ranges from high (green) to low (red) (van Strien 2006).

XX. Game numbers

Table 2: Game census comparisons: 2002, 2004, 2006

Species	2002	2004	2006	2008
Wildebeest	239	456	465	↑
Bushbuck	34	67	84	↑
Crocodile		15	11	↓
Duiker	9	42	25	↓
Eland	7	52	17	↓
Elephant	67	72	73	↑
Giraffe	80	136	150	↑
Hippo	15	17	13	↓
Impala	1202	1917	1743	↓
Kudu	269	498	510	↑
Nyala	21	32	50	↑
Rhino	12	12	10	↓
Steenbok		15	23	↑
Warthog	257	459	476	↑
Waterbuck	129	251	183	↓
Zebra	339	531	542	↑

NB: The GMPGR conducts its aerial game census every 2 years. The next census is scheduled for September/October 2008.

XXI. Stocking rate model (Kettles and Delsink 2007)

The stocking rate is based on Coe, Cumming and Phillipson's (1976) model where 12 natural ecosystems with an annual rainfall of less than 700mm are used to determine the biomass of animals which could be carried on game areas (Coe, Cumming et al. 1976). The formula used is:

Biomass of large herbivores = 8.684(+-2.25)Annual Precipitation – 1205.9(+- 156.6)

The result is expressed in kg/km^2. Using an average annual precipitation of 460.9mm/annum, the biomass for GMPGR is:

1. Mean - 2796.56 kg/km^2
2. Upper - 3690.81 kg/km^2
3. Lower - 1902.30 kg/km^2

Table 3: Biomass Calculation for GMPGR Large Herbivores

Species	Average Weight		Ratio max/min	Unit wt.	GMPGR 2006 Census	GMPGR Large herbivore Biomass 2006	
	Min	Max					
Elephant	1700	4990	2.9	1725	72	124200	
Black Rhino	660	1000	1.5	816	0		
White Rhino	1360	2000	1.5	1500	9	13500	
Zebra	160	290	1.8	200	542	108400	
Hippo	1000	1400	1.4	1000	13	13000	
Warthog	30	70	2.3	45	476	21420	
Bushpig				54	?		
Giraffe	680	800	1.2	750	150	112500	
Buffalo	310	664	2.1	450	0	0	
Eland	210	544	2.6	340	17	5780	
Greater Kudu	136	220	1.6	136	510	69360	
Lesser Kudu	70	104	1.5	70	0	0	
Nyala				73	50	3650	
Bushbuck	25	50	2	30	84	2520	
Waterbuck	130	205	1.6	160	183	29280	
Wildebeest	108	226	2.1	123	465	57195	
Impala	32	60	1.9	40	1743	69720	
						630525	TOTAL BIOMASS (Excludes 2000 ha buffalo camp, Harmony 36, Harmony 90 & Langa Langa)
						205	AREA KM^2 (Excludes 2000 ha buffalo camp, Harmony 36, Harmony 90 & Langa Langa)
						3076	LARGE HERBIVORE STOCKING RATE KG/KM^2

Biomass of large herbivores = 8.684(+-2.25)Annual Precipitation – 1205.9(+- 156.6)

The result is expressed in kg/km^2. Using an average annual precipitation of **460.9mm/annum**, the biomass for GMPGR is:

		2796.56
1	Mean -	**kg/km^2**
2	Upper -	3690.81 kg/km^2
3	Lower -	1902.30 kg/km^2

THEREFORE, GMPGR IS slightly above THE AVERAGE STOCKING RATE LEVEL

Refer to Figure 7 below.

XXII. Potential prey species, projection of prey species population and predation

Table 4: Biomass Calculation of potential lion prey biomass

Species	Average Weight		Ratio max/min	Unit wt.	GMPGR 2006 Census	GMPGR Available Lion Prey Biomass 2006
	Min	Max				
Zebra	160	290	1.8	200	542	108400
Warthog	30	70	2.3	45	476	21420
Greater Kudu	136	220	1.6	136	510	69360
Nyala				73	50	3650
Bushbuck	25	50	2	30	84	2520
Waterbuck	130	205	1.6	160	183	29280
Wildebeest	108	226	2.1	123	465	57195
Impala	52	60	1.6	40	1743	69720

361545	TOTAL LION PREY BIOMASS (Excludes 2000 ha buffalo camp, Harmony 36, Harmony 90 & Langa Langa)
205	AREA KM^2 (Excludes 2000 ha buffalo camp, Harmony 36, Harmony 90 & Langa Langa)
1764	LARGE HERBIVORE STOCKING RATE KG/KM^2 BASED ON AVAILABLE LION PREY

Refer to Figure 8 below for Feeding Class Ratios.

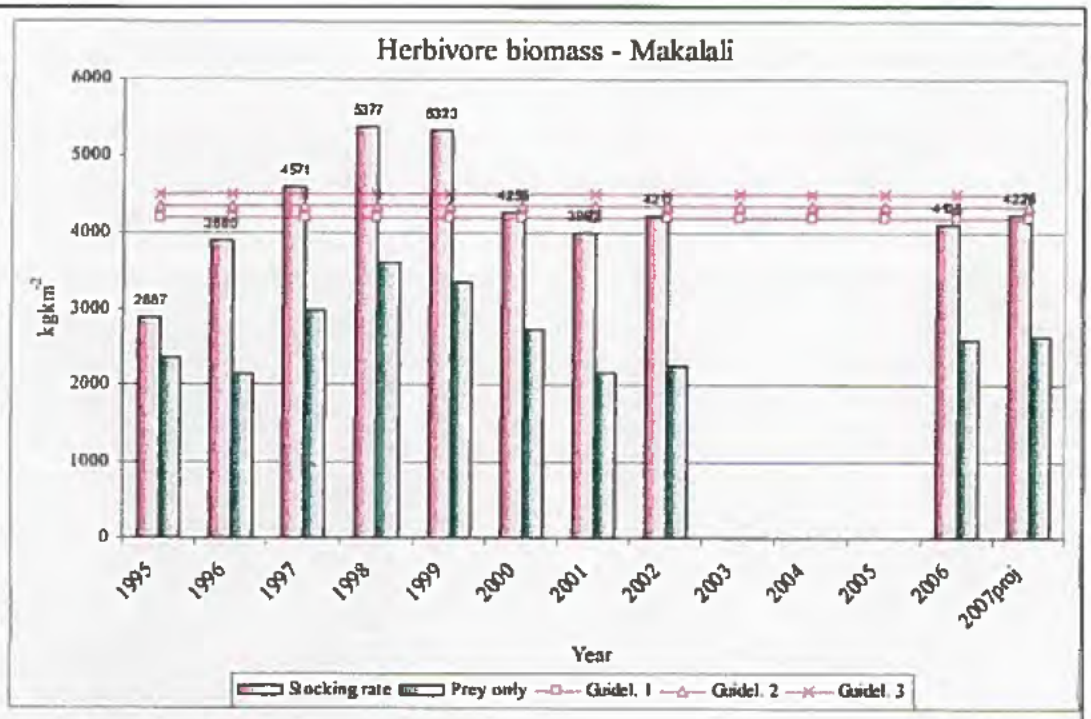

Figure 7 Herbivore biomass ($kgkm^{-2}$) on MGR.

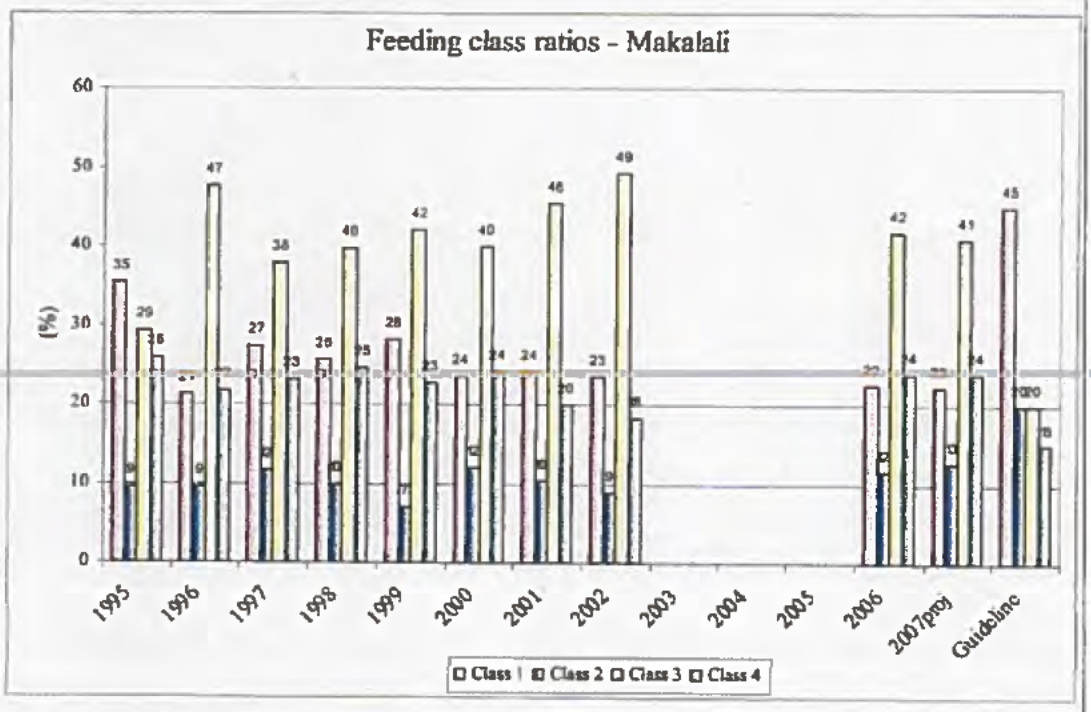

Figure 8 Feeding Class proportions on MGR.

XXIII. Lion population

Currently, there are 19 lions within the GMPGR. This population is carefully monitored. Management involves exchanging with other game reserves to bolster genetics as well periodic removal through relocation. Refer to attached family tree.

Age and Sex	Number	Comments
Adult males	2	
Adult females	5	
Sub-adult males	4	3 to be relocated – permits pending
Sub-adult females	6	
Infants	3	
TOTAL	**19**	

GMPGR Mission

It is our mission to *sustainably* manage the reserve according to high *ethical* and conservation standards. We aim to achieve this by considering all aspects of biodiversity and by making *balanced decisions* derived from a broad spectrum of applicable and proven scientific knowledge, practical experience and continuous research and monitoring endeavours.

GMPGR Objectives

The aims and objectives of The Reserve are:

1) The promotion and conservation of the biodiversity on the properties constituting The Reserve, whose owners are members who have signed the constitution.
2) The creation and promotion of sustainable economic structures linking local communities to The Reserve, its wildlife and the conservation thereof.
3) The rehabilitation of The Reserves' fauna, flora and ecosystem to its naturally sustainable state.
4) The representation of its members in dealing with government departments and other authorities on local, provincial and national level and with private organizations whose function it is to further and promote the protection and conservation of wild life, habitats and people in South Africa.
5) The promotion and assurance of the continued existence of The Reserve.

GMPGR Goals

The holistic goals derived from the above objectives are:

1) The creation of a sustainable *category 6 (IUCN) protected area, rich in biodiversity.* (A category 6 protected area is an area rich in biodiversity which also makes allowance for limited human development.)
2) The responsible management and maintenance of all aspects of The Reserve, *ensuring its continued existence.*
3) The enforcement of strict limitations on the amount of development or exploitation of humans, *ensuring the natural splendour of The Reserve.*
4) The continuous striving towards a model which can be successfully used by protected areas faced with challenges similar to ours, *resulting in wide spectrum biodiversity conservation.*
5) The creation of *one of the finest game viewing destinations in Africa.*
6) The *fair and friendly treatment of staff and guests.*
7) The fair treatment, sustainable involvement and environmental education of local communities, resulting *in a better understanding and respect of ecosystems.*

Lion Management Goals

- To maintain:
  - A self-sustaining lion population
  - A healthy, genetically viable population of lion and their prey species
- To provide:
  - Essential general info required for effective & ethical management of lion
  - A reference aid to assist in development of future protected areas to house lion
- To create:
  - A model that produces innovative & practical solutions for management & protection.
  - Awareness re long-term challenges associated with lion for correct planning.

I. Management of lion

The extensive management approach, which entails keeping lion under conditions that are as natural as possible within the ecological constraints of the fenced property i.e. 220km^2 GMPGR. The principle that applies is that minimal or no manipulation is allowed of prey populations, unless excessive drought occurs resulting in a decline in prey species. The lion population is only manipulated in the vent of:

a) the maximum number that can be sustained under the prevailing biological conditions and social parameters is obtained, and;
b) the genetics of the population need to be bolstered.

II. Disposal of surplus lion

When the situation arises, the GMPGR is subject to the requirements as stipulated by DEAT's TOPS (Threatened or Protected Species) Regulations (DEAT 2007). Conditions subject to which a permit for the import, export or translocation of large predators may be issued are subject to the Norms, Standards and regulations relating to the management of large predators (DEAT 2005) to which the GMPGR will comply. Furthermore, GMPGR works closely with the Lion Management Forum (LiMF) and several other National and private game reserves as well as the University of KwaZulu Natal.

III. Research and Monitoring

Spatial monitoring

Data is collected via the various ranging departments as well as the two dedicated monitoring programs on the GMPGR. This data is essential for the Predator Management on a reserve-wide scale. These data will then be pooled with data re the existing lion populations in order to more accurately assess individual and pride home ranges, range distribution, territory overlap etc.

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Maps produced by A Delsink.

THE GREATER
LAND & WILDLIFE TRUST





GMPGR LION FAMILY TREE
JANUARY 2015

TOTAL LION POPULATION: 31

THE GREATER
LAND & WILDLIFE TRUST



DOMINANT MALE LION COALITION (N=2)

#85Phantom/Spoku/ Umfokazi
Adult ♂ 8+ yrs
DOB: Unknown
Origin: Unknown

#69 Million/Masana
Adult ♂ 8 yrs
DOB: Dec 06
Mother = BELLA
Scar on nose

THE GREATER Makalali LAND & WILDLIFE TRUST





SUB-DOMINANT MALE LION COALITION (N=2)

 # 81G1
Kalahari Jnr
♂Born Mar/Apr09
Age = 5 yrs
Mother #6 Dorris

 # 93 Zamula
♂Born 06/2011
Age = 3 yrs
Mother #38 Midget
Sisters #82 & #83

 # 94 Ubuthi
♂Born 06/2011
Age = 3 yrs
Mother #38 Midget
Sisters #82 & #83
DECEASED DEC 2014

THE GREATER Mahkutswi LAND & WILDLIFE TRUST



MAHKUTSWI LIONS (N=7)

#38 Midget
Adult 14+ yrs ♀
DOB: Feb 02 **GERTRUDE**
Contraceived 20/05/04
Last litter 2011 #93 & #94
BADLY INJURED – OCT 2014

Desiree pregnant – Jan 2015

 # 82G2
Lady Balfour
♀Born Mar/Apr09
Age = 5 yrs
Mother #6

 # 83G3
Desiree
♀Born Mar/Apr09
Age = 5 yrs
Mother #6

 # 118♂
Lungile
Born Aug/12
Age = 2 yrs
Mother #82
Relocated Nov14 - Maseke

 # 119♂
Sandile
Born Aug/12
Age = 2 yrs
Mother #82
Relocated Nov14 - Maseke

 # 120♂
Wandile
Born Aug/12
Age = 2 yrs
Mother #82
Relocated Nov14 - Maseke

 # 112♂
Dundu
Born Mar/12
Age = 2.5 yrs
Male

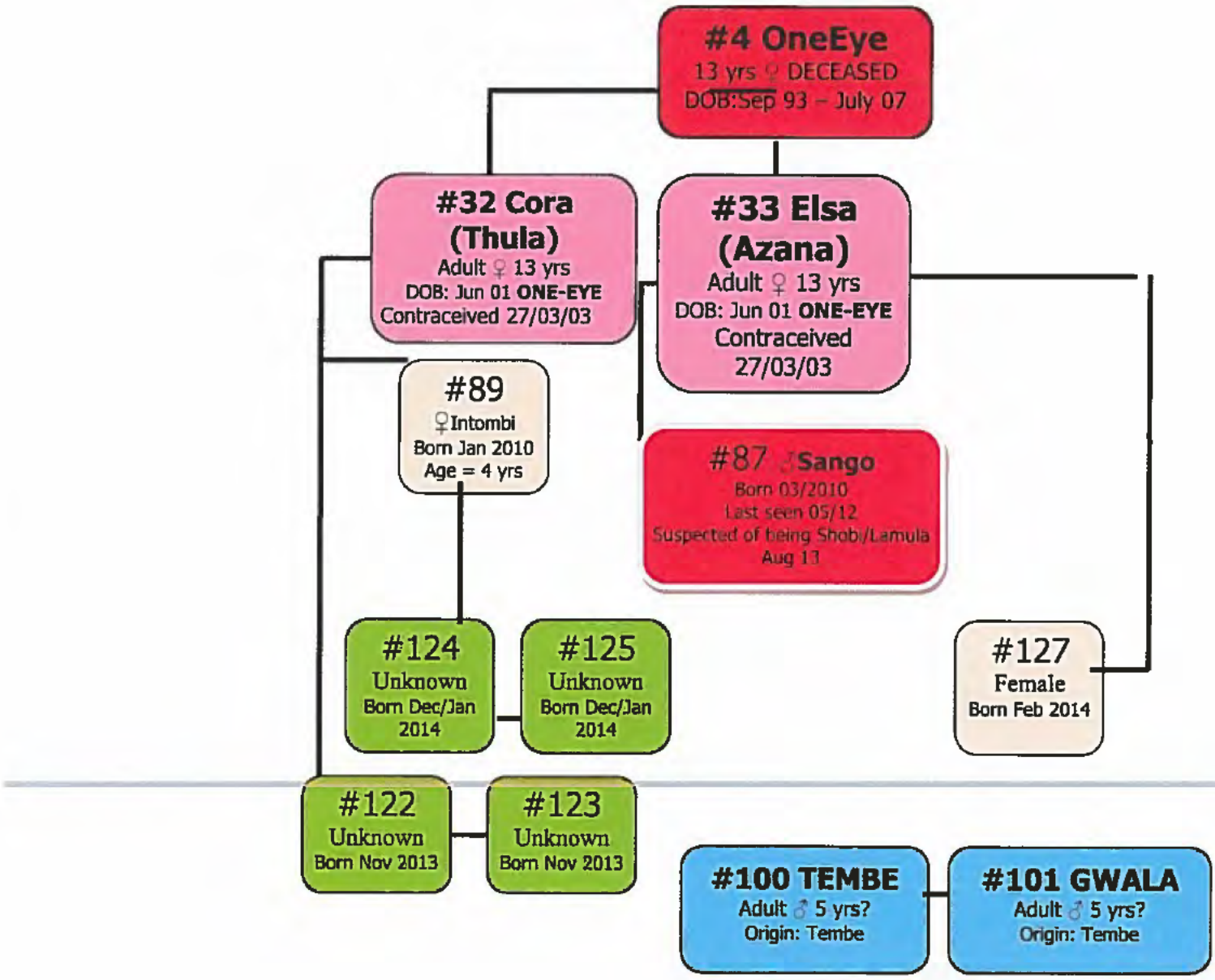
 # 113♀
Nhlahla
Born Mar/12
Age = 2.5 yrs
Female

 # 132♂
Lizwi
Born Nov/Dec 13
Age = 1 yrs
Male

 # 133♀
Dade
Born Nov/Dec 13
Age = 1 yrs
Female

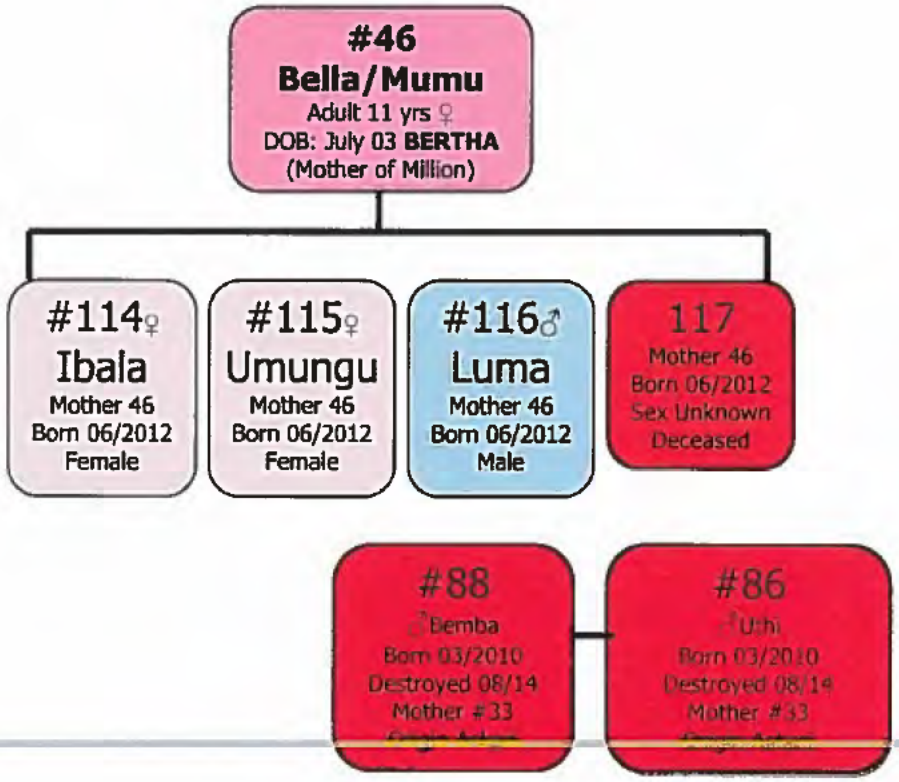
THE GREATER
LAND & WILDLIFE TRUST

ASKARI PRIDE (8) & TEMBE MALES (2)



THE GREATER
Makutsi
LAND & WILDLIFE TRUST

GARONGA PRIDE
(split from Makhutswi Pride)
N = 4



Ibala and Umungu seen without Bella and Luma August 2014

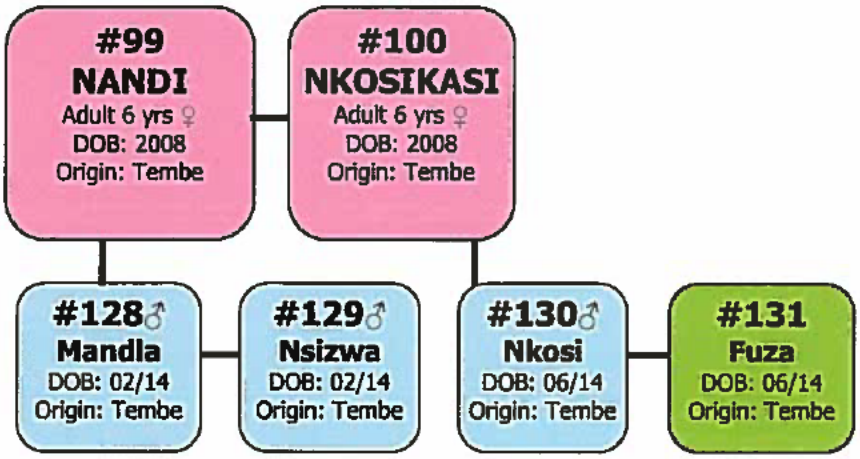
THE GREATER Mokolodi LAND & WILDLIFE TRUST



TEMBES (N=6)

(MALES INTEGRATED WITH ASKARI)

PRIDE



Relocated from Tembe to GMPGR 1 October 2011.
RELEASED 7/11/11 INTO OPEN SYSTEM

Management of free-ranging lions on an enclosed game reserve

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We investigated the potential impacts that free-ranging lions (*Panthera leo*) have within a small (220 km²), enclosed, protected area, and the subsequent challenges to conservation managers. Challenges include: over-population; in-breeding depression; decline of prey and other predator species; conflict with neighbouring communities and, in some cases, spreading disease. Lions are prolific breeders and reserves exceed their local carrying capacity within a relatively short period. Within the Greater Makalali Private Game Reserve we assessed a range of management interventions that can potentially achieve short and/or long-term reserve objectives, namely relocation, contraception, hunting, and artificial takeovers. None of the intervention methods resulted in long-term behavioural or social consequences. Constraints on lion management were more from societal values than biological or technological influences. If applied in the correct manner, at the correct time, all of these interventions, or a combination of them, can assist in achieving management objectives.

Key words: contraception, hunting, Makalali, management intervention, *Panthera leo*, relocation, removal, supplementation.

INTRODUCTION

Presently in South Africa, lions (*Panthera leo*) are mainly restricted to isolated populations in national parks, provincial parks, and private game reserves. Since 1992, lions have been reintroduced to restored natural ecosystems, mainly by the private sector, in many areas from which they had previously been exterminated (Hayward *et al.* 2007a; Hunter *et al.* 2007; Slotow & Hunter 2009). Lions hold deep emotional appeal to the general public and are often the single most sought after species for tourists visiting reserves (Mbenga 2004). Furthermore, lions also engender aesthetic and economic appeal to smaller reserves (Power 2002).

All current reintroduced populations are managed to reduce population growth (Slotow & Hunter 2009). Managing lion populations within enclosed protected areas produces a myriad of challenges, due to the belief that the smaller the reserve, the more intensively it needs to be managed (van Dyk 1997), and the complexity of the decision-making process (Slotow & Hunter 2009). Poor advice from conservation authorities or irresponsible management practices (often unintentional) implemented by landowners and concessionaires result in these challenges being compounded (Slotow & Hunter 2009). This lack of knowledge may result in one, and often several, of the following consequences: overpopulation (Vartan 2001; Hayward *et al.* 2007b); inbreeding depression (Hedrick & Miller 1992, Newmark 1996; Vartan 2001; Packer *et al.* 2005; Trinkel *et al.* 2008); impact on other predator or prey species (Mills & Shenk 1992; van Dyk & Slotow 2003, Hayward *et al.* 2007c); break-outs as a result of pressure from other lions within the protected area (Steele 1970; Slotow & Hunter 2009); the intra- and interspecies spread of disease; and conflict with local communities in the event of stock loss or the loss of human life (Hunter 2001; Packer *et al.* 2005).

Active management is necessary to ensure that protected areas meet their objectives (Pressey 1996). The effect of lions on the underlying prey populations can be substantial in small reserves, and may require intensive management such as supplementation of prey species (*e.g.* Power 2002; Slotow & Hunter 2009) or population reduction (Maddock *et al.* 1996; Slotow & Hunter 2009).

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However, the key issue of concern is rapid population growth (Vartan 2001; Druce *et al.* 2004a; Hunter *et al.* 2007; Hayward *et al.* 2007a; Slotow & Hunter 2009), which is a result of (1) high recruitment, and (2) artificial changes/influences such as the absence of infanticide, diseases, and intraspecific conflict, all of which contribute to limiting population growth (see Packer *et al.* 1988). In addition, small private reserves, reliant on tourism as their primary source of revenue, typically have unnaturally high prey species stocking rates, thus ensuring a constant food source for lions, resulting in no starvation taking place (Vartan 2001).

In open systems, a male coalition holds tenure over the pride, and effectively excludes strange males from siring cubs with pride females (Packer *et al.* 1991). Competition amongst males for pride tenure is intense, the average tenure being two (Packer *et al.* 1988) to three (Stander 1991) years. Infanticide is common when males take over a new pride; most females with dependent offspring lose their cubs within a month of a takeover, and those that are pregnant lose their cubs shortly after giving birth (Packer & Pusey 1984). On enclosed protected areas, with only one resident coalition, this cannot take place.

Typically, enclosed game reserves experience high rates of population increase where prey species are abundant and competition is low (Vartan 2001; Hayward *et al.* 2007a). This is due to a combination of no opportunities for emigrations or immigrations (Vartan 2001), low natural mortality rates and the fact that lions are very proficient breeders (Rudnai 1973; Packer & Pusey 1987). This results in lion populations on enclosed reserves reaching or exceeding their local carrying capacity within a relatively short period of time (Hayward *et al.* 2007c).

The aim of this paper, using the Greater Makalali Private Game Reserve (GMPGR) as a case study, is to highlight the complexities of managing lions within small, enclosed reserves. The biology of lions on the GMPGR has previously been described (Druce *et al.* 2004a; Druce *et al.* 2004b), and lion population growth has been extremely high (Druce *et al.* 2004b). A range of management interventions aimed at reducing the population size of lions can potentially achieve short and/or long-term reserve objectives. We assess the successes of these interventions both in terms of the biological consequences, but also in terms of the societal influences on these. We outline the state (1) prior to intervention, (2) the intervention plan, (3) logistical considerations, (4) the consequences of, and (5) the costs and success of, interventions. The specific interventions assessed were: removal for relocation, contraception, hunting, and supplementation through artificial takeovers. Note that here we do not assess the decisions to manage the population, but rather the interventions themselves. We also do not assess culling as an intervention because it was not done at Makalali, but it is an alternative possibility (see Slotow & Hunter 2009).

METHODS

Study site

The 220 km² GMPGR is situated in the Central Lowveld region, east of the Drakensberg Mountains, Limpopo Province, South Africa. Altitude varies between 300 m and 500 m above sea level, with undulating terrain, interspersed with rocky outcrops. The main vegetation types are Mixed Lowveld Bushveld (Low & Rebelo 1996, Type 19) and Mopane Bushveld (Low & Rebelo 1996, Type 10). The area falls within a summer rainfall region (October to April), with an average rainfall of 450 mm. Generally, the temperatures vary between 7°C and 36°C. The GMPGR is drained by several non-perennial watercourses and the perennial Makutswi, a tributary of the Olifants, and Selati rivers.

A pride of six related lions (two males and four females) were released onto the reserve in mid 1995. Despite the risk of inbreeding depression, these numbers have increased over time. From the six lions originally introduced, 35 lions were born at a rate of 11.6% growth per year over a period of 7.5 years (Druce *et al.* 2004b; Fig. 1 updated to 2006 population). Fortunately, the lions were reasonably habituated to game drive vehicles, allowing easy and close approaches. All individuals were individually known through distinctive markings.

Management context

The GMPGR is made up of several privately-owned properties which have removed all internal fences. The reserve is governed by a voluntary organization constituted and incorporated with the objects and powers set forth in a constitution. Strict regulations are in place, which limit the amount of development. Income is provided through low-impact eco-tourism, live game sales, and limited

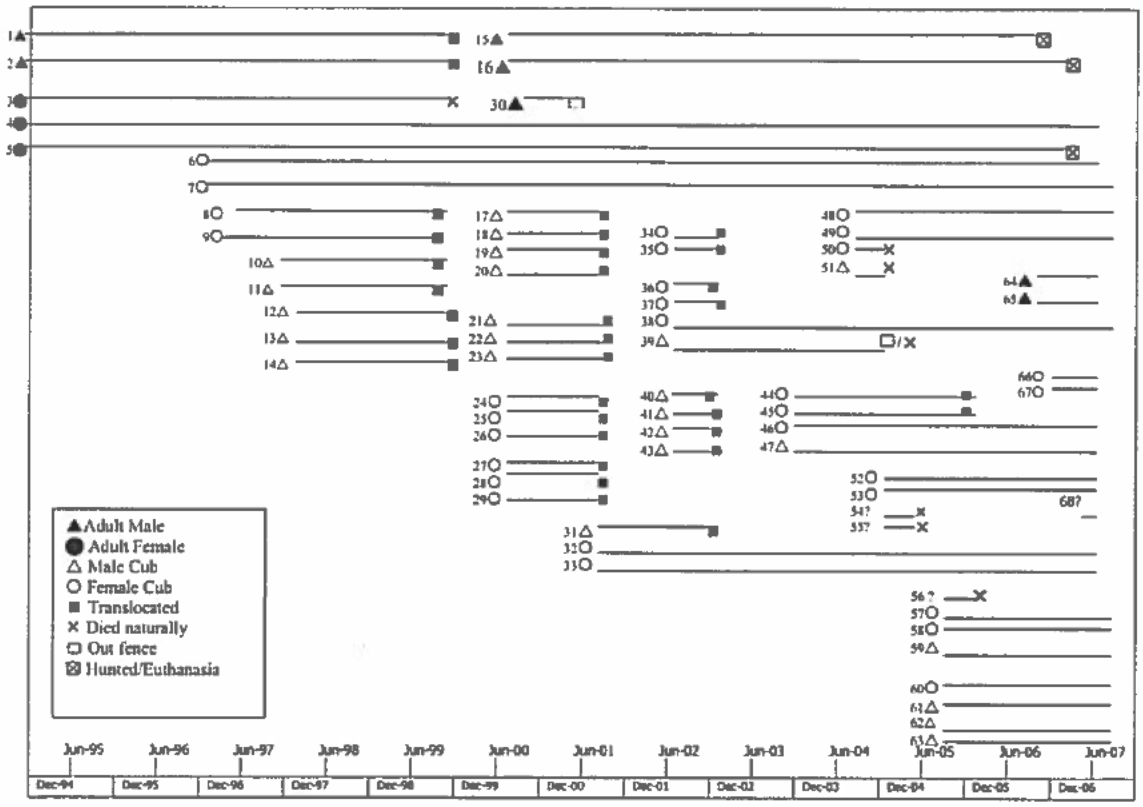

Fig. 1. History of GMPGR lion population from April 2005 to June 2006. (Updated from Druce *et al.* 2004a.) Natural mortalities were from: infanticide (Numbers 50, 51, 54, 55, 56); a take-over (Number 3: very old female); male territorial conflict (Number 39: young male disappeared, was seen being harassed by older males, no remains found, and no breakout). Unnatural mortalities were: adult female euthanased (Number 5: she had a broken hip and was hanging around human habitation); Males hunted (Numbers 15, 16).

hunting with the quotas determined scientifically. A single manager/warden implements these policies and strategies according to the reserve objectives.

The management aim of the GMPGR was primarily to provide a low-impact high-end tourist experience in a sustainable manner. Specific lion-related objectives to achieve this were to maintain the adult lion population at approximately eight individuals: the demography being as close as possible to a two adult male coalition, six adult females; and a mixture of 8–12 subadults and cubs (total lion population: 16 to 20). Inbreeding was minimized on both biological and ethical grounds. Tourists were able to see lions regularly (Kettles, pers. obs.), and the pride had a good cross-section of adults, subadults and cubs. More importantly, this number did not have a negative impact on prey species abundance (Druce *et al.* 2004a), and most prey species increased (Table 1), indicating that the lion population was sustainable at those levels.

Live removal through relocation

Here we refer to relocation as the live removal of lions for subsequent reintroduction or supplementation at other locations. Prior to planned removals, new venues were sought, either directly or *via* game capture operators. The best age at which lions could be captured for relocation was between 18 and 22 months. This is because lions were fully weaned and male lions were usually expelled from the pride at this age. Lions at this age were also able to fend for themselves and were adaptable to new circumstances. Invariably, three days before the capture was scheduled, the lions' position on the reserve was established and their movement closely monitored to ensure that the capture would be executed efficiently (no lions were radio-collared). This significantly reduced the veterinary costs.

The live capture of lions on the GMPGR involved darting with a Dan-Inject® dart gun using 3 ml darts fired by qualified veterinarians. The selected lions were darted from the back of a four-wheel drive

Table 1. Prey species numbers on GMPGR from 1998 to 2006.

Species	1998	2000	2001	2004	2006	Trend
Blue wildebeest, *Connochaetes taurinus*	293	346	294	456	465	Increase
Burchell's, zebra *Equus quagga*	281	371	338	531	542	Increase
Bushbuck, *Tragelaphus scriptus*	54	21	47	67	84	Increase
Duiker, *Sylvicapra grimmia*	13	10	5	42	25	Increase
Eland, *Taurotragus oryx*	14	8	6	17	17	No trend
Giraffe, *Giraffa camelopardalis*	136	121	83	136	150	Increase
Impala, *Aepyceros melampus*	1596	1131	713	1917	1743	Increase since 2001
Greater kudu, *Tragelaphus strepsiceros*	233	284	273	504	510	Increase
Nyala, *Tragelaphus angasii*	35	22	18	32	50	Increase since 2000
Steenbok, *Raphicerus campestris*	0	4	3	15	23	Increase
Warthog, *Phacochoerus africanus*	167	222	121	459	478	Increase
Waterbuck, *Kobus ellipsiprymnus*	195	152	120	251	183	Increase to 2004, then decrease

Data source: 1998, 200 and 2001: Druce *et al.* 2004a, 2004, 2006: Agricultural Research Council Annual Report (2006) to reserve management. Annual total count in August/September from helicopter with two observers.

vehicle and, depending on whether lions were darted during the day or night, zoletol or a cocktail of nedetomidine and ketamine were used as an anaesthetic.

For each relocation, the following data were collected: age and sex of all individuals, ease of capture (Difficulty Index – see below), costs of relocation, destination of lions, the association of the lion at the time of capture, and whether or not any income was generated from the relocation.

For all interventions where anesthesia was required, the same integrated index of difficulty was classified according to a subjective scale of (1) being very easy to (5) being very difficult. The criteria used for this scale were: ease of locating targeted animals, density of the bush (thick bush makes darting difficult, while open areas make the process easier), behaviour of the lions (were they skittish, mobile or relaxed?), and the time of day/weather (cool weather results in fewer complications with the anaesthetic; and lions tend to be more mobile at night; anaesthetized lions are harder to locate at night and the risk is high of walking into unanaesthetized lions while looking for anaesthetized lions), and whether or not lions responded to call up recording or bait.

The location of the selected lions was established by spoor tracking before the arrival of the veterinarian who would administer the anesthetic. Once the lions were located, they were attracted to locations that are more accessible by playing recordings of lions at a kill or warthog (*Phacochoerus africanus*) distress calls. Recordings of adult male lion vocalizations were played on three occasions and in all cases, scared away the lions of our young target group (such recordings were not used again). When lions had not recently fed, bait in the form of an impala (*Aepyceros melampus*) or warthog carcass was offered to them in order to keep them in a specific, accessible, area. The capture process was simplified when the lions were found feeding on a kill. The movements and behaviour of the remaining pride (those not captured) were monitored for seven days following the capture.

Contraception

Deslorelin as a contraceptive has been successfully used in other wild carnivores in southern Africa, including cheetah (*Acinonyx jubatus*), African wild dog (*Lycaon pictus*) and leopard (*Panthera pardus*) (Bertschinger *et al.* 2001a). The decision to apply contraception was aimed not at stopping all the lionesses from breeding, but rather at slowing down the rate of conception of selected females on a rotational basis. The remaining females were allowed to breed normally. Management decided to follow this route, as a pride without any cubs or subadults is unnatural, and this could possibly lead to behavioural abnormalities.

Furthermore, the presence of juvenile and infant cubs was an important attraction for tourists.

Deslorelin works by blocking the hormone GnRH (see Bertschinger *et al.* 2008), and under this method, lions do not have an oestrus cycle (Bertschinger *et al.* 2001a). Administering GnRH analogue deslorelin involved anaesthetizing the lioness and inserting a slow-release implant subcutaneously in the neck region. The implant was cylindrical, approximately 2 mm in diameter and 4 mm in length. This rendered the implant invisible and ensured that there was no irritation. The implant is theoretically effective for a period of 18 months (Bertschinger *et al.* 2001a), and monitoring indicated that, thereafter, the lionesses cycled normally, but only conceived after their second or third cycle. Technically, the procedure is thus effective for two years (Bertschinger *et al.* 2001a).

Hunting

On the GMPGR, two male lions were hunted and the primary management objective was biological rather than financial. These 12-year-old lions were half-brothers and formed the dominant coalition on the reserve, with tenure over the pride for 6.5 years from 1999 until 2006. The consequence of such a long tenure is that males invariably mate with their female offspring, which from a genetic standpoint was undesirable. Individual lions were selected by management and made available to hunting outfitters who found suitable trophy hunters.

The two lions were hunted on two separate occasions, by two separate hunters. Both were stalked on foot and shot cleanly. The fact that they were by themselves at the time they were hunted resulted in no disruption to the rest of the pride. From one week prior to each hunt, management monitored the movements of the lions in order to make the hunt as quick and efficient as possible. The first lion was observed approximately 1.5 hours before the arrival of the hunter at about 07:30. Upon his arrival, the lion was tracked on foot and was shot at 11:13. The second lion hunt proved to be more challenging in that the lion had moved from where he was last observed the day prior to the hunt. The lion was finally located at about 17:30, only one hour before sunset, and was immediately shot. No baits were used

Supplementation through artificial takeover

In the GMPGR, only one adult male coalition occurred at any one time, and natural takeovers were not possible. In order to ensure genetic variability and avoid inbreeding, male coalitions were replaced artificially through the removal of existing males and the introduction of a new coalition. Two artificial takeovers were implemented in 1999 and again in 2006, when the two-male coalition was removed, and new, unrelated, two-male coalitions from different gene pools were introduced.

RESULTS

Across all interventions, it took longer to locate the animals than for the intervention itself. In some cases it took days to locate specific targeted animals, and sometimes it only took a few hours. This is because the lions at Makalali did not have radio-collars, and spoor tracking had to be used. In reserves with collared lions this would be less of a constraint. Once the lions were located, the veterinarian was called if required, and finding the lions at that stage was relatively simply. Unfortunately, the details for this for each intervention were not recorded. This factor would be similar across all interventions, and would be random depending on where the lions were at the time a decision was taken to do something.

For all instances when animals were anaesthetized (*i.e.* all except hunting), the following conditions were common. Firstly, all except a single intervention was undertaken during the day. This is because it is much safer as all lions can easily be located and monitored. Almost all interventions took place in the early morning or late afternoon, because of the heat in the middle of the day. In all except one case, the behaviour of the lions was similar, with the lions always relaxed/sleeping/dozing or feeding when we intervened. This is because it was impossible to approach skittish or alarmed lions in the relatively thick bushveld at Makalali; they easily move off into the bush making following impossible. In all instances, the bush at the intervention site was relatively thick, but visibility was seldom more than 30 m. This always made darting difficult, as a safe maximum distance for darting is about 20 m. We only used a call-up from a long-distance once, as in all other cases we knew where the lions were when we started. The level of difficulty for the implementation once the lions were found was also similar across interventions, with the random circumstances on the day dictating effort required.

Live removal through translocation

Up until 2002, the GMPGR desired pride size was maintained by simply removing excess

Table 2. Lions translocated from the GMPGR to other game reserves.

Target animal's ID	Age at relocation (months)	Sex	Time/date of capture	Difficulty index (1 easy, 5 difficult)	Destination	Income[a]
1, 2	70	M x 2	Sold – 11/vii/99	3	Kapama	Exchanged for two new males
8, 9	27	F x 2	08/99	2	Karongwe	0
10, 11	21	M x 2	09/99	1	Selati	R12 000
13, 14,15	21	M x 3	Boma – 22/vii/99 Sold – ii/99	2	Free State	0
17, 18,	17	M x 4	Boma – 09/vii/01	3	Kalahari	R24 000
19, 20			Sold – 27/viii/01			
21, 22, 23	17	M x 3	Boma – 11/viii/01 Sold – 12/ix/01	4	Kalahari	R22 000
24, 25	17	F x 2	Sold – 06/ix/01	2	Kalahari	R16 000
26, 27, 28	16	F x 3	Boma – 11/viii/01 Sold – 06/ix/01	3	Kalahari	R24 000
29	16	F x 1	Boma – 28/viii/01 Sold – 29/viii/01	2	Kalahari	R8000
31	21	M x 1	Boma – 08/iii/03 Sold – 11/iii/03	2	Kalahari	R10 000
34, 35,	15	F x 4	Sold – 06/iii/03	4	Kalahari	R24 000
36, 37						
40, 41	15	M x 4	Sold – 06/iii/03	4	Kalahari	R32 000
42, 43						
44, 45	32	F x 2	Sold – iii/06	2	Kapama	0

[a]Cost was R0 in all cases (covered by buyer).

subadults once they had reached the age of 18 to 22 months, as they were at an age of being capable of fending for themselves. Thirty-three such lions were subsequently relocated to other game reserves (Table 2).

In all, 33 lions were moved in 12 different translocation operations (Table 2). The average group size was 2.75. All groups sold, with the exception of a mixed group of four males and four females (sold 6 March 2003), were single-sex groups. Mixed-sex groups could not be sold because the target animals were related and the purchasers did not want related mixed-sex founder groups established on their properties for genetic reasons. Six groups were relocated immediately after capture, while six were held in a boma for an average of 27 days prior to translocation. The ease of capture ranged from 1 to 5 (mean = 2.83) (Table 2). Ease of capture was reduced in thick bush, and when groups that were mobile and unwilling to respond to recordings or bait. Most of the relocated lions were sold at a profit, with the mean (± SE) income for a male being R7143 (± R323) and for a female being R6600 (± R305). Two males were exchanged for another two males at no profit, while four females and three males were donated to other game reserves. Over time it has become increasingly difficult to find homes for relocated lions.

Contraception

The contraceptive was administered to seven lionesses. In each instance, the procedure was successful in that the treated females did not mate or conceive within a 22-month period (Table 3). The insertion of the GnRH analogue Deslorelin implant itself was a straightforward procedure. The most difficult component of the operation, as with relocation, involved the actual location and anaesthetizing of the target animals.

The average cost of contraception per lioness was R4927, which comprised of veterinary fees for two hours' work (R2600), veterinary travel charges (@R9/km (R1260), anaesthetic costs (R507), and

Table 3. Contraception of lionesses on the GMPGR.

Individual ID	Date of contraception	Cubs born	Difficulty index (1 easy, 5 difficult)	Comments
4	28/vii/02	3	4	No cubs since 2005. Too old to conceive now (14 years)
6	27/iii/03 20/iv/04	0	3 2	No cubs born. Never observed mating
7	26/iii/03 20/v/04 13/ii/07	0	2 2 1	No cubs born. Never observed mating
32	27/iii/03	0	3	Pregnant; expect cubs July 2007
33	27/iii/03		3	Did not conceive for two years. Lost litter of two to hyaena in March 2006 Sighted in January 2007 with one very young cub
38	20/v/04	0	2	Was observed mating in May 2007
59	13/ii/07	0	1	Too soon to have results

GnRH implant cost (R560). On the surface this appears to be an expensive management intervention. However, the costs of not applying contraception, in the form of loss of prey individuals through predation and challenges arising from over-population or inbreeding, outweighed the implementation costs by a wide margin. As an estimate, based on the mean litter size of 3.2, and presuming the lionesses would have conceived at the average inter-birth interval of 20 months, contraception so far has prevented the birth of approximately 22 lions. Presuming the sex ratio of the cubs was 1:1, with the average meat consumption of 5.4 kg/day, the lions would have consumed roughly over 43 000 kg of game, or over R800 000 (R20/kg) in the last year alone.

Hunting

The two old dominant males were removed (hunted) in 2006 without disrupting the behavioural and social dynamics of the remaining pride. The management intervention also brought in substantial revenue (R100 000 each) that could be reinvested into conservation initiatives. Furthermore, the removal of these lions allowed for supplementation using a new coalition (see below), and in so doing, resulted in an artificial takeover, and unrelated genetic stock. There were only two hunts. These are described in detail in the methods. Overall, the ease of implementation was average (Index value 3; Table 4).

Supplementation through artificial takeover

The results from the 1999 supplementation were exactly as would be expected from a takeover in an open system. Upon their release from the boma, the two new males sought out the female pride, asserted their dominance and killed all the cubs. What was not anticipated, however, was that the new males would kill the oldest and most dominant lioness (see Druce *et al.* 2004a for details). This particular lioness was approximately 14 years old and was probably near the end of her reproductive life.

Table 4. Summary of effectiveness of various management interventions.

Intervention	Cost	Ease of implementation index (1 easy, 5 difficult)	Efficacy: short-term population size reduction	Efficacy: long-term population size reduction
Translocation	Positive	2.6	Good	Good
Contraception	Negative	3	Poor	Fair
Hunting	Positive	3	Good	Fair
Artificial takeover	Positive	2	Good	Poor

See Table 2 and 3, as well as the text for details.

The behaviour of the lions in the 2006 supplementation varied from the first in that they established themselves in the eastern section of the reserve, and up to July 2007, had not yet joined a pride. This is more than likely a result of their being still reasonably young (2.5 years old) and inexperienced, and we expected that as they were the oldest existing males on the reserve, they would take over the pride shortly. The introduction of these younger males was less disruptive to the pride than that of the older males in the first supplementation.

As the lions that were removed were exchanged for another two lions from Kapama and the deal was structured in such a way that the capture and relocation costs were borne by Kapama, the costs of both these supplementations were negligible. In the second supplementation, the new males were donated to GMPGR from Welgevonden, and the only cost was that of collecting them (approximately 900 km @ R4.00/km = R3600 (R1800 each).

Contrast of methods

We assessed the four interventions according to four criteria: cost, ease, efficacy to reduce population size in the short term, and in the long term (Table 4). Contraception was relatively costly, they were all relatively easy to implement, contraception was poor at reducing populations in the short term, and translocation was the best at reducing populations in the long term (Table 4).

DISCUSSION

Relocation proved to be both cost-effective and practical. Because lions were relocated young, their consumption of prey species at their natal reserve was cumulatively relatively low. Furthermore, their minimal size and weight simplified the capture and transportation operations. In each instance, the actual cost of the capture (veterinary fees and transport) was borne by the purchaser and the funds received from a sale were a nett amount, *i.e.* no other costs were applicable. The risk of an animal dying due to veterinary complications became the purchaser's once the anaesthetic dart struck the lion, which in fact never happened. During the first 48 hours after the capture these animals tended to be elusive at their new destination, but soon settled down, displaying no avoidance behaviour or undue aggression towards vehicles or each other. Furthermore, no break-outs occurred at their destination in the period after release (various new owners, pers. comm.)

Initially, these lions were readily sold to emerging game reserves wishing to re-introduce lions. During the past six years, however, it has become increasingly difficult to sell these lions as virtually all the other small, enclosed reserves also have excess lions, and the market has collapsed due to over-supply. Furthermore, the draft Department of Environmental Affairs and Tourism (DEAT) National Lion Management Policy forbids the selling of free-range lions to reserves smaller than 10 km^2, or to lion breeders. This limits the market even further. Besides the above, the ethics of selling free-ranging lions to managers of small areas or breeding projects where the lions are kept in small enclosures is questionable. Tour operators or members of the press finding out that properties are supporting the 'canned lion hunting' industry could cause irreparable damage to a tourist venue through negative media publicity (Hayward *et al.* 2007b). Thirteen different small, fenced reserves have initiated removals through relocation (Slotow & Hunter 2009).

Contraception has become an accepted management tool for lions on small protected areas (Slotow & Hunter 2009). The main reasons for carnivore contraception in southern Africa are to slow down the rate of breeding rather than to effect permanent sterilization (Bertschinger *et al.* 2001a), and to limit the use of more drastic population control measures, such as culling. The earlier progesterone implants caused emasculation or sterility in lionesses (Bertschinger *et al.* 2001a). No such problems were observed with the Deslorelin implants, and to date, no behavioural or health-related side-effects as a result of this form of contraception have been noted (Bertschinger *et al.* 2001a). Successful programmes of a similar nature to this have been initiated on 12 different reserves (of 24 respondents), and their managers, on average, scored the ease of implementation at 2.4 (out of 5) (Slotow & Hunter 2009).

Using Deslorelin achieves the objective of lowering the breeding rate, and reduces the challenge of selling live excess lions. Furthermore, because females will be administered contraceptives rotationally in the long term, the animals will all be allowed to breed and live a reasonably natural life. The GnRH Deslorelin implant offers a safe and reversible method of contraception in small numbers of captive and free-ranging wild carnivores. Repeated oestrus cycling of females, as seen with porcine Zona Pellucida (pZP) vaccine (*e.g.* elephants (*Loxodonta Africana*), Bertschinger

et al. (2008)) and weight gains, and increased incidence of uterine and mammary tumours and endometrial hyperplasia observed with progestogens implants (Munson & Mason 1991), appear unlikely with Deslorelin treatment (J. Kirkpatrick, pers. comm. 2000).

In South Africa, hunting and ecotourism have encouraged the conversion of land use from domestic livestock back to wildlife and in so doing has aided the re-establishment of certain endangered species (Thompson 2003). Hunting is also the mainstay of conservation in North America and Europe. If carried out ethically, and if quotas are determined scientifically, the hunting of adult lions appears to be an option in managing lion populations, particularly considering the high trophy price of these animals; up to R150 000 for a big maned-male, and R30 000 for a female (Damm 2005; X. Luyt, pers. comm. 2006). Six different reserves (of 24 respondents) have hunted lions (Slotow & Hunter 2009).

The hunting of lions is an emotive subject amongst the general public and owners/managers of lions should be made aware of the possible pitfalls. Properties reliant on tourism as a source of income could face boycotts or negative publicity from those tour operators who are not in favour of hunting (see Lötter *et al.* 2008 for treatment of the ethics of wildlife hunting for elephants in the South African context). Management must also be cognizant of the fact that the hunting of male animals can only significantly reduce the overall population size when the rate of removal of males is so high that females can no longer be impregnated (Milner-Gulland 2003). Too frequent trophy hunting of males could also potentially cause male takeovers to become sufficiently common to prevent cubs from reaching adulthood as a result of frequent infanticide (Bertram 1975; Swenson 1997; Greene *et al.* 1998; Packer 2000). This can be avoided by simply not hunting males younger than five or six years of age. This allows younger males to have to opportunity to hold tenure over a pride long enough to rear a cohort of young (Whitman *et al.* 2004).

Careful consideration should be given to hunting lions if the motivation for doing so is purely financial. A male is only recognized as being a trophy at the age of five to six years (Grobler 1997; Whitman *et al.* 2004), and by this time he has already consumed prey, that in financial terms, far outweighs what he can be sold for (Kettles, pers. obs.). Based on Power's (2002) observation that the average male lion eats 6.5 kg/day, a lion would have eaten in excess of 11 000 kg of meat by the time he was five years old. Assuming that the game the lion has eaten is worth an average of R20/kg, this amounts to R220 000. A lioness would eat about 0.33 times less, but the figures would still not make trophy hunting viable.

Adult male lions are sold live for anything between R20 000 and R100 000 while adult females are sold live for between R3000 and R9000 (Damm 2005; J.J. Van Altena, pers. comm. 2007). Most of these lions may end up being hunted at their new destinations anyway, at a large profit to the new owners. The decision to remove lions from GMPGR was based on biological reasons, but the decision to hunt rather than euthanase was a financial one. Although constrained by social and political concerns such as tourist sensitivity and government regulations, hunting on the GMPGR was a profitable management intervention given the need to remove the males anyway.

Artificial takeovers were easy to implement, but should be viewed more as a method of introducing new genes into a population (which was successful), than as reducing population size. When infanticide took place, population growth was reduced only for a very short period, as lionesses came into oestrus a few days after losing cubs (see Packer & Pusey 1984), so that when cubs were removed, females gave birth on average 189 days later (Druce *et al.* 2004b). Six other reserves have implemented adult male artificial takeovers, where the existing males were removed and new males introduced (Slotow & Hunter 2009)

Each of the interventions discussed have their individual merits, and they should all be considered as alternatives for population management if a decision to intervene is taken.

This case study indicates that a wide range of practical or technological interventions for lion management are available to wildlife practitioners (see also Slotow & Hunter 2009). Note that removal of animals through translocation, hunting, or even culling, is likely to stimulate population reproduction, and may necessitate continued intervention more often (see Slotow *et al.* 2008 for a treatment of this problem in elephants). As long as the interventions are well planned and executed, with the help of suitably qualified professionals (including veterinary supervision), there appear to be few constraints that will hinder a manager in choosing an appropriate intervention to assist in achieving objectives. The issue

appears to be influences resulting from societal values, such as aversion to hunting or extremely manipulative interventions such as contraception, rather than biological or technological influences. Further, we need to consider whether a lion population that is heavily manipulated is in fact a wild, free-ranging population (*sensu* May 1991). When applying any of these interventions, perhaps the most important challenge, therefore, is striking a balance between social issues (societal values) and the attainment of biological objectives.

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A. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law.

C. Valid for use by permittee named above.

D. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

E. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in South Africa for the purpose of enhancement of the survival of the species.

F. Specimen may not be sold or transferred for any financial remuneration.

G. Trophy must have been taken during the 2016 hunting season.

H. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of South Africa for the 2016 season.

I. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

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IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Zulim	Thomas	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	NA

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	NA	NA	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		
2. Tax identification no.	3. Description of business, agency, Tribe, or institution: NA		
4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title	6. Primary contact name		
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Hockley	TX	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
Hockley	TX	(b) (6)	(b) (6)	USA

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes [X] If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 15US59483B/9 No [ ]

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 02/12/2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
      P. l. melanochaita (African lion)

   b. Sex (if known).
      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
      Please see accompanying Attachment A

   b. Date wildlife is to be hunted:
      June 1 - 21, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
      All parts including skin, skull, teeth and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):
      NA —

   b. Date wildlife was hunted:
      NA —

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

NA —

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

NA —

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Please see accompanying Attachment A

Name:
Business Name: Thathahamba Enterprises T/A Mpondo Safaris
Address: 7B Birkenhead Road
Address:
City: Belmont
State/Province: Bulawayo
Country, Postal Code: Zimbabwe, Africa

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information provided by: Conservation Force, Pete Fick/Bubye Valley Conservancy, and the Zimbabwe authorities

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 02/12/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).
I will use a designated port.
9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):
Same as indicated on page 1.

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Tom Zulim
(b) (6) [redacted]
AND
John J. Jackson or Regina Lennox of Conservation Force
504-837-1233
jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

___ Yes X No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

Attachment A - Items 2.a. and 4
FWS Permit Application Form
Zulim, Thomas (b) (6) [redacted]

Country: ZIMBABWE, AFRICA
Operators Name: Thathahamba Enterprises T/A Mpondo Safaris
Address: 7B BIRKENHEAD ROAD, BELMONT, BULAWAYO, ZIMBABWE, AFRICA
Zimbabwe Tourism Operators Hop Number: 0309
Area of Hunt / Place: RIVERSIDE RANCH, Zimbabwe, Africa
Land Owners Name: W.D. R Bedford
GPS coordinates:
(This what we have to use in Zimbabwe)
Position Format UTM/UPS
Map Datum WGS 84
35 K 0426199
UTM 7966815
Closest Town: Hwange Town, Zimbabwe, Africa
Area: Matetsi Block, Zimbabwe, Africa
Region/Province: Matabeleland North Province, Zimbabwe, Africa
Professional Hunter Guiding Safari: George Hallamore
License Number: 144 Issued by National Parks and Wildlife of Zimbabwe, Africa
Dates of Safari: 1st to 21st of June 2016

GPS Coordinates for area:

Latitude: 18° 23' 15" S

Longitude: 26° 18' 4" E



(b) (6) [redacted]

(b) (6) [redacted]

12 February 2016
Date

Pay to the Order of U.S. Fish & Wildlife Service $ 100.00

Dollars

PROSPERITY BANK®
WALLER BANKING CENTER
31250 FM 2920 • WALLER, TX 77484
936-372-9404 www.prosperitybankusa.com

For FWS Application Fee

(b) (6) [redacted]

(b) (6) [redacted]

(b) (6) [redacted]

RCVD FEB 16 2016

Nelson, Emma <emma_nelson@fws.gov>

Permit No. 88388B Fwd: Feb 16 2016 1:30:00; Acknowledgement letter for Permit No. "88388B""

1 message

Tom Zulim (b) (6) Tue, Feb 16, 2016 at 3:38 PM
To: emma_nelson@fws.gov

Please find attached some additional information I would like to submit to be included with the above referenced permit application. It is provided by the Zimbabwe safari operator who is noted in the permit application. Please confirm receipt and let me know if you have any questions. Thank you.

Tom Zulim

Sent from my iPhone

Begin forwarded message:

From: E-Mail Sys#5 <permits@fws.gov>
Date: February 16, 2016 at 12:30:02 PM CST
To: (b) (6)
Cc: <permits@fws.gov>
Subject: Feb 16 2016 1:30:00; Acknowledgement letter for Permit No. "88388B""
Reply-To: <permits@fws.gov>

THOMAS (b) (6) ZULIM
(b) (6)
HOCKLEY, TX (b) (6)
U.S.A.

Thank you for submitting an application to the U.S. Fish and Wildlife Service. The application was received by the
Division of Management Authority on 02/16/2016; check number (b) accompanied the application. Your
application has been assigned the following PRT identification number: MA88388B-0

While processing time may be less, you should anticipate a minimum of 30 days to process your request, with
many requests averaging between 60 to 90 days due to some requests which need to be published in the Federal
Register and/or be reviewed by other Service offices.

While we are aware that you may want to inquire about the status of your application, we request that you allow our
office at least three weeks after the receipt of this letter to make any inquiries. If you have additional information that
needs to be provided, please mail information to DMA, Branch of Permits MS: IA, 5275 Leesburg Pike, Falls
Church, VA 22041 by fax 703-358-2281 or call our staff on duty at 800-358-2104.

To Whom it May Concern.pdf
471K

THATHAHAMBA ENTERPRISES (PRIVATE) LIMITED
t/a MPONDO SAFARIS

7B BIRKENHEAD ROAD
BELMONT, BULAWAYO
ZIMBABAWE
Email: pgreeffimpondo@gmail.com
Cell: 0772 104 008

16 February 2016

To Whom It May Concern

Mpondo Safari's operates on land acres adjoining Matetsi Safari area unit 4 and Deka Safari area. The Deka River cuts through the property which we spent a lot of money on damming to provide year round water for the game. We bought a herd of Buffalo for a breeding programme. The property also has 5 pans which we pump to all year round from the dam. This keeps the game spread out as not to pressurise the grazing around the dam. We have also drilled 3 boreholes on the property which we supply water from.

There are 15 workers employed on the property which are employed from the local community thereby supporting their families. Which, total over 60 people, 8 of these workers are on fulltime anti-poaching duty as we are under pressure from poachers, constantly removing snare lines. The cost of all the above is immense and would not be able to be funded without hunting. Due to the dry arid region we also supplementary feed the game during the winter months the food is trucked in from 360km away.

Kind Regards,



P. Greeff

LION ZIMBABWE ESA TROPHY

Permit Number: MA88388B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
THOMAS (b) (6) **ZULIM**
(b) (6)
HOCKLEY, TX (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

LB

RCVD FEB 22 2016

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
FORNEY	BRUCE	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	—	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
ALLIANCE	NE	(b) (6)		USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee.** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 45433b No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 02-16-2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   AFRICAN LION
   b. Sex (if known).
   MALE

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild: Northern Tanzania
   Maasailand - Kitwai
   b. Date wildlife is to be hunted: AUGUST/SEPTEMBER 2016
   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):
   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: Pano Calavrias
Business Name: Pano Hunting Safaris
Address: PO Box 70999
Address:
City: Dar es Salaam
State/Province:
Country, Postal Code: Tanzania

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Bruce Farm Date: 02-16-2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

Bruce Forney (b) (6) (b) (6)

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD FEB 22 2016





Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import application / request for information

1 message

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:46 AM
To: (b) (6)

We are in the process of reviewing applications for the import of African lions taken from Tanzania.

The U.S. Fish and Wildlife Service must make a finding that the sport-hunting of lions will enhance the survival of the species. We are now considering applications on a case-by-case basis, as opposed to making country-wide enhancement findings that were developed in the past. As such, we would like to give you the opportunity to submit additional information in support of your application. This may include (but is not limited to):

>>population status or trend data on the lion population, both the countrywide population and the local population;

>>information on the fees paid (e.g., licenses or trophy fees), recipients of these fees, and use of fees;

>>information about the safari outfitter, professional hunter, concession holder or land owner and their activities to conserve the species (e.g., habitat management or improvement, anti-poaching activities and success of those efforts, efforts to address human-lion conflict, population monitoring, community benefits). Copies of recent reports submitted to TAWA would be particularly helpful.

Do not hesitate to contact me with questions or clarifications.

Thank you,

--
Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

Please respond to any requests for information or documentation within 45 days from the date of this message; if not received within 45 days, your application will be considered incomplete and will be placed in our inactive files and we will not complete your request for a permit.

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

OMB No. 1018-0093
Expires 05/31/2017
RCVD MAR 8 2016

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Erdman	David	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)		(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Chuluota	FL	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

[signature] Atty in Fact 2-29-16

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
      Panthera Leo Melanochaita - South African Lion

   b. Sex (if known).
      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
      Coordinates : S 25 47 18 / E 022 59 05
      Farm Aurora, Vorstershoop, North West, South Africa

   b. Date wildlife is to be hunted:
      July 1-15, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
      Skin and Skull

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):
      N/A

   b. Date wildlife was hunted:
      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:
N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Antonie Lotter
Business Name:	Swift Dip
Address:	PO Box 1333
Address:	
City:	Thabazimbi
State/Province:	Limpopo Province
Country, Postal Code:	South Africa, 0380

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Atty in Fact Date: 2-29-16

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: _____

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

   Robert Conyers CHB
   2385 NW 70 Ave
   Miami, FL 33122

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information. N/A

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

N/A

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
    Robert Conyers CHB / Tel: 305-885-5244 or 305-458-9613 / email: RConyers@aol.com

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

Power of Attorney

Legal status of issuing party *Check appropriate box* [X] *Individual, [ ] Partnership, [ ] Corporation, [ ] Sole Proprietorship [ ] Other*

IRS Account Number or Social Security Number: [1] (b) (6) [redacted]

KNOW ALL MEN BY THESE PRESENTS, that: [2] David (b) (6) [redacted] Eizdman
doing business as a/an [3] Individual under the laws of the State of [4] FL organized on ____,
residing or having a principal place of business at [5] (b) (6) [redacted] Chuluota, FL (b) (6) [redacted]
hereby constitutes and appoints Robert Conyers Custom House Brokers , Inc., Florida corporations, its officers, employees, and/or specifically authorized agents its heirs and assigns, to act for and on its behalf as a true and lawful agent and attorney of the grantor for and in the name, place and stead of said grantor from this date and in (the United States (the "territory") either in writing, electronically, or by other authorized means to:

Make endorse sign, declare, or swear to any customs entry, withdrawal, declaration, certificate, bill of lading, carnet or any other documents required by law or regulation in connection with the importation, exportation, transportation, of any merchandise in or through the customs territory, shipped or consigned by or to said grantor;

Perform any act or condition, which may be required by law or regulation in connection with such merchandise deliverable to said grantor; to receive any merchandise; Make endorsements on bills of lading conferring authority to transfer title; make entry to collect drawback; and to make, sign, declare, or swear to any statement or certificate required by law or regulation for drawback purposes, regardless of whether such document is intended for filing with Customs;

Sign, seal and deliver for and as the act of said grantor any bond required by law or regulation in connection with the entry or withdrawal of imported merchandise or merchandise exported with or without benefit of drawback, or in connection with the entry clearance, lading, unlading, or navigation of any vessel or other means of conveyance owned or operated by said grantor, and any and all bonds which may be voluntarily given and accepted under applicable laws and regulations, consignee's and owner's declarations provided for in section 485, Tariff Act of 1930, as amended, or affidavits in connection with the entry of merchandise;

Sign and swear to any document and to perform any act that may be necessary or required by law or regulation in connection with the entering, clearing, lading, unlading, or operation of any vessel or other means of conveyance owned or operated by said grantor;

Authorize other Customs Brokers duly licensed within the territory to act as grantor's agent; to receive, endorse and collect checks issued for Customs duty refunds in grantor's name drawn on the Treasurer of the United States; if the grantor is a nonresident of the United States, to accept service of process on behalf of the grantor;

And generally to transact Customs business, including filing of claims or protests under section 514 of the Tariff Act of 1930, or pursuant to other laws of the territories, in which said grantor is or may be concerned or interested and which may properly be transacted or performed by an agent and attorney. Giving to said agent and attorney full power and authority to do anything whatever requisite and necessary to be done in the premises as fully as to said grantor could so if present and acting, hereby ratify and confirming all that the said agent and attorney shall lawfully do by virtue off these presents;

This power of attorney to remain in full force and effect until revocation in writing is duly given to and received by grantee (If the donor of this power of attorney is a partnership, the said power shall in no case have any force or effect in the United States after the expiration of two (2) years from the date of its execution); If the grantor is a Limited Liability Company, the signatory certifies that he/she has full authority to execute this power on behalf of the Grantor.

Appointment as Forwarding Agent: Grantor authorizes the above Grantee to act within the territory as lawful agent and sign or endorse export documents (i.e., commercial invoices, bill of lading, insurance certificates, drafts and any other document) necessary for the completion of an export on grantor's behalf as may be required under law and regulation in the territory and to appoint forwarding agents on grantor's behalf;

The undersigned represents that all information contained herein is true and correct as of date of execution

(Signature) [7] David (b) (6) [redacted] Eizdman ,Capacity [8] ____ ,Date:[9] 6/14/12

NOTE: Per CODE OF FEDERAL REGULATIONS (CFR) Title19-1-111.29(b): "If you are the importer of record, payment to the broker will not relieve you of liability for Customs Charges (duties, taxes, or other debts owed to Customs) in the event that the charges are not paid by the broker. Therefore, if you pay by check, Customs charges may be paid with a separate check payable to the "U.S. Customs Service", which shall be delivered to Customs by the broker." If you wish to make your check payable directly to U.S. Customs Service, arrangements must be made with Robert Conyers CHB prior to time of entry to arrange timely receipt of your duty check.

Instructions for Completing Form:

[1] Federal Tax ID number
[2] Full name of individual, partnership, corporation, sole proprietorship or other entity (partnerships list full name of all partners followed by dba name, sole proprietors list full name of proprietor followed by dba name.)
[3] Restate legal status checked above
[4] State where legal business entity established for tax purposes
[5] Complete address (residence for individuals or principal business address)"please include Suite #'s and zip code
[6] Name in item [2] above
[7] Authorized Signature (Corporations require corporate officer)
[8] Title of signor
[9] Date executed

South Africa has an established conservation program and well-managed populations- which has proven beneficial to Wild populations

Attachments:

A. "Biodiversity Management Plan for the Lion (Panthera leo) in South Africa" 63 pages
B. Federal Register Listing the African Lion Subspecies as Threatened With a Rule Under Section 4(d)
   Table 6 – showing all South African wild populations are "Stable" or "increasing" 2 pages
   TRENDS – states these area wild populations are increasing 1page
C. "The reintroduction of large carnivores to the Eastern Cape, South Africa: an assessment" 10 pages
C1. "Conservationists to move South African lions to Rwanda" 3 pages
G. "A Comparison of the South African and United States Models of Natural Areas Management" 6 pages

Ex-situ (captive populations) continue to be explored as a viable means of reintroduction for bolstering In-situ (wild populations) through a systemic use of "managed wild" areas. Although the service at this time does not see this as a viable option- continued pursuit of reintroduction strategies shows the captive breeders have not abandoned possible benefits which they could provide to wild populations.

D. "A Framework for the Ex Situ Reintroduction of the African Lion" 12 pages
E. "The long-term viability of current lion conservation strategies: A role for ex situ reintroduction" 21 Pages.

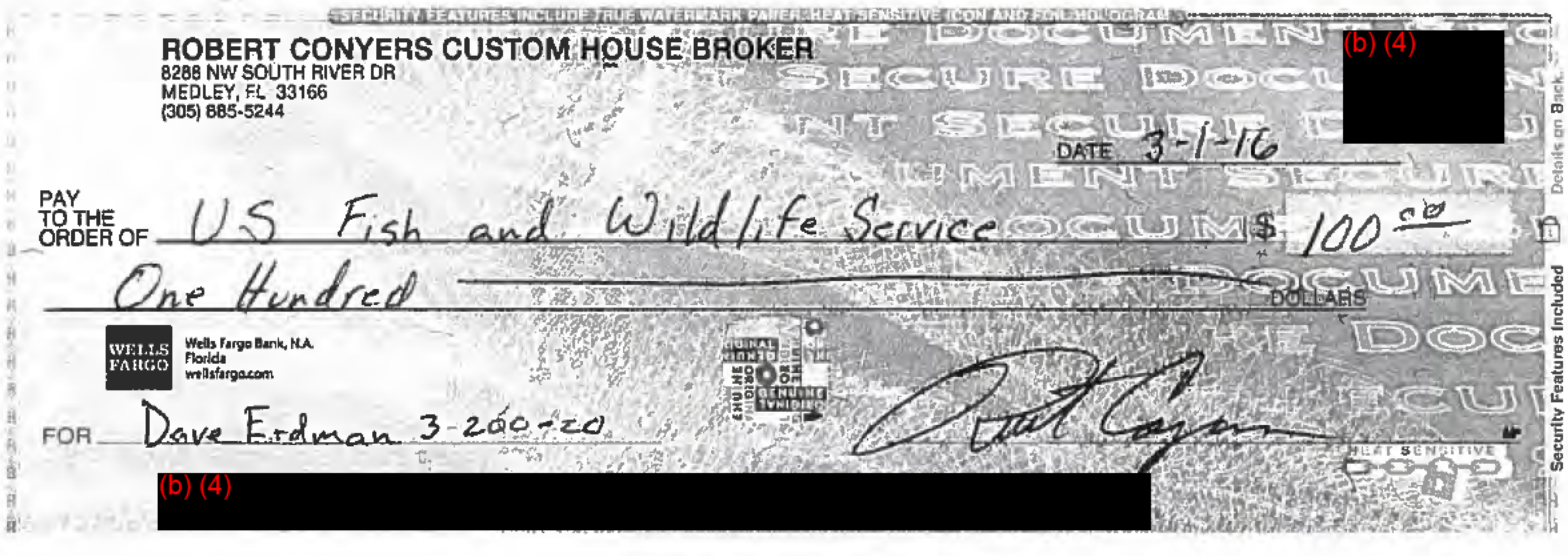
The issuance of this permit will enhance Wild lion populations-

The lion will be hunted through an active member of "South African Predator Association" this association financially supports conservation efforts of Wild populations as well as many research efforts.

F. 1 page

G. The Outfitter will make a donation from the trophy fees of $500 to Wild lion conservation project in Zimbabwe
H. The hunter will make a donation of $500 to the Department of Environmental Affairs for use in Wild Lion Conservation (or to the charity of the service's choice)

RCVD MAR 8 2016



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DATE 3-1-16

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One Hundred DOLLARS

WELLS FARGO Wells Fargo Bank, N.A. Florida wellsfargo.com

FOR Dave Erdman 3-200-20

(b) (4)

Details on Back. Security Features Included

SCHEDULE

BIODIVERSITY MANAGEMENT PLAN FOR THE LION (*Panthera leo*) IN SOUTH AFRICA

environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



JUNE 2014

BIODIVERSITY MANAGEMENT PLAN





PANTHERA
LEADERS IN WILD CAT CONSERVATION



2015-2019

Jointly developed by Dr Paul Funston (Panthera), the CSIR and DEA

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PANTHERA
LEADERS IN WILD CAT CONSERVATION

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EXECUTIVE SUMMARY

The African lion (*Panthera leo*) is the largest African cat and the only feline that is social living in prides that average twelve individuals, but may reach more than thirty. Across their African range lions have declined alarmingly over the last several decades especially in west, but also east Africa. In southern Africa lions are largely stable and have increased with the inclusion of large conservancies in Zimbabwe and over 45 smaller reserves in South Africa. However, it is unlikely that more than about 30 000 wild lions currently exist.

Lions were extirpated from most of their range in South Africa by the 1900s, with historic populations remaining in only Kruger National and Kgalagadi Transfrontier Parks. Today just over 2 300 wild lions are well protected in these and other large national parks and game reserves, with all populations either stable or increasing. Over the last three decades lions have also been re-introduced into over 45 smaller reserves with a total population of what are termed the 'managed wild' lions of about 800 individuals. The management of these lions is challenging, with high growth rates necessitating appropriate population regulation, and the potential for inbreeding due to isolation and small population size in the respective reserves. There are approximately 6 000 captive lions in South Africa bred for a variety of economic purposes.

The reasons for the decline in lions in Africa are many, and include habitat loss and conversion, indiscriminate killing to protect life and livestock, prey base depletion, bush meat trade, and excessive sport hunting. Because all lions in South Africa are within largely adequately fenced reserves with sufficient management budgets most of these threats are not relevant to lions here, and lion numbers have increased by about 30% over the last three decades. Threats to lions are generally low. Risks of genetic impoverishment of managed wild lions are low and easily mitigated through robust management interventions, while the lion bone trade may shift from its current base in captive lions to the poaching of wild lions for body parts.

The lion is listed as Vulnerable on the IUCN Red List. It is also listed as Vulnerable on the South African list of Threatened and Protected Species (ToPS) in terms of Section 56 (1) of the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004). Furthermore it is protected under Appendix II of the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES). In South Africa the lion may soon be listed as Least Concern due to population recovery and the large combined number of wild and managed wild lions.

Lions can only exist in areas with sufficient wild prey, and seldom co-exist closely with people. Lions readily adapt to varied habitats and generally have greater hunting success in areas with long grass or dense cover and on moonless nights. Lions select landscape features that aid hunting and kill most of their prey within two kilometres of water. Density and survival rates of lions are positively correlated with prey biomass. Most lions reside in territories with some lions being nomadic. Coalitions of males try to keep other male lions out of their territories, while lionesses try to exclude other prides, which does result in some mortality from inter-pride conflict. An average

pride consists of twelve lions, including four to five adult lionesses, two pride males, and dependent cubs and sub-adults. Lionesses tend to breed synchronously and female relationships do not rely on dominance hierarchies.

Lions favour medium to large-sized prey species with an average body mass of 190–550 kg, and tend to prey on the most common of these species in each area. Rainfall and habitat conditions strongly affect the susceptibility of various prey species to lion predation: lions switch both within and between seasons, thus not selecting for the same prey species or sex all the time. Lions tend to regulate prey populations in large parks, but sometimes negatively affect them in small, fenced reserves.

In South Africa lions are exposed to six major viral diseases, with only canine distemper virus being known to have any major influence on them. As well, most lion populations appear to be exposed to feline immunodeficiency virus. Lions in Kruger National and Hluhluwe-iMfolozi Parks are infected with bovine tuberculosis. Although there may not be consensus yet on its affect, no major consequences have been detected. On-going studies to determine how this exotic disease affects lions are under way.

Lions are sensitive to excessive harvests because the removal of pride males through hunting often results in infanticide by other males and mortality of dispersing sub-adults forced out of the pride when too young. The trophy hunting of lions is contentious due to uncertainty concerning its conservation impacts and due to the dichotomy of stakeholder views. The captive lion hunting industry has grown rapidly in South Africa while the number of wild lions hunted in other African countries has declined. No negative effects of trophy hunting on wild lion populations in South Africa have been identified. There is intense controversy over the merits and ethics of the captive breeding and subsequent release for hunting of captive bred lions, although it remains legal to do so.

There are substantial economic advantages to many South African societies that accrue from the conservation and use of lions. At times communities bordering protected areas incur stock losses due to lion predation. Fortunately, largely due to adequate fencing, this is not as serious an issue as in other parts of Africa, and park authorities have funds and capacity to deal with this issue.

There are several role player groups well placed to influence the future of lions in South Africa. This Biodiversity Management Plan (BMP) was developed in close consultation with an encompassing group of stakeholders. The first workshop in June 2013 identified the vision, objectives and actions, and the second in March 2014 assigned responsibilities to implementing agencies and refined the monitoring plan. This is the first national BMP compiled for lions in South Africa.

When the objectives for lion conservation in South Africa where developed, important and clear distinctions between the objectives for wild, managed wild and captive lion populations were made. These respective populations are defined as follows:

1. **Wild lions** completely fulfil their role in biodiversity processes and are largely unmanaged, and exist only in formally proclaimed national parks and game reserves. Conservationists do not actively manipulate vital rates and lion demographics.
2. **Managed wild lions** include all lions that have been re-introduced into smaller fenced reserves (<1000km^2), and are

managed to limit population growth and maintain genetic diversity. Managers actively manipulate some vital rates and demographics.

3. **Captive lions** are bred exclusively to generate money. Managers actively manipulate all vital rates and demographics.

A specific set of actions was defined for each objective. Lead agents or groups where then assigned to each action, to ensure that the lines of responsibility for action are clear. It was proposed that SANParks, supported by Ezemvelo KZN Wildlife and the Lion Management Forum (LiMF), a group of interested parties which get together to discuss the status of lion in South Africa and collaborate in developing better management strategies for the important fenced populations, should be the lead agents for wild and managed wild lions. Furthermore it was proposed that DEA establish a forum or working group of 6-8 people, including lead persons from SANParks, Ezemvelo KZN Wildlife, North-West Parks and Tourism, LiMF and DEA to guide the implementation of the lion BMP. DEA will develop a terms of reference for the forum, perform the administrative duties and make appointments.

The vision for the South African lion population is that:

Through the existence of stable, viable and ecologically functional populations of wild and managed wild lions, along with well-managed captive populations that have minimal negative conservation impacts, lions will provide key opportunities for biodiversity conservation, economic development, social benefits and improved management capacity.

Objective 1

Improve the conservation status of lions within a broader conservation context, considering the respective role of wild, managed wild and captive populations.

Sub-objectives:

1.1. Maintain the current degree of protection of wild and managed wild lions;

1.2. Reassess the conservation status of lions in South Africa;

1.3. Enhance the conservation status of managed wild lions; and

1.4. Ensure a well-managed captive lion population.

Objective 2

Encourage the development of opportunities for economic and social benefits from responsibly managed wild, managed wild and captive lion populations.

Sub-objectives:

2.1. Prevent illegal trade in lions and lion products while promoting and safeguarding sustainable legal trade; and

2.2. Promote sustainable legal trade in lions and lion products.

Objective 3

Ensure legislative alignment both provincially and nationally and improve capacity to implement legislation effectively.

Objective 4

Establish a lion forum or working group

Objective 5

Collaborate the alignment of this BMP with lion conservation plans in neighbouring countries and link with international working groups.

CONTENTS

1 INTRODUCTION 8

1.1 Why the lion (*Panthera leo*) requires a Biodiversity Management Plan 8
1.2 Alignment of the Biodiversity Management Plan with regional strategies 9
1.3 Motivation for assigning priority to the development of this Biodiversity Management Plan 9
1.4 Anticipated Outcomes 9
1.5 Parties currently responsible for management of the lion 10
1.6 Summary of the Planning Methodology 10

2 CONSERVATION STATUS AND LEGISLATIVE CONTEXT 12

2.1 Status of the lion in terms of the various conservation instruments and legislation 12
2.1.1 National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) 13
2.1.2 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 14
2.1.3 Convention on Biological Diversity 15
2.1.4 Convention on Migratory Species (the Bonn Convention) 15
2.1.5 Southern African Development Community (SADC) Protocol on Wildlife Conservation and Law Enforcement 15
2.2 Cultural conservation value of the species 16
2.3 Indigenous knowledge value of the species 16

3 SPECIES DETAILS 17

3.1 Taxonomy 17
3.2 Population Status 19
3.3 Distribution, habitat requirements, biology and ecology 20
3.3.1 Distribution 20
3.3.2 Habitat requirements 20
3.3.3 Biology 20
3.3.4 Ecology 21
3.4 Description and map of geographic area for which the plan is proposed 22
3.5 Captive lion populations and their status 23
3.6 The ecological role of lions 23
3.7 Diseases 24
3.7.1 Viral Diseases 24
3.7.2 Bovine Tuberculosis 25
3.7.3 Other Diseases 26
3.8 Threats 26
3.9 Utilisation 27
3.9.1 Impact of utilisation based on evidence 27
3.9.2 Use value of the species 28

3.9.3 Monitoring of current use 28
3.9.4 Current quotas and permits issued 29
3.10 Past conservation measures 29
3.11 Socio-economic issues 30

4 VISION AND OBJECTIVES 32

4.1 Vision 32
4.2 Objectives 32
4.3 Objectives and Actions table 34

5 A META-POPULATION MANAGEMENT PLAN FOR MANAGED WILD LIONS 37

5.1 Background to the development of a meta-population management plan for managed wild lions 37
5.2 South Africa's managed wild lion population - a brief history and management lessons 37
5.3 Maintaining ecological processes with managed wild lions 38
5.4 Mimicking natural social dynamics for managed wild lions 39
5.4.1 Reserve level management 39
5.4.2 Meta-population level management 41
5.5 Risks of mimicking social dynamics of managed wild lions 41
5.6 Applying meta-population theory to lions on small reserves in South Africa 42
5.7 Objectives 44
5.7.1 To maintain the wild managed lions of South Africa as a key population that contributes to several socio-economic-ecological opportunities as part of reserve objectives by inducing social limitations through 44
5.7.2 To maintain lion genetic integrity by inducing social limitations through management-assisted dispersal and changes in dominance hierarchies. 44
5.8 Actions Tables 44

6. MONITORING AND EVALUATION 47

6.1 Monitoring Plan 47
6.1.1 Key Targets 47
6.1.2 Monitoring Schedule 48
6.2 Evaluation Plan 49

7. BIBLIOGRAPHY 50

Appendix 1: Stakeholder lists for the 1st lion BMP workshop 61
Appendix 2: Stakeholder lists for the 2nd lion BMP workshop 63

Figures and Tables

Figure 1. Radar chart summarizing the South African non-detriment finding (NDF) assessment for the African lion (*Panthera leo*) in accordance with the CITES NDF checklist. Higher scores are indicative of higher risk. The relatively limited shading indicates only a moderate risk to the species ascribed to trade (reproduced with permission from SANBI 2013). 13

Figure 2. The distribution of lions in South Africa in 2014 including both wild and managed wild lion populations. Contiguous polygons do not imply full connectivity as there are fences separating some of these populations. 22

Figure 3. Location of reserves in South Africa with managed lions and proposed management clusters (shaded areas). The size of each dot represents the number of lions on the reserve. A national network of reserves is envisaged where translocations between reserves within the clusters occur on a regular basis (as required by each reserve) with less frequent translocations between clusters (indicated by arrows). This should improve the genetic integrity of this population as a whole (map from Miller *et al.* in prep).

Table 1. Ministerial Figures for CITES export permits issued in South Africa in 2011 and 2012 for lion body parts 29

Table 2. Lion export permits issued in 2011 and 2012 to China, Lao PDR or Viet Nam 29

LIST OF ACRONYMS

AGM	Annual General Meeting
BMP	Biodiversity Management Plan
BMP-S	Biodiversity Management Plan for Species
bTB	Bovine tuberculosis
CBD	Convention on Biological Diversity
CDV	Canine Distemper Virus
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSIR	Council for Scientific and Industrial Research
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DRC	Democratic Republic of the Congo
ECNC	Eastern Cape Nature Conservation
FIV	Feline Immunodeficiency Virus
GNC	Gauteng Nature Conservation
HiP	Hluhluwe-iMfolozi Park
IUCN	International Union for the Conservation of Nature
KZN	KwaZulu-Natal
LiMF	Lion Management Forum
LPTB	Limpopo Parks and Tourism Board
MPB	Mpumalanga Parks Board
NCNC	Northern Cape Nature Conservation
NDF	Non-detriment finding
NEMBA	National Environmental Management Biodiversity Act
NWPTB	North-West Parks and Tourism Board
SADC	Southern African Development Community
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SSC	Species Survival Commission
ToPs	Threatened or Protected Species

1 INTRODUCTION

The African lion (*Panthera leo*) is the largest African member of the genus *Panthera*, weighing up to about 230 kg, and are followed in size by the leopard (*Panthera pardus)*. The African lion is confined to the African continent, with Indian lions belonging to a different subspecies (*Panthera leo persica*). The lion is a highly charismatic member of the megafauna of Africa and is the only cat species that is conspicuously social (Schaller 1972). African lions were largely eradicated from vast areas of Africa for agricultural development in the last century, and have started to show alarming declines in the last few decades (Bauer *et al.* 2008; Packer *et al.* 2013). About 75% of their former range is no longer being suitable for viable populations (Riggio *et al.* 2013). Although the estimates are not absolute, it is unlikely that more than 30 000 wild lions exist (Riggio *et al.* 2013), with about 3 000 (about 10% of the continental population) occurring in South Africa. Additionally about 6 000 lions exist in captivity in South Africa, bred largely for hunting and other tourism activities (Taljaard 2009; Lindsey *et al.* 2012a; PHASA 2013). The African lion plays a key role player in the ecological functioning of the African ecosystems, but also provides key challenges when they come into conflict with other land uses like stock farming. African lion is a flagship species for tourism in South Africa.

1.1 Why the lion (*Panthera leo*) requires a Biodiversity Management Plan

The African lion is listed as Vulnerable on the IUCN Red List (Bauer *et al.* 2008) and is protected under Appendix II of the CITES. During 2004, lions had a South African National Red List Status of Vulnerable, although this changed to Least Concern during the 2014 assessment (Miller *et al.* 2014). Lions are listed as Vulnerable according to the South African List of ToPS in terms of section 56(1) of the NEMBA. The Act also makes provision for the development of Biodiversity Management Plans for Species and Ecosystems in need of protection. The National Norms and Standards for the development of BMP-S guided in the development of this BMP.

In South Africa, lions were extirpated from much of their historical range by the 1900s (Nowell & Jackson 1996). Historic populations survived in Kruger National and Kgalagadi Transfrontier Parks, while conservationists re-introduced lions into the Hluhluwe-iMfolozi Park in the 1950s (Anderson 1980). Lions re-colonized Mapungubwe National Park in about 2000 by moving in from Botswana. Lions in these parks are wild and free ranging with no vital rates and demographics actively managed. Since the early 1990s, lions have been reintroduced into 45 small, fenced areas (<1000 km^2) in South Africa, including private reserves, conservancies, protected areas, national and provincial parks (Funston 2008; Slotow & Hunter 2009). Although lions in these small areas are wild and free-ranging, some vital rates and demographics are actively managed. Apart from the 3000 wild lions in the above-mentioned parks, there are about 6000 captive lions in South Africa, which are used for breeding, hunting, petting tourism and walking with lions (Taljaard 2009; Lindsey et al. 2012a).

These various levels of wild, free-ranging and management intensity impose a biodiversity management framework where lions are classified as:

1. **Wild lions** only occur in formally gazetted national parks and fulfil their role in biodiversity processes and are largely unmanaged, stable and viable. Conservationists do not actively manipulate vital rates and lion demographics.
2. **Managed wild lions** occur in a range of smaller fenced reserves (<1000 km^2) and are managed, largely to limit population growth and maintain genetic diversity. Managers actively manipulate some vital rates and demographics.
3. **Captive lions** are used exclusively to generate money and currently have limited conservation value. Managers actively manipulate all vital rates and demographics.

1.2 Alignment of the Biodiversity Management Plan with regional strategies

There are several different role player groups who are well placed to have a significant influence on the future of wild lions in South Africa. All contributed to the Regional Strategy for Lions in East and Southern Africa in 2005 (IUCN SSC Cat Specialist Group 2006), and participated in the lion BMP stakeholders workshops held in July 2013 and March 2014. The regional strategy produced detailed recommendations for the conservation of lions across range states. The regional strategy mandated the development of national strategies, aligned with national strategies of neighbouring countries. In order to be effective, the South African Lion BMP required an iterative process with input from representative stakeholder groups. NEMBA specifies that all BMPs need to be revised every five years. Thus this plan will be the first in a series of five-year iterations where the success of the preceding five years will be measured, and adaptations made to ensure that the plan for the following five years is appropriate for the circumstances at the time.

1.3 Motivation for assigning priority to the development of this Biodiversity Management Plan

Lions are listed as Vulnerable according to the South African List of ToPS in terms of section 56(1) of NEMBA. This BMP is also responding to the Regional Strategy for Lions in East and Southern Africa in 2005 (IUCN SSC Cat Specialist Group 2006) which South Africa contributed to during the development phase. The regional strategy encouraged the development of national strategies aligned with national strategies of neighbouring countries. This BMP for African lion will be regarded as the national strategy for African lions in South Africa.

1.4 Anticipated Outcomes

The outcomes of the planning process were as follows:

- Development of a database of role players and stakeholders;
- An agreed structure for monitoring implementation;
- Clarity and acceptance of roles and responsibilities amongst the role players;
- Acceptance of and support for the plan amongst stakeholders;
- A plan that comprehensively and concisely covers all aspects related to the conservation of lions and provides realistic targets for the five year life of this iteration;
- Clear goals and time frames for their achievement; and

- Key performance indicators that could be used to assess progress towards defined goals.

1.5 Parties currently responsible for management of the lion

Several government and non-government role player groups are well placed to have a significant influence on the future of wild lions in South Africa. These include:

- Department of Environmental Affairs (DEA)
- South African National Parks (SANParks)
- Ezemvelo KZN Wildlife
- North-West Parks and Tourism Board (NWPTB)
- Mpumalanga Tourism Parks Agency (MTPA)
- Limpopo Tourism Agency (LTA)
- Northern Cape Department of Environment and Nature Conservation (NCDENC)
- Gauteng Department of Agriculture & Rural Development (GDARD)
- Western Cape Nature Conservation (Cape Nature)
- Private Sector
- Lion Management Forum (LiMF)

1.6 Summary of the Planning Methodology

The development of the BMP for the African lion was broken down into five phases, including:

1. Planning, Background Information and Literature review;
2. 1st Participatory Stakeholder Workshop, which took place in June 2013;
3. Development of the Action and Monitoring plans;
4. 2nd Participatory Stakeholder Workshop, which took place in March 2014; and
5. Final Review and Acceptance by DEA by End of September 2014.

1. Planning, Background Information and Literature Review

During the planning phase, the consultants (CSIR and Panthera) met with DEA on 14 March 2013 to plan the process towards drafting the BMP for the African lion in South Africa. At this meeting it was decided that the process would commence in April 2013. As well, it was agreed that the consultants would conduct a review with the available information and literature pertaining to aspects of the lion in South Africa as outlined by the terms of reference stipulated in the contract between DEA and CSIR. After internal review within the consultants/DEA team it was agreed that the background document was to be distributed to as wide a group of stakeholders as possible for inputs before the workshop.

2. 1st Participatory Stakeholder Workshop

A public participatory stakeholder workshop was held at SANBI in Pretoria on 18/19 June 2013. The workshop was convened by DEA who invited as many stakeholders as could be identified (see Appendix 1). DEA presented the welcome and opened the workshop. This was followed by another presentation by the DEA giving an introduction to, and overview of the BMP process. The next presentation was by the consultant who went through the background information and literature review that he had compiled with assistance from CSIR.

The facilitator helped to coordinate the development of a vision, specific objectives and the initial development of a set of actions to achieve the stated objectives. This process took the full day of the 18th. A smaller group comprising DEA and the consultant met for a morning session on the 19th of June 2013 to review the progress made during the stakeholder workshop to ensure that all the information had been captured to start a process towards developing an action and monitoring plan, and to plan the next stage of the process.

3. Development of the Action and Monitoring Plans

Following the stakeholder workshop the consultants synthesised the input from the participants to define a vision, objectives and actions needed to meet the stated objectives. The input was thus primarily from the workshop participants. The consultant then developed a monitoring plan to accompany the stated actions. This was submitted to DEA for review. A project management meeting was held in 20 November 2013 where DEA and other reviewers presented feedback on the draft action and monitoring plans, and outlined the required revisions and schedule. The revised plan was submitted to DEA for review in February 2014.

4. 2nd Participatory Stakeholders Workshop

A second stakeholder workshop was held on 18 March 2014 at SANBI in Pretoria (see Appendix 2). The aim of the workshop was to review the action and monitoring plan and to ascertain if the respective parties were willing to take responsibility for the various actions that were ascribed to them. A further objective of the workshop was to get additional stakeholder input into the action and monitoring plan. This finalised the stakeholder participation and set the BMP up for final review.

5. Final Review and Acceptance by DEA

After the final recommendations were made at the 2nd Participatory Stakeholders Workshop, the final revised BMP was submitted to DEA on 26 June 2014.

2 CONSERVATION STATUS AND LEGISLATIVE CONTEXT



2.1 Status of the lion in terms of the various conservation instruments and legislation

The African lion is listed as Vulnerable on the IUCN Red List (Bauer *et al.* 2008) and is protected under Appendix II of the CITES. Lions are listed as Vulnerable according to the South African List of ToPS in terms of section 56(1) of the NEMBA.

However, based on the number of mature adults, combining the wild and managed wild populations, the status of the lion in South Africa should be changed from Vulnerable to Near Threatened or Least Concern. To qualify for Near Threatened the wild population has to have less than 1500 mature individuals. If the populations exceed this number, the species should be listed as being of Least Concern. The combined wild and managed wild populations in South Africa comprise about 1600 mature individuals. In terms of numbers of adults, the South African lion population should therefore be listed as Least Concern.

In July 2013 the Scientific Authority of South Africa as established in terms of Section 60 (1) of the NEMBA in 2013 conducted a Non-Detriment Finding (NDF) assessment for the African lion (Figure 1) in terms of the CITES. An NDF assessment determines whether or not trade of a species is likely to have a detrimental impact on populations of the species.



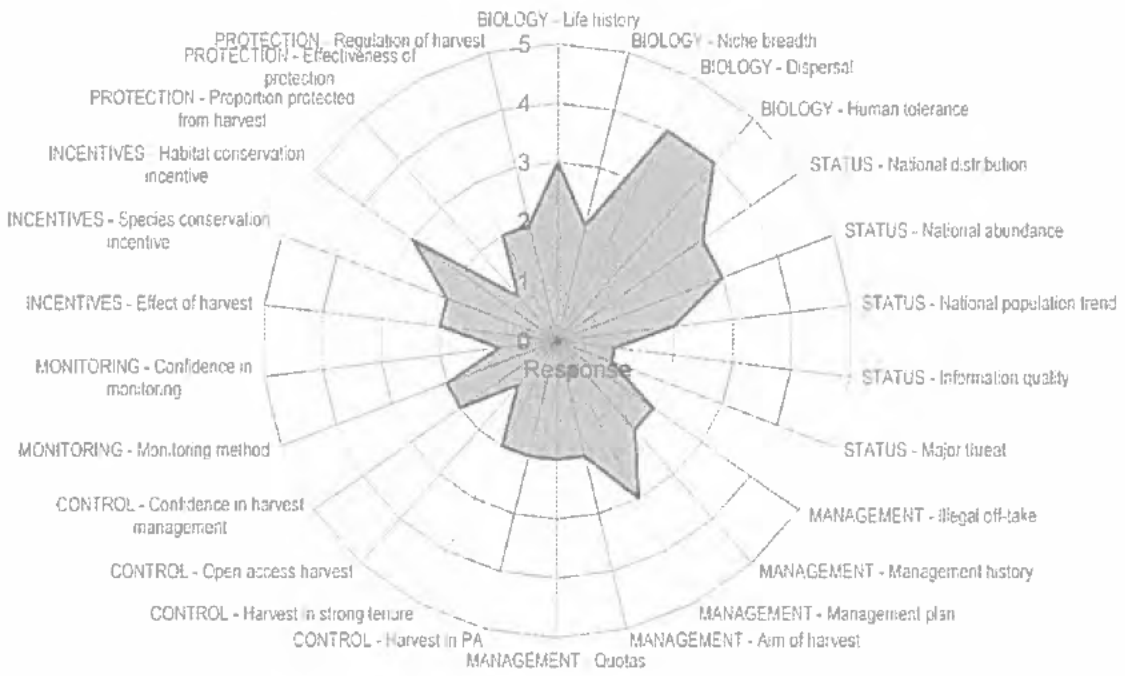

Figure 1. Radar chart summarizing the South African non-detriment finding (NDF) assessment for the African lion (*Panthera leo*) in accordance with the CITES NDF checklist. Higher scores are indicative of higher risk. The relatively limited shading indicates only a moderate risk to the species ascribed to trade (reproduced with permission from SANBI 2013).

The finding of the assessment was that there are currently no major threats imposed by legal local and international trade on the wild lion populations in South Africa, although the management of managed wild lions needs to be improved. Minor threats include over-utilisation, disease, poaching and conflict with communities around protected areas. Although there are no specific figures on the illegal trade in lions and lion products in South Africa, provincial conservation authorities indicated that illegal use or trade is generally small to negligible. In conclusion the NDF assessment demonstrated that legal local and international trade in lions poses a moderate, but non-detrimental risk to the species in South Africa (Figure 1).

The species is well managed and the Scientific Authority does not have any current concerns relating to the export of lion in accordance with Article IV of the CITES as the South African lion population is included in Appendix II of CITES. In terms of Article IV of the CITES, an export permit shall only be granted for an Appendix II species when a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species. The assessment only considered wild and managed wild populations of the African lion and did not consider captive populations.

2.1.1 National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)

The Act gives effect to the CBD and Section 24 in the Bill of Rights of the Constitution of the Republic of South Africa, 1996. In terms of Section 24 (b) *everyone has the right to have the environment*

protected, for the benefit of present and future generations, through reasonable legislative and other measures that-

(i) Prevent pollution and ecological degradation;

(ii) Promote conservation; and

(iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

Chapter 3 of the Act provides for the planning and monitoring of biodiversity. Section 43 (1)(b) and (c) of the Act provide for any person, organization or organ of state, desiring to contribute to biodiversity management, to submit to the Minister for approval a draft management plan for an indigenous or migratory species warranting special conservation attention.

Section 44 of the Act empowers the Minister to enter into an agreement with any person, organization or organ of state for the implementation of a Biodiversity Management Plan for Species.

2.1.2 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The International Union for the Conservation of Nature (IUCN) classifies the African lion as Vulnerable, which means it is considered to be facing a high risk of extinction in the wild (Bauer *et al.* 2008). This classification is based on a suspected reduction in population of approximately 30% over the past two decades (Bauer *et al.* 2008). The Convention on International Trade in Endangered Species of Wild Fauna and Flora lists the African lion on Appendix II. International trade in species listed on Appendix II must be strictly regulated in order to avoid utilisation incompatible with their survival. Trade in specimens of Appendix II species is accomplished by the issuance of permits from the exporting country, and the presentation of those export permits to the importing country. The exporting country must ensure that a number of conditions are met before issuing an export permit. Furthermore, a Scientific Authority of the exporting country must monitor both the export permits granted and the actual exports of such specimens.

The Parties to CITES have agreed to conduct a periodic review for lion, based on the current biological and trade information, to ensure that it is appropriately listed in the Appendices to CITES. The periodic review process will be concluded before the next Conference of Parties, scheduled to take place in 2016.

There has been increasing pressure to list lions in Appendix I of CITES. In 2004, Kenya (where sport hunting has been illegal since 1977) submitted a proposal that lions be listed on CITES Appendix I at the 13th Conference of the Parties (Nowell 2004). Then in 2011 a consortium of US-based non-governmental organizations petitioned the United States government to list lions as endangered under its Endangered Species Act. Concurrent efforts are underway to encourage the European Union to ban lion trophy imports.

2.1.3 Convention on Biological Diversity

The CBD addresses conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the use of biological and genetic resources. The CBD also provides guidelines to manage biodiversity, but does not provide specific protection for the African lion or any individual species. The only international agreement that offers specific and significant protection to the African lion is CITES.

2.1.4 Convention on Migratory Species (the Bonn Convention)

Lions are not protected under the Convention on Migratory Species, 2009 (the Bonn Convention).

2.1.5 Southern African Development Community (SADC) Protocol on Wildlife Conservation and Law Enforcement

Eleven African lion range states signed the Treaty of the SADC: Angola, Botswana, Democratic Republic of Congo (DRC), Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe (SADC 2008). Among SADC's objectives is to "achieve sustainable utilisation of natural resources and effective protection of the environment". Article 22 of the SADC Treaty calls for the establishment of Protocols to achieve the Treaty's objectives. The Protocol on Wildlife Conservation and Law Enforcement of the Southern African Development Community (SADC 1999) elaborates on Article 5 (g) of the Treaty. Its objectives are to: a) promote the sustainable use of wildlife; b) harmonise legal instruments governing wildlife use and conservation; c) enforce wildlife laws within, between and among States/Parties; d) facilitate the exchange of information concerning wildlife management, utilisation and the enforcement of wildlife laws; e) assist in the building of national and regional capacity for wildlife management, conservation and enforcement of wildlife laws; f) promote the conservation of shared wildlife resources through the establishment of transfrontier conservation areas; and g) facilitate community-based natural resources management practices for management of wildlife resources (Article 4).

With regard to wildlife management and conservation programmes, Parties are required to establish management programmes for the conservation and sustainable use of wildlife. These programmes should be integrated into national development plans and assess and control activities that may significantly affect the conservation and sustainable use of wildlife so as to avoid or minimise negative impacts. Parties are also required to take measures to ensure the conservation and sustainable use of wildlife including: a) the protection of wildlife and wildlife habitats to ensure the maintenance of viable wildlife populations; b) prevention of over-exploitation and extinction of species; c) restrictions on the taking of wildlife, including but not limited to restrictions on the number, sex, size or age of specimens taken and the locality and season during which they may be taken; and d) restrictions on trade in wildlife and its products, both nationally and internationally, as required by relevant international agreements.

Article 12 of the Protocol concerning sanctions states:

1. *Sanctions may be imposed against any State Party which: a) persistently fails, without good reason, to fulfil obligations assumed under this Protocol; or b) implements policies that undermine the objectives and principles of this Protocol.*
2. *The Council [SADC Council of Ministers] shall determine whether any sanction should be imposed against a State Party and shall make the recommendation to the Summit if it decides that a sanction is called for. The Summit shall decide, on a case-by-case basis, the appropriate sanction to be imposed.*

2.2 Cultural conservation value of the species

Lions have been an iconic species for humans for thousands of years, appearing in cultures across Europe, Asia, and Africa. They are used in coats of arms, heroic names of former kings, frescos, names of football teams, tales, proverbs, sayings, advertising and many other arenas. Despite incidents of attacks on humans, lions have enjoyed a positive depiction in culture as strong and noble. A common portrayal is their representation as "king of the jungle" or "king of beasts". Hence, lions have been a popular symbol of royalty and stateliness, as well as a symbol of bravery. Lions featured in several fables of the 6th century BC Greek storyteller Aesop.

2.3 Indigenous knowledge value of the species

The lion is a powerful and omnipresent symbol, and its disappearance would represent a great loss for the traditional culture of Africa. However, living with or next to lions poses serious challenges for many African communities, especially those bordering conservation areas that protect lion populations. In many parts of Africa, the lion is the principal predator of domestic cattle, which causes conflicts with stockbreeders. Livestock loss and a poor management capacity for human-lion conflict lead to retribution killings and habitat changes that result in declining lion populations. The lion is not only a source of danger creating personal and economic damage, but also a source of personal and economic advantages and benefits. It is a principal element of tourist attraction and one of the "Big Five", the five great species of trophy hunting in Africa. Tourism is today one of the most significant industries in the world, and a flourishing tourist industry is necessary for the economies of developing countries as it constitutes one of the principal generators of foreign currency for some of these countries.

3 SPECIES DETAILS

3.1 Taxonomy

The lion (*Panthera leo*) was first described by Linnaeus 1758, who gave it the name *Felis leo*, in his 18th-century work *Systema Naturae*. The derivation of the name *Panthera* is from the Greek πάνθαν- ("all") and *thēr* ("beast of prey"). The Greek, *pánthēr*, referred to all spotted Felidae generically. *Leo* is derived from the Latin *leo* and the ancient Greek (*leon*).

Order: Carnivora
Family: Felidae
Genus: *Panthera*
Species: *leo* (Linneaus 1758)

The original taxon name *Panthera leo* (Linnaeus 1758) was based on the Barbary lion (from North Africa). The IUCN currently recognises two sub-species of lion; African lion (*P. leo*) and Asiatic lion (*P. leo persica*). This may be slightly out of date following recent evidence. Barnett *et al.* (2006) suggest that the modern lion can be divided into Northern African-Asian, southern African and middle African. More recently Bertola *et al.* (2011) found a closer link between west and central African lions and Asiatic lions than with southern and eastern African lions. There is mounting evidence, accumulated over several years and in several laboratories, for a major evolutionary subdivision within African lions. In a number of separate studies, analyses of mitochondrial DNA have shown that Indian lions and lions from north, west, and central Africa all shared a common ancestor after their split from lions in eastern and southern Africa (Barnett *et al.* 2006a, 2006b, 2009; Bertola *et al.* 2011; Dubach *et al.* 2013). Analyses of nuclear microsatellites revealed similar results (Antunes *et al.* 2008; Dubach *et al.* 2103). Genetic diversity and morphological variation is also higher in eastern and southern Africa than in the rest of the lion's range (Dubach *et al.* 2013).

Regardless of the sub-speciation of the northern, western, central and Asiatic lions, all evidence seems to suggest that southern and eastern African lions are genetically the same sub-species (Antunes *et al.* 2008; Barnett *et al.* 2006). Antunes *et al.* (2008) described four geographically and genetically separate populations within Southern Africa: Namibia (including Etosha National Park), Botswana I (including the Okavango Delta), Botswana II (including Kgalagadi Transfrontier Park) and Kruger National Park. The bulk of South Africa's wild lions are found in two of these areas: Kruger and Kgalagadi. The rest of the wild and managed wild lions are in Mapungubwe, Hluhluwe-iMfolozi and approximately 45 small reserves.

3.1.1 Origins and geographic genetic structure of lions in South Africa

Managed wild lion populations in South Africa have their genetic origins in Etosha National Park (Etosha), Kruger National Park (Kruger) and the Kgalagadi Transfrontier Park (Kgalagadi). Lions from Etosha were introduced into Pilanesberg National Park and Madikwe Game Reserve in the early 1990s and their offspring were used in other reintroductions around South Africa (Slotow & Hunter 2009). Mixing of Kruger, Kgalagadi and Etosha origin lions has been extensive amongst the managed wild

populations (Slotow & Hunter 2009). To the best of our knowledge, none of the lions from Mapungubwe has been mixed with the rest of South Africa's lions. In fact, they appear to be more closely related to the lions of the Bubye Conservancy in Zimbabwe than to any lions in small reserves in South Africa (Miller *et al.* in prep).

Genetic inbreeding is a concern for small populations of lion in South Africa. Miller *et al.* (in prep) conducted genetic analysis from 17 small reserves and two control populations. Twenty-two microsatellite markers were used to assess the genetic origin and diversity of these populations. As there was little consideration of genetic management when the introductions were planned, there has been a lot of mixing between these populations and as a result minimal signs of inbreeding.

Even so, founder populations, because of their small size, suffer considerable risk of inbreeding (Vartan 2001; Björklund 2003; Hayward *et al.* 2009a). These risks materialized in at least two reserves home to wild managed lions that noted indicators of inbreeding amongst individuals (Trinkel *et al.* 2008, 2010). Although other populations of wild managed lions show limited signs of inbreeding, the movement between reserves has resulted in lions on geographically isolated reserves being, in some cases, quite closely related to each other genetically (Miller *et al.* in prep).

In addition, the genes of lions from Etosha National Park would not historically have been as prevalent in South Africa as they are now. Within the South African sample, individual lions originating from Etosha had reduced genetic diversity amongst them (Miller *et al.* in prep). The reality is that little geographical structure and/or genetic purity exists in the approximate 1000 managed wild lions in South Africa. The implementation of approaches that mimic social dynamics (Ferreira & Hofmeyr 2014) such as assisted coalition take-overs (*e.g.* Tambling *et al.* 2014) should result in maintenance and/or improvement of genetic diversity across reserves comprising managed wild lions. This could be particularly useful if conservationists consider all reserves comprising managed wild lions as a meta-population or a single population although reserves are geographically separated (Ferreira & Hofmeyr 2014). Thus, genetic testing can assist in evaluating the genetic status of managed wild lions in South Africa as an outcome of management interventions and help assess local inbreeding risks in future.

One particularly challenging small population of lions is the one that originates from the Greater Mapungubwe Transfrontier Conservation Area, which has not mixed with the rest of the managed wild populations in South Africa. These lions showed a reduced genetic diversity. Much of this reduction may result from relative isolation from other sources of lions. The genetic links to Bubye Conservancy in Zimbabwe (Miller *et al.* in prep) makes the Mapungubwe lion's part of the Kruger pool of genetic origin. Thus mixing with Kruger sources of genetic richness should be encouraged to ensure the maintenance of existing geographical genetic structure and reduce local inbreeding risks in the Greater Mapungubwe Transfrontier Conservation Area.

The National Zoological Gardens of South Africa have been requested by the Predator Association of South Africa (who represent the majority of lion famers in the country) to undertake a genetic survey of lions held in captive facilities. This study, which was initiated in the North West Province in February 2013, will provide valuable information on the genetic diversity and genetic value of the captive lions in the country. It is recommended that a studbook be kept for captive lion populations.

3.2 Population Status

Following the Settler Period, only two lion populations survived within the historical distribution of lions in South Africa. The estimated number of wild and managed wild lion populations in South Africa is about 3155 individuals, which are connected to a further approximately 450 lions in transboundary populations. Altogether about 1900 lions (67%) are protected within South Africa's National Parks. The largest areas with lions in the country are the Kruger National Park (straddling the provinces of Limpopo and Mpumalanga) and the Kalahari Gemsbok National Park in the Northern Cape (part of Kgalagadi Transfrontier Park). The Kruger National Park had about 1700 lions (range of 1617 – 1751) in 2005/2006 (Ferreira & Funston 2010) with about 300 lions in the private nature reserves bordering the park. About 130 (range of 90 – 160) lions are present in the Kgalagadi Transfrontier Park, with a further approximately 350 lions on the Botswana side of the park (Funston 2011). At time of writing there were 14 lions in the Addo Elephant National Park (2011) (Eastern Cape), eight in the Karoo National Park (2011) (Western Cape) and 13 in the Marakele National Park (2011) (Limpopo). Lions were reintroduced in Hluhluwe-iMfolozi Park in the 1958 with more recent introductions from 1999-2001 to improve the genetic variation (Trinkel *et al.* 2008). The Hluhluwe-iMfolozi Park currently has about 100 to 140 lions (Maddock *et al.* 1996) although previous estimates have been as high as 200 (Grange *et al.* 2012). Lions also re-colonized the Mapungubwe National Park around 2000, coming in from the Tuli Block in Botswana, but fewer than 10 lions exist there.

The lion populations of Kruger National, Kgalagadi Transfrontier, Mapungubwe and Hluhluwe-iMfolozi Parks' were all recognised by the IUCN in its 2006 report on Southern and Eastern African lions, with the Kruger and Kgalagadi listed as viable populations, and the Mapungubwe (as part of the Greater Mapungubwe Transfrontier Conservation Area) and Hluhluwe-iMfolozi Park populations listed as potentially viable populations (IUCN SSC Cat Specialist Group 2006).

Reintroduction of lions into small reserves (including national parks, provincial protected areas, conservancies and private reserves of <1000 km^2 in area) started in the early 1990s and there are currently about 800 lions in 45 small reserves (Slotow & Hunter 2009; Miller *et al.* 2013). Except for the national parks, South Africa's wildlife is managed at a provincial level. These managed wild lions range freely within their new habitat, hunting and breeding at will, but managers typically control their numbers and enhance genetic diversity (Miller & Funston 2014). The Lion Management Forum (LiMF) was formed to focus on the best management practices for these various lion populations (including the Hluhluwe-iMfolozi and Mapungubwe National Park populations) with the longer-term goal of increasing their conservation value through scientifically based management approaches and thus, if successful, hopefully being recognised collectively as a viable population (Miller *et al.* in prep). None of the managed wild populations in the smaller fenced reserves was listed by the IUCN as viable or potentially viable population. The various populations could potentially be listed as a metapopulation in the future.

In addition to wild and managed wild lions, there are many captive bred lions in most provinces. According to a study initiated in 2008 by the Department of Environmental Affairs and conducted by the University of Free State, an estimated 3596 lions were kept in 174 breeding facilities in South Africa during 2008 (Taljaard 2009). It is estimated that there are currently about 6000 lions in at least 200 breeding/captive facilities in South Africa.

3.3 Distribution, habitat requirements, biology and ecology

3.3.1 Distribution

Lions are largely found in the savanna biome of Africa, which includes areas that receive between 300 and 1500 mm of rain annually. Savannas encompass a wide variety of habitats including grasslands, wetlands, dry woodlands and mosaics of all of these (Riggio *et al.* 2013). Lions no longer occur in the Sahara Desert parts of North Africa, but they do exist in the Namib Desert in Namibia (Bauer & van der Merwe 2004). Lions once lived across Eurasia, but now only a remnant population of a different subspecies (*Panthera leo persica*) survives in India. Until recently lions were present in certain forest-savanna mosaics in Gabon and the Republic of Congo (Henschel *et al.* 2010). Historically lions would have occurred throughout South Africa, with the possible exception of the KZN/Lesotho Drakensberg Mountains. Once extirpated from the tropical thicket biome of the Eastern Cape in South Africa, lions have recently been successfully re-introduced into these areas (Hayward *et al.* 2007c).

3.3.2 Habitat requirements

Lions can only exist in areas with sufficient wild prey, and seldom co-exist closely with people (Frank 1998; Woodroffe & Frank 2005). Within their home ranges lions require habitats or locations that are suitable for hunting, resting, and breeding. Lions readily adapt to hunting in varied habitats, generally having greater success when hunting in areas with longer grass or cover (Funston *et al.* 2001). Although landscape features may vary from area to area, lions tend to select areas where prey is easier to catch, rather than areas where prey densities are highest (Hopcroft *et al.* 2005). For example erosion embankments and proximity to water are important features for lions when hunting, especially for opportunistic daytime hunts.

In semi-desert and semi-arid woodland environments without significant river systems lions select areas located within two kilometres of a waterhole (Valeix *et al.* 2010), and in all areas lion kills tend to be located closer than expected to watercourses or waterholes (De Boer *et al.* 2010). Proximity to river confluences was significantly correlated with reproductive success in lions (Mosser & Packer 2009). Furthermore the density and survival rates of lions correlate positively with prey biomass (Ferreira & Funston 2010a). Generally, therefore, key habitat features that determine the distribution of prey influence the spatial ecology and movement patterns of lions, thus defining their habitat requirements.

3.3.3 Biology

Lions are the only social felids (Schaller 1972). Generally lions are resident, living in prides in territories that are demarcated and defended, but in most populations there are a small percentage of nomadic lions that do not settle in a territory (Schaller 1972). Prides comprise an average of 12 lions (range 2-35), including 4-5 adult lionesses (range 1-21), 2 pride males (range 1-9) and associated cubs and sub-adults (Schaller 1972; Smuts *et al.* 1978b; van Orsdol *et al.* 1985; Stander 1991; Funston 2011). Although the pride is a stable social unit, lions live in a fission–fusion society, and often individuals from the pride are found in subgroups (Schaller 1972), especially in arid areas (Funston 2011). All females in a pride are related, as are most males in coalitions, but typically unrelated lions mate with each other (Packer *et al.* 1991a, b). Male lions largely try to keep other male lions out of their

territories, while lionesses try to exclude other prides (Mosser & Packer 2009). This can result in a fairly high degree of mortality, especially in large, multi-pride systems where neighbours are often killed in territorial skirmishes (Mosser & Packer 2009).

Lions are matrilineal, although about a third of young lionesses disperse from their own prides (Hanby & Bygott 1987; Pusey & Packer 1987). A female who becomes a nomad has much greater difficulty joining a new pride, as the females in a pride are related, and they reject most attempts by an unrelated female to join their family group (Van der Waal *et al.* 2009). Male cubs are excluded from their maternal pride when they reach maturity, and typically leave their natal pride by the age of 4 years, most of which then form a coalition with other males (Pusey & Packer 1987; Packer & Pusey 1993). Although lions in the migratory Serengeti system are highly nomadic, they are far more resident in wooded savannas such as Kruger National Park and Selous Game Reserve (Spong & Creel 2001, Funston *et al.* 2003).

Male coalitions challenge one another for pride residency. Incoming males kill or evict dependent offspring sired by the previous coalition, so as to accelerate the mothers' return to sexual receptivity (Packer *et al.* 2001). As lionesses typically breed synchronously, a crèche of cubs is formed that is looked after and nursed by the lionesses. In lion prides female relationships are highly symmetrical (i.e. there is no dominance hierarchy), and female lions are "free agents" who only contribute to communal care when they have cubs of their own (Packer *et al.* 2001). Litter size ranges from one to six cubs, with 98% of litters containing one to four cubs (Packer & Pusey 1987). In the wild, lionesses seldom live to more than 14-16 years and most males only live to 12-14 years (Packer *et al.* 1988).

In most large protected areas, lion populations tend to be stable (Packer *et al.* 2005; Ferreira & Funston 2010a), but when introduced into a new reserve with naive prey, lion populations increase very rapidly (Kilian & Bothma 2003; Lehmann *et al.* 2008a; Miller & Funston 2014) and quickly expand to use the whole area (Druce *et al.* 2004b). In these reserves some form of contraceptive approach (*e.g.* Orford & Perrin 1988) is needed to halt population growth, although most reserves currently favour translocation or culling (Kettles & Slotow 2009; Miller *et al.* 2013).

3.3.4 Ecology

Lions eat a wide variety of mammals as food, tending to favour medium to large sized ungulates with an average body mass of 190–550 kg (Mills & Biggs 1993; Hayward & Kerley 2005; Owen-Smith & Mills 2008a). Lions are also known to scavenge whenever possible (Schaller 1972; Funston *et al.* 1998). Lions respond to behavioural and physiological changes in prey in terms of what species, sex and age of prey they select (Owen-Smith 2008). Typically in a particular area about five ungulate species make up the bulk of the lions' prey, with the relative abundance of suitable prey being a good indicator of what lions are likely to favour in a specific area (Radloff & du Toit 2004; Owen-Smith 2008). This same pattern occurs on the smaller fenced reserves (Power 2003; Druce *et al.* 2004a; Lehmann *et al.* 2008b). Although lions hunt cooperatively (Stander 1992a, b; Scheel 1993) there is no clear evidence that this benefits lions in terms of the amount of food they eat (Packer *et al.* 1988), and thus hunting success is not a driver of sociality in lions (Packer *et al.* 1990).

Lion home range size varies markedly between populations, ranging from as small as 20 km^2 in the Ngorongoro Crater (Elliot & Cowan 1978), to 400 km^2 in Etosha (Stander 1991), and up to 4500 km^2 in the Kgalagadi (Funston 2011). Loveridge *et al.* (2009) found that for females, home range size increased as pride biomass increased, which is strongly suggestive of expansionism (Macdonald 1983). Pride ranges respond to changes in food abundance on an annual timescale rather than on a seasonal timescale (Loveridge *et al.* 2009). Thus female home range size is mainly driven by the size of the pride, but also by prey abundance. Lions hunt most successfully in areas of thick cover and long grass (Funston *et al.* 2001, Trinkel *et al.* 2007), and especially when there is no moon (Stander & Albon 1993; Funston *et al.* 2001). Additionally when lions are within two kilometres of a waterhole they move at slower speeds, cover shorter distances per night, and follow a more tortuous path than when they are further from a waterhole (Valeix *et al.* 2010).

3.4 Description and map of geographic area for which the plan is proposed

The lion BMP is intended for the whole country of South Africa, the locations of the respective reserves that currently have wild or managed wild lions are depicted in Figure 2.



Figure 2. The distribution of lions in South Africa in 2014 including both wild and managed wild lion populations. Contiguous polygons do not imply full connectivity as there are fences separating some of these populations.

3.5 Captive lion populations and their status

An estimated 3596 lions were kept in 174 breeding facilities in South Africa during 2008 (Taljaard 2009), with as many as 6000 lions currently in over 200 breeding facilities in the country. The North West Province is the most important province in terms of captive lion numbers, keeping 61% or 2196 lions in 2008. However, the Free State Province had more captive breeding facilities (n = 98) keeping 800 lions (Taljaard 2009). On average, breeders keep 104 lions per facility, ranging from 6 to 470 lions. In terms of hunting, the major breeders had an average of 68 (range 20 to 150) lions hunted per facility in the 2007/08 hunting season (Taljaard 2009). Around South Africa there are a number of lion breeding and housing facilities that generate income from various types of tourism or training lions for filmmaking. There are also small groups of lions at most of the major zoos in South Africa. Currently there are two travelling exhibitions that use lions in their performances.

3.6 The ecological role of lions

Lions are by far the most dominant predator in African savannas, and contribute the major share of animals killed across a wide body size range (Owen-Smith & Mills 2008a). Lion predation regulates the numbers of resident prey in most savanna ecosystems (Mills & Shenk 1992), usually in conjunction with changing rainfall conditions, which affects the relative susceptibility of ungulate species to predation (Mills *et al.* 1995; Funston & Mills 2006; Owen-Smith & Mills 2006). These result in a top-down interaction between lions and prey, which is not easily disentangled from other influences on population dynamics (Owen-Smith & Mills 2006).

Shifting prey selection has been identified as a mechanism potentially regulating predator–prey interactions, but it may also lead to different outcomes, especially in more complex systems with multiple prey species available. In Kruger National Park, wildebeest and zebra constituted the most favoured prey species in a period of high rainfall, while selection for buffalo rose in the south of the park after a severe drought increased their vulnerability (Mills *et al.* 1995; Funston & Mills 2006). These are the three principle lion prey species in Kruger. Selection by lions of alternative prey species, including giraffe, kudu, waterbuck, and warthog, was influenced by the changing relative abundance and rainfall mediated vulnerability of the three principal prey species (Owen-Smith & Mills 2008b). Additionally, declines in the abundance of rare antelope species were associated with a sharp increase in selection for these species at a time when all three principal prey species were less available (Owen-Smith & Mills 2008b).

Lions tend to affect prey populations negatively in most small reserves (Power 2003), especially when managers continue to hunt or capture ungulates for live sale (Peel & Montagu 1999; Tambling & du Toit 2005). Model studies have revealed that increased levels of predation by lions on 'captive/fenced' populations of prey, such as wildebeest, in combination with regular harvesting by park managers, can drive the prey population towards extinction. Without careful monitoring and regulation of large predators, ungulate populations can decline more rapidly than managers expect.

In the small fenced reserves in South Africa lions have the same daily pattern of activity that they do in large reserves (Hayward & Hayward 2007), and select the same preferred prey as in large reserves

(Lehmann *et al.* 2008b; Louw *et al.* 2012). In these small fenced reserves lions typically encounter preferred prey species far more frequently than expected based on their abundance, and thus hunt these species more frequently than expected (Hayward *et al.* 2011). Additionally the daily food intake rate and home range use of lions in fenced reserves was the same as lions from large parks (Lehmann *et al.* 2008c; Hayward *et al.* 2009b). This all suggests that from an evolutionary viewpoint, the use of fences for conservation has not affected the natural behaviour of lions as they still conform to predictions derived from unfenced reserves. Hayward *et al.* (2009b) concluded that prey abundance is the key factor in determining the use of space use by lions, and is similar in both fenced and unfenced reserves.

3.7 Diseases

In recent years disease has become an emerging issue for large carnivore conservation, with canine distemper virus and rabies recognised as the major pathogens affecting wild carnivore populations. For lions, some believe that the risk of disease is increasing as populations have become isolated, placing them at a higher risk when confined by fencing (Keet *et al.* 2009). In addition, their increasing proximity to people and domestic animals exposes them to new diseases (IUCN SSC Cat Specialist Group 2006).

3.7.1 Viral Diseases

Viruses known to infect lions include canine distemper virus, feline leukemia virus, feline immunodeficiency virus, feline herpesvirus, feline calicivirus, feline parvovirus, and feline coronavirus (Hofmann-Lehmann *et al.* 1996). More than 40 years of continuous research on lions in Serengeti National Park and Ngorongoro Crater, Tanzania, has advanced what is known about the prevalence of six of the seven viruses (feline leukemia was absent) known to infect lions (Packer *et al.* 1999). Based on this research, two viruses (feline herpesvirus and feline immunodeficiency virus) are believed to be endemic in most lion populations and four (feline calicivirus, parvovirus and coronavirus, and canine distemper virus) occur in episodic disease epidemics (Packer *et al.* 1999).

3.7.1.1 Canine Distemper Virus (CDV)

In 1994 one-third of the lions in Serengeti National Park died from a strain of the CDV disease (Craft *et al.* 2009), and in 2001 a CDV epidemic (coupled with tick-borne diseases) killed nearly 40% of Tanzania's Ngorongoro Crater lion population (Kissui & Packer 2004; Munson *et al.* 2008). Scientists examined serological exposure to CDV in these well-studied populations and found that at least five "silent" CDV epidemics had occurred between 1976 and 2006 with little mortality or clinical signs of the disease (Munson *et al.* 2008).

The fatal 1994 and 2001 epidemics coincided with unusually high levels of *Babesia sp.* infections. According to Munson *et al.* (2008) *Babesia* is a tick-borne hemoparasite that usually infects the African lion at low levels without compromising health. Both outbreaks were preceded by extreme drought conditions that led to die-offs of host animals such as buffalo. When the rains returned, the surviving animals were heavily infected with ticks, which led to the higher *Babesia* levels in the lion populations.

Climate extremes thus seem to exacerbate the severity and occurrence of die-offs caused by CDV as well as the occurrence of deadly co-infections (Kissui & Packer 2004; Munson *et al.* 2008). The Serengeti lion population eventually recovered to pre-epidemic levels due to high cub survival (Packer *et al.* 2005). Repeated outbreaks of CDV over a relatively short time span have prevented recovery of the Ngorongoro population to its carrying capacity (Packer *et al.* 2011). This population has been rendered especially vulnerable due to inbreeding and close proximity to human populations (Kissui & Packer 2004).

3.7.1.2 Feline Immunodeficiency Virus (FIV)

FIV is found in the domestic cat, in which it causes an AIDS-like immunodeficiency disease (Troyer *et al.* 2004), which permanently infects the host. Olmsted *et al.* (1992) and Troyer *et al.* (2004) have documented FIV in eight wild felid species, including the African lion (Roelke *et al.* 2009). The African lion is infected with a lion-specific strain of FIV, known as FIVple, of which there are multiple, highly divergent strains. FIVple is thought to be a relatively old virus that has perhaps been infecting lions for thousands of years (Roelke *et al.* 2009).

FIV infection is common in East and South Africa, with infection rates in four sampled lion populations ranging from 70 to 91% (Brown *et al.* 1994). In the Serengeti lion population incidence of FIV is very high and has been consistently maintained over many years and is believed to be endemic (Brown *et al.* 1994; Hofmann-Lehmann *et al.* 1996; Olmsted *et al.* 1992; Packer *et al.* 1999; Troyer *et al.* 2005). Given the high prevalence of FIVple in many lion populations, it is evident that in several different ecosystems most lions with FIVple have survived and thrived. In natural settings, small decreases in fitness can have large effects during times of stress. However, there is no evidence that FIV compromises the survival of wild African lions (IUCN SSG Cat Specialist Group 2004).

3.7.1.3 Feline Herpesvirus

Herpesvirus has caused the death of a captive lion, but although 100% of the Serengeti population is infected, clinical signs of disease have not been detected (Craft 2008). Lions in the Serengeti have also been exposed to periodic outbreaks of feline parvovirus, calicivirus and coronavirus. However, there have been no consistent signs of clinical disease, excess mortality or decreases in lion fecundity due to infections from any of these three viruses (Driciru *et al.* 2006; Hofmann-Lehmann *et al.* 1996; Packer *et al.* 1999; Spencer 1991; Spencer & Morkel 1993).

3.7.2 Bovine Tuberculosis

Bovine tuberculosis (bTB) is caused by *Mycobacterium bovis*. Although it infects a wide variety of African wildlife, it is not indigenous to Africa and was most likely brought to the continent through the importation of cattle from Europe (Michel *et al.* 2006). African wildlife species have not yet developed immunity to bTB, and many species have the potential to act as a reservoir of infection (Renwick *et al.* 2007). bTB is a growing concern associated, in part, with increased numbers of domestic livestock and the increased overlap between livestock and wildlife (Renwick *et al.* 2007).

In the Kruger National and Hluhluwe-iMfolozi Parks, bTB spread to wild animal populations through the intermingling of domestic cattle with buffalo sometime in the late 1950s or early 1960s (Bengis *et al.* 1996; Keet *et al.* 2009). The disease has since spread throughout these parks seemingly by the movements of the buffalo. Buffalo are thus referred to as 'maintenance hosts' as they do not experience the serious physical effects associated with the disease (Caron *et al.* 2003). bTB is contracted by lions through the ingestion of infected prey (Keet *et al.* 2009). Organs such as the lungs and the lymph nodes contain most of the infectious material (Renwick *et al.* 2007). Once infected, lions may transmit the disease to other lions primarily through inhalation and secondarily through biting and scratching (Keet *et al.* 2009).

In many parts of Kruger National Park, buffalo are the primary prey of lions (Radloff & du Toit 2004; Funston *et al.* 1998; Owen-Smith & Mills 2008a,b) and over 80% of lions in some areas of the Park are infected by bTB (Keet *et al.* 2009). The clinical signs of infection in lions include respiratory problems, emaciation, lameness and blindness (Renwick *et al.* 2007, Keet *et al.* 2009). However, there are no estimates of the proportion of lions that become infected that develop clinical symptoms. Initial estimates suggest that bTB may not be as severe for Kruger's lions (Ferreira & Funston 2010a) as has been suggested (Keet *et al.* 2009).

3.7.3 Other Diseases

Domesticated pets such as cats and dogs have been known to transmit diseases to African lions such as rabies and feline leukemia virus (FLV), but neither disease is known to have inflicted measurable harm to wild lions.

3.8 Threats

Regional surveys have indicated a suspected decline of 30-50% in the African lion population in recent decades. A decade ago estimates ranged from 23,000 to 39,000 wild lions (Chardonnet 2002; Bauer & van der Merwe 2004), with a current estimate of 30,000 (Riggio *et al.* 2013). The greatest threats to lions generally (Bauer *et al.* 2008) include habitat loss and conversion, indiscriminate killing to protect livestock, prey base depletion, direct consequences of the bush meat trade and excessive trophy hunting.

In South Africa, however, threats to wild and managed wild lions are relatively minimal. Risks of genetic impoverishment of managed wild lions are low and easily mitigated through robust management interventions. The trade in lion body parts (especially bones to South-east Asia) currently appears to be a negligible threat to wild lion populations. Incidences of illegal activities such as poaching pertaining to wild lions are too sporadic to be of any detriment. Furthermore, the controversial trade in lion bones for the Asian market appears to be supplied by bones obtained as a legal by-product of the trophy hunting industry where the lions are almost exclusively captive-bred (wild lions account for only 0.9 to 1.1% of lions hunted – Lindsey et al 2012*). It would also appear that wild lions in South Africa are safe from the body parts trade for as long as captive-bred lions are the source of the derivatives.

3.9 Utilisation

Lions are particularly sensitive to over-harvesting (Whitman *et al.* 2004) because the removal of pride males through hunting often results in infanticide by incoming males that kill the cubs to stimulate the onset of oestrus in females (Packer *et al.* 1988, 1990). Trophy hunting of lions is contentious due to uncertainty concerning its conservation impacts and because of the polarised views of stakeholder groups. The only area in South Africa where lions are trophy hunted in line with the most recent guidelines (Lindsey *et al.* 2013) is the Associated Private Nature Reserves (Timbavati and Klaserie Game Reserves) (Funston 2004). National guidelines for the trophy hunting of wild and wild managed lions should be developed.

The captive-bred lion hunting industry in South Africa has grown rapidly while the number of wild lions that are sport hunted in other African countries has declined (Lindsey *et al.* 2012a, b). Captive-bred lion hunting differs from wild lion hunting in that lions are hunted in smaller areas (49.9 ± 8.4 km^2 compared to 843 to 5933 km^2, depending on the country), hunts are cheaper (R160 000-R320 000 compared to R296 000–R608 000 [excluding the costs of shooting other species and government charges]), shorter (3.3 compared to 14–21 days), success rates are higher (99.2% compared to 51.0–96.0%), and trophy quality is higher (skull length + breadth = 638.8 cm compared to 614–638 cm) (Lindsey *et al.* 2012a).

3.9.1 Impact of utilisation based on evidence

There are no systematic studies of the impact of trophy hunting of wild and managed wild lions in South Africa. However, the low numbers of lions hunted (< 10 lions per year) would suggest that trophy hunting does not impact the viability of wild and managed wild lion populations. It is generally recommended that lion quotas should either be set at about 3% of the total population (Creel & Creel 1997) or that offtakes should not exceed 0.5 lions/1000 km^2 (Packer *et al.* 2011). Neither of these limits is likely to be exceeded for wild and managed wild lions in South Africa. Wild lions are occasionally hunted from the managed wild population in fenced reserves, such as Madikwe Game Reserve, Pilanesberg National Park and Venetia-Limpopo Nature Reserve. Lions from the Kruger National Park are trophy hunted in the Associated Private Nature Reserves in the Klaserie and Timbavati Game Reserves. These hunts are approved by the South African National Parks and are guided by a strict utilisation strategy (Funston 2004). Some additional permitted and associated with damage causing lions as well as illegal hunting of lions occurs along the northern border of Kruger National Park.

Although trophy hunting of wild and wild managed lions in South Africa probably does not affect populations in any significant way, the hunting of young male lions is not sustainable and it is now widely recognized that wild and wild managed lions should not be hunted if they are less than six years of age (Whitman *et al.* 2004). While it is difficult to age lions in the wild, there are some variables that can quite readily be assessed in dead or immobilized lions to assess their age (Smuts, Anderson & Austin 1978; Smuts, Robinson & Whyte 1980; Ferreira & Funston 2010b). Hunting alters the behaviour of lions in a number of ways, in particular the spatial utilisation of males (Yamazaki 1996; Becker *et al.* 2013), with the size and variation of home ranges of both sexes decreasing when trophy hunting ceases (Davidson *et al.* 2011).

3.9.2 Use value of the species

In the ten countries in Africa where wild lions are hunted they attract one of the highest mean prices (R296 000 to R608 000) of all trophy species (Lindsey *et al.* 2013). Although not many wild and managed wild lions are hunted in South Africa, across the various lion hunting countries lions generate 5–17% of gross trophy hunting income on national levels and are thus an important species for the trophy hunting industry (Lindsey *et al.* 2012a,b). The total revenue from hunting wild and managed wild lions in South Africa is thus likely to only be about R3 million per year.

In South Africa the average price for hunting captive lions was R152 916 in the 2006/2007 hunting season (Taljaard 2009), which had increased to R280 000 in 2011 (Lindsey *et al.* 2012). The total value generated from hunting captive lions amounted to about R98 million in 2006/2007. For all lion hunts, the prices quoted only include the species fee and not the substantial additional daily rates associated with hunts. There was a large increase in the number of lions hunted in the 2006/2007 hunting season compared to previous years.

3.9.3 Monitoring of current use

Between 1999 and 2008 South Africa reported in terms of the CITES Annual report (based on permits issued), the export of the parts of at least 5 186 lions [comprising trophies (3 983), skins (630), live (514) and bodies (59)]. Of these, 2,962 (about 57%) were reported to be from wild lions [adding trophies (2 413), skins (453), live (57) and bodies (39)]. Unlike any other range State, South Africa reported the export of a large number of wild source lion specimens that did not originate in South Africa. During that same time period, 316 wild sourced lion trophies, 397 wild source skins and 3 wild source bodies were imported to South Africa, but it is impossible to know from the data how many of these stayed in South Africa or were re-exported (Anon 2011).

However, it is possible to learn from the data that a minimum of 88 trophies and 12 skins that originated from wild sources in other range states were exported by South Africa during the decade (Anon 2011). In 2009 and 2010, 833 and 682 lion trophies were reported exported from South Africa respectively, more than double the combined export (2009, 471; 2010, 318) from other African countries (Lindsey *et al.* 2012a, b). There has been an associated increase in the prevalence of the export of lion bones from South Africa, according to the CITES Annual Reports. At least 645 bones/sets of bones were reported as exported in 2010, 75% of which went to Asia.

If the above statistics were an accurate reflection of actual exports of specimens of wild lion, then South Africa would have exported about 8.7% of its entire wild population per year. This clearly did not happen, and these statistics must therefore be carefully interpreted. The numbers of truly wild lions hunted over the same period never reached more than ten individuals per year. Therefore, trade data from South Africa must be treated with caution. Although only few wild lions are hunted in South Africa it does not enforce a strict age minimum for trophies, although some reserves do (Funston 2004).

In response to a ministerial enquiry in December 2013 about lion body part trade to Asia, the DEA released the figures summarised in Tables 1 and 2. South Africa officially issued permits for the export of nearly (if not more than) 1 300 dead lions from South Africa to China, Lao PDR and Viet Nam from 2011 to 2012 inclusive.

Table 1. Ministerial Figures for CITES export permits issued in South Africa in 2011 and 2012 for lion body parts

Category	2011	2012
Live	39	183
Skins	81	93
Bones	55 kg	739 kg
Trophies	313	847
Bodies	40	10
Skulls	181	143
Skeletons	512	114

Table 2. Lion export permits issued in 2011 and 2012 to China, Lao PDR or Viet Nam

Category	China 2011	China 2012	Lao PDR 2011	Lao PDR 2012	Viet Nam 2011	Viet Nam 2012
Live	0	24	-	-	12	-
Skins	0	1	-	-	-	-
Bones	-	-	1 kg	1577 kg	0 kg	739 kg
Trophies	34	36	24	1	0	8
Bodies	16	15	0	20	0	32
Skulls	-	-	0	8	-	-
Skeletons	2	2	425	92	-	-

3.9.4 Current quotas and permits issued

Permits for wild and managed wild lion hunts in South Africa are obtained on application from the appropriate provincial conservation authority, as are permits for hunting captive-bred lions. Clearly permits are not limited, given the number of captive lions hunted. Furthermore, many of the captive hunts are being reported as wild or managed wild lion hunts, and the relevant authorities are in the process of addressing the incorrect use of source codes in the issuance of permits.

3.10 Past conservation measures

In the 1900s lions were largely eradicated from most of South Africa both by sport hunters and for agricultural development (Stevenson-Hamilton 1925). During 1903 Col. Stevenson-Hamilton estimated that there were only a few lions in the Sabi Reserve (Stevenson-Hamilton 1925). With the establishment of the Kruger National Park in 1925 lions started to receive greater protection, although the park's warden and rangers still routinely shot them. This practice was continued in some areas of

the park until the 1960s in the hope that this would promote the recovery of ungulate populations (Smuts 1978a). By 1925 it was estimated that there were about 250 lions in the Central District of Kruger, and by 1956 the estimate was 424 (Smuts 1976). By the 1970s there were about 700 lions in the same area (Smuts 1976), which has remained fairly stable since then (Ferreira & Funston 2010a).

The possible influence of predators on prey numbers resurfaced as an issue in Kruger in the 1970s (Smuts 1975) when wildebeest and zebra populations declined in the Central District. This precipitated an experimental culling operation where lions were either removed or thinned from two areas (Smuts 1978b). This programme did not have the intended results and lion numbers recovered quickly. Although Kruger National Park lions are no longer managed in terms of population size, several hundred lions have been euthanized in the last 15 years to test for the extent and consequences of bTB (Dewald Keet *pers. comm.*).

Lions have never been managed in the Kgalagadi Transfrontier Park, although there has been persecution of lions along the Kgalagadi's boundaries for decades (Mills *et al.* 1978; Van Vuuren, Herrmann & Funston 2005; Funston 2011). The lions that were established in the Hluhluwe-iMfolozi Park have been managed, mainly to minimise conflict along the boundary (Anderson 1980) and more recently to improve their genetic diversity and thereby reproductive potential (Trinkel 2008). In all the larger parks in South Africa lions occasionally venture out of the park and kill livestock. In the Kruger and the Hluhluwe-iMfolozi Parks (Anderson 1980) these lions are generally shot by rangers, whereas in Kgalagadi rangers try and translocate them back to the park (Mills *et al.* 1978; Funston 2002). In Namibia, Stander (1990) advocated translocation first and then if the lions became habitual livestock killers, that they then be destroyed.

The reintroduction of lions into about 45 smaller fenced game reserves in South Africa has largely been for eco-tourism purposes, rather than ecological reasons (Slotow & Hunter 2009). Managed wild lions are currently managed separately in each area, with very little planned genetic exchanges, (Hayward *et al.* 2007a, b, c; Hunter *et al.* 2007; Kettles & Slotow 2009), reducing their conservation value on a regional scale (Slotow & Hunter 2009).

This challenge prompted a group of South African reserve managers and biologists to form the Lion Management Forum (LiMF), which aims to guide and enhance lion management and conservation of managed wild lions in fenced reserves. The major issues being addressed by LiMF are growth rates (Miller & Funston 2014), overpopulation and population control, human conflict and compensation, disease, persistence of biodiversity and prey and genetics (Miller *et al.* in prep). Any management recommendations must thus take into account both the economic value of lions and their conservation value guided by the objectives of the land-use for a specific area.

3.11 Socio-economic issues

All lion populations in South Africa are fenced. Across Africa, lion populations in fenced reserves are significantly closer to their estimated carrying capacities than unfenced populations (Packer *et al.* 2013). Whereas fenced reserves can maintain lions at 80% of their potential densities on annual management budgets of about R4500/km^2, unfenced populations require budgets in excess of

R18000/km^2 to attain half their potential densities (Packer *et al.* 2013). Lions in fenced reserves are primarily limited by density dependence.

Large African predators, especially lions and leopards are financially valuable for ecotourism and trophy hunting operations also utilised for the production of other wildlife species for the same purpose (Lindsey *et al.* 2012b). Predation of ungulates used for trophy hunting can create conflict with landholders and trade-offs thus exist between the value of lions and leopards and their impact on ungulate populations. Funston *et al.* (2013) showed that lions result in substantial financial costs through predation on wild ungulates that may not be offset by profits from hunting them, whereas the returns from trophy hunting of leopards are projected to exceed the costs due to leopard predation. In the absence of additional income derived from photo-tourism, the number of lions may need to be managed to minimise their impact (Funston *et al.* 2013). Lions drive important ecological processes, but there is a need to balance ecological and financial imperatives on wildlife ranches, community wildlife lands and other categories of multiple land use for wildlife production. This will ensure the competitiveness of wildlife-based land uses relative to alternatives (Funston *et al.* 2013).

There are, however, substantial economic advantages to having lions and although not estimated here, a large amount of wealth is generated in South Africa from the presence of lions. These community benefits are important for lion conservation (Lindsey *et al.* 2013).

4 VISION AND OBJECTIVES

4.1 Vision

This is the first national BMP compiled for lions in South Africa. Following on from the background information the plan proposes a Vision, Objectives with their Actions and Indicators supported by a Monitoring Plan.

The vision for the South African lion population is that:

Through the existence of stable, viable and ecologically functional populations of wild and managed wild lions, along with well-managed captive populations that have minimal negative conservation impacts, lions will provide key opportunities for biodiversity conservation, economic development, social benefits and improved management capacity.

4.2 Objectives

1. **To improve the conservation status of lions within a broader conservation context, considering the respective role of wild, managed wild and captive populations.**

Sub-objectives:

- *1.1 Maintain the current degree of protection of wild lions;*
- *1.2 Review the status of lions in South Africa;*
- *1.3 Enhance the conservation status of managed wild lions; and*
- *1.4 Ensure a well-managed captive lion population.*

2. **Encourage the development of opportunities for economic and social benefits from responsibly managed wild, managed wild and captive lion populations.**

Sub-objectives:

- *2.1 Promote sustainable legal trade in lions and lion products; and*
- *2.2 Maximise the educational and research opportunities offered by captive lions.*

3. **Ensure that existing legal instruments are compatible and complimentary at national and provincial levels, and improve the capacity to implement these laws.**

4. **Establish a lion forum or working group.**

5. **Collaborate the alignment of this BMP with lion conservation plans in neighbouring countries and link with international working groups.**

A specific set of actions were defined for each objective. Lead agents or groups need to be defined for each action. It was proposed that SANParks, in collaboration with LiMF be the lead agents for wild and managed wild lions. Furthermore it was proposed that DEA would appoint at least three lead agents who would have annual meetings with DEA. DEA will establish a forum or working group, including lead persons from LiMF, SANParks, Ezemvelo KZN Wildlife, North-West Parks and Tourism, and DEA (6-8 people). DEA will develop a terms of reference for the forum, and perform the administrative duties and make the appointments.



4.3 Objectives and Actions table

Objective	Sub-objective	Actions	Intended 5-year outcomes	Indicators/due date	Implementing party	Estimated cost
1. Improve the conservation status of lions within a broader conservation context, considering the respective role of wild, managed wild and captive populations	1.1. Maintain the current protection status of wild and managed wild lions	1.1.1. Maintain current level of protection for wild and managed wild lions in all protected areas	Stable wild lion populations in all protected areas No illegal trade in wild lions	Population censuses every three years starting in 2015	SANParks, Ezemvelo KZN Wildlife, North-West Parks and Tourism Board, Limpopo Tourism Agency, Private Reserves carrying operational costs.	2,000,000.00
	1.2. Re-asses the conservation status of lions	1.2.1. Reassess the conservation status of wild and managed wild lions	Re-allocation of lions to a more appropriate category on the IUCN Red Data List	The end of 2015	Endangered Wildlife Trust	0.00
	1.3. Enhance the conservation status of managed wild lions	1.3.1. Improve and execute a meta-population management plan for managed wild lions	>80% of reserves with managed wild lions integrated into a managed meta-population approach	Start implementing a managed meta-population plan by the end of 2015 >80% reserves included by 2019	DEA, SANParks, Ezemvelo KZN Wildlife, North-West Parks and Tourism Board, LiMF, Endangered Wildlife Trust	500,000.00
		1.3.2. Develop norms and standards for the reintroduction of managed wild lions	Published norms and standards for the management of managed wild lions	The end of 2016	DEA, LiMF	50,000.00
		1.3.3. Conduct a census/audit of all populations of managed wild lions and submit to DEA	Clear understanding of population size and trends	The first audit must be compiled by the end of 2015 and annually thereafter	LiMF	300,000.00
	1.4 Ensure a well-managed, captive lion population	1.4.1 Develop national standards for the captive keeping and breeding of lions 1.4.2 Execute an audit of the lion keeping facilities of all current permit holders and cancel the permits of those that are not complying with their permit requirements	The captive-bred lion industry is established on an ethical and economically sustainable basis. Provincial differentiations are superseded by national norms and standards.	By 2019 all permit holders have to comply to minimum standards or be closed down permanently.	DEA, DAFF, Provinces, SAPA	500,000.00

Objective	Sub-objective	Actions	Intended 5-year outcomes	Indicators/due date	Implementing party	Estimated cost
		1.4.3 Introduce the mandatory marking of captive-bred lions through micro chipping and/or tattooing 1.4.4 DEA to create and maintain a database of all permitted lion keepers/breeders and of their lion populations' DNA profiles				
2. Encourage the development of opportunities for economic and social benefits from responsibly managed wild, managed wild and captive lion populations	2.1. Promote sustainable legal trade in lions and lion products	2.1.2. Develop and implement guidelines to support the permitting process	Permits can be issued simply and effectively	Develop guidelines by the end of 2017	DEA, Provincial conservation authorities	0.00
	2.2. Maximise the educational and research opportunities derived from captive lions	2.2.1. Develop a set of material for the education of the public at captive facilities, so that the correct messages can be transferred to the public	The public are better informed about the benefits and realities of lion conservation	Develop educational material by the end of 2017	DEA, DAFF and partners	300,000.00
3. Ensure that existing legal instruments are compatible and complementary at national and provincial levels, and improve the capacity to implement these laws		3.1.1. Ensure alignment on permit decisions between national and provincial legislation	Legislation is effective in supporting lion conservation and use	Redraft national and provincial legislation by the end of 2018	DEA, Provincial conservation authorities	0.00
		3.1.2. Address training needs, and implement training course for all aspects of legislation regarding lions	Well-trained managers make better management decisions, leading to sustainable conservation of lions	Develop and implement by the end of 2018	DEA	300,000.00
4. Establish a lion forum or working group		4.1. Establish a lion forum to monitor the implementation of the lion BMP and managed meta-population plan Meet on an annual basis	The forum implement and manage the meta-population	Annual report (starting in 2017) based on the minutes of the working group meeting	DEA, SANBI, SANParks, Ezemvelo KZN Wildlife, North-West Parks and Tourism, LIMF	500,000.00

Objective	Sub-objective	Actions	Intended 5-year outcomes	Indicators/due date	Implementing party	Estimated cost
5 Collaborate the alignment of this BMP with lion conservation plans in neighbouring countries and link with international working groups		5.1. Complete a review process to check for alignment with other regional strategies	South African Lion BMP closely aligned with neighbouring national and regional lion conservation strategies	Align with other strategies by the end of 2018	DEA	0.00
		5.2. Establish and/or maintain affiliations with international work groups	Close ties with IUCN Cat Specialist group and other similar working groups	Establish all necessary ties by the end of 2017	DEA	0.00
					TOTAL	4,150,000.00

5 A META-POPULATION MANAGEMENT PLAN FOR MANAGED WILD LIONS

5.1 Background to the development of a meta-population management plan for managed wild lions

Lions once roamed across virtually all of South Africa, but were all but extirpated by the early 1900s remaining only in small numbers in what are now Kruger National Park and the Kgalagadi Transfrontier Park. Since then, trends in South Africa contrast that for elsewhere in Africa where African lion numbers are declining. With the formation of Kruger National Park in the 1920s, lion numbers recovered slowly, growing to a stable population of approximately 1700 today (Ferreira & Funston 2010), one of six strongholds for lions in southern Africa (Riggio *et al.* 2012). The Kgalagadi Transfrontier Park has a smaller, yet also stable, population of lions and is also considered a lion stronghold (Riggio *et al.* 2012). Lions re-colonized Hluhluwe-iMfolozi Park (HiP) in the 1950/60s (Maddock *et al.* 1996) and were augmented to counteract inbreeding in the late 1990s early 2000s (Trinkel et al. 2008). The HiP population is stable at approximately 120 lions (Dave Druce *pers. comm.*).

The three focal wild lion populations are complimented by a fragmented population of wild managed lions in South Africa found on small fenced areas or reserves typically less than 1000km^2 in size. This largely results from private property as well as wildlife ownership rights enforced by fencing as required by South African law. Such laws do not exist in the rest of Africa and thus fencing is rare outside of South Africa. Even though varied opinions abound on the pros (Packer *et al.* 2013) and cons (Creel *et al.* 2013) of fencing as an essential component of lion conservation in future, the use of fences are likely to increase as human land-use continues to expand into lion ranges. This predicts continued fragmentation of lion habitats (Riggio *et al.* 2012, Dolrenry *et al.* 2014). The managed wild lions of South Africa thus may provide a key example in how to achieve integrated lion conservation goals in a changing African context. Already managers of lions in fragmented habitats associated with fenced reserves in Namibia and Zimbabwe are facing similar challenges to those experienced by South African managers in.

5.2 South Africa's managed wild lion population - a brief history and management lessons

Since the 1990s, public and private game reserves started appearing in South Africa and many of them reintroduced lions, mostly as a tourist draw card. Lions from these early populations were then used for yet more reintroductions and the total number is now about 800 lions on over 45 small, fenced reserves (Miller *et al.* 2013). Many of these reserves only have one or two prides of lions, with the largest (Pilanesberg National Park and Madikwe Game Reserve) having four or five prides. Most managers of these reserves have tended to manage their lion populations in isolation although there were some movement of 'excess' lions. Fragmented isolated management called into question the conservation value of these lions (Hunter *et al.* 2007, Slotow & Hunter 2009).

Fragmented isolated management created several challenges. Researchers noted indicators of inbreeding in two reserves (Trinkel *et al.* 2008, 2010), while several reserves experienced increased lion population growth rates with subsequent high lion densities (Miller & Funston 2014). The combination of high lion densities and restricted size of these reserves disrupt predator-prey relationships – often prey dramatically decline (Tambling & du Toit 2005, Slotow & Hunter 2009). In addition, managers increasingly find it hard to locate new areas for 'excess' lions (Kettles & Slotow 2009). The Lion Management Forum (LiMF), formed in 2010, provides a platform for concerned managers to discuss the unique issues surrounding small, fenced lion populations. LiMF members recognise that many of the natural processes characteristic of large naturally functioning lion populations have been disrupted on these small reserves. Limited opportunities for restoration of these processes exist. An alternative is thus to use management interventions to mimic the outcomes of such natural processes (Miller *et al.* 2013; Ferreira & Hofmeyr 2014).

5.3 Maintaining ecological processes with managed wild lions

The restoration and maintenance of predation is one of the key biological processes managers would want to restore in any protected area (Dalerum *et al.* 2008). However, the challenges of maintaining ecological processes that involve lions in small, protected areas or reserves are complicated by expectations and attitudes of stakeholders (Kerley *et al.* 2003). These range from positive, such as a general assumption that the presence of lions enhances a tourism experience (Okello *et al.* 2008), to negative such as towards livestock losses as a result of lions spilling over into areas surrounding small reserves (Inskip & Zimmermann 2009).

Reintroduction of lions should mimic the sequence whereby species predictably colonize degraded or disturbed areas (Wassenaar *et al.* 2005). Such mimicking facilitated by translocations into newly established fenced reserves, however, was never explicit. The most challenging management consequences of the reintroduction of lions into small reserves isolated from each other are both ecological (Hayward & Kerley 2009) and genetic (Trinkel *et al.* 2008, 2010, 2011). Lions breed excessively successfully (Miller & Funston 2014) in these new environments with naïve (Hayward *et al.* 2007) and restricted prey (van Dyk & Slotow 2004; Hayward & Kerley 2009), often depleting the prey base in a non-sustainable way in spatially limited environments (Tambling & du Toit 2005, Slotow & Hunter 2009). These then lead to a disruption of dynamic predator–prey relationships that may undermine ecological objectives, affect meso-predators such that in the absence of lions these species may become excessively abundant (Prugh *et al.* 2009), and that when lions are reintroduced persistence of rarer small carnivores may be challenged through meso-predator suppression (Ritchie & Johnson 2009).

In addition to the above ecological challenges, lion reintroductions are often token ecological actions because the primary motive is financial through eco-tourism (Kerley *et al.* 2003, Okello *et al.* 2008). The National Environmental Protected Areas Act (Act No. 57 of 2003) of South Africa provides for such activities as long as the ecological integrity of the protected area is not jeopardized. The disruption of prey-related processes when confined in small areas may be defined as illegal and in contravention of the act. Managers of protected areas are thus particularly accountable for dealing with disrupted predator–prey relations when large carnivores have been introduced into small areas.

Much of the above challenges originate from considering each reserve holding managed wild lions in isolation. This lead to approaches based on the principle of establishing some or other 'carrying capacity' of predators based on available prey (Hayward *et al.* 2007). The approach is not inherently aligned to the modern conservation paradigm that acknowledges the flux of nature and importance of spatio-temporal patchiness and habitat heterogeneity (Stalmans *et al.* 2001). Ferreira & Hofmeyr (2014) offer a complimentary conceptual model to the single population carrying capacity approaches adhered to at present (Hayward *et al.* 2007). Their approach hinges on mimicking natural social dynamics that conceptually integrates several isolated reserves into a single population.

5.4 Mimicking natural social dynamics for managed wild lions

5.4.1 Reserve level management

Lion abundance and density correlate with the quantity and spatial distribution of prey biomass (van Orsdol *et al.* 1985, Packer *et al.* 2005). The variable social nature of lions influences this relationship with social factors tending to limit minimum home range sizes and often reduce survival and fecundity (Bertram 1973). For lions, this frequently results in long-term population trends being relatively stable (Packer *et al.* 2005). One consequence of fenced confined areas is an increase in the likelihood that individuals may socially become more tolerant of each other as is the case when unrelated lions are placed in a small boma (Ferreira & Hofmeyr 2014). In small areas spatial restrictions may thus remove one of the key mechanisms of population regulation of large carnivores, *i.e.* social unfamiliarity.

The disruption of social dynamics, particularly mechanisms inducing group living, may also be a key driver of disrupted predator-prey dynamics associated with lions in small reserves. Females living in groups allow better abilities for them to defend their cubs against roaming males (Packer & Pusey 1983, Packer *et al.* 1990). Females living in groups may have better abilities to defend their territories against other lions or groups (Mosser & Packer 2009, Valeix *et al.* 2012). In most small enclose areas, few if any roaming males reside and often only one pride is present. The defense motivation for living in groups may therefore not be present. Foraging efficiency may be a third motivation for living in groups – when prey is scarce, lions do better by foraging alone or in a large group (Caraco & Wolf 1975). Foraging efficiency may thus only be a secondary motivation for living in groups. Disruption of group living mechanisms predict lions roaming more independently in small, enclosed areas compared to large open systems. Several lions on their own, or in smaller fractions, efficiently hunting different prey individuals simultaneously (Caraco & Wolf 1975; Lehmann *et al.* 2008c) disrupt predator-prey dynamics.

The social basis of group living creates considerable social stress, which can impose energetic constraints on females. In open natural systems, this can impose reduced birth rates through 1) postponing age at first birth, 2) lengthening birth intervals and 3) reducing litter sizes. Social stressors also impose reduced fitness, subsequently reducing survival rate. In addition, individuals of several mammal species display reduced survivorship during times of dispersal and territory establishment (Johnson & Gaines, 1990). Small, enclosed reserves prevent natural dispersal of lions. The disruption of social mechanisms resulting from spatial isolation and small sizes of areas where wild managed lions reside predicts increased reproductive outputs and longer life-spans of lions that leads to higher population growth rates already noted in several small reserves (Miller & Funston 2014).

The disruption of reasons for group living in lions is thus a key driver of the small enclosed reserve management challenges – rapid growth in lion numbers and increased predation pressure that degrade predator-prey relationships. For those reintroductions done to generate revenue through game viewing, a third challenge may arise. As depicted by mass media, large males and groups with cubs are an important factor for lion watching tourists. Reduced group living by lions in small, enclosed reserves thus impose on game viewing experiences that managers seek to achieve.

Conceptually, therefore management of lions in small reserves should focus on managing social relations (Ferreira & Hofmeyr 2014), key mechanisms of carnivore population regulation (Bertram 1973) as well as variability in predation risk, vulnerability and fear landscapes, complimenting a population approach with fixed 'carrying capacity' (Hayward *et al.* 2007). Given this context, most small protected areas and private reserves in South Africa are only capable of dealing with one to four prides of lions with management outcomes possibly having better outcomes by focusing on social units rather than managing the population in isolation (Ferreira and Hofmeyr 2014). This approach focuses on the biological mechanisms that are most likely disrupting predator–prey relationships and reducing genetic integrity.

The social approach allows reserve managers to mimic behaviour and dynamics of lion prides and other subgroups using the following basic biological characteristics for the species. Female lions conceive as early as 32 months, but typically give birth to cubs in normally functioning populations at 40 to 60 months of age (Smuts *et al.* 1978). In small confined populations lions tend to breed at younger ages (Miller & Funston 2014). Litter sizes averages three with a range of one to six (Smuts *et al.* 1978, Miller & Funston 2014). Birth intervals depend on whether cubs are raised to maturity, with lions in Kruger National Park having new litters every 30-36 months (Smuts *et al.* 1978). When litters are lost, intervals range between four and six months (Packer & Pusey 1987). In southern Africa in habitats with resident prey ranging from arid Kalahari to mesic Kruger National Park, cub survival is high, ranging from 60-80% in the first year (Funston 2009, 2011). Cub mortality increases when new males take over a pride (Packer *et al.* 1988). Sub-adults and adults have higher survival rates than cubs (Funston *et al.* 2003, Ferreira & Funston 2010).

Five management options are available to mimic social and population dynamics for females (Ferreira & Hofmeyr 2014). These include: 1) increase the age at first reproduction using contraception of sub-adult females or 2) establish longer intervals between births using contraception of adult females (Munson 2006, Bertschinger *et al.* 2008); 3) reduce age specific fecundity through reduced litter sizes using unilateral tube-tying of fallopian tubes (Alhasani *et al.* 1984); 4) mimic female dispersal by removing as well as introducing sub-adult females; 5) mimic higher death rates of old females by removing the oldest females in the pride. Unilateral tube tying of fallopian tubes may require experimental evaluation and clinical improvement before implementation.

The goal should be to maintain the variance in the number of adult females comprising a pride reflecting average values in large typically functioning populations (*e.g.* Kgalagadi Transfrontier Park, Kruger National Park). This converges onto four (range 1-20) in most southern African savannas (Smuts 1976, Stander 1991, Funston 2001). Managers may thus use modeling approaches (Quadling & Starfield 2002, Miller, Tambling & Funston *in press*) to define a mixture of the five options to achieve an average pride size of four. Managers will need to also (evaluate the number of breeding females in the context of their desired population size and they may need to reduce the number of breeding females as well. The GrowLS model (Miller *et al.* in press) can be used to explore the effectiveness of the various planned

interventions. GrowLS can be customised to most closely mimic a manager's situation and plans.

Male survival rates are typically lower than those of females (Ferreira & Funston 2010), but this discrepancy dissipates when in small confined areas (Slotow & Hunter 2009). Three management options are available for males: 1) mimic male dispersal through removal and introductions of sub-adults; 2) mimic pride take-overs – tenure is on average three years (Funston *et al.* 2003), and 3) mimic higher death rates of old males by removing the oldest males. Managers can again use modeling approaches (Whitman *et al.* 2004, Whitman *et al.* 2007, Miller *et al.* in press) to achieve at least coalition tenure of three years and allowing each coalition to have only one breeding opportunity. No active switches of coalitions may be required if sub-adult male introduction and the oldest male removals are staggered. A pride take-over may then follow naturally, with subsequent consequences for cub mortality.

5.4.2 Meta-population level management

The social approach (Ferreira and Hofmeyr 2014) at reserve levels require interactions with other reserves as sources for management-assisted colonizing lions and destinations of management-assisted dispersing lions. This together with reproductive control essentially allow coalitions only one opportunity to breed and having external linkages in the network of reserves maintain evolutionary potential as well as genetic diversity over time. If managers collaboratively mimic social dynamics similar to lions in large areas, genetic integrity will be an outcome, in stark contrast to approaches used until now (see Trinkel *et al.* 2010). Thus the key elements of a 'managed meta-population' of lions in small reserves in South Africa are:

1) Simulating natural social-based population regulation and space use patterns at the level of each reserve, and

2) Switching male coalitions and females between reserves on a sufficiently regular and irregular basis respectively to maintain typical tenure lengths, minimize breeding with relatives, and facilitate natural mortality rates of cubs, which are ethically challenging to simulate in any other ways.

5.5 Risks of mimicking social dynamics of managed wild lions

Several risks may materialize (Ferreira & Hofmeyr 2014), which in some cases are only speculative challenges:

5.5.1 Health risks

Some cases have been reported where contraception imposes individual health threats; including i) when lionesses are chemically prevented from having their first cycle, ii) lionesses that have been on contraception for extended periods when allowed to cycle again may do so irregularly or not at all, and iii) the physical tying of uteri tubes may result in complications and associated infections.

5.5.2 Behavioral changes

Without the demand of large cubs or sub-adults to feed this may reduce an adult lionesses' individual need to hunt in a group resulting in individual hunting and leading to fragmentation of prides (Lehmann 2008). This may also be induced by social familiarization in confined, small areas. This argues strongly for ensuring that new male coalitions are introduced into small reserves about once every three years at least. Failing that some key objectives of each reserve may be challenged, including providing for tourism experiences, and not increasing overall predation rates. At least two papers have shown how social manipulation of lions can both decrease (Lehmann *et al.* 2008b) and increase (Tambling *et al.* 2013) predation rates.

5.5.3 Space use shifts

It is not yet clear how manipulated lions would respond in terms of space use (*e.g.* Kerley & Shrader 2007), which in turn may disrupt predator–prey interactions across landscapes. These will need to be evaluated as a potential consequence of a socially-based approach to carnivore management (Ferreira & Hofmeyr 2014).

5.6 Applying meta-population theory to lions on small reserves in South Africa

The situation in South Africa where cheetahs and wild dogs are described as being managed, or in the case of lions are recommended to be managed, as a 'meta-population' with single populations separated by large distances does contradict the theory of meta-population dynamics to some extent. Meta-populations are those with spatio-temporally variable subpopulation dynamics, variable dispersal and availability of empty habitats that are largely connected (Olivier *et al.* 2009). This is not the case with most managed wild lion populations on small reserves in South Africa. Thus is essence the 'managed meta-population' is a unique product of the South African response to manage and conserve large carnivores on isolated small reserves. The approach essentially recognizes a single population with social groups spatially isolated over vast areas. Some of these challenges can be reconciled through identifying regional nodes (see Figure 3). See also Marnewick *et al.* (2007) for cheetahs based on genetic geographical structure.

Lions for the reintroductions into South Africa's small reserves were initially sourced from Etosha National Park as well as Sabi Sand Game Reserve, adjacent to the Kruger National Park. Recently, SANParks relocated some animals from the South African part of Kgalagadi Transfrontier Park (Slotow & Hunter 2009). Managers applied minimal genetic management throughout the history of lion reintroductions (Slotow & Hunter 2009, Trinkle *et al.* 2010). As a result, geographic genetic structure in the managed wild lion meta-population reflect mixed origins with few reserves having lions of only one origin (Miller *et al.* in prep). The South African manage wild lions thus represent a novel lion genetic diversity not associated with a single origin. Maintaining the origin of the base genetic stock is thus low priority

One of the challenges of the 'managed meta-population' approach is that it is intensive and potentially costly and requires many linkages and management agreements between several conservation areas. The number of linkages depends to a large extent on the size of each population, as measured by the number

of prides in a reserve. It is suggested that most integration is within regional nodes (see Figure 3) with rare external linkages to other nodes based on biome characteristics (Ferreira & Hofmeyr 2014, Miller *et al.* in prep).

The mimicking of social dynamics make specific predictions of genetic integrity which can serve as a strong indicator and informant of the success and implementation of the meta-population management plan for wild managed lions in South Africa. Regional clustering into four sub-populations (Figure 3) facilitates collaborative management and legal processes such as provincial permitting. This makes predictions for the genetic structure of sub populations as well as the meta-population if social dynamics are effectively implemented to mimic that of a large lion population. Levels of genetic diversity indicators of the wild managed lions in South Africa should thus reflect that of levels of indicators for the Kruger National Park and Kgalagadi Transfrontier Park. To facilitate this genetic monitoring and informing management, Miller *et al.* (2014) developed microsatellite loci for relatedness testing

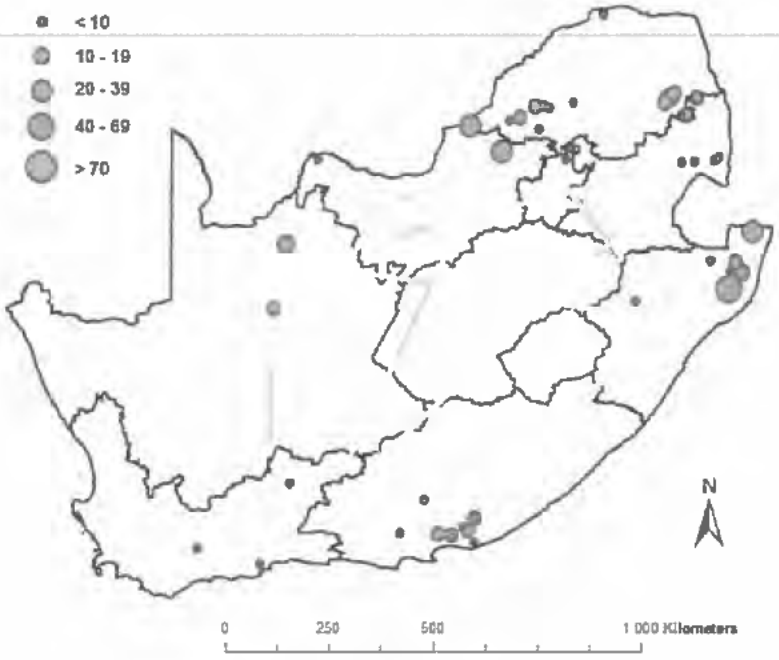

Figure 3. Location of reserves in South Africa with managed lions and proposed management clusters (shaded areas). The size of each dot represents the number of lions on the reserve. A national network of reserves is envisaged where translocations between reserves within the clusters occur on a regular basis (as required by each reserve) with less frequent translocations between clusters (indicated by arrows). This should improve the genetic integrity of this population as a whole (map from Miller *et al.* in prep).

A key advantage of several small lion populations is that it is relatively easy to track individual lions and some of their life-history. This provide opportunities to also use studbook approaches in keeping track of progress with implementation of a meta-population management plan for wild managed lions in South Africa. The combination of integrated social mimicking of lion dynamics in regional nodes together with genetic and studbook monitoring informing and evaluating implementation of the meta-population management plan for wild managed lions in South Africa will allow the creation of the seventh wild lion population in southern Africa albeit of novel genetic make-up. It will also create several opportunities aligning with the overall vision of the Biodiversity Management Plan for Lion in South Africa.

5.7 Objectives

5.7.1 To maintain the wild managed lions of South Africa as a key population that contributes to several socio-economic-ecological opportunities as part of reserve objectives by inducing social limitations through

5.7.1.1 Mimicking changes in lion survival associated with social stress and prey biomass limitations;

5.7.1.2 Mimicking changes in lion fecundity by increasing the age of first reproduction, decreasing litter sizes and/or increasing interval between births;

5.7.1.3 Mimicking high mortality in young cubs and old individuals.

5.7.2 To maintain lion genetic integrity by inducing social limitations through management-assisted dispersal and changes in dominance hierarchies.

5.8 Actions Tables

Implementation of the meta-population management plan for wild managed lions in South Africa will help address actions directed at achieving Objective 1.3 (*i.e.* Enhance the conservation status of managed wild lions) of the Biodiversity Management Plan for Lion in South Africa. The establishment of a lion forum of working group – LiMF (Objective 4 of the BMP for Lion in South Africa) is a key element providing oversight of this integrated approach. Specific actions are as follows:

Objective 5.7.1 - To maintain the wild managed lions of South Africa as a key population that contributes to several socio-economic-ecological opportunities as part of reserve objectives by inducing lion social limitations.

Action	Target	Accountability	Evaluation
Model required changes in life-history variables to achieve dynamic social groups on a reserve	2015	LiMF	Science Report
Develop 5 year action plan as guidance for interventions	2015	LiMF	Action Plan
Inform and update stakeholders	Ongoing	DEA	Meeting Report
Complete reserve risk assessments of proposed management actions	Ongoing	Reserve Management	LiMF Data Submission
Mimic survival changes through lethal and non-lethal removal	Ongoing	Reserve Management	LiMF Data Submission
Mimic required immigration and emigration through removal and introductions at defined intervals	Ongoing	Reserve Management	LiMF Data Submission
Mimic required changes in age at first reproduction and interval between births through selective application of contraceptives	Ongoing	Reserve Management	LiMF Data Submission
Measure the spatial response of carnivores by evaluating annual distribution through cyber tracker data	Annual	Reserve Management	LiMF Data Submission
Collate and model landscape use from wildlife spatial data	Bi-annual	LiMF	Science Report
Measure the demographic response by determining age- and sex structures of carnivore species through ranger observations	Annual	Reserve Management	LiMF Data Submission
Collate and model social group change from demographic data	Bi-annual	LiMF	Science Report
Count wildlife using an optimized design	Annual	Reserve Management	LiMF Data Submission
Relate carnivore spatial use and social dynamics to measures of wildlife dynamics	Bi-annual	LiMF	Science Report
Inform park management on the progress of managing predator-prey relations	Annual	LiMF	Meeting Report
Inform park stakeholders on the progress with managing predator-prey relations	Ongoing	DEA	Meeting Report

Objective 5.7.2 - To maintain lion genetic integrity by inducing social limitations through management-assisted dispersal and changes in dominance hierarchies.

Action	Target	Accountability	Evaluation
Identify and extract life-history characteristics of lions	2015	LiMF	Science Report
Define social dynamics from the literature of lions	2015	LiMF	Science Report
Develop a 5-year action plan as guidance	2015	LiMF	Action Plan
Inform and update stakeholders of the genetic integrity of lions	Ongoing	DEA	Meeting Report
Complete a risk assessment of proposed species management actions	Ongoing	Reserve Management	LiMF Data Submission
Mimic male dispersal from and into the social unit through removal and introductions at age of sexual maturity	Ongoing	Reserve Management	LiMF Data Submission
Mimic dominance changes at intervals reflecting natural dominance hierarchies through switching of dominant males in particular	Ongoing	Reserve Management	LiMF Data Submission
Mimic occasional female dispersal from and into the social unit at intervals reflecting natural dispersal through removal and introductions	Ongoing	Reserve Management	LiMF Data Submission
Model genetic diversity from individual life histories	Bi Annual	LiMF	Science Report
Measure the genetic diversity of the social units	Every Generation	LiMF	Science Report
Inform park management on the progress of managing predator-prey relations	Annual	LiMF	Meeting Report
Inform park stakeholders on the progress with managing predator-prey relations	Ongoing	DEA	Meeting Report



6. MONITORING AND EVALUATION

6.1 Monitoring Plan

The guiding principle for the monitoring of the actions defined in this BMP is adaptive management: using information or opinions on how systems function to conduct management that makes predictions of how a system should respond if the information or opinions were correct, measure these predictions robustly and adapt management actions accordingly if needed (Rogers 1997, Biggs & Rogers 2003, Tompkins & Adger 2004). The relatively short cycle of five years for which the lion BMP is valid permits changes to be incorporated relatively quickly. Monitoring and evaluation should have a process that allows those findings to enter the lion BMP as they become available. Thus the BMP should be viewed as a living document with the opportunity for changes to be implemented. It is DEAs responsibility to oversee the implementation and monitoring that has been stipulated in this BMP, although DEA can appoint agencies to be responsible for both implementation and monitoring.

6.1.1 Key Targets

The five overarching BMP objectives comprise two objectives that are outcome focused with the remaining objectives focused on providing processes and tools. Reporting on targets defined for the outcome focused objectives (1: To improve the conservation status of lions within a broader conservation context, considering the respective role of wild, managed wild and captive populations; and 2: Encourage the development of opportunities for economic and social benefits from responsibly managed wild, managed wild and captive lion populations) will thus reflect on achievement of the BMP vision.

1. Persistence of wild lion populations

Measure 1: Stability of all existing wild lion populations.

2. Persistence of managed wild lion populations

Measure 2: Stability or increasing meta-population of managed wild lion population.

Measure 3: Comparative level of genetic diversity of the meta-population of managed wild lions with that of wild lion populations.

3. Norms and standards for captive lions

Measure 4: Zero deviations from norms and standards defined in permit conditions.

4. Economic opportunities

Measure 5: Growth in lion-based economic outputs matches national economic growth indicators.

5. Social benefits

Measure 6: Growth in indicators of lion-based benefit sharing match national equitable benefit sharing indicators.

6.1.2 Monitoring Schedule

The key aspects that require monitoring are largely covered by the objectives and actions table (see Section 6.1.2 for summary of monitoring schedule). The schedule need to be met, and to monitor progress towards their fruition the implementing party for each respective action should submit an annual report to DEA outlining the progress and milestones achieved.

Action	Date of Monitoring Inception	Monitoring Schedule
1.1.1. Maintain current level of protection for wild and managed wild lions in all protected areas	2015	Population surveys every three years
1.2.1. Reassess the conservation status of wild and managed wild lions	2014/15	Every five years
1.3.1. Improve and execute a meta-population management plan for managed wild lions	2015	Review every five years
1.3.2. Develop norms and standards for the reintroduction of managed wild lions	2015	Review every five years
1.3.3. Conduct a census/audit of all populations of managed wild lions and submit to DEA	2015	Review every year
1.4.1 Develop national standards for the captive keeping and breeding of lions	2015	Review every ten years
1.4.2 Execute an audit of the lion keeping facilities of all current permit holders and cancel the permits of those that are not complying with their permit requirements	2015	Review every two years
1.4.3 Introduce the mandatory marking of captive-bred lions through micro chipping and/or tattooing	2015	Review every two years
1.4.4 DEA to create and maintain a database of all permitted lion keepers/breeders and of their lion populations' DNA profiles	2015	Review every two years
2.1.2. Develop and implement guidelines to support the permitting process	2016	Review every ten years
2.2.1. Develop a set of material for the education of the public at captive facilities, so that the correct messages can be transferred to the public	2016	Review every ten years
3.1.1. Ensure alignment on permit decisions between national and provincial legislation	2016	Review every five years
3.1.2. Address training needs, and implement training course for all aspects of legislation regarding lions	2016	Assess annually
4.1. Establish a lion forum to monitor the implementation of the lion BMP and managed meta-population plan Meet on an annual basis	2015	Review every five years
5.1. Complete a review process to check for alignment with other regional strategies	2018	Review every five years
5.2. Establish and/or maintain affiliations with international work groups	2017	Review every five years

6.2 Evaluation Plan

DEA will establish a Lion Management Forum – LiMF (Objective 4 of the BMP for Lion in South Africa) that will also have the role of providing an interim evaluation of the achievement of the BMP Objectives at two-year intervals. Every five years LiMF will facilitate an external review of how South Africa performs in achieving the BMP Objectives and provide guidance informing the revision of the BMP.

Actions to evaluate and vary the BMP for lion in South Africa

No.	Action	Operational Target	Accountability
1	Establish the Terms of Reference for LiMF	2015	DEA
2	Appoint members to LiMF	2015	DEA
3	Ensure interim evaluation of the BMP by LiMF	Bi-annual	DEA
4	Ensure an extensive external review of the BMP by LiMF	2018	DEA
5	Revise the BMP according to recommendations	2019	DEA
6	Implement the revised BMP	2019	DEA

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Appendix 1: Stakeholder lists for the 1st lion BMP workshop

DATE: 18 JUNE 2013

VENUE: PRETORIA, SANBI-BIODIVERSITY AUDITORIUM

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lion areas identified by Riggio *et al.* contain large populations, the majority are small and isolated (Riggio *et al.* 2013, p. 30; Table 5). Most (69 percent) contain fewer than 250 lions. A considerable portion (39 percent) contains very small populations of fewer than 50 lions. These include 63 percent of the lion areas in western and central Africa, and 31 percent of those in e/s Africa.

Table 5—Number of Lion Areas and Number of Areas Containing Lion Population Classes According to Riggio et al. 2013 **Back to Top**

Number of lion areas	Western	Central	Eastern	Southern	All regions (percent)
Total	8	8	28	23	67.
# Estimated to contain:					
≥500 lions	0	1	7	7	15 (22 percent).
250-499 lions	1	2	1	2	6 (9 percent).
50-249 lions	0	2	12	6	20 (30 percent).
<50	7	3	8	8	26 (39 percent).

Riggio *et al.* identify 10 lion strongholds (viable populations) and 7 potential strongholds (Table 6). According to Riggio *et al.* (2013, p. 29), the 10 strongholds contain approximately 24,000 lions, or about 70 percent of the current African lion population. Of those, most (about 19,000 lions) are in protected areas. Potential strongholds contain about 4,000 lions. More than 6,000 lions are located in areas not considered strongholds or potential strongholds and have a very high risk of being extirpated (Riggio *et al.* 2013, p. 33).

Table 6—Lion Strongholds and Potential Strongholds Identified by Riggio et al. 2013 **Back to Top**

Lion area	Country	Area (km^2)	Stronghold	Lion population size	Population size in protected areas	IUCN (2006a, b) Trend
Western Africa						
W-Arly-Pendjari	Benin, Burkina Faso, Niger	29,403	Potential	350	350	Stable.
Central Africa						
SE Chad	Chad	133,408	Potential[5]	400	140	Stable.

E CAR	Central African Republic	328,721	Potential[6]	1,244	148	Stable.
Eastern Africa						
Boma-Gambella	Ethiopia, South Sudan	106,941	Potential	500	~ 500	Unknown.
Laikipia-Samburu	Kenya	35,511	Potential	271	46	Stable.
Tarangire	Tanzania	28,771	Potential	731	208	Decreasing.
Ruaha-Rungwa	Tanzania	195,993	Stronghold	3,779	2,235	Stable.
Selous	Tanzania	138,035	Stronghold	7,644	4,953	Stable.
Serengeti-Mara	Kenya, Tanzania	35,852	Stronghold	3,673	3,516	Increasing.
Tsavo-Mkomazi	Kenya, Tanzania	39,216	Stronghold	880	820	Decreasing.
Southern Africa						
Etosha-Kunene	Angola, Namibia	123,800	Potential	455	~ 315-595	Increasing.
Kafue	Zambia	58,898	Potential	386	386	Stable.
Great Limpopo	Mozambique, South Africa, Zimbabwe	150,347	Stronghold	2,311	2,179	Increasing.
Kgalagadi	Botswana, South Africa	163,329	Stronghold	800	~ 800	Stable.
Luangwa	Malawi, Zambia	72,992	Stronghold	574	574	Stable.
Mid-Zambezi	Mozambique, Zambia, Zimbabwe	64,672	Stronghold	755	~ 350-650	Stable.
Niassa	Mozambique, Tanzania	177,559	Stronghold	1,573	1,080	Increasing.
Okavango-	Botswana, Zimbabwe	99,552	Stronghold	2,300	~ 2,300	Stable.

Hwange

Most of the strongholds and potential strongholds identified by Riggio *et al.* are trans-boundary areas. The vast majority, including all 10 strongholds, are located in southern and eastern Africa. Of the 17 strongholds and potential strongholds, only two potential strongholds are located in western and central Africa, one each in western Africa and central Africa. Only a small portion of the lions in the central Africa potential stronghold are within protected areas. The western Africa potential stronghold has one of the smallest lion populations of the 17 strongholds/potential strongholds and, according to Herschel *et al.* (2014, p. 5), contains 88-90 percent of all lions in the western Africa region.

By definition, all 10 strongholds identified by Riggio *et al.* include protected areas. Packer *et al.* (2013a, entire; 2013b, entire) looked at the relationship between lion densities, population trends, management practices, and several other variables (human population densities, governance, sport hunting, private management, and reserve size) from 42 sites in 11 countries in Africa. Results of modeling indicate that by 2050 about 43 percent of lion populations in unfenced reserves may decline to less than 10 percent of the carrying capacities of the unfenced reserves, including those in Botswana, Kenya, Cameroon, Ghana, Tanzania, and Uganda. According to the same modeling results lion populations in fenced reserves are expected to remain at or above the carrying capacity of the fenced reserves for the next 100 years, although most are small protected areas with small lion populations (Creel *et al.* 2013, entire).

Trends

Based on the best available information, as discussed above, African lion range and numbers have clearly declined over the past several decades. However, not all African lion populations have declined—some have increased or remained stable (see Distribution and Abundance), and some have been restored to areas from which they were previously extirpated (Packer *et al.* 2013, p. 636). Reports from the IUCN Species Survival Commission Cat Specialist Group (IUN 2006a, b) characterize the population as increasing in 3 of the lion strongholds identified by Riggio *et al.* (Table 6), as stable in 6 of the strongholds, and as decreasing in 1 stronghold. While four of the lion strongholds or potential strongholds identified by Riggio *et al.* (Table 6) are considered to be increasing, several African lion populations, containing a total of more than 6,000 individuals, have a very high risk of local extinction (Riggio *et al.* 2013, p. 33). During the 2005-2006 African lion workshops, lion experts characterized lion populations in 36 (42 percent) of the 86 LCUs as decreasing. In extensive surveys recently conducted within 15 of the 20 LCUs in western and central Africa, Henschel *et al.* (2010, entire) were able to confirm lion presence in only four. The work of Packer *et al.* (2013) suggests future declines within a number of protected areas. Craigie *et al.* (2010, entire) provide evidence of declining large mammal populations in Africa's protected areas, indicating that protected areas in Africa have generally failed to mitigate threats to large mammal populations, including African lion. Although Craigie *et al.* (2010, p. 2,225) found large regional differences (from large declines in western Africa to positive rates of change in southern Africa), they found overall populations decreased steadily from 1970 to 2005.

The reintroduction of large carnivores to the Eastern Cape, South Africa: an assessment

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Abstract Recently, conservation estate in South Africa's Eastern Cape Province has increased 10-fold resulting in large predators being increasingly reintroduced to restore ecological integrity and maximize tourism. We describe the reintroductions of large carnivores (>10 kg) that have occurred in the Eastern Cape and use various criteria to assess their success. Lion *Panthera leo* reintroduction has been highly successful with a population of 56 currently extant in the region and problems of overpopulation arising. The African wild dog *Lycaon pictus* population has increased to 24 from a founder population of 11. Preliminary results for spotted hyaenas *Crocuta crocuta* also indicate success. Wild-populations-of-leopards-*Panthera pardus* exist on several reserves and have been supplemented by translocated individuals, although deaths of known individuals have occurred and no estimate of reproduction is available. Cheetah *Acinonyx jubatus* reintroduction has also been less successful with 36 individuals reintroduced and 23 cubs being born but only 41 individuals surviving in 2005. Criteria for assessing the success of reintroductions of species that naturally occur in low densities, such as top predators, generally have limited value. Carrying capacity for large predators is unknown and continued monitoring and intensive management will be necessary in enclosed, and possibly all, conservation areas in the Eastern Cape to ensure conservation success.

Keywords *Acinonyx jubatus*, carnivores, *Crocuta crocuta*, Eastern Cape, *Lycaon pictus*, management, *Panthera leo*, *Panthera pardus*, reintroduction, South Africa.

This paper contains supplementary material that can only be found online at http://journals.cambridge.org

Introduction

Breitenmoser *et al.* (2001) lamented the dearth of published studies documenting the reintroduction of large predators in Africa; in 30 large carnivore reintroductions reported from Africa where the final outcome was known only nine were considered successful. However, many more translocations of large predators have occurred in Africa and this lack of published information is not a result of a lack of translocations but rather that conservation managers have been busy implementing translocations rather than writing about them.

The translocation of large carnivores is common (Rowe-Rowe, 1992, Hofmeyr & van Dyk, 1998, Hofmeyr *et al.*, 2003) yet post-release monitoring has rarely occurred and, where it has, the results suggest a low success rate with the causes of failures poorly understood (Hunter, 1998a). This has led several authors to conclude that the factors affecting translocation success of large carnivores are too poorly understood to justify this as a conservation strategy (Wemmer & Sunquist, 1988; Mills, 1991). Carnivore reintroductions are considered fundamentally more difficult than those of herbivores or omnivores (Griffith *et al.*, 1989).

Here we document the large, terrestrial predator reintroductions that have recently occurred in South Africa's Eastern Cape Province (Fig. 1). We define large

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Fig. 1 (A) South Africa showing the location of the conservation areas mentioned in the text; Makalali RR includes Karongwe NR. (B) The Eastern Cape Province with the location of 13 conservation areas mentioned in the text (descriptions of 1–11 are given in Table 1) and biomes (adapted from Low & Rebelo, 1996). NP, National Park; GR, Game Reserve; PGR, Private Game Reserve; RR, Resource Reserve.

predators as those >10 kg, reintroduction as an attempt to establish a species within its historical range but where it has since been extirpated, and translocation as deliberate movement of wild individuals between parts of their range (IUCN, 1998). Given the global problem of large carnivore decline (Weber & Rabinowitz, 1996) documenting the results of such attempts is crucial for future conservation management.

Historical distribution of large predators

Large predators originally present in the Eastern Cape (with any current global IUCN Red List status; IUCN, 2006) were the black-backed jackal *Canis mesomelas*, African wild dog *Lycaon pictus* (Endangered), spotted hyaena *Crocuta crocuta* (Lower Risk: conservation dependent), brown hyaena *Hyaena brunnea* (Lower Risk: near threatened), aardwolf *Proteles cristatus*, honey badger *Mellivora capensis*, cheetah *Acinonyx jubatus* (Vulnerable), leopard *Panthera pardus*, lion *Panthera leo* (Vulnerable), serval *Leptailurus serval*, and caracal *Caracal caracal* (Skead, 1987). It is these species to which this review specifically relates.

Historically, black-backed jackals and honey badgers were ubiquitous throughout South Africa and they are still common. African wild dogs were recorded throughout the Eastern Cape (Skead, 1987) but the only extant populations in South Africa, prior to the reintroductions reported here, were in the north and north-east (Stuart, 1981). Although there are no historical records of brown hyaenas from the Eastern Cape, vagrants still entered the region between 1924 and the 1960s and were considered to have occurred throughout the drier regions of southern Africa (Skead, 1987) although they no longer occur in the Eastern Cape (Stuart, 1981). The spotted hyaena is also poorly documented historically but the few available records suggest it also occurred throughout the Eastern Cape (Skead, 1987). The few historical references to the aardwolf suggest it occurred throughout the Eastern Cape, albeit at low densities (Skead, 1987) and today it remains widespread.

Population estimates in 1996 suggested 30,000–100,000 lions survived in Africa (Nowell & Jackson, 1996) but more precise estimates in 2001/2002 were of only 16,500–30,000 (Bauer & Van der Merwe, 2004). Lions disappeared from the western half of the Eastern Cape in the 1850s but they survived in the Transkei region until the 1870s (Skead, 1987). Viable populations of lions in South Africa currently only occur in the former Kalahari-Gemsbok National Park, which has 92–125 lions (Castley *et al.*, 2002) of the 452 present in the entire Kgalagadi ecosystem, and Kruger National Park, which supports 2,200 (Bauer & Van der Merwe, 2004).

Leopards occurred historically throughout the Eastern Cape but today they survive only in the more remote mountains and forests away from human habitation (Skead, 1987). The leopard's ability to tolerate habitat modification enables it to live close to man. The paucity of historical records of cheetah in the Eastern Cape suggests it was scarce when Europeans arrived and was restricted to the drier, open country inland (Skead, 1987). Reintroductions to the more mesic habitats of the Eastern Cape may be extralimital. The serval was almost extinct in the Eastern Cape in 1987 but historical documents record it all along the coastal and sub-coastal belt (Skead, 1987). The caracal is still common throughout the Eastern Cape (Skead, 1987).

Reintroduction sites

The Eastern Cape Province is South Africa's poorest and recently large areas of pastoralism in marginal lands has given way to more economically viable game farming, ecotourism and conservation (Kerley & Boshoff, 1997). This alteration in land use led to numerous species being reintroduced to former domestic livestock farms, including large predators. Eleven conservation areas in the Eastern Cape have reintroduced large predators since 1996 (Fig. 1; Table 1) to restore ecological integrity, conserve threatened species and maximize ecotourism. Each of these reserves is fenced with predator-proof, electrified fencing, ensuring they can be managed as distinct ecological units. Each also had electrified bomas enabling a pre-release captivity period (soft release). At the time the lands were purchased they contained black-backed jackal, caracal, aardwolf and the occasional vagrant leopard and honey badger.

Reintroductions

Details of all reintroductions considered here are given in the Appendix. Lions were first introduced in the Eastern Cape in 1996 at Scotia (Fig. 2). These individuals all had the same father, but two different mothers, and were 15 months old upon release. They initially caught their own prey but, as the available prey dwindled, the managers began supplementary feeding. The first truly free-ranging lions in the Eastern Cape were reintroduced to Shamwari in September/October 2000, as were cheetahs. In 2001 leopards, brown hyaenas and serval were reintroduced to Shamwari. African wild dogs were first reintroduced into the Eastern Cape at Shamwari in 2003 (Fig. 3). The first spotted hyaenas were reintroduced to Addo in 2003 (Fig. 3). Thereafter, the increase in the number of game reserves led to a rapid increase in the number of predators being reintroduced and those founder populations breeding.

Table 1 Carnivore reintroduction sites in the Eastern Cape (numbers refer to locations in Fig. 1B), with area, year of creation, year of first carnivore reintroduction, habitat, previous land use, and any relevant comments.

Site[1]	Area (ha)	Year	Year of 1st reintroduction	Habitat[2]	Previous land use	Comments
1. Addo Elephant NP	15,400 main camp (300,000 entire park)	1931	2003	Thicket & transformed grassland	Agriculture	
2. Amakhala GR	5,000	1999	1999	Nama karoo, thicket & transformed grassland	Agriculture	
3. Blaauwbosch GR	4,500	2001	2004	Thicket & transformed grassland	Agriculture	
4. Great Fish River Complex	44,000		1985	Similar to Addo	Agriculture or undeveloped	A contiguous conservation unit along the banks of the Great Fish River encompassing the Andries Vosloo Kudu Reserve, Double Drift GR & Sam Knott Reserve, & is adjacent to Kwandwe.
5. Kariega GR	5,000	2001	2001	Thicket, forest & savannah	Agriculture or undeveloped	
6. Kwandwe GR	10,978	2001	2001	Thicket, Nama karoo & transformed grassland	Agriculture	
7. Lalibela GR	7,500	2002	2002	Thicket & transformed grassland	Agriculture	
8. Pumba PGR	6,500	2005	2005	Thicket & transformed grassland	Agriculture	
9. Samara PGR	28,000	1997	2001	Nama karoo & grassland	Agriculture	
10. Scotia GR	1,600	1996	1996	As for Addo	Agriculture	Adjoins SE edge of Addo, but has been free of elephant browsing for 50 years; lions kept in 600 ha enclosure & are supplementary fed
11. Shamwari GR	18,746	1994	2000	Nama karoo, thicket & transformed grassland	Agriculture	

[1]NP, National Park; GR, Game Reserve; PGR, Private Game Reserve
[2]From Vlok *et al.* (2005)

Scotia's lions first bred at 36 months of age in 1999 and thrice since (Fig. 2). Shamwari's lions also first bred at 36 months and, by 2005, 18 cubs had been born. Kwandwe's lions trebled to 12, 4 years after reintroduction. Lions were released as two prides in Addo in September 2003. The unusual sex ratio of the founder population (four males and two females) was selected by managers to slow the potential population increase through infanticide by competing male coalitions. This was successful and by the end of 2005 four litters had been born although only three cubs of the last litter survive. Lalibela's lions have produced cubs but an adult male was removed after four giraffe *Giraffe camelopardalis* were killed by the male coalition. Kariega's lionesses were injected with contraceptives to facilitate settling into the new area by minimizing

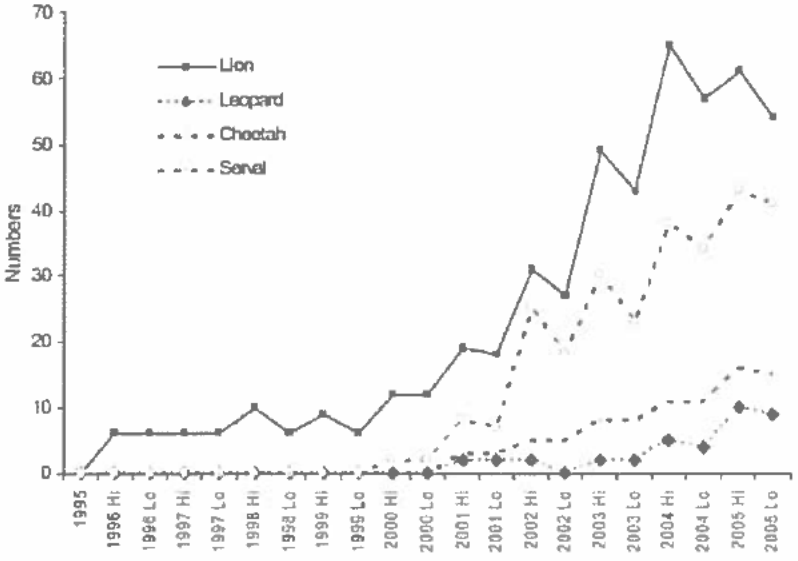

Fig. 2 Changes in total numbers of lion, leopard, cheetah and serval in Eastern Cape reserves following reintroduction in 1996. Hi relates to the peak in population size that year and Lo the lowest.

aggression and restricting breeding. Pumba released their 4-year old lions in 2004 and a captive-bred male and two female white lions in 2006.

Shamwari's first cheetahs were supplemented in 2002 and 2003 (Fig. 2). Cubs were born in 2005 that partially compensated for the deaths of two adults in 2004. Kwandwe had cheetahs when opened and these were supplemented in 2003 and with cubs in 2002 and 2004. Kwandwe's cheetahs have suffered a high mortality rate with five being killed by lions, three being killed by the male cheetah coalition and one dying of unknown causes (Fig. 4). Several other sites have reintroduced cheetahs.

Wild caught and rehabilitated leopards have been reintroduced to Shamwari, Kwandwe, Pumba, and Fish River but, because of monitoring difficulties, the population in the Eastern Cape reserves is unknown (Fig. 2). A young, adult male leopard was reintroduced to the Main Camp section of Addo in 2004 and a female followed in March 2006 (Hayward *et al.*, 2007). Other sections of Addo also support leopard populations; fishermen in the Woody Cape section reported being stalked by a leopard on the beach (A. Padayachee, pers. comm.), and kills and spoor attributable to leopards have been reported in the Nyathi, Zuurberg, Kabouga

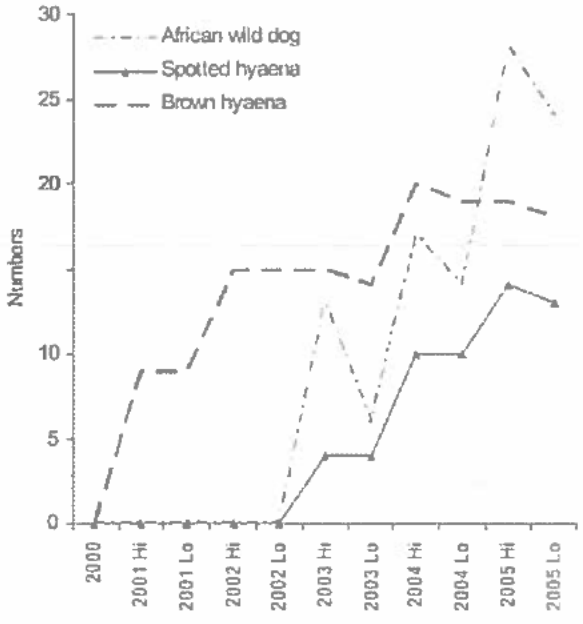

Fig. 3 Changes in numbers of African wild dogs and spotted and brown hyaenas in Eastern Cape reserves following reintroduction in 2001. Hi relates to the peak in population size that year and Lo the lowest.

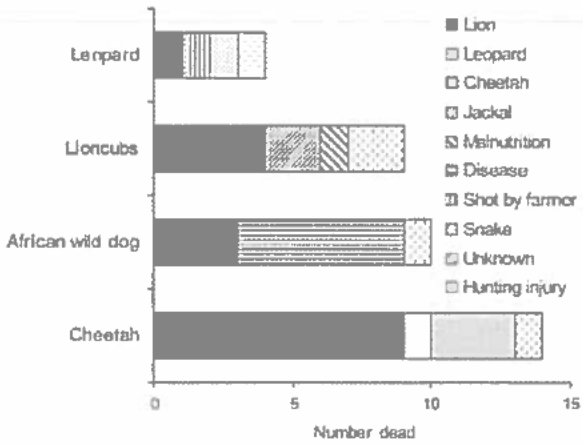

Fig. 4 Causes of mortality of reintroduced predators in the Eastern Cape

and Darlington sections of the Park. Wild leopards have also been observed at Blaauwbosch.

Shamwari's reintroduced servals have only occasionally been sighted, although a population still persists in the reserve (Fig. 2). Similarly, at least one of the servals released into Kwandwe escaped and the existing population size is unknown. Servals have been observed on farms adjacent to the eastern boundary of Addo Main Camp in 2000 and 2005.

Shamwari's brown hyaenas have only been occasionally observed but the 2004 estimate (15) indicates their numbers have increased (Fig. 3). The current size of Kwandwe's brown hyaena population is unknown. Individual brown hyaenas have also been reintroduced *ad hoc* to the Great Fish River Complex. They are still sighted although monitoring has not been conducted and the current population is unknown. Addo released two separate clans of spotted hyaenas that have produced several cubs. Pumba and Kariega also have spotted hyaenas.

African wild dogs reintroduced to Shamwari have undergone regular increases, with the birth of each litter followed by subsequent declines as many of the pups died (Fig. 3). Kwandwe released a pack of African wild dogs that bred in 2005. Aardwolf, caracal and black-backed jackal still occur on each of the studied reserves and have not been reintroduced.

Further reintroductions are planned in the Eastern Cape. Cheetahs are to be released into the Mountain Zebra National Park and the Darlington section of Addo in 2007. African wild dogs will also be released into Darlington in 2007. Contractual agreements between South African National Parks and private concessionaires mean lions are required to be released to the Nyathi and Darlington sections of Addo when adequate prey densities are attained. Amakhala currently has three lions and three spotted hyaenas in bomas awaiting approval for release. The Great Fish River Complex is also planning to reintroduce spotted hyaenas soon.

Carnivore populations in 2005

Lions have been the most successful species reintroduced to the Eastern Cape (Fig. 2). The population of lions in 2005 was 56 individuals, with 35 reintroduced and 49 cubs known to have been born. The African wild dog population doubled to 24 in 2005, from 11 founders and 27 pups. Cheetah reintroductions have been less successful, with 36 reintroduced and at least 23 cubs born, but only 41 surviving by 2005. Spotted hyaenas have only been present in the Eastern Cape for 2 years but their numbers have increased to 13 with the birth of two cubs. Brown hyaenas have been poorly monitored but the 2005 population in the Eastern Cape reserves was at least 18. There have been no records of leopard cubs, although mating has been observed at Shamwari. The ability of this secretive species to persist despite human persecution (Skead, 1987; Hayward *et al.*, 2005) suggests populations are at least stable in the Eastern Cape conservation areas, with nine having been reintroduced.

Reproduction and mortality

Reproductive rates observed in the Eastern Cape are equivalent to other reintroduced carnivore populations in Africa. In Phinda Private Game Reserve 7.2 lion cubs and 8.0 cheetah cubs were born per year for the first 6 years following reintroduction (Hunter, 1998b). In the Eastern Cape lions have produced either 4.7 or 7.3 cubs per year after release (excluding and including the Scotia lions) and cheetahs have produced 5.8 cubs per year.

Cheetahs have suffered the highest mortality since reintroductions began (14 recorded mortalities from 41 individuals; Fig. 4). Wild dog mortality has also been high (10 deaths from 24 individuals; Fig. 4), although these mostly arose through disease (with diarrhoea presenting as a symptom) affecting pups. Only two adult lions have died since reintroductions began, and lions have been the cause of most deaths of other species (17 of 37; Fig. 4).

There was a strong linear relationship ($y = 2.26x - 0.56$, $n = 7$, $r^2 = 0.88$) between the female:male ratio of founding lion populations and the overall rate of increase at a site, although this is not significant ($0.20 < P < 0.50$). This relationship was not related to the size of the founder population but was caused by the effect of the sex ratio on the reproductive success of lionesses. Although there were no differences in the number of litters born between sites with male biased sex ratios and those at parity or more female biased (Mann-Whitney $U = 0.289$, $df = 1$, $P = 0.767$), male biased sites had fewer cubs born or surviving to adulthood, although these differences were not significant ($U = -1.73$, $df = 1$, $P = 0.083$).

There was a strong linear relationship ($y = 0.02x - 0.02$, $n = 9$, $r^2 = 0.56$) between lion population density and cheetah annual adult mortality rate, although this was not significant ($P = 0.09$). Density-dependent factors may limit cheetah populations in the presence of lions and spotted hyaena and this may be the cause of the inherent rarity of cheetahs in intact ecosystems.

Discussion

There are a variety of ways to define successful reintroductions (Table 2) but the applicability of the

Table 2 Criteria and assessment of the success of the large carnivore reintroductions to 11 sites (Table 1) in the Eastern Cape. S, success; F, failure; U, uncertain at this stage due to inadequate monitoring or insufficient time lapsed since reintroduction took place to assess success.

Definition of success	1. Breeding by 1st wild born generation[1]	2. 3-year breeding population with natural recruitment > death rate[1]	3. Unsupported population of ≥500[1]	4. Self-sustaining population[1]	5. Red List status
Addo					
Leopard	F	F	F	F	F
Lion	U	U	F	F	F
Spotted hyaena	U	S	F	F	F
Amakhala					
Cheetah	U	U	F	F	F
Blaauwbosch					
Cheetah	S	S	F	F	F
Fish River					
Brown hyaena	S	S	F	F	F
Leopard	U	U	F	F	F
Kariega					
Lion	U	U	F	F	F
Spotted hyaena	U	U	F	F	F
Kwandwe					
Brown hyaena	U	U	F	F	F
Cheetah	U	S	F	F	F
Leopard	U	U	F	F	F
Lion	U	S	F	F	F
Serval	U	U	F	F	F
African wild dog	U	S	F	F	F
Lalibela					
Cheetah	F	F	F	F	F
Lion	U	S	F	F	F
Pumba					
Leopard	U	U	F	F	F
Lion	U	U	F	F	F
Spotted hyaena	U	U	F	F	F
Samara					
Cheetah	S	S	F	F	F
Scotia					
Lion	S	S	F	F	F
Shamwari					
Brown hyaena	U	S	F	F	F
Cheetah	F	F	F	F	F
Leopard	U	F	F	F	F
Lion	S	S	F	F	F
Serval	U	U	F	F	F
African wild dog	U	S	F	F	F

[1]Griffith *et al.*, 1989

[2]Where a species categorized locally as Critically Endangered according to IUCN Red List criteria (IUCN, 2001), as are all the species here, is regarded as a reintroduction failure, Endangered as uncertain, and Vulnerable or more secure as a success (Breitenmoser *et al.*, 2001).

definitions varies with a species' life history, and they are limited by time (Seddon, 1999) and the carrying capacity of the reintroduction site. Several of the definitions cannot apply to small, isolated populations of large predators. The length of time since reintroductions began limits the number of sites that can be defined as successful with breeding by the first wild-born generation (Definition 1). Given there are few extant populations of large carnivores >500 individuals anywhere (Nowell & Jackson, 1996), Definition 3 seems unrealistic. Similarly, the IUCN Vulnerable category (Definition 5) requires >1,000 mature individuals (IUCN, 2001) and therefore few individual sites could ever satisfy this criterion. It is too early to determine whether the Eastern Cape populations are self-sustaining (Definition 4) as this can only be determined retrospectively. The most realistic definition of success for the Eastern Cape reserves is a 3-year breeding population with recruitment exceeding adult death rate (Definition 2). Overall, by this definition, the reintroduction of large predators in the Eastern Cape appears successful (Table 3). Young

Table 3 Assessment of the overall success of the large carnivore reintroductions in the Eastern Cape. S, success; F, failure; U, uncertain at this stage because of inadequate monitoring or insufficient time lapsed since reintroduction took place to assess success.

Definition of success (Table 2)	Lion	Cheetah	Leopard	Serval	Wild dog	Spotted hyaena	Brown hyaena
1	S	S	U	U	U	S	S
2	S	S	U	U	S	S	S
3	F	F	F	F	F	F	F
4	F	F	F	F	F	F	F
5	F	F	F	F	F	F	F

have been observed for all reintroduced species except leopard, and all species have increased from the number initially reintroduced.

Lions have rapidly become over abundant, suggesting that competitively dominant carnivores are more resilient to the reintroduction process than more threatened species because they are free from competitive persecution. Only lions exceed the 50 breeding individuals considered necessary to protect from genetic problems (Frankham, 2005), and continued population mixing will be essential for the long-term conservation of all species of reintroduced carnivore. The Shamwari and Kwandwe lion reintroductions are successful (Table 2). The six lions in Addo have been unable to raise successfully three of the four litters born and so must tentatively be described as unsuccessful. However, given the original aim of having a slow population increase this may also eventually be classed as a success. It is too early to evaluate the success of the other lion reintroductions.

Wild dog reintroductions appear successful (Table 2). It has been suggested that areas <1,000 km² were too small to conserve African wild dog populations and would lead to dogs ranging beyond reserve boundaries and suffering persecution (Woodroffe & Ginsberg, 1997). Wild dogs are difficult to translocate due to their complex social interactions and susceptibility to domestic dog diseases (Hofmeyr *et al.*, 2003) but they have been successfully reintroduced to Madikwe Game Reserve (550 km²) and Pilanesberg National Park (500 km²). The issue of the African wild dog's ranging behaviour beyond reserves is alleviated when they are contained within fenced reserves.

Spotted hyaenas are difficult to reintroduce and releasing two or three clans simultaneously has previously been recommended to avoid mortalities resulting from agonistic encounters, as seen at Madikwe (Hofmeyr *et al.*, 2003). The reintroduction into Addo, despite reintroducing two clans sequentially, may have been successful because a stronger clan (i.e. more adult females) was released after the first clan.

Reintroductions of cheetah have been less successful when dominant predators are present. At Blaauwbosch and Samara cheetah increased in the absence of threats from lions and/or spotted hyaena. Given the lack of historical records of cheetahs from the Eastern Cape (Skead, 1987) it is possible that many reintroductions reported here are to areas outside the original distribution of the cheetah.

Although widely distributed, serval are habitat specialists, preferring moist, tall grasslands associated with wetlands (Bowland, 1997). Such habitat is uncommon and disjunct in the Eastern Cape, which explains the paucity of records of serval from early explorers away from the coastal belt (Skead, 1987). This may also explain the difficulty in retaining reintroduced serval on reserves. As with brown hyaena, inadequate monitoring has prevented a full assessment.

Although reviews a decade ago concluded that reintroductions of large predators were not viable (Wemmer & Sunquist, 1988; Mills, 1991), an increase in knowledge and technical expertise has since made reintroduction common practice. The data from the Eastern Cape shows that every species of large African carnivore can be reintroduced and translocated successfully within fenced reserves, and data from Phinda Private Game Reserve in KwaZulu-Natal (Hunter *et al.*, 2006) also demonstrates that lions can be successfully translocated. To date, the Eastern Cape reintroductions have generally been adequately monitored and this report is the first step in satisfying the recommendation to publish monitoring results (Chivers, 1991).

Ultimately all reintroduction programmes aim for population persistence without intervention. However, this is a state, rather than a result, and it is assessable only in the long-term via continued monitoring (Seddon, 1999). The inherent low density of most top predators means that there are few criteria for measuring reintroduction success but we believe that, in the early stages of predator reintroduction, a 3-year breeding programme with natural recruitment exceeding deaths (Definition 2) should be used to assess success. By 10 years post-reintroduction, successful breeding by wild born generations (Definition 1) should then be used to assess success.

The use for reintroduction of areas previously under agriculture has yielded benefits for biodiversity conservation in the Eastern Cape but there are high management requirements associated with small reserves. The ability of private organizations or individuals to own wildlife in South Africa provides an economic impetus to private game reserves to retain ownership and management rights of their wildlife and promotes the continued separation, and thereby isolation, of these reserves. The clumping of a number of relatively small conservation reserves (Fig. 1), however, provides an opportunity to remove partitioning fences and consolidate this conservation estate into one large, contiguous unit. Such multiple owner conservancies are one way that sites could maintain their own identity while being part of a single, large conservation unit. This would greatly reduce the need for excessive management and allow natural evolutionary processes to occur. Nonetheless, management is likely to be a permanent requirement for the conservation of most large terrestrial predators whether they are enclosed by electric fences, as in southern Africa, or by uninhabitable land as elsewhere.

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Appendix

The Appendix for this article is available online at http://journals.cambridge.org

Biographical sketches

The majority of the authors are members of Indalo, a collective of conservation managers and owners of private game reserves and national parks in the Eastern Cape of South Africa that acts as a support network for members and a lobby group to ensure their interests are addressed from a political, social, economic and environmental perspective. All authors are interested in the practical side of reintroductions and measures to manage, limit over-population and conserve top order predators. Matt Hayward, Graham Kerley, Charlene Bissett & John O'Brien are conducting research into these issues.

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Conservationists to move South Africa lions to Rwanda

Group to move seven lions to Akagera National Park in Rwanda where the lion population was wiped out 15 years ago.

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Two parks in South Africa's KwaZulu-Natal province are donating the lions to Rwanda.

On arrival at the Akagera park, the lions will be kept in quarantine in a large enclosure for at least two weeks before they are released into the wilderness.

Earlier this month, the International Union for Conservation of Nature again listed the lion as vulnerable in an update of its "red list" of species facing survival threats.

The conservation group cited human encroachment on lion habitats as well as a decline in lion prey as reasons for the population drop.

It identified a trade in lion bones and other body parts for traditional medicine in Africa, as well as Asia, as a growing threat.

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A Framework for the Ex Situ Reintroduction of the African Lion (Panthera leo)

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Abstract

Ex situ reintroduction remains controversial in conservation scientific debate and practice, and is regarded as a last resort method. It has been argued that this conservational strategy should now be considered, alongside existing in situ practices, for the African lion (Panthera leo). The rapid decline of this culturally important species is symptomatic of the impact a burgeoning human population and their related activities have upon the lion. Published evaluations of reintroductions for all animal groups show relatively poor survival rates per se, particularly when the released animal is captive-bred. In this paper we consider contributing factors to failed and successful captive-bred reintroductions and revisit previous ex situ efforts to release the African lion into the wild. Whilst past attempts to release captive lions into the wild are largely undocumented in the scientific literature, they have valuable lessons to offer future undertakings. We propose a framework for the ex situ reintroduction of the lion based on scientific guidance and previous endeavours.

Keywords: ex situ reintroduction, African lion (Panthera leo), conservation, release

Introduction

The practice of ex situ animal reintroduction as a conservational tool courts controversy and debate within the biological and social sciences. Regarded as a last resort method, the International Union for Conservation of Nature recommend the strategy is used when either one or both of the following Red List criteria are fulfilled: "When the taxa/population is prone to effects of human activities or stochastic events *or* When the taxa/population is likely to become Critically Endangered, Extinct in the Wild, or Extinct in a very short time. Additional criteria may need to be considered in some cases where taxa or populations of cultural importance, and significant economic or scientific importance, are threatened" (IUCN, 2009, p. 3). With specific reference to lions the IUCN notes "The lion is a flagship species for Africa in terms of research, tourism and trophy-hunting....the lion is a powerful and omnipresent symbol, and its disappearance would represent a great loss for the traditional culture of Africa (it is used in coats of arms, heroic names of former kings, frescos, names of football teams, tales, proverbs, sayings, etc.) -- even if to live with the lion poses serious challenges for many African communities, especially those bordering conservation areas which protect lion populations" (2006, p. 7.). Classified as 'vulnerable' on the IUCN Red List, human activities have contributed to an estimated 30% decline in the African lion (Panthera leo) population over the last two decades (Bauer et al., 2008). The main constraint on lion range has been identified by the IUCN as human pressure, including "human density, livestock density, illegal lion killing and insufficient prey" (2006, p. 13).

Riggio (2012) estimates lions have been reduced to a quarter of their historic range. Of the 27 African countries which have wild lions, only 9 of these are believed to have at least 1,000 individuals, and 40% of the total population of free-ranging lions is in Tanzania. It has been argued that ex situ reintroduction should now be considered for the African lion, alongside current strategies (Abell et al., 2013).

Both IUCN and the Association of Zoos and Aquariums (AZA) provide criteria for implementing reintroductions from captive-source populations. These include sufficient availability and evaluation of suitable habitat for release such that the species can thrive in its former historic natural territory, the threats which led to the species' extirpation from the area have been eliminated, appropriate socio-political agreements are in place to ensure legal protection and tolerance for the animal, financial sustainability for the programme is secured, minimal disruption is incurred upon those in close proximity to the reintroduction area, and that there are no adverse consequences for populations of domestic animals such as livestock or resident wild populations. Crucially, ex situ reintroduction requires suitable pre-release training and post-release monitoring of the species in question (AZA, 1997; Cheyne, 2006; IUCN, 1998). Despite recognition that ex situ reintroduction now needs to be executed more habitually in species conservation (Clark & Westrun, 1989; IUCN, 2009; Jule et al., 2008; Mallinson, 1995), an apparent poor track record of failed attempts mean it is resisted and marginalised within conservation (Pritchard et al., 2011). Here we consider reviews of previous ex situ reintroduction attempts. We also revisit previous reintroduction efforts for the African lion. Previous efforts in ex situ reintroduction for the lion have not typically been published in peer-reviewed scientific journals. Consequently it is easy to dismiss the evidence as anecdotal. However, we argue that these efforts provide useful insights for the provision of an ex situ reintroduction

programme as a conservational tool for the African lion. We propose that an ex situ reintroduction programme, that meets IUCN and AZA recommendations and heeds lessons from previous captive-source reintroduction attempts, can achieve the objective of producing self-sustaining wild lion populations in areas where it has been extirpated or where numbers are dwindling. Moreover, we propose that this should now be seriously considered for the African lion.

Ex Situ Reintroductions

Reviews of reintroductions using captive-born founders report unfavourable success rates compared to wild-born. Beck et al. (1994) report a success rate of just 11% in reintroductions from captive-bred animals across all groups. In Fischer and Lindenmayer's (2000) assessment of 116 reintroductions published over a period of 20 years, 31% of wild-born attempts and 13% of captive-born attempts were successful. Success was defined as the establishment of a self-sustaining population, although this is not a uniform definition throughout the literature. For example Kleiman (1989) argues success may not rely on the survival of individuals but upon the habitat receiving greater protection as a result. Cheyne et al (2012) note the death of released individual animals does not inevitably mean failure of the whole programme. What counts is that released animals have the same statistical chance of survival and reproduction as their wild-born counterparts. A review of 45 reintroduction case studies found higher survival rates (53%) in wild-born than in captive-born reintroductions (31%) (Jule et al., 2008), but to what extent this constitutes 'failure' for captive-born reintroductions is unclear. There are problems evident in reintroduction attempts per se. Mortality is high, with many animals dying soon after release (Teixeira et al., 2007). Mortalities in most released animals are caused by human activities such as poisoning and shooting (Jule et al., 2008). Negative human impact also extends to bad management and poor quality reintroduction strategies leading to their failure (Clark & Westrun, 1989). The mortality rate in captive-born reintroductions is further compounded by a higher prevalence of starvation, disease and predation than in wild-born (Jule et al., 2008). Soft-release strategies that entail pre-release training in carnivore reintroductions are therefore important so that instinct and natural behaviours can be developed and expressed (Kleiman, 1989). Unfortunately, hard-releases have sometimes been the reality. Characterised by an absence of pre-release training, hard-releases have meant carnivore reintroductions have become especially prone to failure. Hard-releases can mean dependence upon humans is not curtailed, the animal is ill-equipped to deal with predators, and opportunities to develop hunting skills and dispatch prey have not been given (Griffith et al., 1989; Sharma, 2005). Some researchers have concluded that the requirements so extensive and the captive context so problematic that ex situ reintroduction should not be attempted at all for some species. For example, the impact human imprinting has upon trait selection (McDougall et al., 2006; Sarrazin and Barbault, 1996) and close bonds fostered with humans (Huber, 2010), has led to claims that some animals may better serve their species as ambassadors from within the confines of a zoo.

The conservational merits of ex situ reintroduction have been further questioned on the grounds of their commercial funding (Pritchard et al., 2011). There are of course, purely commercial enterprises involving the African lion where tourists pay to walk lions, cuddle cubs, and where lions

may be part of the canned hunting industry. Conservation organisations have rightly panned such operations as entirely money-oriented with no conservational impetus (Born Free, 2010; LionAid, 2012). In terms of animal welfare canned hunting has been deemed "inhumane, unethical and should not exist" (Ireland, 2002, p. 224). Unfortunately there has been a conflation of these financially-driven business operations with ex situ reintroduction projects that obtain some of their funding through commercial means (such as lion-walking as part of pre-release training). This conflation has meant genuine conservation attempts have been tarred with the same brush as non-conservational captivity practices. Erroneously regarded as 'cub-cuddling', the conservational virtues of ex situ reintroduction programmes have been dismissed (Abell & Youldon, 2013; Hunter et al., 2013a; Hunter et al., 2013b). Additionally, ex situ reintroduction has been disregarded as expensive, un-necessary, and detracting funding away from conservation of remaining wild populations and habitat (Cheyne, 2012; Hunter et al., 2012). In the light of declarations such as these, it is hardly surprising that ex situ reintroduction as a conservation tool for the African lion has typically been written off before it has been given the opportunity and time to be fully implemented and fairly assessed.

Evaluations of past attempts have been extremely useful for identifying key factors to successful ex situ reintroduction (based on the establishment of a self-sustaining population). As well as highlighting the importance of pre-release training, crucial components for success include the removal of the original cause of decline and attention to non-ecological factors including socio-political factors and financial viability (Fischer & Lindenmayer, 2000). Success also includes post-release monitoring to evaluate the outcome of the release over an appropriate time-frame. This practice ensures that the development of natural behaviours are checked, socio-political tolerance and financial sustainability scrutinised and ensured, the cause of any mortalities ascertained and documented, and findings published in scientific and popular literature (Chivers, 1991). Furthermore the condition of the habitat should also be assessed frequently post-release (Cheyne, 2006). There are examples of successful ex situ reintroduction attempts documented within the scientific and popular literature, where lessons have been learned from failed attempts, and recommended criteria implemented to achieve a positive outcome.

Oft cited examples of successful ex situ reintroductions include the Arabian oryx (*Oryx leucoryx*) (Stanley Price, 1989), prairie dogs (*Cynomys ludovicianus*) (Shier & Owings, 2006), the American red wolf (*Canis rufus*) (Phillips & Parker, 1988), and golden lion tamarins (*Leontopithecus rosalia*) (Beck et al., 1991). However, some of the most documented ex situ reintroduction attempts are for the African lion, although not all of these have been specifically for conservation purposes. Their outcomes have not typically been subject to peer-review and published in academic journals. Consequently it is easy to disregard the significance of these efforts as nothing more than anecdotal. On the contrary, their mixed outcomes offer important insights into ex situ reintroduction for lions in an otherwise scant field of research and practice.

Perhaps the most famous is the reintroduction of large felids, including 17 lions, by Joy and George Adamson. The most renowned of these attempts are the lions Elsa (1956) and Christian (1970). Central to the Adamson's soft-release strategy was regular exposure of hand-reared cubs to their natural environment and, in later cases, the formation of artificial prides. Adamson reports that

walking cubs through the bush encouraged instinct and fostered the development of natural behaviours resulting in hunting and successful kills (Adamson, 2000). It has been argued that habitat familiarity is more critical in surviving predation than experience with the predators themselves (Wolf et al., 1996). The benefits of a pride structure are well documented in lions. These benefits include coordinated hunting (Packer, 2010; Stander, 1992), communal nurturing of young (Packer & Pusey, 1997; Pusey & Packer, 1994) and defence of a high quality territory (Mosser & Packer, 2009). Consequently ex situ reintroduction should include the provision of a stable cohesive pride structure to improve the survival chances of released lions (Bertram, 1998). Whether the Adamsons were successful depends on how success is defined. What they did achieve was wild release of captive-reared lions that could function as a pride, defend their territory, raise their own cubs and hunt their own food (Adamson 2000, Bourke & Rendell, 2009). In some cases these lions went on to produce wild-born cubs who themselves later reproduced. But there are failings also. For example, Elsa contracted babesiosis believed to be caused by stressful interactions with wild lions (Githaka et al., 2012). She died aged 5 years. Moreover, it seems Elsa was not sufficiently averse to humans and local tolerance for her and her cubs was low (Adamson, 2000). Tony Fitzjohn aided the Adamsons for 18 years at Kora in Kenya and went on to use these techniques at Mkomazi Game Reserve, where he continues to be involved in reintroducing and rehabilitating a range of carnivores including the African wild dog (*Lycaon pictus*) (Fitzjohn, 2011). This project reports 'partial success' (African Wildlife Preservation Trust). Following George Adamson's murder, Gareth Patterson (1989) rehabilitated three of his young lions; Batian, Rafiki and Furaha. In doing so, Patterson not only utilised Adamson's techniques but also extended knowledge about lion behaviour including territory size, range of prey, and the age at which lions could begin to successfully hunt their own food (Patterson, 1994). Patterson estimated an increase in Tuli, where he reintroduced Batian, Rafiki and Furaha, from 25 lions to 43 (Patterson, 1994). Batian established his own territory and pride, siring his own cubs. However, Batian was illegally shot by trophy-hunters aged 3 years. Furaha and two cubs were also later shot. Park warden Norman Carr hand-reared two young cubs, Big Boy and Little Boy, after their mother had been shot in Kafue National Park, Zambia. He frequently exposed both cubs to their natural environment by walking them, leaving them outside as much as possible and feeding them whole carcasses. He reports that the cubs learned to hunt for themselves, resulting in successful kills. It was when they could defend themselves and their kills against wild lions that Carr released them in 1961. Carr never saw them again, but had raised two lions that could feed themselves and defend their territory (Carr, 1962).

We could consign these accounts to history and anecdote. They are not perfect templates of how ex situ reintroduction for the African lion should be achieved. Nor are they written in a standard scientific style subject to rigorous scrutiny. However, they do offer field insights. They were successful if we define success as the reintroduction of self-sufficient lions that could survive in the wild and reproduce. Today, attempts at ex situ reintroduction for conservation of the African lion need to take into account not only behavioural and environmental factors for the survival of released lions, but also the wider socio-political human context in which lion populations have crashed.

Implementing Lessons

Previous ex situ reintroductions including those for the African lion such as those described above, should inform future attempts. They are extremely useful for developing a framework upon which to develop conservational strategies for protection and restoration of the species. The aim of such an initiative should ultimately be to establish socially cohesive and stable self-sustaining wild-born prides from captive-bred founders. Their chance of survival and reproduction in the wild should not differ from that of wild-born lions.

Captivity brings with it advantages as well as concerns. As free-ranging lion populations have got smaller and increasingly geographically fragmented, the threat of inbreeding depressions as well as epidemic and endemic disease has intensified (Riggio, 2011, 2012; Trinkel et al.,2011). A benefit of captivity is that reproduction rates, genetics and disease can be carefully controlled. Lions can be appropriately housed to prevent inbreeding and over-reproduction. Breeding rates can be matched to those in wild prides. Diseases can be vaccinated against (e.g., rabies, feline rhinotracheitis, feline calici and feline panleukopenia), treated, and health-checks regularly undertaken in line with internationally recognized veterinary, animal husbandry, and ethical standards (e.g. African Lion & Environmental Research Trust, 2010).

Past ex situ reintroductions for the lion emphasise the significance of pre-release training of hand-reared lions. These efforts highlighted the importance of familiarising young cubs with their natural environment and developing instinctive behaviours for survival. Consequently any ex situ reintroduction programme for the African lion must involve adequate opportunity for this to occur in captive-born lion cubs. Walking captive-bred cubs in their natural environment builds familiarity and confidence to negotiate a complex terrain, and also enable the development of hunting behaviours as they encounter natural prey species on their daily walks through the African bush. Walking with other cubs and human handlers provides a pride structure. Stalking is an instinctive behaviour in felids, and requires opportunity for expression if it is to be used effectively (Schaller, 1972). Evidence shows that between 12 – 18 months, cubs are able to bring down and kill a range of prey (Adamson, 2000; African Lion & Environmental Research Trust, 2010; Fitzjohn, 2011; Patterson, 1994; Schaller, 1972). Predominantly nocturnal hunters (Packer, 2010; Schaller, 1972) lions also require exposure to their natural environment at night to hone their skills. These initial regular daily walks will provide some of the pre-release training recommended by Kleiman (1989) for successful carnivore reintroduction. A pride structure is put in place hence facilitating social interactions between young lions, and instilling reassurance and confidence to explore a natural habitat. It also exposes young lions to prey, fostering the ability to find and obtain food. Moreover, it offers young cubs a stress-free environment to facilitate play behaviours important for cognitive, neural and social development (Ncube & Ndagurwa, 2010; Schaller, 1972; Smith, 1982)

As cubs reach 18 months of age and become increasingly more proficient in hunting, dependence upon humans needs to be curtailed. Moreover, the opportunity for a pride to work cooperatively in successfully bringing down big prey should be given. Wild lions are capable of killing large game by the age of 2 years (Schaller, 1972; Scheel & Packer, 1991). Large ecologically managed fenced area stocked with game, both large and small, can serve this purpose. Patterson's (1994) use of technology in radio-collaring his reintroduced lions provided helpful information about

their movements. Such technology means lions released into large fenced areas can be tracked and studied from a vehicle to provide valuable information on hunting, territorial behaviours, locomotion within the site, social interactions, condition of the lions, and the release site quality. This provides valuable comparative data with wild prides, such that the 'naturalness' of behaviours and performance of lions as a result of pre-release training can be assessed. Release into a large managed site contributes to addressing the problems of starvation and the non-curtailment of human dependency, which have characterised previous carnivore ex situ reintroduction attempts (Jule et al., 2008). Furthermore, this allows for the establishment of a stable and cohesive pride structure in captive-bred lions.

Although carnivores may become proficient hunters, the inability to deal with competitive species effectively has resulted in failure for many ex situ reintroduction attempts (Beck et al., 1994; Kleiman, 1989). Consequently, once a pride is stable and hunting successfully, exposure is needed to competitive species. Playback experiments have offered some interesting insights into responses of cheetahs (*Acinonyx jubatus*) to competitors such as spotted hyena (*Crocuta crocuta*) and lions (Durant, 2000), and lion responses to wild dogs (*Lycaon pictus*) and spotted hyena (Webster et al., 2010). They can also offer vicarious experience of competitors to a naïve lion population and an opportunity to monitor responses. Lions also require experience with those competitive species they would encounter in the wild. In an ideal habitat lions require fenced areas of at least 40km² in size, consistent with home ranges found in the wild (Bertram, 1998; Schaller, 1972). This allows for the introduction of some competitive species as well as game. With the sustained removal of human contact, this now stable pride can continue to develop hunting skills as well as anti-predator defence to protect territory, food and cubs born to the pride.

Previous ex situ reintroduction attempts for the African lion have released the captive-bred animal itself, following a period of training. However, the endurance of human imprinting have arguably compromised these efforts. Therefore, we argue it is the cubs born to the captive-bred pride that should be candidates for reintroduction. Sarrazin and Barbault (1996) note that traits which result as a consequence of human imprinting may disappear in the 1st wild-born generation. Consequently, it is this semi-wild-born generation with which reintroduction attempts should be made. Raised by a self-sufficient pride, they will have been taught the necessary skills to hunt, defend, and live as a self-sustaining pride member, without human intervention. At sexual maturity it is these 'cubs' that can be released as a stable social unit into reserves and transfrontier parks in Africa where there are no resident lions or where existing populations have become depleted. Lions can be released as whole prides, or as male coalitions to bring natural gene flow into existing populations population. Alternatively, released lions can augment existing prides and coalitions through the established practice of boma-bonding (van Dyk, 1997).

Prior to any reintroduction the targeted environment will need to be evaluated biologically, ecologically and socio-politically, to establish likely success. This includes suitability of habitat, confirmation of sound ecological management practices, and ensuring local tolerance for lions. Operating a wildlife reintroduction and rehabilitation program for a carnivore in a developing country brings with it particular challenges (Karesh, 1995). These can be practical such as implementing a

complex initiative with limited technological resources. They can also include local community perceptions and attitudes towards the species, its reintroduction, the funding invested, and health risks. On a broader scale, a programme must be sensitive to the political priorities of the country involved (Karesh, 1995). Without local and national community and government support, and sound in situ conservation practices in place, ex situ reintroduction is likely to fail. Consequently such a programme needs to take a holistic approach to lion conservation that tackles the educational, economic, health and socio-political issues that impact upon local communities in close proximity to reintroduction areas. This necessarily involves stakeholders working together to safeguard the reintroduction programme. There has to be a common will and benefit to releasing lions back into the wild in Africa. Current in situ lion conservation practices, such as the Lion Guardians, are valuable in protecting communities and lions through education, employment, and wildlife training (Hazzah & Dolreny, 2007). Fostering political and economic drivers for lion conservation, which are culturally and socially appropriate, is proving successful in areas where such initiatives are implemented. However, the long-term financial sustainability and scalability is a concern where funding relies upon donors (Abell et al., 2013). Reintroductions are also hampered by the cost of implementing them (Teixeira et al., 2007). However, an ex situ reintroduction programme with income streams from commercial sources, can offer long-term financial longevity as well as genetically viable and disease-free lions that can survive in the wild. The development of ex situ reintroduction programmes does not undermine in situ practices but would supplement the gene pool of geographically fragmented and closed populations. Moreover, through commercial activities these practices can heighten awareness for the species' plight (Cheyne et al., 2012). Post-release monitoring of reintroduced lions must be undertaken to not only evaluate the released lions, but also their impact upon the environment and their human neighbours.

Conclusions

We contend that the African lion is now a candidate for ex situ reintroduction. Previous attempts to reintroduce captive-reared lions should not be resigned to history or anecdote but should critically inform future attempts to conserve a rapidly disappearing species in the wild. These attempts offer crucial practical insights into how ex situ reintroduction might work today. Unfortunately its perceived failings, apparent poor comparison with wild-source reintroductions, lack of published scientific evidence, and conflation with non-conservation commercial practices, mean that this strategy is not granted any conservational merit in academia. In this paper we have suggested that the future of lion conservation needs to develop ex situ programmes which would meet requirements proposed by AZA and ICUN, and address previous failings for carnivore ex situ reintroductions (including those for the African lion). Unfortunately, for this to be granted an opportunity for further development and discussion by academics and practitioners, negative attitudes towards this 'last resort' conservational tool will need to subside.

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The long-term viability of current lion conservation strategies: A role for ex situ reintroduction

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Abstract

As the global human population increases, pressure on wildlife and habitat intensifies. Surveys chart the rapid decline in free-ranging African lions (Panthera leo). Available habitat shrinks, forcing lions into smaller and more fragmented populations. In situ attempts to protect and restore habitat and lions are rightly the mainstay of conservation effort for this species. However, they are relatively new and dependent on donor funding. It remains an empirical question as to whether current in situ conservation efforts will provide sufficient success on a continent-wide scale to maintain genetically diverse and viable lion populations before the species becomes critically threatened with extinction. In areas where populations are dramatically reduced or extirpated, wild-to-wild translocations have been adopted to reintroduce the species or support dwindling numbers. Comparisons of wild-to-wild versus ex situ reintroduction strategies for a range of species have led to a prioritising of wild-sources for the African lion on the basis of apparent superior success rate of such methods and apprehension over the effects of captivity on animals for wild-release. This paper outlines some concerns with such evaluations, questions claims of 'unequivocal success' for wild-to-wild translocations, and suggests that the African lion may now fulfil IUCN technical requirements for ex situ reintroduction.

Key Words: *African lion (Panthera leo), conservation, reintroduction, ex situ, in situ, translocation*

1. Introduction

The IUCN classification for the African lion (Panthera leo) is 'vulnerable'. A recent survey estimate 32,000 – 35,000 free-ranging lions remain in 67 areas across Africa, concluding there is "abundant evidence of widespread declines and local extinctions" even in protected areas (Riggio et al, 2012, p.18). Whilst African lion populations may exist in sufficient numbers to support this 'vulnerable' conservation status, it is the speed of the decline as a result of geographical fragmentation, climate change, increased human-wildlife conflict, inbreeding depressions, disease and the impact of trophy-hunting that is worrying. The IUCN states, "A species population reduction of approximately 30% is suspected over the past two decades (approximately three lion generations)" (in Bauer et al., 2008). Current conservation strategies have focused on in situ practices to protect and restore what's left or reintroduce from wild source populations. As threats to the African lion intensify, the use of wild-to-wild translocations has increased to supplement dwindling populations and reintroduce them back into areas where they have become extirpated. In this paper we contend that whilst these practices offer some success in restoring lion populations, it would be precarious to solely rely upon them. The speed of overall decline still outstrips these conservation efforts as numbers continue to fall. It is our argument that ex situ reintroduction of the African lion should now be seriously considered as a further conservation strategy to help restore the species in the wild. The IUCN advises that:

> *"The reality of the current situation is that it will not be possible to ensure the survival of an increasing number of threatened taxa without effectively using a diverse range of complementary conservation approaches and techniques including, for some taxa, increasing the role and practical use of ex situ techniques. If the decision to bring a taxon under ex situ management is left until extinction is imminent, it is frequently too late to effectively implement, thus risking permanent loss of the taxon…Priority should be given to the ex situ management of threatened taxa and threatened populations of economic or social/cultural importance"*
>
> *(IUCN, 2009a).*

It is our contention that the increasing threat to the survival of the African lion, coupled with its economic and social importance, means this is an example of a taxon that should be considered for ex situ management.

As the human population has burgeoned where lions range, threats to its existence have intensified, and have contributed to the species' eradication in some countries. Such rises reflect global trends. Between 1800 and 2011 the world's human population increased from 1 billion to 7 billion. This population is estimated to increase by 227,252 people per day (Population Institute, 2011). On current trends, the UN estimates the 8 billion mark will be reached before 2030. In sub-Saharan Africa, human population growth and subsequent land conversion is occurring at a rapid rate (Msuha et al., 2012). The human population of sub-Saharan Africa accelerated from 229 million (1960) to 863 million (2010), and is anticipated to reach 1.753 billion by 2050. This has consequences for the future of the African lion, which finds itself confined to ever decreasing and fragmented areas. As a large-bodied mammalian carnivore, the lion is a species most affected by anthropogenic disturbance as their need for large home ranges becomes curtailed and their prey base diminishes (Msuha et al., 2012). Carnivores directly conflict with humans as they depend upon similar resources (Woodroffe, 2000). For example, Fa et al. (2002) estimate 3.4 million metric tonnes of game meat is extracted from Central Africa annually, which would be sufficient to feed 2.5 million carnivores throughout the region. At the top of the trophic chain carnivores have come to characterize a paradox; revered for their magnificence yet despised for the threat they pose to humankind (Chardonnet et al., 2010).

Diminishing habitat and prey base is included within a catalogue of threats faced by the African lion. As lions find themselves increasingly in contact with humans, their fate is partly determined by the 'wildlife acceptance capacity' of their human neighbours (Carter et al., 2012; Chardonnet, 2010). Living alongside lions carries risks (Fa et al., 2002). Clarke's (2012) review of people injured or directly killed by lions in African regions includes the infamous Tsavo man-eaters responsible for the deaths of 28 railway workers in 1898, the 35 people killed in the Rufiji district of Tanzania between 2002-2004, and Craig Packer's estimation of 120 people who are attacked by lions across Tanzania every year. Livestock predation, actual or perceived, can result in retaliatory killings of lions depending on cultural sentiments and farmers' attitudes to lions (Kissui, 2008; Schumann et al., 2012). Amongst the Maasai people, the practice of Olkiyioi (retaliatory killing) has proliferated. Hazzah and Dolreny (2007) estimate that between 2001-2006 over 140 lions died as a result of Olkiyioi in the Amboseli-Tsavo ecosystem.

As lion populations decrease, fragment and come into increasing contact with humans, threats of disease, endemic and epidemic, intensify. Inbreeding heightens the risk of endemic disease, and having human neighbours escalates the threat of epidemic disease (Trinkel et al., 2011). Reports within the literature include the outbreak of morbillivirus, most probably originating from domestic dogs, within the lion population in the Serengeti in 1994. This outbreak claimed 35% of the Mara Lion Conservation Unit (Roelke-Parker et al., 1996). Bovine tuberculosis (bTB) originating in domestic cattle led to mortalities in the Kruger National Park lion population (Keet et al., 2004). Ferreira and Funston (2010) have concluded that the presence of bTB may be negligible at present in this population, but prevalence in the population could be adversely affected by drought.

Whether the consumptive sport of trophy-hunting has a detrimental effect upon lion populations is a debateable. Across Africa the reported average annual lion off-take is 600 (predominantly male) lions through tourist hunting (IUCN, 2009b). A review of CITES reports for declared trophies between 1975 – 2008, revealed a doubling of lion trophies every 7.2 years. Furthermore, the value of the trophy increases as the species threat status is upgraded, resulting in increased hunting pressure on felids (Palazy et al., 2011). Some researchers and practitioners uphold trophy-hunting as a positive conservational tool. Such support is based upon claims that trophy-hunting protects habitat, generates revenue for poor communities, and provides funds for anti-poaching units (Deere, 2011; Lindsey et al., 2012). However the IUCN (2009b) report that the economic returns to local people from trophy hunting operators has been minimal, employment opportunities poor, and the wildlife within hunting areas is less well conserved and more susceptible to outside pressures (such as poaching) than in protected non-hunting areas. For example, Zimbabwe's CAMPFIRE programme (established 1981), generates income predominantly through trophy-hunting from which a dividend is paid to communities. In recent times, this initiative has seen a drop in revenue, a decline in the allocation of generated money to wildlife management and conservation, delays and underpayments to communities, and increased pressure on natural habitats due to worsening socio-economic conditions within the country (Frost & Bond, 2008; Taylor, 2009). In Mutandwa and Gadzirayi's (2007) survey of rural communities who should benefit from CAMPFIRE, most respondents stated they had not benefited in terms of employment and/or improved infrastructure, and had not received a cash dividend from the project since 1997.

Other work highlights the negative impact trophy-hunting has for pride structure and behaviour on those that remain. For example, the harvesting of adult male lions at Luangwa National Park in Zambia led to widening control of females by those male lions that remained, giving rise to long-term genetic and reproductive consequences (Yamazaki, 1996). Hunting around the boundary of Gwaii Intensive Conservation Area (ICA) led to a 'vacuum effect' as male lions from the park were drawn to the areas where numbers of male lions were dwindling (Loveridge et al., 2009). Recommendations have been made to the hunting industry to try and mitigate any negative impact their practices may have. Packer et al. (2010) advises that trophy hunters restrict the off-take to male lions ≥ 6 years of age, to avoid rapid reductions in lion populations. However, this figure assumes the age at which a male lion holds pride tenure is 4 years of age, giving them 2 years to reproduce. This has been challenged in further studies of southern African lions, where the mean age of pride tenure is 7.8 years and lions ousted from their first pride went on to take over ones and reproduce (Nicholls et al., unpublished report). Moreover, the guide offered to hunters for estimating a lion's age using nose colouration (Whitman & Packer, 2007) has been deemed an unreliable indicator of age in southern African lions (Nicholls et al., unpublished report).

It is against this backdrop of threats that lion conservation practices are developed and evaluated. Here we discuss current in situ and wild-to-wild reintroduction conservation strategies, and argue ex situ practices are now required to complement and extend these efforts.

2. In Situ Lion Conservation

The IUCN SSC Cat Specialist Group define the goal of in situ conservation efforts for lions:

> *"To secure and where possible, restore sustainable lion populations throughout their present and potential range within…Africa, recognizing their potential to provide substantial social, cultural, ecological and economic benefits" (2006).*

To this end, in situ conservation efforts for African lions have focused on protecting and restoring habitat, mitigating human-wildlife-conflict (HWC), educating local people about the ecological importance of lions, and providing economic benefits to those communities who live alongside them. Part of this involves changing people's attitudes towards lions. This is a daunting task as attitudes are influenced by an array of complex factors including religion (Hazzah et al., 2009), education (Schumann et al., 2012), and economics (Fa et al., 2002; Hemson et al., 2009; MacDonald & Sillero-

Zubiri, 2002). Translocating 'problem' lions is typically not an option owing to homing behaviour, anthropogenic threats on release, and not being cost effective (Chardonnet et al., 2010; Fischer & Lindenmayer, 2000, Fontúrbel & Simonetti, 2011; Treves & Karanth, 2003). As such, communities must learn to live with lions if the species is to have a viable future. In situ conservation initiatives have therefore attempted to resolve HWC and restore habitat through culturally appropriate means, involving community participation and employment for the local people.

Examples of well-established practices include the Maasailand Preservation Trust (established 1992) and its collaborator Lion Guardians (established 2007). Located in the Amboseli-Tsavo ecosystem, these initiatives work directly with the Maasai to develop culture-appropriate methods for protecting and restoring lion populations in the area. These initiatives train and employ local people in conservation biology methods to engage in lion research, locate missing livestock, discourage retaliatory lion killings, prevent poaching, restore habitat and manage natural resources. Practices such as herding livestock by day and securing in reinforced bomas by night ('living walls') reduce the likelihood of predation by lions. The Maasailand Preservation Trust includes a compensation scheme from the Predator Conservation Fund to reimburse farmers who lose livestock to lions. These initiatives report success in terms of reductions in retaliatory lion-killings since they began, and in some cases, a shift in attitudes towards lions (Hazzah et al., 2009). Despite this much-needed work and success, questions can be asked about the long-term financial viability of such schemes, which are reliant upon donor funding. Further, if the donor funding dries up to pay salaries, would attitude change towards lions be maintained?

Firstly, the effectiveness of compensation schemes to protect wildlife across a range of taxa have been debated in the literature. Rather than protecting wildlife, compensation schemes can prove detrimental to it. They can encourage poor husbandry practices (Maclennan et al., 2009), thus putting wildlife at greater risk of retaliation. However, Bulte and Rondeau (2007) argue that if compensation payments are made conditional upon good husbandry practices then such schemes can work. There is the danger that compensation schemes may foster a culture of attributing livestock losses to lions regardless of whether this is the case or not (del Valle, 2004; Dickman et al., 2011; Nyhus et al., 2009). As such they require appropriate training to ascertain genuine cases and payments need to be delivered rapidly to farmers to prevent the likelihood of retaliation. Moreover, the perpetual cost of compensation can prove expensive and may not be sustainable in the long-term

(Dickman et al., 2011; Nyhus et al., 2009). Dickman et al., (2011) comment that compensation schemes may create poverty traps, as people move into areas where they exist, resulting in increased competition for pastoral. They conclude, "Evidence from the field suggests they (compensation schemes) are unlikely to produce substantial benefits in terms of long-term conservation or poverty alleviation, and may even have negative consequences" (Dickman et al., 2011, p. 13940).

Secondly, the practice of herding livestock during the day is not an absolute deterrent to an opportunistic hunter such as the lion (Valeix et al., 2012). Moreover, the use of reinforced bomas to secure livestock at night may not prove impenetrable to a determined carnivore (Treves and Karanth, 2003).

Finally, there is the issue of financial cost. Donor support is typically the source of funding for these initiatives, which can be unreliable, and is unlikely to be sustainable at the scale they're required. For example, the Born Free Foundation price a reinforced boma for one household at GB£1,200 (US$1, 940). Taking Zambia as an example of a southern African country with a total population of 13.4 million (World Bank, 2012), 60% of the population live in rural areas. Of this, an estimated 236, 097 households exist in the lion areas as identified by Riggio et al. (2012) (Liuwa Plains, Kafue, Sioma Ngewzi, Nsumbu-Kaputa, Luangwa), of which 68% keep some form of farm animal (Pica-Ciamarra et al., 2011). The cost of bomas in these areas would be US$311,459,162 (GB£192,655,152). Similarly, if we consider Tanzania (total population, 45 million in 2011) (World Bank, 2012) and just the 1,701,215 households in areas deemed to be at medium or high risk from lion conflict (Mesochina, 2010), of which 60% have livestock (Cavorrubias, 2012), the cost of bomas for 1,010, 729 households, is US$1,960,814,260 (GB£1,212,874,800). These figures are without taking into account the countries growing rural population, funding for compensation schemes, or money to employ local people to monitor lion movements. The financial resources required for this initiative in just one of these African countries, outstrips the entire NGO conservation expenditure across sub-Saharan Africa. An estimate of collective annual expenditure of the 25 conservation NGOs operating in Zambia is US$5,495,338, and for the 36 NGOs in Tanzania is US$14,488,729. The total expenditure of NGOs across sub-Saharan Africa is estimated at US$200,936,102 (Brockington & Scholfield, 2010; Scholfield & Brockington, 2009). This raises serious questions about the long-term feasibility of this strategy across Africa.

High on the conservation agenda are attempts to link and protect isolated lion populations. As natural re-colonization increasingly requires emigration from an occupied area, often through an inhospitable habitat matrix (Ebenhard, 1991), opportunities for recovery have been diminished. In an attempt to address this, the practice of enlarging protected areas and dropping dividing fences has resulted in the establishment of Transfrontier Conservation Areas (TFCAs), or 'Peace Parks', and trans-national wildlife corridors. Their creation has received wide support as a conservation tool to re-establish migratory routes and address issues linked to small fragmented populations, such as genetic inbreeding and demographic stochasticity.

Although the creation of TFCAs and wildlife corridors is welcomed, some problems have been noted. These include the possible spread of epidemic and endemic disease into naïve populations, increased contact with humans (poachers, hunters, farmers) and domestic animals, and the possibility of the spread of fire (Hess, 1996; Simberloff & Cox, 1987). With respect to lions, data on the presence and impact of endemic diseases within wild populations, such as FIV and FeHV is scant meaning the consequences of transmission between populations is not yet fully understood (Bull et al., 2002, 2003; Craft, 2010; Packer et al., 1999; Pecon-Slattery et al., 2008; Troyer et al., 2004; van Dyk, 1997). Riggio (2011) offers an excellent review of the current status of wildlife corridors in Tanzania, reporting threats to their existence, and implications for the African lion. The effects of human encroachment, land conversion, and major roads upon existing corridors have led to their reduction in size, and in some cases imminent disappearance. The success of TFCAs and wildlife corridors depends on local community support and trans-national dialogue at all levels. Socio-political issues can stall plans for trans-national corridors if they are viewed as commercial enterprises rather than ecologically-driven ones. For example, they can be perceived as facilitating a process of land-grabbing from local communities by conservationists and tour operators (Duffy, 2005). Consequently, the long-term viability of wildlife corridors is complex and uncertain.

The implementation of buffer zones to protect wildlife has received mixed reviews depending on their definition and use (Martino, 2001; Prins & Wind, 1993). They can be a strategy to prevent human disturbance to habitat and wildlife, or an opportunity to integrate them (Martino, 2001). Case studies suggest the former is more successful than the latter. For example, increases in numbers for the Asiatic lion (Panthera leo persica) and prey in the Gir Forest are attributed to the relocation of pastoral communities outside protected lion habitats (Singh & Gibson, 2011). However, the forced

movement of communities has a long history of negative consequences (Treves & Karanth, 2003). In an attempt to alleviate declines in wildlife from poaching, 36 buffer zones in the form of communally-owned Game Management Areas (GMAs) were established in Zambia in 1998 (Simasiku et al., 2008). The objective was to employ local people within them to protect wildlife in the area by means of regulated trophy-hunting and/or photographic tourism. The reality has been low employment of local people and continued reduction in wildlife due to hunting practices, poaching and a lack of developed photographic tourism operations (Becker et al., 2012; Simasiku et al., 2008). The mortality of lions in Zambia's GMAs is now considered unsustainable (Becker et al., 2012). Intensifying human encroachment and land conversion, fire and deforestation have threatened GMA wildlife populations further (Simasiku et al., 2008).

Considering the complex issues in situ conservation strategies must negotiate, it is perhaps unsurprising that the list of in situ objectives detailed in IUCN conservation strategies have not yet been met. Detailed empirical research is needed to evaluate the strengths and limitations of in situ conservational techniques, such that lessons can be learned and implemented to achieve those objectives. The progress made by in situ strategies is arguably not yet outstripping the rate of decline for the African lion. This is especially true for those areas in which lion numbers are dwindling or have become extirpated.

3. Wild-to-Wild Lion Translocations

The practice of wild-to-wild translocations has been adopted in conservation to augment and restore populations and, in some cases, resolve HWC (Hunter et al., 2007, 2012; IUCN, 1998; Kleiman, 1989; MacKinnon & MacKinnon, 1991; Sarrazin & Barbault, 1996; Seal, 1991; Stuart, 1991; Tear et al., 1993). The practice of reintroducing lions to resolve inbreeding problems such as those experienced in the Ngorongoro Crater and Hluhluwe-Umfolozi Park has received support as a conservation tool (Hunter & Slotow, 2000; Packer et al. 1991). These practices have been established in lion conservation since 1991 in South Africa, Namibia, Zambia, Malawi, Zimbabwe and Mozambique, and although they tend to involve small numbers, they have occurred at about the rate of 1 per year since 1994 (Hunter et al., 2007). Accounting for 15% of the total national South African lion population (Slotow & Hunter, 2009), wild-to-wild translocation has been considered an 'unequivocal success' (Hunter et al., 2012) in terms of the number of post-release surviving animals and increased local

populations. For example between 1992–2003, 15 wild lions were released into Phinda game reserve, resulting in 4 lions later translocated in South Africa, and 3 surviving lions remaining at Phinda (Hunter et al., 2007). Stander (2003) states the successful reintroduction of 3 lions in the Kalahari Game Reserve, with their settlement into normal patterns of behaviour. Hoare and Williamson (2001) describe the commercially-driven reintroduction of lions into a photographic safari area of Bumi in Zimbabwe after the local community had eliminated them. The presence of lions in that area 4 years later is taken as a measure of success. Hunter et al. (2012) report >450 lions in South Africa by 2007 as a result of reintroduction.

However, statements of success should be treated cautiously. In a literature review of published carnivore translocations, Fontúrbel and Simonetti (2011) note the apparent 36-48% achievement rate may reflect a publication bias for success case studies. As the highest mortality rates in translocated carnivores include felids, this "cast(s) doubts regarding the use of translocation as a conservation-sensitive tool" (Fontúrbel & Simonetti, 2011, p. 221). However, it has been argued this is prevalent in hard-releases rather than those using soft-release (Hunter et al., 2007). Nevertheless, fatalities are documented in soft-releases. For example, of the 15 lions translocated into Phinda Game Reserve between 1992-2003, anthropogenic factors led to the deaths of 3 lions that were destroyed after they killed a tourist and a further 5 lions killed in snares (Hunter et al., 2007). Of 16 lions translocated to Hluhluwe-iMfolozi Park (HiP) between 1999-2001 to supplement a small inbred population, 8 had died by 2004 (of which 1 was euthanized because of the risk of HWC, 1 euthanized due to emaciation, and 2 disappeared presumed dead). Of the 5 lions translocated to Liuwa Plains between 2008-2011 to re-establish a lion population, 1 male died in the boma, 1 male was shot, and 1 female was killed in a poacher's snare (African Parks, 2011).

Concerns surrounding wild-to-wild translocations include inadequate assessment of the community's wish to be involved, time and financial cost (approx. $3,941 ± $1,242 per felid) (Fontúrbel & Simonetti, 2011), wildlife managers' motivations for reintroduction (not typically conservation-led but commercially-driven) (Sarrazin and Barbault, 1996),

and inadequate assessment of carrying capacity (based on what is desirable rather than ecologically possible), decisions made at the incorrect social scale meaning conservation of the species across areas is not considered, isolation of reserves, disregard for genetic variation and a limited genetic pool for wild-source lions (Hunter et al., 2007, Slotow & Hunter, 2009; van Dyk, 1997). Hunter et al.

(2007) note that the three source populations for translocated lions, Kruger, Kgalagadi Transfrontier Park and Etosha NP, are probably closely genetically related, and asks for "conservatism in planning lion reintroductions".

To guard against genetic inbreeding some previous reintroductions have included prides of unrelated females and unrelated male coalitions, where social cohesion is induced by means of holding the lions in a boma and tranquilisers are used prior to release (van Dyk, 1997). This strategy has produced chequered results. Kilian and Bothma (2003) report the failure of this method to generate a social and cohesive pride. Five lions reintroduced to the Welgevonden Private Game Reserve in South Africa, split into their kin-ship groups post-release resulting in inbreeding. Trinkel et al. (2008) note the failure of reintroduced females to bond with inbred native pride members in Hluhluwe-iMfolozi Park (HiP), and recommend this strategy is not used for future releases. Unfortunately, detailed evidence of the short and long-term effects of these particular practices for prides and individual lions, pnor and post-release, remain scant. For example, social network analyses of interactions within social prides focus upon the differing role each animal within the group has for social cohesion. Sih et al. (2009) argue this is especially important in fission-fusion societies, where the removal of a keystone individual can cause instability, aggression and the break-up of the group. The extent to which wild-to-wild translocation practices engage in such analyses before removing individuals, and the effects of such removals upon the rest of the pride, is not yet discussed in the literature. Furthermore, as a territorial species, the impact of translocated lions upon the host population warrants detailing.

Additionally, endemic and epidemic diseases within lion populations need to be carefully considered in wild-to-wild translocations and wild-source founders. Conversely, it has been argued that this has not been a feature of practices involving terrestrial social carnivores and could result in a 'conservation disaster' (Craft, 2010). For example, the presence of bovine tuberculosis (bTB) within the wild-source lion population at Kruger NP is concerning (Winterbach et al., 2000). A 4-year monitoring project of 16 lions infected with bTB in southern Kruger, and 16 uninfected lions, revealed 5 of the 16 infected lions died directly of the disease. A further 7 of the infected group died due to disruption in the pride as a result of death of prominent pride members from TB (Keet et al., 2004). Long-term effects of bTB on the lion population have yet to be evidenced, which may have implications where Kruger NP lions are a founder source for in situ reintroduction. The presence of

bTB in HiP lions reduced the population from 84 individuals to 20, between 2000-2004, most of which are descended from translocated lions (moved between 1999-2001) from Pilanesberg and Madikwe (Trinkel et al., 2008). Continued management is also required to prevent inbreeding in this small population (Trinkel et al., 2008), which numbered an estimated 130 lions in 2010 (Hluhluwe Game Reserve). It is claimed that given sufficient space, prey, and in the absence of disease and HWC, lion populations can recover quickly as a result of translocation (Chardonnet et al., 2010). Unfortunately, to date there is no clear evidence to support this. Declarations of 'unequivocal success' for wild-to-wild translocations in lion conservation remain problematic in the context of increasing threats and mixed results

4. Ex Situ Reintroduction

In the context of threats, rapid declines, and limitations of current conservational strategies for the African lion, it is our contention that it is time to consider ex situ reintroduction. Researchers have argued that ex situ reintroduction now needs to be implemented more generally within species conservation (Chardonnet et al., 2010; IUCN, 2009a, Mallinson, 1995). However, reviews of reintroduction attempts per se report low success rates. Assessing 116 reintroduction studies, Fischer and Lindenmayer (2000) report 30 successes, 31 failures and 55 unknown results. Beck et al., (1994) reviewed 146 ex situ reintroductions, of which only 16 are reported as successful. Such figures go some way to explaining why arguments for ex situ of the African lion may be written off before any discussion.

There is a danger in accepting publications of reintroduction attempts as representative of the field. They can be problematic due to biases in publication of successes, a lack of long-term data, and discrepancies in what constitutes success (Fischer & Lindenmayer, 2000; Kleiman, 1989; Ostermann et al., 2000). Whilst for some projects success is based on whether there are any surviving individual animals after a short period post-release (e.g. Shier & Owings, 2006), for others it is the protection of a habitat regardless of whether any individuals survived (Kleiman, 1989), statistical equivalence with wild populations for survival and reproduction of released individuals (Cheyne, 2012), or the establishment of a large self-sustaining population (Beck et al., 1994). The scale at which success is measured may not be appropriate for the species under consideration.

Where failures for ex situ reintroduction have been reported, the reduced likelihood of animals surviving post-release (as opposed to in situ reintroduction) is attributed to the modification of

temperament traits and behaviours as a consequence of captivity and human imprinting, the inability of reintroduced individuals to respond adequately to competitive species and predation (Jule et al., 2008; McDougall et al., 2006). Ex situ programmes also stand accused of focusing on genetic variation at the expense of social traits and behaviours (Sarrazin & Barbault, 1996) and offering an impoverished environmental enrichment (Newberry, 1995).

However, amongst this apparent catalogue of failings there are some success stories and lessons learned along the way. For example, group cohesion is key for successful ex situ reintroductions for social species, although this has not yet had the opportunity to be tested (Kleiman, 1989). The importance of behaviour enrichment in captive-origin individuals, such as lion cubs, has been emphasised in facilitating social cohesion and natural pride behaviours (Ncube & Ndagurwa, 2010). Shier and Owings (2006) noted the importance of pre-release predator training in their successful ex situ reintroduction of prairie dogs (based on post-release survival after 1 year). Other case studies of successful ex situ reintroductions from captive (zoological park) founders include the Arabian oryx (Oryx leucoryx) (Stanley Price, 1989), the American red wolf (Canis rufus) (Philips & Parker, 1988), black-footed ferrets (Mustela nigripes) (Russell et al., 1994), and golden lion tamarins (Leontopithecus rosalia) (Beck et al., 1991).

Success stories aside, wild-to-wild translocations and in situ conservation approaches have been prioritised and institutionalised in conservation science over ex situ reintroductions, meaning that attempts to discuss, develop, fund and publish ex situ work is problematic (Pritchard et al., 2011). As such, trying to establish a rigorous programme of ex situ conservation for the African lion becomes problematic. It is difficult to assess if this will work when attempts are few, and opportunities for doing so remain limited. Existing ex situ reintroduction programmes for lion conservation are dismissed on the grounds of funding and conservational impetus (regarded simply as tourist attractions) (Pritchard et al., 2011), lack of published success, and unwarranted assumptions about how lions are handled and 'who' is reintroduced into the wild (e.g. Hunter et al., 2012; Abell & Youldon, 2013; Hunter et al., 2013). As a result ex situ reintroduction has been effectively disregarded on the basis of having no conservational merit (Hunter et al., 2012), without being given the opportunity for success. However, in the context of intensifying threats, decline, and the inevitably slow progress of current conservation strategies, ex situ reintroduction now needs to be given the chance. This is especially the case in those areas where lion populations are dangerously low or have become extirpated.

Whilst in situ practices rightly continue to define lion conservation there are obstacles that need to be negotiated to ensure their long-term viability. In the meantime lion populations continue to decline. For example, whilst Kenya is one of the few countries with >1,000 lions, the Kenya Wildlife Service (KWS) reports over 100 lions have been lost from the country every year since 2002 (Kenya Wildlife Service, 2012). KWS estimate extinction of wild lions from the area within 10 years. In other words, the speed of overall decline is outstripping the rate at which in situ conservation practices can be implemented.

For ex situ programmes to be recognised as part of a worthwhile effort to conserve lions, negative perceptions of them will need to abate and success (and failure) evaluated appropriately within a suitable time-frame. Captive bred animals are a logical source for reintroduction programs in instances where wild populations are precluded from translocation and reintroduction programs due to genetic incompatibility and disease prevalence. Captive populations can be secure and free from disease. Time can be factored in for communities, wildlife managers, conservationists, researchers, business leaders and policy-makers, who all have vested interests in the existence (or elimination) of lions to be properly consulted and solutions monitored long-term. Captive lions can be easily bred in sufficient numbers and in an environment where the species can easily acclimatize to release.

Lawrence Frank (cited in Barley, 2009) states that 'drastic action' is now needed to prevent further wildlife loss from Africa. Perhaps one virtue of being deemed controversial is that ex situ reintroductions may now be considered 'drastic' enough to implement. The IUCN technical guidelines for ex situ management are based on fulfilment of one or more of the following Red List criteria: "When the taxa/population is prone to effects of human activities or stochastic events or When the taxa/population is likely to become Critically Endangered, Extinct in the Wild, or Extinct in a very short time. Additional criteria may need to be considered in some cases where taxa or populations of cultural importance, and significant economic or scientific importance, are threatened" (IUCN, 2009a). We argue that in the context of the causes and speed of decline for the African lion, ex situ reintroduction should now be considered.

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SOUTH AFRICAN PREDATOR ASSOCIATION

Sustainable management of Natural Resources.

SOUTH AFRICAN PREDATOR ASSOCIATION

The Association intends to:

- Co-ordinate and promote the interests of its members with the view of establishing and maintaining a healthy and profitable predator breeding and hunting industry in congruence with national and international conservation principles and current national and provincial legislation;
- Represent the interests of its members at provincial and national level;
- Cooperate with provincial and national authorities in the formulating and execution of regulations ensuring a healthy and sustainable predator breeding and hunting industry in South Africa.
- Liaise with other associations and institutions with reconcilable aims to promote the aims of the Association and to promote or defend jointly in cases and matters concerning the interests of these associations.
- Promote and market a positive image of the predator breeding and hunting industry.

SAPA's achievements (since 2012):

- Establishment of South Africa Predator Association.
- SAPA Norms and Standards for Hunting Ranch Lions
- Assessment of lion hunting destinations for accreditation
- Accreditation of 12 hunting destinations.

  10 North West Province 1 Free State Province 1 Limpopo Province
- Establishment and implementation of the marking system "tags" for hunting of ranch lions.
- Establishment of DNA profiling databases for ranch lions - 1000 Lion samples in Databases.
- Establishing "traceability" of Ranch lions.

SAPA's Conservation Fund supports:

- Liaison with Department of Environmental Affairs on the trade of lion and lion derivatives.
- Liaison with Provincial Biodiversity Management Authorities through Wildlife forum meetings.
- Comments and inputs in Provincial and National legislation managing the lion industry.
- Draft Norms and Standards: Lion rearing and management. – In process with DAFF.
- Involvement in and financial support to Wild lion conservation project in Zimbabwe.
- Bursary to University of North West: Lion Research— Socio Economic Benefit.

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Review Article

A Comparison of the South African and United States Models of Natural Areas Management

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Abstract

In May-June of 2013 we visited several South African parks and reserves to learn about wildlife and natural areas management in that country. We focused our visit on parks and reserves that are of moderate size (5,000–100,00 ha), comprised of grassland/savanna habitats, located within agrarian landscapes, and enclosed with boundary fences, characteristics similar to several parks and reserves in the Northern Great Plains region of the United States. In this paper we compare the South African model of natural areas management to the United States model. We observed that South African parks and reserves with the aforementioned characteristics are more likely to (1) reintroduce and conserve small, nonviable wildlife populations, (2) reintroduce and conserve top-level predators, (3) have more intensive management of wildlife, (4) manage in partnership across multiple landowners, (5) engage local communities, (6) be self-funding, and (7) restrict visitor movement. The South African model is arguably more effective in conserving biodiversity as measured by conservation of apex predators and natural processes. The differences between the countries appear to be driven in large part by socioeconomic factors. Knowledge of natural areas management in other countries may lead to more innovative and creative models that could benefit biodiversity conservation.

1. Introduction

The United States is often perceived and portrayed as a leader in natural areas management [1], a perception that has some merit considering that the country established Yellowstone National Park in 1872, arguably the world's first national park. Over time a convention and mode of natural areas management evolved in the USA [2]. At the same time other countries were establishing parks and reserves and developing their own management models [1]. South Africa is one such country that is now widely recognized for its innovative and progressive park and reserve management.

With that in mind, the authors went to South Africa, met with colleagues there, and reviewed wildlife and natural areas management in that country. Many of the parks and reserves in South Africa are similar to natural areas in the Northern Great Plains region of the United States in that they are moderate in size (5,000–100,00 ha), they conserve grassland and savanna ecosystems, and they are fenced and/or surrounded by agrarian landscapes. In this paper we qualitatively identify and discuss the most notable differences we observed between the two countries in terms of natural areas management and biodiversity conservation. We did not use a quantitative approach for comparing the effectiveness of biodiversity conservation in the two countries as there are confounding factors such as differing baseline levels of species richness [3] that make such an approach problematic. Our goal is to expose the reader to varying forms of natural areas management in hope that it may lead to better conservation of biodiversity.

2. The South African Model versus the United States Model

It is somewhat misleading to say that a country has a "model" for natural areas management and to starkly compare that model against another country's model, as most countries have a myriad of approaches toward natural areas management and conservation. For example, in South Africa the parks and reserves range from the vast and open Kalahari Gemsbok National Park to small and closed parks near urban areas; management practices and policies vary greatly between these sites. Likewise, within the United States national park management practices vary greatly between

Yellowstone National Park and smaller parks near population centers. Yet when comparing "apples to apples," specifically moderate-size grassland/savanna parks located within agrarian landscapes and surrounded by boundary fences, there are significant and noteworthy differences between the two countries. We summarize these differences in Table 1. In the following sections we elaborate on these differences.

Table 1: Notable differences between natural areas management in South Africa and the United States.

2.1. Wildlife Management

Perhaps the most striking difference between the two countries from a biodiversity perspective is that South African parks and reserves actively reintroduce, conserve, and manage very small populations of wildlife, including apex predators. This is generally done for purposes of (1) restoring an ecological process, and, (2) generating wildlife-related tourism revenue. Notable species that are commonly reintroduced into small parks and reserves in South Africa include the African lion (*Panthera leo*), African elephant (*Loxodonta africana*), black rhinoceros (*Diceros* bicornis), white rhinoceros (*Ceratotherium simum*), African buffalo (*Syncerus caffer*), wildebeest (*Connochaetes* sp.), and African wild dog (*Lycaon pictus*). Of those, only the black rhinoceros and African wild dog are generally considered as critically endangered in the wild.

Funston [4] compiled a list of private and public protected areas in southern Africa that reintroduced lions since 1992; ten sites were 10,000 ha or less and three were 2,500 ha or less. The smallest site was the privately owned 1,500 ha Madjuma Game Reserve. In several cases the reserves are so small that they could conserve only a single pride of lions comprised of only a few individuals. Many similar size reserves also conserve small populations of elephants, rhinoceroses, and other large-bodied mammals. Even wide-ranging species, such as the African wild dog, have been reintroduced into sites as small as 8,500 ha [5]. Lindsey et al. [5] established minimum reserve sizes for reintroduction of wild dogs (6,500–14,700 ha) based on the criteria of being able to support a single family unit.

The reintroduction of small populations of large-bodied wildlife into small fenced reserves in South Africa is done more for restoring ecological processes or promoting ecotourism than it is for the global conservation of the species (Figure 2). Funston [4] noted that most South African sites with lions are managed to meet the goals for the site (primarily ecotourism); however, he also noted that such sites have the potential for meaningful conservation of the species if metapopulation guidelines are followed. A metapopulation approach, relying on a network of large and medium size reserves, has been proposed for wild dogs and may be critical for survival of the species in South Africa [6].

The reintroduction and conservation of micropopulations of wildlife in small reserves are commonplace in South Africa; however, there are challenges and necessities associated with such a model. Kettles and Slotow [7] list the issues as overpopulation, inbreeding depression, decline of prey and other predator species, conflict with neighboring communities, and, in some cases, spreading disease. For example, a micropopulation of lions caused the decline of some prey species at the small and fenced Madjuma Game Reserve, whereas other prey species increased in abundance following the lion reintroduction; these unanticipated events resulted in reserve managers removing the lion population [8]. Similar undesirable effects have been noted for reintroductions of African wild dogs to small closed reserves [5].

Mitigating these problems requires active intervention in what Funston [4] called "micromanagement." Kettles and Slotow [7] list the possible interventions as "relocation, contraception, hunting, and artificial takeovers." Such micromanagement is often costly and contentious, but usually technologically feasible. In discussing lion management Kettles and Slotow [7] noted that "none of the intervention methods resulted in long-term behavioural or social consequences. Constraints on lion management were more from societal values than biological or technological influences. If applied in the correct manner, at the correct time, all of these interventions, or a combination of them, can assist in achieving management objectives."

One factor that may facilitate the South African micromanagement or hands-on approach is that in South Africa wildlife is not "owned" by the state. Therefore, wildlife can readily be bought, sold, transferred, and managed. In contrast, wildlife in the United States is "owned," or held in trust, by the states or, when specifically identified by Congress, by the federal government. In general, private ownership of wildlife is uncommon and illegal in many cases.

Furthermore, in contrast to the South African model, the reintroduction of micropopulations to small parks and reserves, as well as the associated interventionist management, is discouraged in U.S. parks and reserves. In the case of national parks this reluctance is reaffirmed by National Park Service policies that call for reintroductions only when the population can be "self-perpetuating" [9]. We know of only a few examples that challenge this requirement. One example is Wind Cave National Park which recently reintroduced the black-footed ferret (*Mustela nigripes*) even though the 2,500 acres of black-tailed prairie dogs (*Cynomys ludovicianus*) within the park may only support about 30 ferrets and be inadequate for long-term viability. This reluctance and discouragement to conserve small and non-viable populations is why none of the parks and reserves in the Northern Great Plains region of the United States support the full native faunal community whereas many comparable size parks and reserves in South Africa do conserve the full wildlife community.

Perhaps the most striking difference between the two countries and their management models is expressed in terms of apex predators (Figure 1). The United States has no precedence or model for reintroducing and conserving small populations of apex predators in closed protected areas. Wolves (*Canis lupus*) have been restored in the Western United States, but only to the vast wildernesses of the Yellowstone Ecosystem and the Southwest United States. Nowhere have wolves been reintroduced to parks or reserves similar to what has occurred with lions and wild dogs in South Africa, although the idea has recently been broached in the scientific literature [10]. The reluctance to consider such a model in the USA has many reasons, including the hands-off non-interventionist approach endorsed by agency policies. The current situation at Isle Royale National Park in Lake Superior is noteworthy. In the 1940s wolves got established on the 53,500 ha island park by crossing an ice-bridge from the mainland. The population grew to a long-term average of about 25 animals, but has been in decline for the past several years. The conservation and scientific community is currently debating whether wolves should be translocated to the island for genetic and/or demographic augmentation of the existing

population [11]. Based on our observations there would be little if any hesitation to augment or reintroduce wolves to Isle Royale under the South African model.



Figure 1: South African reserves as small as 5,000 ha restore lions for purposes of ecosystem stewardship and ecotourism. The restoration of small populations and in some cases single family units requires intensive management. The restoration of apex predators to small and medium size reserves is not done in the United States.



Figure 2: A perimeter fence around a South African reserve. In agrarian landscapes fences protect people and property and conserve wildlife populations. Wildlife within fenced African reserves is considered free ranging.

A prerequisite for reintroducing lions, elephants, and other large mammals into reserves in South Africa is the establishment of a fence. Electrified boundary fences are required by law for lions, wild dog, and elephants [12]. Fences greatly reduce conflicts with surrounding neighbors and protect people and property from the species; however, they also have the benefit of allowing for the conservation of the species [13]. Were it not for fences the animals would inevitably wander out of the small parks and reserves and probably be killed. Eventually that could lead to extirpation of the park population. Packer et al. [14] suggested that many unfenced African lion populations may decline to near extinction in the next 20–40 years. They also noted that lion populations within fenced reserves are nearer their carrying capacities and are less expensive to manage. Fences are generally viewed negatively by the conservation community in the United States as they result in ecological problems, high costs, and aesthetic impairment. However, fences are used in the Great Plains to keep bison (*Bison bison*) from roaming out of parks and reserves. Boundary fencing has been a critical tool in the conservation of the species.

The differing philosophies and approaches towards wildlife management are epitomized by the use of two terms. In the United States the term "*free ranging*" is generally only applied to an animal outside of a fenced park or reserve; however, in South Africa the same term is often applied to an animal within a fenced reserve, provided the reserve has the minimum land size needed for the animal to meet its life needs. Or in the words of one South African ecologist, a free-ranging animal is one "that is not fed by people" (pers. comm. Sam Ferreira, Kruger National Park). In the United States the word *metapopulation* typically refers to a wildlife species whose global or regional population is comprised of several subpopulations that naturally interchange animals through dispersal. In contrast, the term *metapopulation* in South Africa generally refers to a population that is managed via anthropogenic translocation of animals between sites.

2.2. Partnerships

Conserving biodiversity often requires landscape approaches. In South Africa there are numerous examples of multiple landowners managing sites in partnership. In some cases the partners are a mix of public and private entities, in other cases the partnership may be comprised only of private landowners (these are sometimes referred to as *conservancies*). Government-sponsored partnerships also occur across national boundaries including between South Africa and neighboring Botswana, Namibia, Mozambique, and Zimbabwe. By establishing partnerships and removing fences between properties the landowners realize economies of scale and increase the site's potential for conserving biodiversity [15].

Welgevonden Game Reserve in north-central South Africa is one of many examples of a private partnership reserve. The 37,500 ha reserve is comprised of approximately 30 landowners who voluntarily became members of the reserve. Some landowners operate resorts and provide tourist activities such as safaris, whereas others maintain their properties for personal pleasure. However, in exchange for access to the entire reserve, all manage their land, operate their facilities, and make use of the reserve under a binding charter. The entire reserve, which hosts the *Big 5* (African lion, African elephant, leopard, rhinoceros, and African buffalo) and other wildlife, is overseen by an elected board of governors. Another example of a multientity partnership is the 55,000 ha Madikwe Game Reserve in the North West Province. The site is run as a three-way partnership between the provincial government, local communities, and the private sector [16]. The success of Madikwe has led to the proposal of even more ambitious partnerships that would benefit local economies as well as biodiversity [17].

In contrast, the wealth of the United States has enabled the establishment of a wide range of government-run parks and reserves, perhaps to the exclusion of creative public-private partnerships. We know of no arrangements in the Northern Great Plains region of the United States similar to those of Welgevonden or Madikwe. Although neighboring land management agencies sometimes have memorandums of understanding and other cooperative documents, the agreements do not have the legal foundation, authority, commitment, or management scope of the multilandowner partnerships commonplace in South Africa. One promising scenario in the United States that could approach what we observed in South Africa is a site in southwestern South Dakota where the potential exists for three adjacent bison herds, one public (Badlands National Park), one tribal (a proposed tribal national park), and one private to be managed as one large herd under a partnership relationship similar to what is practiced in many South African reserves.

2.3. Community Emphasis

We were struck by the emphasis of South African natural areas to provide essential community benefits. From the highest policy statements down to park and reserve operations there is an explicit emphasis in South Africa on working with and for local communities. This emphasis ranges from employing local people to (in the case of private reserves) making donations for community projects and infrastructure. However, it should be noted that this community emphasis is a relatively new model within South Africa. Historically, parks and reserves in that country were established and managed primarily for the pleasure and benefit of the wealthy and privileged white minority. But with the end of apartheid a new natural areas model evolved that has strong socio economic and community development objectives. Even the vast transboundary parks and reserves build on the theme as a goal of those efforts is to achieve peace and prosperity in the region [18]. Fortunately, this community-emphasis model has facilitated conservation of Africa's charismatic wildlife species and biodiversity conservation.

An example of the new model is the Madikwe Game Reserve. The 1997 management plan for the site states "the approach towards conservation that has been adopted at Madikwe puts the needs of people before that of wildlife and conservation" [16]. The 55,000 ha reserve was initiated in 1991 following a feasibility study that determined that a wildlife reserve, and a wildlife-based tourism business, would be economically more profitable and self-sustaining than the apartheid-era cattle ranching and farming. As a result of the socio-economic assessment, the livestock were removed, wildlife-proof perimeter fences were constructed, and what may be the world's largest wildlife translocation, known as Operation Phoenix, was undertaken. As of 2003 the reserve directly supported almost 450 jobs [19]. Although there have been challenges and criticisms in terms of what types of realized community benefits, infrastructure development, and wildlife management [20, 21], the site has had enormous community, socio-economic, and biodiversity benefits, especially when compared to the prior land use.

We are not suggesting that South African parks and reserves generate more income or create more jobs than United States parks. USA parks provide substantial socio-economic benefits to local communities. For example, Badlands National Park supported 317 jobs in 2011 and brought $22 million to the local economy [22]. Many other USA parks have gateway communities that receive similar benefits from the parks. Yet these benefits are rarely the primary purpose, or even a secondary purpose, of the park or preserve. The socio-economic benefits realized by local communities in the USA are typically, from the management perspective of the agencies, indirect and passive. In contrast, in South Africa many parks and reserves now list community benefits as being a primary explicit objective for the site. And such an approach can result in substantial biodiversity benefits.

2.4. Budgets and Park Operations

In South Africa there is a saying that "the wildlife must pay their way," and wildlife has done that to an amazing extent. The ABSA Group Economic Research [15] estimated that there were about 5,000 private commercial wildlife ranches and other 4,000 mixed wildlife/livestock farms in South Africa, encompassing 13% of the land area of the country. Many wildlife operations have been started in the past few decades. The country's transition to full democracy in 1994 led to the deregulation of the agricultural sector and a reduction in subsidies, thereby making many marginal rangelands unprofitable for cattle, goat, and sheep operations. Many landowners converted to wildlife operations. Some operations emphasize private hunting and/or generate revenue from wildlife sales. Others cater to nonconsumptive ecotourism, with large predators being critical attractions for ecotourism [23]. Lindsey et al. [24] found that wild dog conservation can pay for itself based on contingency valuation model and that ecotourism should be part of a multifaceted approach to wild dog conservation. Madikwe Game Reserve, established on former rangeland, and many other sites are self-funding operations [16]. South Africa has demonstrated that economics, jobs, and biodiversity can, in some cases, be mutually beneficial.

However, an economics-based model for wildlife conservation does have shortcomings even in South Africa. For example, at Madikwe Game Reserve prey populations are managed at carrying capacity so tourists have a high likelihood of seeing lions and leopards, to the detriment of rare and less competitive habitat specialists such as roan (*Hippotragus equinus*), sable (*Hippotragus niger*), and tsessebe (*Damaliscus lunatus*). Nevertheless, the site still conserves more biodiversity than the prior domestic livestock-based model.

There has been no comparable increase in the number or land area of private wildlife operations in the United States. Farm subsidies and cropland retirement programs remain substantial and temporary cropland set-asides are often supported by the conservation community, helping reinforce agrarian land uses. It has been suggested that the short-term set-asides preclude more beneficial and long-lasting conservation opportunities similar to those practiced in South Africa [25], yet agricultural subsidies and temporary set-asides are likely to remain a driving force in land use in the Great Plains. The availability of large amounts of accessible public land in the United States also makes private for-profit ecotourism operations more challenging. One could also argue that North American wildlife is less charismatic and less able to generate ecotourism revenue than South African wildlife. Wildlife-based operations comprise a relatively small portion of land use in the region. One notable exception is the increase in bison ranches; however, unlike in Africa, the purpose of these ranches is not to provide ecotourism or hunting but for meat production as a better option than traditional cattle ranching. In practice these operations are more similar to livestock operations than they are to wildlife reserves [26]. In spite of the economic obstacles to establishing private reserves in the United States, attempts are being made. The American Prairie Foundation (APF) project in Montana is a noteworthy example and has similarities to the South African model. That project hopes to recreate a vast self-funding prairie reserve out of marginal rangeland. The project has had many successes and continues to grow, although funding continues to primarily come through donations. In contrast to many South African ventures, neither the state nor federal government is an active supporter and promoter of the APF project.

2.5. Visitor Experiences

One dramatic difference between South African parks and reserves and those in the USA is the amount of freedom that visitors have to experience the site. For example, in most South African sites visitors must enter via manned gates during daylight hours. And visitors are rarely allowed to exit their vehicles except at designated spots. The restrictive policy is primarily due to the presence of lions, elephants, rhinoceros, leopards (*Panthera pardus*), and other dangerous animals. While the restrictions are primarily for visitor safety they likely also reduce harassment and disturbance of wildlife. In private reserves vehicle drives usually require a guide, a requirement that provides employment for local people and further protects the wildlife. In the U.S. visitors have much more open access and freedom to move about the site, including traveling via foot without a guide. Such unrestricted travel and nature-viewing experiences are encouraged. In rare cases parks and reserves may close certain areas, often temporarily, to protect critical denning areas, nesting sites, or other critical habitats.

Visitors to parks and reserves in South Africa and in the United States may have different expectations and goals. In South Africa wildlife is typically the star attraction, whereas in the United States wildlife often competes with geologic formations, outdoor recreation, and other features. This difference is illustrated by the fact that in South Africa park and reserve visitors go on "*game drives*" whereas in the USA they go "*sightseeing*." Our use of these terms is of course a generalization, but we believe that it fairly and accurately portrays the differing visitor objectives and experiences in the two countries. Consider that wildlife viewing, although a very popular activity in USA National Parks, does not typically rank as the most important reason that people visit parks [27]. In many parks, including parks established to conserve natural resources, sightseeing and viewing scenery more frequently ranked as the top activity for visitors. In South Africa, wildlife viewing is the top reason people visit most parks and reserves, with the ultimate goal of seeing the *Big 5*.

Based on our observations, interpretive and education materials and programs at parks are more prominent, technological, and state-of-the-art in

the United States than they are in South Africa. However, we were struck by the power of some of the rudimentary interpretive displays we saw in South Africa and neighboring Swaziland. We observed large wallboard displays that were hand-drawn and hand-written by local school children. In this day and age of ubiquitous video displays, software programs, and computer-designed posters the presence and power of a home-made interpretive display can be profound.

3. Conclusion

In this paper we summarize and describe notable observed differences in natural areas management between South Africa and the United States, with an emphasis on fenced mid-size natural areas in agrarian and human-dominated landscapes. We have made general statements and conclusions based on our observations, discussions, and research. Our perspective is strongly influenced by our extensive experience with moderate-size national parks in the Great Plains; others may come to slightly different conclusions and areas of emphasis based on their experiences.

From our perspective there are dramatic differences in how the two countries perceive and manage mid-size natural areas. In South Africa the reserves are more socio-economically driven, yet ironically, they are better at conserving biodiversity, at least in terms of conserving large-bodied mammals, apex predators, and natural processes. Reserves in the United States rely less on ecotourism for their existence and therefore have less incentive to conserve charismatic megafauna. However, the South African model also comes with many challenges and costs.

We do not intend to convey that one model is better than the other as each has pros and cons and may be best suited for the milieu in which they occur. Yet other countries' models could and should be considered as they may lead to more innovative and creative approaches toward natural areas management and biodiversity conservation. While we are intrigued by many components of the South African model and would like to see such ideas considered and evaluated in the United States, we recognize that it would take a transformational change in how America views and manages natural areas. Nonetheless, effective twenty-first century conservation and leadership requires consideration of creative and successful models from other countries.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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United States Department of the Interior

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In Reply Refer To:
FWS/AIA/DMA/PRT 90839B

OCT 20 2016

Mr. David (b) (6) Erdman
(b) (6)
Chuluota, FL (b) (6)

Dear Mr. Erdman:

This letter responds to your February 29, 2016, application requesting a permit under the U.S. Endangered Species Act (Act) to import one male sport-hunted lion (*Panthera leo melanochaita*) hunted in South Africa on the Aurora Farm, Vorstershoop, Northwest Province. After careful review and consideration of your application, your request is being denied for the reasons described below.

The subspecies of lion found in Southern Africa (*P. leo melanochaita*) is listed as threatened under the Act with a rule under Section 4(d) of the Act, which is set forth in regulations found at 50 CFR 17.40(r)[1]. Section 9 of the Act[2] and our implementing regulations at 50 CFR 17.31 set forth a series of general prohibitions that apply to all threatened wildlife, except where there is a 4(d) rule, in which case the 4(d) rule contains all applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens, in part, making it illegal for any person subject to the jurisdiction of the United States to "take" (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Otherwise prohibited activities, such as import, may be permitted, but only if the U.S. Fish and Wildlife Service (Service) finds that the activity is consistent with the 4(d) rule and the purpose of the Act [Section 10(d)[2]]. The

[1] The text of this regulation is available at: http://go.usa.gov/xr6m3
[2] The text of the Act is available at: http://go.usa.gov/xr6dd

primary purpose of the Act is the conservation and continued existence of wild populations of endangered and threatened species and the ecosystem on which they depend (Section 2[2]). It is the requirement of the Act and its implementing regulations (50 CFR 17.32(a)(2)[1]) that the proposed activities of the applicant enhance the propagation or survival of the subspecies by reducing the threat of extinction or otherwise benefitting the species in the wild.

While the regulations at 50 CFR 17.32 provide issuance criteria for threatened species permits, it does not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of captive, or captive-bred, lion hunting trophies. Therefore, when making a determination of whether the importation of such a trophy would enhance the propagation or survival of *P. l. melanochaita*, the Service examined the overall management of the captive subspecies in South Africa and whether that management addresses the threats to the subspecies (*i.e.*, that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluated whether the import will/would contribute to the overall conservation of the subspecies in the wild by addressing loss of habitat, loss of prey base, and human-lion conflicts, which were the basis for listing the subspecies as threatened under the Act.

Since the subspecies was listed under the Act, the Service has had discussions with the South African Department of Environmental Affairs and the South Africa Predator Association (SAPA). However, the Service has not received any specific information about how the management and subsequent hunting of captive lions contributes to the species in the wild. While the 2015 Biodiversity Management Plan for the Lion (Panthera leo) in South Africa (BMP), the lion management plan for the country, has some discussion on captive lions within South Africa, it does not include any discussion of how captive lions are contributing to the long-term conservation of lions in the wild. The brief overview of activities being conducted or proposed to be conducted by SAPA, received on August 26, 2016, and further discussions on September 28, 2016, provided some additional insight on how captive lions could potentially contribute to wild lion conservation, but it primarily addressed activities and support that could be started in the future or activities that, while generally contributing to South Africa's overall economy, do not contribute directly or indirectly to conservation efforts for *P. l. melanochaita*. Further, of the over 200 farms/ranches that maintain captive lions, SAPA only identified 9 that were accredited under their standards for hunting, which would be the only facilities that might contribute to SAPA activities.

According to the BMP, captive lions in South Africa are primarily held and bred in private facilities under the governance of individual South African provinces. The BMP points to a prevailing view amongst carnivore specialists that captive lions do not contribute to the conservation of the species, particularly given that inbreeding is known to occur with captive lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that captive breeding operations are supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing captive lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

The decision to issue or deny an application to import a captive lion trophy is made on a case-by-case evaluation of the submitted application. As such, we would need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. However, based on the currently available information, and the information you provided in your application, your proposed import does not appear to meet the purposes of the Act or the issuance criteria in 50 CFR 17.32(a)(2).

Therefore, there is no indication that permitting the import of trophies of captive lions sport-hunted in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Without additional information that would enable the Service to make such a finding in accordance with the general considerations laid out above, the Service is unable to make a determination that the import of captive lions would meet the issuance criteria under 50 CFR 17.32. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of captive lion trophies from South Africa**. Please see attached October 19, 2016, enhancement finding for additional information.

As provided in 50 CFR 13.29 (a)[3], you may request reconsideration of our decision to deny your application. Such a request must be submitted in writing with the original signature of the person requesting reconsideration or by that person's legal representative, must contain a certification statement as provided at 50 CFR 13.12(a)(5)[3], should refer to your file number, PRT-90839B, and must be received in this office within 45 calendar days of the date of this letter. The reconsideration of the decision to deny your request will be based on the information you provided in your original application. As such, your letter requesting reconsideration must address how our decision to deny your application was based on a misinterpretation of the information provided in your application, or it must present clarification of this information. **Should you supply new information that changes the content of your original application, a new application will need to be submitted to this office before such information can be considered.**

If you have any questions, please contact Biologist Emma Nelson of this office: Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, Virginia 22041-3803 (1-800-358-2104, ext. 2296 or 703-358-2296).

Sincerely,

Timothy J. Van Norman, Chief
Branch of Permits
Division of Management Authority

[3] The text of this regulation is available at: http://go.usa.gov/xYDUk

United States Department of the Interior

FISH AND WILDLIFE SERVICE
International Affairs
5275 Leesburg Pike, MS: IA
Falls Church, VA 22041-3803

In Reply Refer To:
FWS/AIA/DMA

Memorandum

To: The File

From: Chief, Branch of Permits OCT 19 2016

Subject: Unable to find Enhancement for Captive (or Captive-bred) Lions Taken as Sport-hunted Trophies in South Africa

After evaluating the available information from the Government of South Africa, other information available to the Service, and comments received from interested parties, the U.S. Fish & Wildlife Service (Service) has determined that, based on the information available, it is **unable** to find that permits for the importation of sport-hunted trophies of captive-bred lions (*P. l. melanochaita*) (referred to in this document and by the Government of South Africa as captive lions) taken in South Africa during the 2016 calendar year meet the enhancement criteria under 50 CFR 17.32. Therefore, applications received for import of such specimens will not be considered to meet this requirement, unless information becomes available through such an application or otherwise which would allow the Service to make the required enhancement finding. In accordance with the 4(d) rule for *P. l. melanochaita*, 50 CFR 17.40(r), the Service will review each application received for import of such specimens on a case-by-case basis and each application also needs to meet all other applicable permitting requirements before it may be authorized.

Governance of the Lion in the United States:

On October 29, 2014, the Service published in the Federal Register a finding that listing the African lion subspecies (*Panthera leo leo*) as a threatened species under the Endangered Species Act (Act) was warranted and proposed a rule under section 4(d) of the Act to provide conservation measures for the African lion. 79 Fed. Reg. 64472. On December 23, 2015, after fully considering the comments from the public and the peer reviewers on the proposed rule, the Service published in the Federal Register the final rule in which the taxonomic classification of the Asiatic lion (previously classified as *P. l. persica* and listed as an endangered species under the Act) was changed to *P. l. leo* (Asia and western, central and northern Africa) and listed as an endangered species, and the *P. l. melanochaita* (southern and eastern Africa) subspecies was listed as a threatened species with a rule under section 4(d) of the Act, which is set forth at 50 CFR 17.40(r) (USFWS 2015; 80 Fed. Reg. 79999). The effective date of this listing is January 22, 2016. Therefore, as of January 22, 2016, the lion subspecies *Panthera leo melanochaita*, whose range includes South Africa, is listed as

threatened under the ESA and is regulated under an ESA section 4(d) special rule [50 CFR 17.40(r)].

Section 9 of the Act and our implementing regulations at 50 CFR 17.21 and 50 CFR 17.31 set forth a series of general prohibitions that apply to all endangered and threatened wildlife, respectively, except where a 4(d) rule applies to threatened wildlife, in which case the 4(d) rule contains all the applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens. These prohibitions, at 50 CFR 17.21 and 17.31, in part, make it illegal for any person subject to the jurisdiction of the United States to "take" (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Permits may be issued to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits for endangered species, such as *P. l. leo*, are codified at 50 CFR 17.22. Regulations governing permits for threatened species, such as *P. l. melanochaita*, are codified at 50 CFR 17.32.

In sum, under paragraph 17.40(r)(1), all the prohibitions and exceptions under 50 CFR 17.31 and 50 CFR 17.32 apply to *P. l. melanochaita*. Accordingly, the Service may authorize the import of a sport-hunted lion trophy from South Africa, but only if it first makes a finding that permitting import of a trophy would enhance the survival of the species in the wild.

As we explained when finalizing the 4(d) rule for *P. l. melanochaita*, any person wishing to conduct an otherwise prohibited activity, including all imports of *P. l. melanochaita* specimens, must first obtain a permit under 50 CFR 17.32. As with all permit applications submitted under 50 CFR 17.32, the individual requesting authorization to import a sport-hunted trophy of *P. l. melanochaita* bears the burden of providing information in their application showing that the activity meets the requirements for issuance criteria under 50 CFR 17.32. In some cases, such as for import of sport-hunted trophies, it is not always possible for the applicant to provide all of the necessary information needed by the Service to make a positive determination under the Act to authorize the activity. In such cases, the Service may consult with the range country and other interested parties to the extent practicable to obtain necessary information. The Service has the discretion to make the required findings on sport-hunted trophy imports of *P. l. melanochaita* on a country-wide basis, although individual import permits will be evaluated and issued or denied for each applicant. While the Service may make enhancement findings for sport-hunted trophy imports of *P. l. melanochaita* on a country-wide basis, the Service encourages the submission of information from individual applicants. We rely on the information available to the Service and may rely on information from sources other than the applicant when making a permitting decision.

In evaluating the available data on lion hunting in South Africa, the Service is treating wild and wild-managed lions (referred to in this document as "wild") separately from captive lions raised for hunting purposes since the management and oversight of these specimens is different within South Africa and, therefore, information relevant to the Service's consideration of whether permitting import of sport-hunted trophies of lions may enhance the survival of the species in the wild is

different between wild lions and captive lions in South Africa. A separate determination will be made for wild and wild-managed lions.

General considerations:

As we also explained when finalizing the 4(d) rule, our threatened species permitting regulations at 50 CFR 17.32 provide issuance criteria for threatened species permits (50 CFR 17.32(a)(2)), but do not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of parts or products of *P. l. melanochaita,* including sport-hunted trophies. Therefore, when making a determination of whether an otherwise prohibited activity enhances the propagation or survival of *P. l. melanochaita,* the Service examines the overall conservation and management of the subspecies in the country where the specimen originated and whether that management of the subspecies addresses the threats to the subspecies (*i.e.,* that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluate whether the import contributes to the overall conservation of the species by considering whether the biological, social, and economic aspects of a program from which the specimen was obtained provide a net benefit to the subspecies and its ecosystem.

The Service will evaluate any application received that involves *P. l. melanochaita* in the context of enhancement of propagation or survival permitting in accordance with our threatened species permitting regulations at 50 CFR 17.32 and issuance criteria for threatened species permits (50 CFR 17.32(a)(2)). These include, in addition to the general permitting criteria in 50 CFR 13.21(b):

(i) Whether the purpose for which the permit is required is adequate to justify removing from the wild or otherwise changing the status of the wildlife sought to be covered by the permit;

(ii) The probable direct and indirect effect that issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit;

(iii) Whether the permit, if issued, would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed;

(iv) Whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species of wildlife sought to be covered by the permit;

(v) The opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application; and

(vi) Whether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application.

In addition to these factors, particularly in relation to sport hunting, we find the *IUCN Species Survival Commission (SSC) Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0* (IUCN SSC 2012), to provide useful principles, which, considered in conjunction with our threatened species issuance criteria, will aid the Service when

making an enhancement finding for importation of sport-hunted trophies of *P. l. melanochaita*. This document sets out guidance from experts in the field on the use of trophy hunting as a tool for "creating incentives for the conservation of species and their habitats and for the equitable sharing of the benefits of use of natural resources" (IUCN SSC 2012, p. 2) and recognizes that recreational hunting, particularly trophy hunting, can contribute to biodiversity conservation and more specifically, the conservation of the hunted species.

The SSC document lays out five guiding principles that, considered in conjunction with our threatened species issuance criteria, will aid the Service when making an enhancement finding for importation of sport-hunted trophies of *P. l. melanochaita:*

(a) *Biological sustainability:* The hunting program cannot contribute to the long-term decline of the hunted species. It should not alter natural selection and ecological function of the hunted species or any other species that share the habitat. The program should not inadvertently facilitate poaching or illegal trade in wildlife by acting as a cover for such illegal activities. The hunting program should also not manipulate the ecosystem or its component elements in a way that alters the native biodiversity.

(b) *Net Conservation Benefit:* The biologically sustainable hunting program should be based on laws, regulations, and scientifically based quotas, established with local input, that are transparent and periodically reviewed. The program should produce income, employment, and other benefits to create incentives for reducing the pressure on the target species. The program should create benefits for local residents to co-exist with the target species and other species. It is also imperative that the program is part of a legally recognized governance system that supports conservation.

(c) *Socio-Economic-Cultural Benefit:* A well-managed hunting program can serve as a conservation tool when it respects the local cultural values and practices. It should be accepted by most members of the community, involving and benefiting local residents in an equitable manner. The program should also adopt business practices that promote long-term economic sustainability.

(d) *Adaptive Management: Planning, Monitoring, and Reporting:* Hunting can enhance the species when it is based on appropriate resource assessments and monitoring (*e.g.*, population counts, trend data), upon which specific science-based quotas and hunting programs can be established. Resource assessments should be objective, well documented, and use the best science available. Adaptive management of quotas and programs based on the results of resource assessments and monitoring is essential. The program should monitor hunting activities to ensure that quotas and sex/age restrictions of harvested animals are met. The program should also generate reliable documentation of its biological sustainability and conservation benefits.

(e) *Accountable and Effective Governance:* A biologically sustainable trophy-hunting program should be subject to a governance structure that clearly allocates management responsibilities. The program should account for revenues in a transparent manner and distribute net revenues to conservation and community beneficiaries according to properly agreed decisions. All necessary steps to eliminate corruption should be taken and to ensure compliance with all

relevant national and international requirements and regulations by relevant bodies such as administrators, regulators and hunters.

The Service's approach to enhancement findings for the importation of sport-hunted trophies of *P. l. melanochaita* is consistent with the purpose and intent of the Endangered Species Act. Before we will authorize the importation of a sport-hunted trophy, we must determine that the trophy hunting program is managed to ensure the long-term survival of the species. In many parts of the world, wildlife exists outside of protected areas and must share the same habitat and compete with humans living in these areas for space and resources. If communities that share these resources with wildlife do not perceive any benefits from the presence of wildlife, they may be less willing to tolerate the wildlife. However, under certain circumstances, trophy hunting can address this problem by making wildlife more valuable to the local communities and encourage community support for managing and conserving the hunted species, as well as other species.

When evaluating whether the importation of a trophy of *P. l. melanochaita* would be authorized pursuant to 50 CFR 17.32, in accordance with our threatened species issuance criteria, we will examine how a country's management program for lions addresses the three main threats that have led to the decline of the subspecies: habitat loss, loss of prey base, and human-lion conflict. When examining a management program and whether trophies taken as part of that program meet the issuance criteria, we study a number of factors. Some of the factors we consider include whether the program is based on sound scientific information and identifies mechanisms that would arrest the loss of habitat or increase available habitat (*i.e.*, by establishing protected areas and ensuring adequate protection from human encroachment). We consider whether the management program actively addresses the loss of the lion's prey base by addressing poaching or unsustainable offtake within the country. A component of a management plan from which trophy imports would meet the issuance criteria would be whether there are government incentives in place that encourage habitat protection by private landowners and communities and incentives to local communities to reduce the incursion of livestock into protected areas or to actively manage livestock to reduce conflicts with lions. We examine if the hunting component of the management program supports all of these efforts by looking at whether hunting concessions/tracts are managed to ensure the long-term survival of the lion, its prey base, and habitat. Hunting, if properly conducted and well managed, can generate significant economic benefits that may contribute to the conservation of lions. In looking at whether we are able to authorize the import of a trophy under the issuance criteria of 50 CFR 17.32, we will examine if the trophy hunting provides financial assistance to the wildlife department to carry out elements of the management program and if there is a compensation scheme or other incentives to benefit local communities that may be impacted by lion predation. We will also consider how a U.S. hunter's participation in the hunting program contributes to the overall management of lions within a country.

Management programs for *P. l. melanochaita* are expected to address, but are not limited to, evaluating population levels and trends; the biological needs of the species; quotas; management practices; legal protection; local community involvement; and use of hunting fees for conservation. In evaluating these factors, we will work closely with the range countries and interested parties to obtain the information. By allowing entry into the United States of *P. l. melanochaita* trophies from range countries that have science-based management programs, we anticipate that other range countries would be encouraged to adopt and financially support the sustainable management of lions that benefits both the species and local communities. In addition to addressing the biological

needs of the subspecies, a scientifically based management program would provide economic incentives for local communities to protect and expand *P. l. melanochaita* habitat.

Basis for Finding for Captive lions taken in South Africa:

On January 12, 2016, the Service sent a letter to South Africa's Department of Environmental Affairs (DEA) with a list of questions that would aid the Service in evaluating the overall conservation and management of the subspecies, *P. l. melanochaita*, in South Africa and whether that management addresses the three main threats that have been identified as the primary contributors to the decline of the species: habitat loss, loss of prey base, and human-lion conflict. Additionally, the Service's letter referenced the IUCN Species Survival Commission (SSC) Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0 (IUCN SSC 2012), as it provides useful principles which, when considered in conjunction with the Service's permit issuance criteria, would aid in making the required enhancement finding for permitting importation of sport-hunted lion trophies.

In response to our January 12, 2016, letter, the South African Department of Environmental Affairs (DEA) informed the Service that South Africa has defined three populations of lions that exist within the country through their Biodiversity Management Plan for the Lion (*Panthera leo*) in South Africa (BMP; December 2015): *Wild lions,* who completely fulfil their role in biodiversity processes and are largely unmanaged, and exist only in formally proclaimed national parks and game reserves. This population's vital rates and demographics are not actively manipulated. *Wild-managed lions,* which include all lions that have been re-introduced into smaller fenced reserves ($<1{,}000 km^2$), and are managed to limit population growth and maintain genetic diversity. Some of the vital rates and demographics of these lions are actively manipulated. *Captive lions* (or captive-bred lions) are bred for financial gain, where all vital rates and demographics of these populations are actively manipulated. DEA informed the Service that it had limited control over the management and harvest of captive lions. There are approximately 2,200 wild lions in South Africa. In addition, there are approximately 800 wild-managed lions separated among 45 fenced reserves of less than 1,000 square kilometers each (BMP pg. 40). According to the BMP, there are over 6,000 captive lions maintained on over 200 farms/ranches.

Further, the Service has been contacted by the South African Predator Association (SAPA), an organization of captive lion breeders. On August 26, 2016, in response to an inquiry to SAPA, the Service received an e-mail that contained a list of nine hunting ranches that have been accredited by SAPA as complying with SAPA's hunting standards and code of conduct (five more are currently being considered). In addition, the e-mail contained an overview of how captive lions maintained by members of SAPA were contributing to the conservation of wild lions. The overview briefly discussed a number of activities being carried out by SAPA members and future activities that they intend to carry out to contribute to lion conservation. On September 28, 2016, during the 17th Meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Service met with SAPA to further discuss their contributions and how they viewed their activities would enhance the propagation and survival of lions in the wild. There was also the opportunity to discuss captive lions with Jonathan Denga of the Northwest Provincial Department of Rural, Environment, and Agricultural Development (READ) on September 28, 2016, to discuss how the provincial government was addressing captive lions.

The lion is listed as vulnerable in the South African list of Threatened and Protected Species under Section 56(1) of the National Environmental Management Biodiversity Act, 2004 (South Africa 2004; NEMBA; BMP pg. 1). NEMBA further regulates the permit system set out in the Biodiversity Act in regards to restricted activities involving specimens of listed threatened or protected species. Regulated activities in need of registration include, among others, captive breeding facilities, sanctuaries, scientific institutions, game farms, wildlife traders, wildlife product traders, taxidermists, wildlife translocators, and freight agents (NEMBA pg. 25).

In addition to South Africa's domestic laws, it is also a Party to CITES. The lion is listed in Appendix II of the Convention. As an Appendix-II species, certain criteria must be met before such species can be exported, including a finding from the exporting country's CITES Scientific Authority that the proposed activity will not be detrimental to the survival of the species in the wild. In their reply to our inquiry, South Africa provided a copy of their CITES non-detriment finding for lions. Their finding, while focusing only on wild and wild-managed lions, applied to all lion exports from South Africa, including the captive lion population. In personal communication with the SA Management Authority, the Service was informed that the finding may be amended to better clarify that the finding applies to all lions within South Africa. However, the DEA does not oversee captive lion activities within South Africa, only the CITES requirements for exports of live animals, trophies, parts, and products.

Although there has been some discussions with DEA and the SAPA since the listing went into effect, the Service has not receive any specific information about the hunting of captive lions and how these hunts contribute to the species in the wild. While the 2015 management plan, BMP, for wild and wild-managed lions does have some discussion of the captive lions within South Africa, it does not include any discussion of how captive lions are contributing to the long-term conservation of lions in the wid. The brief overview of SAPA activities received on August 26, 2016, and further discussion on September 28, 2016, provided some additional discussion of how captive lions could contribute to wild lion conservation, but primarily addressed activities and support that may be started in the future or activities that, while generally contributing to South Africa's overall economy, do not contribute directly or indirectly to conservation efforts for *P. l. melanochaita*. Further, of over 200 farms/ranches that maintain captive lions, SAPA only identified 9 that were accredited under their standards for hunting.

According to the BMP, captive lions in South Africa are primarily held and bred in private facilities under the governance of individual State provinces and account for upwards of 95 percent of lion trophies taken in South Africa over the last 5 years. The BMP points to a prevailing view amongst carnivore specialists that captive lions do not contribute to the conservation of the species, particularly given that inbreeding is known to occur with captive lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that captive breeding operations are supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing captive lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

There is an active lion bone trade from South Africa to several Asian countries for traditional medicinals that is primarily supplied from captive lions. Lion bones are being used as a substitute

for tiger bones, which is highly valued in Asia, primarily in China and Vietnam (Williams et al. 2015, p. 1; Gratwicke et al. 2008, pp. 2–5; Graham-Rowe 2011, pp. s101–s102). While it appears that the source of the bones is primarily from lions that are taken as trophies, there is some indication that captive lionesses and juvenile lions are also being culled to increase supply of bones (BMP pg. 30). In 2008, South Africa began issuing CITES permits for the export of skeletons of captive lions to Asia. These exports currently come primarily from South Africa's captive lion hunting industry as a byproduct of trophy hunting. The number of lion skeletons for which South Africa issued permits for export to Asia (China, Viet Nam, Thailand and Lao PDR) increased tenfold from 2008 to 2011, from about 50 to about 573 skeletons, respectively, representing a total of 1,160 skeletons or about 10.8 metric tons (11.9 US tons) of lion bone in 4 years (Williams 2015, pp. ix–x, 46). With respect to meeting demand for lion bone, Lindsey et al. (2012, p. 20) state that there are likely to be large numbers of lion bones available for export from game farms, from lionesses and nontrophy males, and as byproducts from animals shot as trophies. In addition, Williams et al. (2015, p. 41) report that there may be between 1,400 and 6,200 lion skeletons from past trophy hunts on South African game farms that could potentially be used to supply demand for lion bone.

While the BMP suggests that the value of bones, whether wild or captive, is not high enough to stimulate the illegal harvest of lions solely to sell the bones into the bone trade, there is the potential that if the value of bones increases due to increasing demand from Asian markets, that captive lions could be a legal source of bones that masks the illegal harvest of wild lions. However, evidence suggests that there may be incentive to poach wild lions for the bone trade. According to Williams et al. (2015, p. x), the 2013 price paid to South African game farmers and landowners for lion bones was $1,260–2,100 USD per skeleton. In many lion range states, this exceeds per capita GDP (gross domestic product) (World Bank 2015, unpaginated). Thus, the current price paid for lion bone may provide incentive in some countries to poach wild lions. While the lion bone trade appears to currently be based primarily in South Africa's captive lion hunting industry, the trade appears to be having little or no impact on wild lion populations in South Africa at this time—lion populations in South Africa are stable or increasing and there is little poaching of wild lions in the country (Funston and Levendal 2015, pp. 1, 26; Williams et al. 2015, pp. 79–80). However, the impact of the lion bone trade on lion populations outside South Africa is unknown. Based on the effect of the tiger bone trade on tiger populations, if current conditions—for example, rapidly increasing demand and involvement of an international crime syndicate in the lion bone trade (Final ESA listing rule, pg. 80026) —continue unchanged, then there is considerable potential for extensive poaching of wild lions to occur in order to meet demand.

Evaluation:

As stated earlier, the Service will evaluate any application in accordance with our threatened species permitting regulations at 50 CFR 17.32 and issuance criteria for threatened species permits (50 CFR 17.32(a)(2)). In evaluating each of these criteria on the basis of information available to the Service, we have been unable to determine if the import of captive lions would qualify for the issuance of the required import permit.

17.32(a)(2)(i): Whether the purpose for which the permit is required is adequate to justify removing from the wild or otherwise changing the status of the wildlife sought to be covered by the permit:

To date, there has been insufficient information to show how permitting the import of captive lion trophies would provide a benefit to the species in the wild, thus potentially justifying the issuance of an import permit. At this time, the Service has received largely conclusory assertions from SAPA that captive lions can be used to contribute the survival of lions in the wild, and therefore the continued activities of ranches utilizing captive lions need to be supported by allowing the import of such trophies. SAPA stated that captive lions constitute 25% of all *P. l. melanochaita* in the world, but does not document why maintaining these animals is important to overall conservation of the species. SAPA also commented on the benefit that ranches that have captive lions contribute by providing additional habitat for lions, although at this time it did not identify how much additional habitat is provided by maintaining these hunting ranches. SAPA stated that captive lions could be used for re-introduction or re-stocking efforts and identified two experiments in Zambia and Zimbabwe of releasing captive lions. However, according to the BMP, captive lions cannot be released into the wild or used for re-introduction/re-stocking purposes and lion researchers have consistently questioned the viability of such releases. SAPA also identified the establishment of a conservation fund based on surcharge of R10,000 (~$700) per lion hunted on SAPA-accredited ranches [During in-person discussions with representatives of SAPA at CoP17, it was stated that the conservation fund would be based on $1000 per lion hunted on SAPA-accredited ranches]. It is SAPA's assertion that this conservation fund would directly contribute to in-situ conservation efforts. However, other than a general statement on how the funds would be utilized, no specific information has been provided showing how the funds would be spent to provide a conservation benefit. Further, there are only 9 SAPA-accredited ranches out of over 200 ranches in South Africa. Given the limited number of ranches that apparently would be contributing to this fund, it is unclear if the limited funds, if directed to an appropriate conservation effort, would indicate sufficient support to justify changing the status of the specimens.

Therefore, there is no basis in the information available to the Service that the issuance of an import permit would justify changing the status of the captive specimens hunted.

17.32(a)(2)(ii): <u>The probable direct and indirect effect that issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit</u>:

Based on current information, there is probably no direct beneficial effect on wild lions by authorizing the import of captive sport-hunted lion trophies. If it could be demonstrated that hunting, and allowing the import of captive lions could provide an indirect beneficial effect, the issuance of import permits might be justified. However, other than general statements, there is little evidence that captive lions could be used for re-introduction or that these specimens could contribute to better genetic management of wild lions. In addition, while SAPA points to the value that maintaining hunting ranches can contribute to providing habitat and stable prey-base, two factors leading to listing under the Act, there has been no information on the quantity or quality of this additional habitat for wild lions. Finally, SAPA stated contribution to in-situ conservation would only apply to the ranches that are "accredited" by them and does not appear to constitute enough operations that the funds would have a meaningful impact on conservation efforts, if such efforts were clearly identified.

Therefore, there is no basis in the information available to the Service to determine the probable direct or indirect effect that issuing import permits for sport-hunted trophies of captive lions would provide to wild lions.

17.32(a)(2)(iii): Whether the permit, if issued, would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed:

Under current South African law, the oversight of captive lions is with the Department of Agriculture, while oversight of wild lions is with the Department of Environmental Affairs. Since captive lions cannot be used for re-introduction or re-stocking efforts, there does not appear to be any conflicts that would arise if import permits were to be issued for captive lion trophies. Further, since there is a limited number of poaching events of wild and wild-managed lions in South Africa, it does not appear that captive lion hunting is acting as a cover for illegal harvests.

However, as stated above, there is an active trade in bones for Asian traditional medicinals collected from captive lions. Lion bones are being used as a substitute for tiger bones, which is highly valued in Asia, primarily in China and Vietnam. It is clear that there has been a significant increase in the number of lion skeletons exported from South Africa over the last 10 years, and that the majority of these skeletons are obtained through trophy hunting of captive lions. There is very limited evidence that poaching of wild lions is a current problem in South Africa, so the current trade does not appear to have any impact on wild or managed-wild lions in South Africa. Further, it has been reported that there may be between 1,400 and 6,200 lion skeletons from past trophy hunts on South African game farms that could potentially be used to supply demand for lion bone, so it does not appear that this trade would have an immediate impact on wild lions in South Africa. However, there is some concern that trade in captive lion skeletons could have an impact on wild lions outside of South Africa by creating an incentive to poach wild lions. If the trade in captive lion skeletons, derived from trophy hunting, were to stimulate poaching or mask illegal harvest of lions outside of South Africa, this could adversely impact programs intending to enhance the survival of lions. So, while it does not currently appear to be an issue, this situation would need to be monitored over time.

Therefore, based on the information available to the Service, it currently appear to would be no direct or indirect conflict with known conservation programs for wild lions if import permits for captive lion trophies were issued.

17.32(a)(2)(iv): Whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species of wildlife sought to be covered by the permit:

Although there have been general statements by SAPA on potential benefits that could be obtained for wild lions through captive lion management and hunting activities, there has been no clear indications that these activities would reduce the threat of extinction facing wild lions. Wild lions in South Africa are well managed by the DEA (see October 19, 2016, "Enhancement Finding for Wild and Wild-managed Lions taken as Sport-hunted Trophies in South Africa"). Through this management, the three identified threats to wild lions (i.e., habitat loss, loss of prey-base, and lion-human conflicts) are being addressed, thus reducing the threat of extinction within South Africa. While permitting the import of captive lion trophies does not appear to have any negative impact on wild lions, there is also little evidence that it would reduce the threat of extinction.

Therefore, based on the information available to the Service, it does not appear that the import of captive lion trophies would reduce the threat of extinction facing lions in the wild.

17.32(a)(2)(v): The opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application:

While there are some concerns that breeding lions in captivity could compromise genetic integrity of lions, there appears to be general consensus that the captive lion hunting industry is not having a negative effect on wild lions. However, at the same time, there is little evidence obtained during this current review or information provided by commenters during the listing of lion under the Act that indicates that captive lion management, hunting, and the subsequent import of these trophies, would provide a benefit to the species. There have been a large number of comments from some NGOs and the public opposing hunting any lions, but particularly captive lions. This opposition, however, is primarily based on the perceived ethics of hunting. While these comments are an indication of concerns from some members of the public over hunting, they are not germane to our review process.

Therefore, based on the information available to the Service, the opinions or views provided by scientists or species experts that would be germane this review are that the import of captive lion trophies would not have a negative or positive impact on lion conservation.

17.32(a)(2)(vi): Whether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application:

As stated previously, the decision to issue or deny an application to import a captive lion trophy is made on a case-by-case evaluation of the submitted application. Therefore, it would not be possible to determine in this general review if the expertise or facilities of a particular US importer are adequate to successfully accomplish the objective stated in the application (i.e., whether permitting importation of a trophy of a captive lion would enhance the survival of the species). As such, we would need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. However, based on the currently available information, permitting the importation of a captive lion trophy does not appear to meet the purposes of the Act or the issuance criteria in 50 CFR 17.32(a)(2). As such, it does not appear that any applicant would have the expertise, facilities, or other resources that would enhance the propagation or survival of lions in the wild.

Therefore, based on the information available to the Service, the Service is **unable** to find that permits for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meet the enhancement criteria under 50 CFR 17.32.

Conclusion

Given the current status of lions within South Africa and the level of management and oversight provided to wild and wild-managed lions, it does not appear that harvest and import of captive lions as trophies is having an adverse effect on lion populations in South Africa. However, as explained above, permitting the import must go beyond not being detrimental. It must enhance the species by

having a clear benefit to the species and its management. There is no indication that permitting the import of trophies of captive lions sport-hunted in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Without additional information that would enable the Service to make such a finding in accordance with the general considerations laid out above, the Service is unable to make a determination that the import of captive lions would meet the issuance criteria under 50 CFR 17.32. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of captive lion trophies from South Africa**. Such specimens will not be considered to meet this requirement, unless information becomes available through such an application or otherwise which would allow the Service to make the required enhancement finding. In accordance with the 4(d) rule for *P. l. melanochaita*, 50 CFR 17.40(r), the Service will review each application received for import of such specimens on a case-by-case basis and each application also needs to meet all other applicable permitting requirements before it may be authorized.

REFERENCES:

Biodiversity Management Plan for the Lion (*Panthera leo*) in South Africa (BMP; December 2015): Funston, P. J. & Lavendal, M. (2015). Biodiversity Management Plan for the Lion (Panthera leo) in South Africa. Department of Environmental Affairs, Republic of South Africa. 63 pp

Graham-Rowe, D. (2011). Endangered and in demand. Nature 480 (22 December 2011): s101-s103.

Gratwicke, B., Mills, J., Dutton, A., Gabriel, G., Long, B., Seidensticker, J., Wright, B., You, W. & Zhang, L. (2008). Attitudes toward consumption and conservation of tigers in China. PLoS ONE 3 (7): e2544.

IUCN Species Survival Commission (2012). Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0. IUCN SSC 2012.

Lindsey, P., Alexander, R., Balme, G.A., Midlane, N. & Craig, J. (2012b). Possible relationships between the South African captive-bred hunting industry and the hunting and conservation of lions elsewhere in Africa. South African Journal of Wildlife Research 42 (1), 11-22.

South Africa (2004). National Environmental Management Biodiversity Act 10 of 2004. www.gpwonline.co.za

USFWS (2015) Final ESA listing rule for *Panthera leo leo* and *P. l. melanochaita*. 80 Fed. Reg. 79999.

Williams, V.L., Newton, D.J., Loveridge, A.J., & Macdonald, D.W. (2015). Bones of Contention: An Assessment of the South African Trade in African Lion Panthera leo Bones and Other Body Parts. TRAFFIC, Cambridge, UK & WildCRU, Oxford, UK.

World Bank. 2015. The World Bank Annual Report 2015. Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/22550 License: CC BY 3.0 IGO.

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

OMB No. 1018-0093
Expires 05/31/2017

RCVD MAR 14 2016

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
ATKINSON	LARRY	(b) (6)	MR

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
STUTTGART	AR	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 12US73590A/9 No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge (b) (6) erstand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melanochaita - Lion

   b. Sex (if known).

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild: Country: South Africa, Venetia Limpopo Nature Reserve, Limpopo Province, GPS 22°21'12.2"S; 29°17'26.3"E
      Closest Town or City: Aldays or Mussina Please see attached MAP
   b. Date wildlife is to be hunted: 7-16-2016 to 8-15-2016
   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks). Life Size Mount

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: Cecil Corringham
Business Name: Life Form Taxidermy
Address: 7 Aluminum Road
Address:
City: White River
State/Province: Mpumalanga
Country, Postal Code: South Africa, 1240

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see attached

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: (b) (6) Date: 3-10-2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

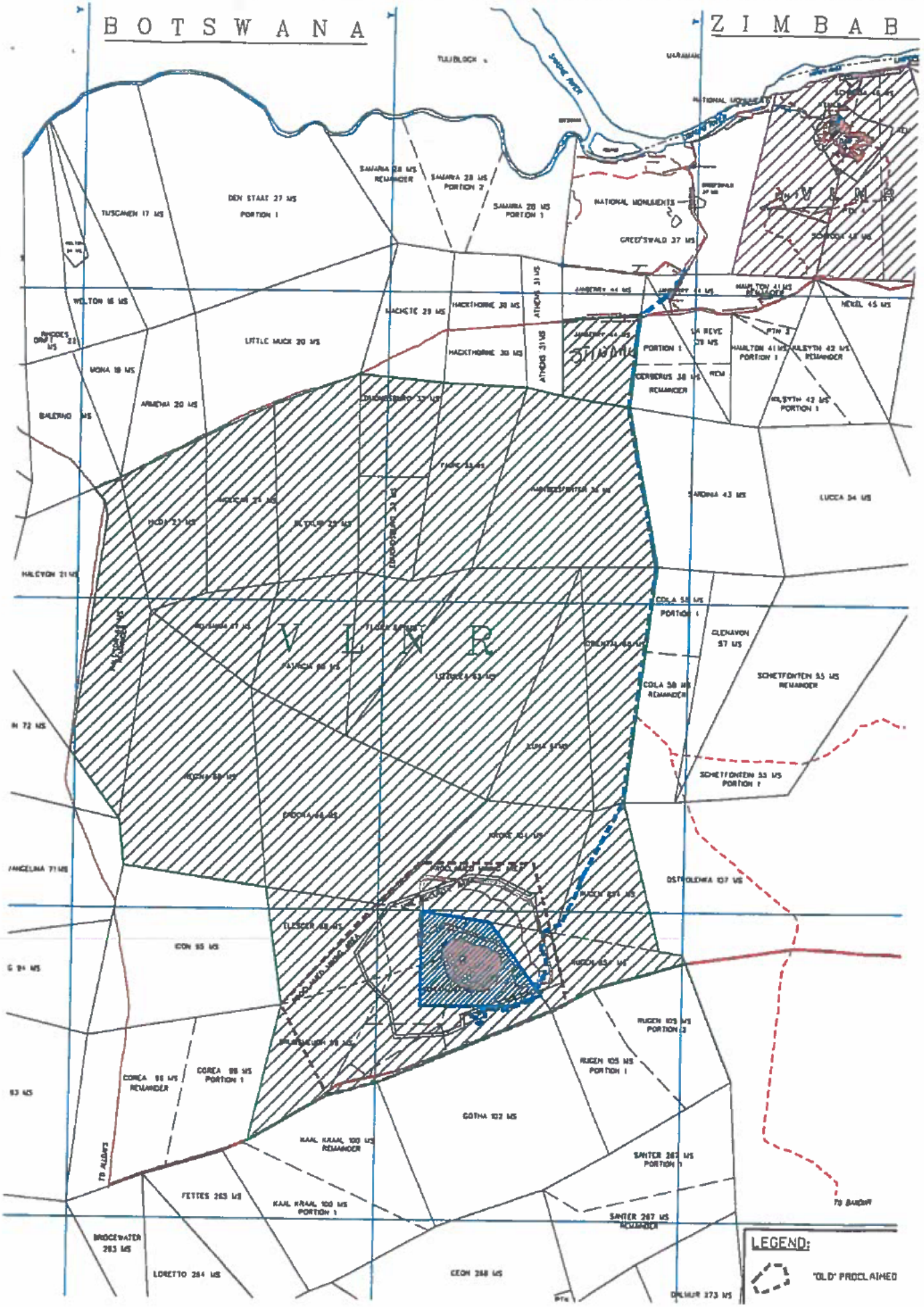
10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☑ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.


B O T S W A N A
Z I M B A B
LEGEND:
'OLD' PROCLAIMED

5. Please be aware that the U.s. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

"The VLNR sustainably managed their lion population successfully over a period of 16 years. The business goal of the reserve is sustainable conservation at a break-even scenario (no profit).

Spending of trophy fees:

- Constant monitoring of the lion population via satellite telemetry collars fitted to preselected animals
- Facilitating lions from the outside to ensure genetic integrity and sustainability
- Practicing of a well-managed contraception program of preselected females as part of the management plan
- Regular introduction of prey species when lion impacts are noticeable.

Portion of fees for conservation:
100% of fees generated by trophy hunting are ploughed back into conservation (VLNR on a break-even scenario). A breakdown as follows:

- 75 % of fees go directly to lion sustainable lion conservation and management, as discussed above;
- 25% of fees go indirectly to conservation through fence erection and maintenance, regular fence and anti-poaching patrols, scout training activities, daily management activities, etc.
- Females become sexually mature at 2 years, but are only socially mature at 4 years. Females are normally only hunted at an age of 6+ years to ensure at least one litter.
- Females can breed up to 17 years of age, but the lifespan of a lioness in the wild (natural) normally only lasts 15-16 years.

RCVD MAR 14 2016

ORIGINAL DOCUMENT HAS A MICROPRINTED BORDER – SEE REVERSE SIDE FOR COMPLETE SECURITY FEATURES

Larry Atkinson
(b) (6)
Stuttgart, AR (b) (6)
Ph: (b) (6)

ARKANSAS COUNTY BANK
620 E 22nd St
Stuttgart, AR 72160

(b) (6)

DATE 3/10/1

AMOUNT $100.00

PAY TO THE ORDER OF: U.S. Fish and Wildlife Service

One Hundred Dollars and 00/100

Stephanie Atkinson
AUTHORIZED SIGNATURE

Fed Permit Fee

(b) (6)

RCVD NOV 3 2016

Larry Atkinson

(b) (6) [redacted]

PHONE# (b) (6) [redacted] **FAX#** (b) (6) [redacted]

October 31, 2016

U.S. Fish and Wildlife Service
5275 Leesburg Pike MS-IA
Falls Church, Va 22041-3803
Attn: Jorge D. Villavicencio

Dear Mr. Villavicencio,

In regards to your letter from October 28, 2016 File # 91699B:

The answer is MALE.

Sincerely,

Larry Atkinson

Larry Atkinson

From:	Larry Atkinson
Sent:	Monday, October 31, 2016 10:03 AM
To:	Larry Atkinson
Subject:	Fwd: File number 91699B

Sent from my iPad

Begin forwarded message:

From: "Villavicencio, Jorge" <jorge_villavicencio@fws.gov>
Date: October 28, 2016 at 10:38:07 AM CDT
To: (b) (6) [redacted]
Subject: File number 91699B

We received your application for a permit/ to import a lion trophy. The processing of your application cannot be completed because:

1) What sex was the lion?

Please provide the information and documentation indicated. **Any response must be in written form.**

If we do not receive the information requested above within **45 days** from the date of this e-mail (**by December 12, 2016**), your application will be abandoned and administratively closed. Once the file is closed, you would need to submit a new application, supplemental documentation and all required fees.

If you have questions, you may contact me at Jorge_Villavicencio@fws.gov or at 5275 Leesburg Pike, MS-IA, Falls Church, VA 22041-3803, (telephone number 1-800-358-2104, ext. 2483, facsimile transmission number 703-358-2281). Please reference your file number 91699B.

Respectfully,

Jorge (George) D. Villavicencio

Jorge D. Villavicencio, J. D.
Supervisory Policy Specialist
U.S. Fish & Wildlife Service - Headquarters

Attn Division of Management Authority - Branch Of Permits
MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-2483 (Telephone)
703-358-2280 (Facsimile)
Jorge_Villavicencio@fws.gov

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Villavicencio, Jorge <jorge_villavicencio@fws.gov>

File number 91699B

1 message

Villavicencio, Jorge <jorge_villavicencio@fws.gov> Fri, Oct 28, 2016 at 11:38 AM
To: (b) (6) [redacted]

We received your application for a permit/ to import a lion trophy. The processing of your application cannot be completed because:

1) What sex was the lion?

Please provide the information and documentation indicated. Any response must be in written form.

If we do not receive the information requested above within 45 days from the date of this e-mail (by December 12, 2016), your application will be abandoned and administratively closed. Once the file is closed, you would need to submit a new application, supplemental documentation and all required fees.

If you have questions, you may contact me at Jorge_Villavicencio@fws.gov or at 5275 Leesburg Pike, MS-IA, Falls Church, VA 22041-3803, (telephone number 1-800-358-2104, ext. 2483, facsimile transmission number 703-358-2281). Please reference your file number 91699B.

Respectfully,

Jorge (George) D. Villavicencio

Jorge D. Villavicencio, J. D.
Supervisory Policy Specialist
U.S. Fish & Wildlife Service - Headquarters
Attn Division of Management Authority - Branch Of Permits
MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-2483 (Telephone)
703-358-2280 (Facsimile)
Jorge_Villavicencio@fws.gov

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LION SOUTH AFRICAN ESA TROPHY

Permit Number: MA91699B-0

Effective: 11/01/2016 Expires: 10/31/2017

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

LARRY(b) ATKINSON
(b) (6)
STUTTGART, AR(b) (6)
U.S.A.

Authority: Statutes and Regulations: 16 USC 1539(a); 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Conditions and Authorizations:

A. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law.

C. Valid for use by permittee named above.

D. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

E. Authorized to import the sport-hunted trophy of one African lion (*Panthera leo melanochaita*), taken in South Africa for the purpose of enhancement of the survival of the species.

F. Specimen may not be sold or transferred for any financial remuneration.

G. **Trophy must have been taken during the 2016 hunting season.**

H. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of South Africa for the 2016 season.

I. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD MAR 15 2016 LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Bedford	Terry	(b) (6)	Mr.

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	(b) (6)

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)
n/a	n/a

2. Tax identification no.	3. Description of business, agency, Tribe, or institution
n/a	n/a

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
n/a	n/a	n/a	n/a

5. Principal officer title	6. Primary contact name
n/a	n/a

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address
n/a	n/a	n/a	n/a

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Bakersfield	CA	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
n/a

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
n/a	n/a	n/a	n/a	n/a

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: n/a No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 3-14-2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      (male) African Lion Panthera Leo Melanochaita

   b. Sex (if known).

      male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Tanzania ... Burko (Monduli Area) .... North Masailand

   b. Date wildlife is to be hunted:

      August 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      Complete skin and skull

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      n/a

   b. Date wildlife was hunted:

      n/a

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

n/a

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

n/a

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	
Business Name:	Robin Hurt Safaris
Address:	P.O. Box 755
Address:	
City:	Manyuki 10400
State/Province:	
Country, Postal Code:	Kenya

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 3-14-2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

same as page one

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

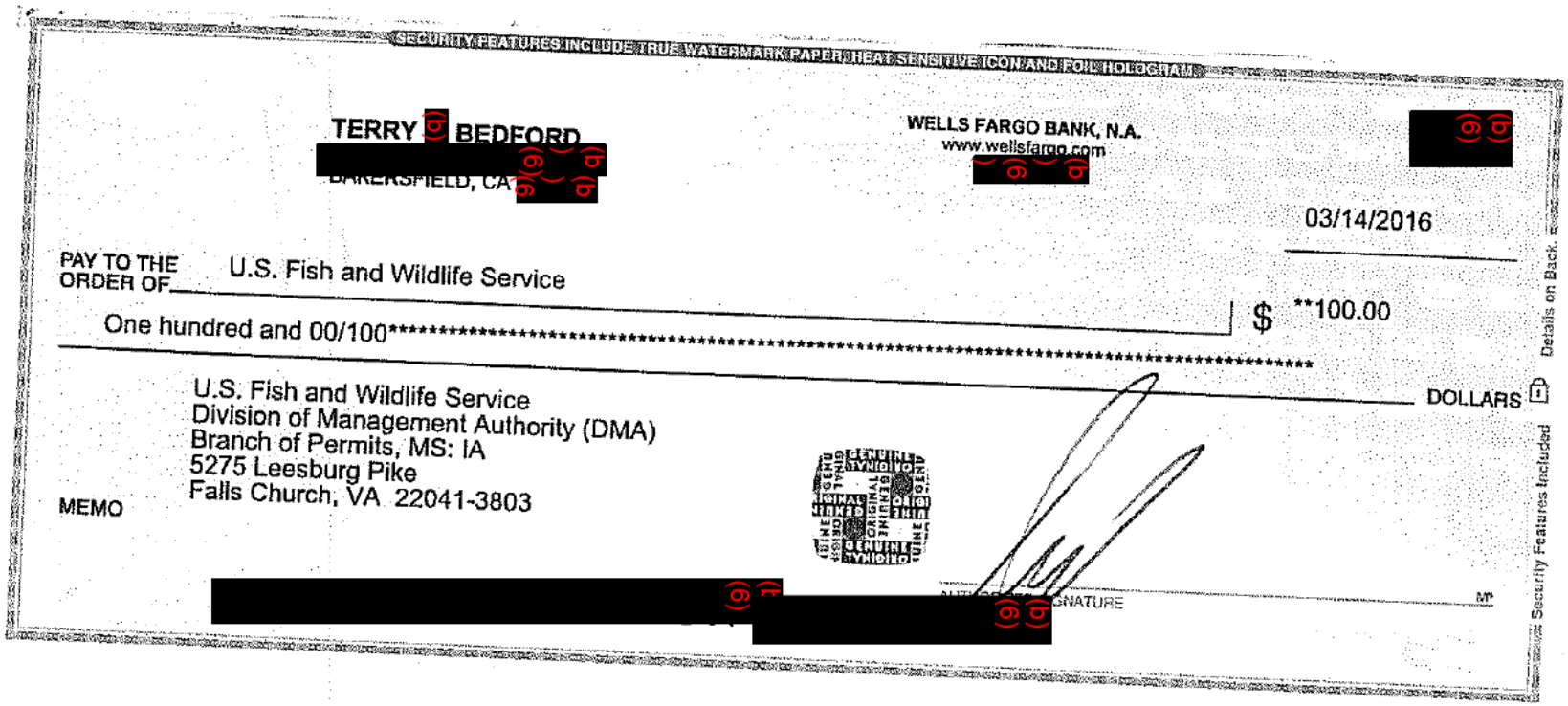
11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

Terry Bedford (b) (6) [redacted]

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

n/a



SECURITY FEATURES INCLUDE TRUE WATERMARK PAPER, HEAT SENSITIVE ICON AND FOIL HOLOGRAM

TERRY [redacted] BEDFORD
[redacted]
BAKERSFIELD, CA [redacted]

WELLS FARGO BANK, N.A.
www.wellsfargo.com
[redacted]

[redacted]

03/14/2016

PAY TO THE ORDER OF U.S. Fish and Wildlife Service

$ **100.00

One hundred and 00/100********** DOLLARS

U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803

MEMO

[redacted]

SIGNATURE

Details on Back. Security Features Included

MAR 15 2016



Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import application / request for information

1 message

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:44 AM
To: (b) (6)

We are in the process of reviewing applications for the import of African lions taken from Tanzania.

The U.S. Fish and Wildlife Service must make a finding that the sport-hunting of lions will enhance the survival of the species. We are now considering applications on a case-by-case basis, as opposed to making country-wide enhancement findings that were developed in the past. As such, we would like to give you the opportunity to submit additional information in support of your application. This may include (but is not limited to):

>>population status or trend data on the lion population, both the countrywide population and the local population;

>>information on the fees paid (e.g., licenses or trophy fees), recipients of these fees, and use of fees;

>>information about the safari outfitter, professional hunter, concession holder or land owner and their activities to conserve the species (e.g., habitat management or improvement, anti-poaching activities and success of those efforts, efforts to address human-lion conflict, population monitoring, community benefits). Copies of recent reports submitted to TAWA would be particularly helpful.

Do not hesitate to contact me with questions or clarifications.

Thank you,

--
Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

Please respond to any requests for information or documentation within 45 days from the date of this message; if not received within 45 days, your application will be considered incomplete and will be placed in our inactive files and we will not complete your request for a permit.

Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import application / request for information

6 messages

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:44 AM
To: (b) (6)

We are in the process of reviewing applications for the import of African lions taken from Tanzania.

The U.S. Fish and Wildlife Service must make a finding that the sport-hunting of lions will enhance the survival of the species. We are now considering applications on a case-by-case basis, as opposed to making country-wide enhancement findings that were developed in the past. As such, we would like to give you the opportunity to submit additional information in support of your application. This may include (but is not limited to):

>>population status or trend data on the lion population, both the countrywide population and the local population;

>>information on the fees paid (e.g., licenses or trophy fees), recipients of these fees, and use of fees;

>>information about the safari outfitter, professional hunter, concession holder or land owner and their activities to conserve the species (e.g., habitat management or improvement, anti-poaching activities and success of those efforts, efforts to address human-lion conflict, population monitoring, community benefits). Copies of recent reports submitted to TAWA would be particularly helpful.

Do not hesitate to contact me with questions or clarifications.

Thank you,

--
Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

Please respond to any requests for information or documentation within 45 days from the date of this message; if not received within 45 days, your application will be considered incomplete and will be placed in our inactive files and we will not complete your request for a permit.

Robin Gordon (b) (6) Wed, Jul 25, 2018 at 12:14 PM
To: "julia_butzler@fws.gov" <julia_butzler@fws.gov>

Good Morning,

I am contacting you on behalf of Terry Bedford. He received the email below, and we are a little confused because he has not applied for a Tanzania lion import permit. He applied for, and received a permit for a Tanzania leopard. I just want to make sure you have everything you need.

Thank you,

Robin Dulac

(b) (6)

From: Terry (b) (6)
Sent: Wednesday, July 25, 2018 9:03 AM
To: Robin Gordon (b) (6) >
Subject: Fwd: Tanzania lion / import application / request for information

Sent from my iPhone

Begin forwarded message:

From: "Butzler, Julia" <julia_butzler@fws.gov>
Date: July 25, 2018 at 8:44:36 AM MDT
To: (b) (6)
Subject: Tanzania lion / import application / request for information

[Quoted text hidden]

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 12:23 PM
To: Robin Gordon (b) (6) >

Hello,

Yes, I see that he did apply for, and received a permit for the leopard. However, we have on file a second application for a lion (attached).

Please advise if Mr. Bedford would like to withdraw this application.

Thank you,
[Quoted text hidden]

Robin Gordon (b) (6) > Wed, Jul 25, 2018 at 12:31 PM
To: "Butzler, Julia" <julia_butzler@fws.gov>

I don't see anything attached. Can you try sending it again? Thank you for your help.

Robin Dulac

From: Butzler, Julia <julia_butzler@fws.gov>
Sent: Wednesday, July 25, 2018 9:24 AM
To: Robin Gordon (b) (6) >
Subject: Re: [EXTERNAL] FW: Tanzania lion / import application / request for information

[Quoted text hidden]

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 2:07 PM
To: Robin Gordon (b) (6) >

oh! sorry, I totally forgot to attach.
[Quoted text hidden]

91734b-appl.pdf
2405K

Robin Gordon (b) (6) Fri, Jul 27, 2018 at 1:12 PM
To: "Butzler, Julia" <julia_butzler@fws.gov>

Good Morning,

I talked with Terry and he asked for the Lion application to be withdrawn.

Thank you,

Robin Dulac

(b) (6)

(b) (6)

From: Butzler, Julia <julia_butzler@fws.gov>
Sent: Wednesday, July 25, 2018 11:08 AM

[Quoted text hidden]

[Quoted text hidden]

RCVD MAR 21 2016

LB

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 10/31/2015

RCVD MAR 21 2016
RCVD MAR 21 2016

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1 a. Last name	1 b. First name	1 c. Middle name or initial	1 d. Suffix
Wright	John	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6 a. Telephone number	6 b. Alternate telephone number	6 c. Fax number	6 d. E-mail address
(b) (6)			(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1 a. Name of business, agency, Tribe, or institution	1 b. Doing business as (dba)

2. Tax identification no	3. Description of business, agency, Tribe, or institution

4 a. Principal officer Last name	4 b. Principal officer First name	4 c. Principal officer Middle name/ initial	4 d. Suffix

5. Principal officer title	6. Primary contact name

7 a. Business telephone number	7 b. Alternate telephone number	7 c. Business fax number	7 d. Business e-mail address

C. All applicants complete address information

1 a. Physical address (Street address, Apartment #, Suite #, or Room #; no P.O. Boxes)				
(b) (6)				
1 b. City	**1 c. State**	**1 d. Zip code/Postal code**	**1 e. County/Province**	**1 f. Country**
Amarillo	TX	(b) (6)	(b) (6)	USA

2 a. Mailing Address (include if different than physical address, include name of contact person if applicable)				
2 b. City	**2 c. State**	**2 d. Zip code/Postal code**	**2 e. County/Province**	**2 f. Country**

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☒

3. Certification. I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Anna Reid — Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures)

03/9/2015 — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Tanzania, Maswa Game Reserve, near Arusha

   b. Date wildlife is to be hunted:

      July 1-21, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Bushman Hunting Safaris Ltd.
Business Name:	
Address:	Plot No. 61-64, Block E
Address:	Kihonda Industrial Complex
City:	P.O. Box 678
State/Province:	Morogoro, Tanzania
Country, Postal Code:	

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information already provided by Conservation Force, Pete Fick/Bubye Valley Conservancy, and Zimbabwe authorities.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Anna Reid Date: 03/09/2015

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2). DFW

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org Anna Reid (b) (6) [redacted]

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

ADAM CLEMENTS
SAFARI TRACKERS

Limited Power of Attorney- Adam Clements Safari Trackers: Federal Fish and Wildlife Permit Application Form

I, John (b) (6) Wright (AKA _____) of Amarillo (city), Texas, USA (state/country), appoint Anna Reid with Adam Clements Safari Trackers of Boerne, Texas, as my attorney-in-fact to act on my behalf for the purpose(s) of:

Applying for the legal importation of Sport-hunted Trophies: African Lion (L. Melanochaita- Appendix 1 CITES and/or ESA, threatened species) by means of the Federal Fish and Wildlife Permit Application Form. OMB No. 1018-0093.

This power of attorney starts to be effective on February 28,2016 and shall continue until July 28,2016.

I grant my attorney-in-fact full authority to act in any reasonable and necessary manner for the purpose of exercising the above powers. I ratify all lawfully performed acts by my attorney-in-fact in exercising those powers.

I agree that any third party who is given a copy of this power of attorney may act relying on it. I agree that revocation of this power of attorney is effective as to a third party only upon receipt of actual notice by the third party. If because of reliance on this power of attorney, a third party suffers any loss, I agree to indemnify the third party for the loss.

Signed this 28 day of February, 2016.

State of Texas USA

John Stephen Wright, Principal Signature of

Signature of Attorney-in-Fact

By accepting this appointment and acting under it, the attorney-in-fact (agent) assumes the legal responsibilities of an agent.

Anna Reid Signature of
Attorney-in-Fact

Assistant to Adam Clements
Adam Clements Safari Trackers
safari@safaritrackers.com
(210) 698-0077

RCVD MAR 21 2016

Adam Clements Safari Trackers
(b) (4)
San Antonio, TX (b) (4)

Chase
JPMorgan Chase Bank, N.A.
(b) (4)

(b) (4)

3/15/16

PAY TO THE ORDER OF U.S. Fish & Wildlife Service $ 100 00

One hundred & 00/100 DOLLARS

MEMO John Brandon Wright CITES Permit

Adam Clements
AUTHORIZED SIGNATURE

(b) (4)

Butzler, Julia <julia_butzler@fws.gov>

Tanzania lion / import applications / request for information

2 messages

Butzler, Julia <julia_butzler@fws.gov> Tue, Jul 24, 2018 at 4:08 PM
To: jjj@conservationforce.org, cf@conservationforce.org
Cc: Mary Cogliano <mary_cogliano@fws.gov>

Mr. Jackson,

We are in the process of reviewing applications for the import of African lions taken from Tanzania. A number of applicants have named you as the representative for all matters concerning the application. I have attached a list of the applications currently pending for which you have been named as the representative.

As you are aware, the U.S. Fish and Wildlife Service must make a finding that the sport-hunting of lions will enhance the survival of the species. As you know, we are now considering applications on a case-by-case basis, as opposed to making country-wide enhancement findings. As such, we would like to give you the opportunity to submit additional information in support of these application requests. This may include (but is not limited to):

>>population status or trend data on the lion population, both the countrywide population and the local population;

>>information on the fees paid (e.g., licenses or trophy fees), recipients of these fees, and use of fees;

>>information about the safari outfitter, professional hunter, concession holder or land owner and their activities to conserve the species (e.g., habitat management or improvement, anti-poaching activities and success of those efforts, efforts to address human-lion conflict, population monitoring, community benefits). Copies of recent reports submitted to TAWA would be particularly helpful.

Do not hesitate to contact me with questions or clarifications.

Thank you,

--
Julia Butzler, Biologist
Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
(703) 358-1988

Please respond to any requests for information or documentation within 45 days from the date of this message; if not received within 45 days, your application will be considered incomplete and will be placed in our inactive files and we will not complete your request for a permit.

TZlionApplications-RepJJackson.xlsx
16K

Butzler, Julia <julia_butzler@fws.gov> Wed, Jul 25, 2018 at 10:22 AM
To: jjj@conservationforce.org, cf@conservationforce.org, jjw-no2@att.net

Mr. Jackson,

Please use the updated spreadsheet for reference of the applications that name you as their representative.

Thank you,
[Quoted text hidden]

TZlionApplications-RepJJackson.xlsx
17K

Permit number	Applicant business name	Date permit request	Last name	First name	Address 1	City	ST	Zip/ postal code	Country	Telephone	Email
84925C	TURNER, DAVID (b) (6)	3/27/2018	TURNER	DAVID	(b) (6)	MIDDLETON	ID	(b) (6)	US	(b) (6)	
82925C	WRIGHT, JOHN (b) (6)	3/15/2018	WRIGHT	JOHN		AMARILLO	TX		US		
69716C	LINK, KENIA (b) (6)	12/20/2017	LINK	KENIA		WASCOTT	WI		US		
45770C	FOWLER, THEODORE (b) (6)	/1/2017	FOWLER	THEODORE		RALEIGH	NC		US		
40253C	ZILLMER, JOHN (b) (6)	6/8/2017	ZILLMER	JOHN		GLENMOORE	PA		US		
36878C	ENGEL, VICTOR (	5/23/2017	ENGEL	VICTOR		CONCORD	NH		US		
25070C	MARKL, EDWARD (b) (6)	3/7/2017	MARKL	EDWARD		DECATUR	TX		US		
25074C	CROUCH, JACK (b	3/7/2017	CROUCH	JACK		MCLEAN	VA		US		
17490C	CUSICK, TODD (b) (6)	1/13/2017	CUSICK	TODD		PROVO	UT		US		
12625C	CARMICAL, JEFF	11/17/2016	CARMICAL	JEFF		MONTICELLO	AR		US		
12548C	ATKINSON, CARL (b	11/9/2016	ATKINSON	CARL		ORLANDO	FL		US		
11956C	HOWARD, THOMAS (b	11/7/2016	HOWARD	THOMAS		COLUMBUS	MS		US		
08543C	CROUSEN, GUINN (b)	9/28/2016	CROUSEN	GUINN		DALLAS	TX		US		
08545C	NOSLER, JOHN (b) (6)	9/28/2016	NOSLER	JOHN		BEND	OR		US		
08549C	FALKOWSKI, JAMES (b) (6)	9/28/2016	FALKOWSKI	JAMES		COOPER CITY	FL		US		
02148C	HOWARD, THOMAS (b) (6)	7/19/2016	HOWARD	THOMAS		COLUMBUS	MS		US		
92186B	WRIGHT, JOHN (b) (6)	3/21/2016	WRIGHT	JOHN		AMARILLO	TX		US		

RCVD MAR 25 2016

OMB No. 1018-0093
Expires 05/31/2017

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Fadul	Timothy	(b) (6)	-

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	n/a

6.a. Telephone number	6.b. Alternate telephone number	6.c. [illegible]	6.d. E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)
n/a	

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Huntersville	NC	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
same as above

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☒

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Timothy (b) (6) Fadul — 03-18-2016
Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES and/or ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melanochaita - lion

   b. Sex (if known).

      female

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild: Country: South Africa, Venetia Limpopo Nature Reserve, Limpopo Province, GPS 22° 21' 12.2" S; 29° 17' 26.3" E
      Closest Town or City: Alldays or Mussina, Please See attached map.
   b. Date wildlife is to be hunted: May 02, 2016 – May 13, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      skin, skull, claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: Cecil Corringham
Business Name: Life Form Taxidermy
Address: 7 Aluminum Road
Address:
City: White River
State/Province: Mpumalanga
Country, Postal Code: South Africa, 1240

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below) Please See Attached

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Timothy (b) (6) Tadel Date: 03/01/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

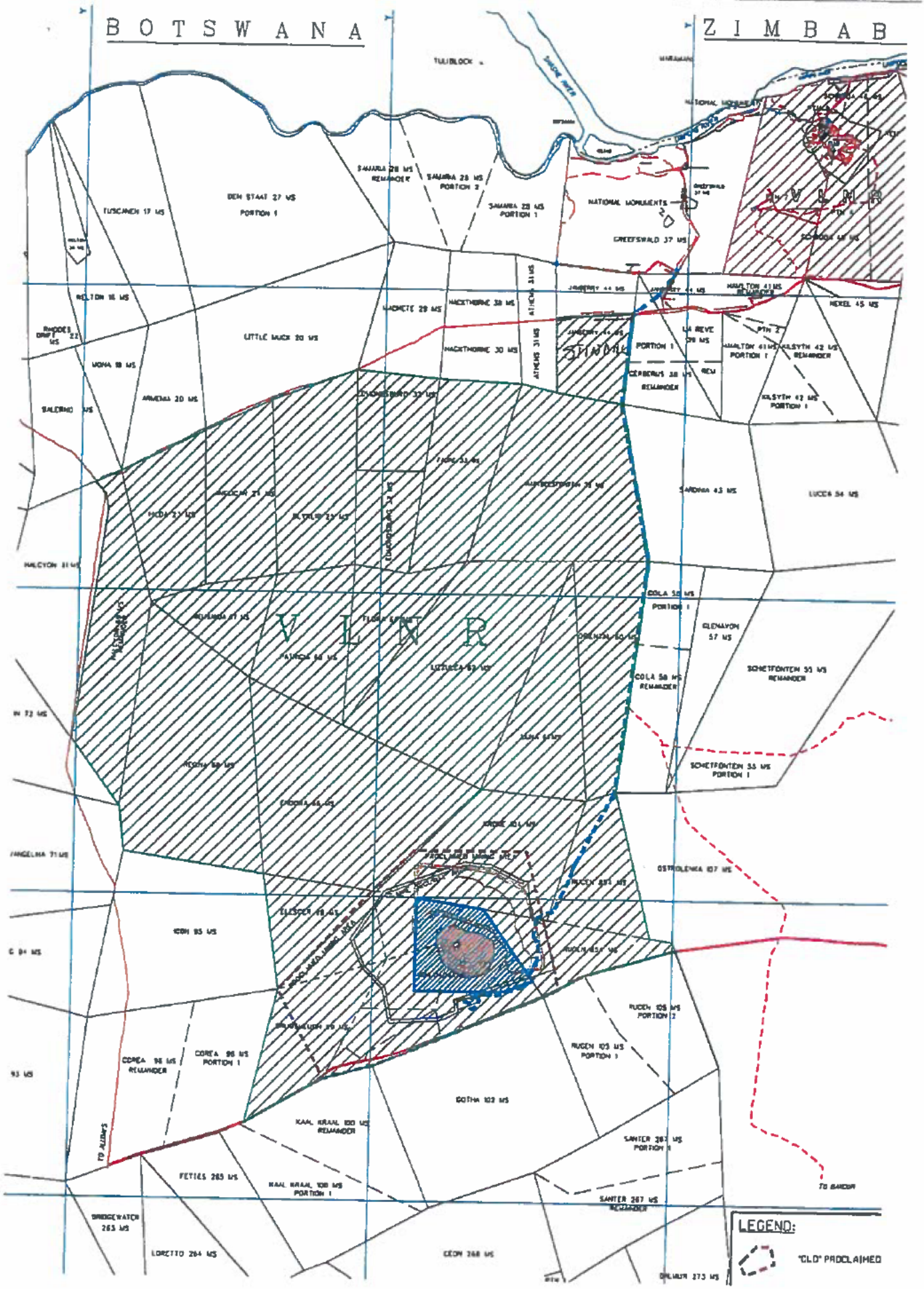
11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

Timothy (b) Fadul

(b) (6) [redacted]

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.


BOTSWANA
ZIMBAB
TULIBLOCK
SAMARIA 28 MS REMAINDER
SAMARIA 28 MS PORTION 2
SAMARIA 28 MS PORTION 1
DEN STAAT 27 MS PORTION 1
TUSCANEN 17 MS
NATIONAL MONUMENTS
GREEFSWALD 37 MS
HAMILTON 41 MS REMAINDER
NEKEL 45 MS
WELTON 16 MS
MACHETE 29 MS
HACKTHORNE 38 MS
ATHENS 31 MS
LITTLE MUCK 20 MS
HACKTHORNE 30 MS
PORTION 1
LA REVE 29 MS
KILSYTH 42 MS REMAINDER
MONA 18 MS
CERBERUS 38 MS REMAINDER
KILSYTH 42 MS PORTION 1
ARMENIA 20 MS
SALERNO MS
SARDINIA 43 MS
LUCCA 54 MS
HALCYON 31 MS
COLA 58 MS PORTION 1
GLENAVON 57 MS
SCHIETFONTEIN 55 MS REMAINDER
COLA 58 MS REMAINDER
SCHIETFONTEIN 55 MS PORTION 1
OSTROLENKA 107 MS
ICON 95 MS
RUGEN 105 MS PORTION 2
RUGEN 105 MS PORTION 1
COREA 96 MS REMAINDER
COREA 96 MS PORTION 1
GOTHA 102 MS
KAAL KRAAL 100 MS REMAINDER
SANTER 267 MS PORTION 1
FETIES 265 MS
KAAL KRAAL 100 MS PORTION 1
SANTER 267 MS REMAINDER
BRIDGEWATER 263 MS
LORETTO 264 MS
CEON 268 MS
DALMUR 273 MS
TO ALIBAR'S
TO BARDOR
LEGEND:
"CLD" PROCLAIMED

5. Please be aware that the U.s. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

"The VLNR sustainably managed their lion population successfully over a period of 16 years. The business goal of the reserve is sustainable conservation at a break-even scenario (no profit).

Spending of trophy fees:

- Constant monitoring of the lion population via satellite telemetry collars fitted to preselected animals
- Facilitating lions from the outside to ensure genetic integrity and sustainability
- Practicing of a well-managed contraception program of preselected females as part of the management plan
- Regular introduction of prey species when lion impacts are noticeable.

Portion of fees for conservation:
100% of fees generated by trophy hunting are ploughed back into conservation (VLNR on a break-even scenario). A breakdown as follows:

- 75 % of fees go directly to lion sustainable lion conservation and management, as discussed above;
- 25% of fees go indirectly to conservation through fence erection and maintenance, regular fence and anti-poaching patrols, scout training activities, daily management activities, etc.
- Females become sexually mature at 2 years, but are only socially mature at 4 years. Females are normally only hunted at an age of 6+ years to ensure at least one litter.
- Females can breed up to 17 years of age, but the lifespan of a lioness in the wild (natural) normally only lasts 15-16 years.

RCVD MAR 25 2016

Bank of America

Cashier's Check

No. (b) (6) [redacted]

Notice to Purchaser - In the event that this check is lost, misplaced or stolen, a sworn statement and 90-day waiting period will be required prior to replacement. This check should be negotiated within 90 days.

Void After 90 Days

30-1/1140
NTX

Date 03/18/16 10:53:46 AM

CALLABRIDGE LANDING
(b) (6) [redacted]

Pay BANK OF AMERICA 100000 ONE ZERO ZERO CTSCTS

***$100.00

To The Order Of US FISH AND WILD LIFE SERVICE
CITES PERMIT APPLICATION

Remitter (Purchased By): TIMOTHY [redacted]FADUL

Bank of America, N.A.
SAN ANTONIO, TX

AUTHORIZED SIGNATURE

(b) (6) [redacted]

00-53-33648 11-2010

LION SOUTH AFRICAN ESA TROPHY

Permit Number: MA92481B-0

Effective: 10/25/2016 Expires: 10/24/2017

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

TIMOTHY (b) (6) FADUL
(b) (6)
HUNTERSVILLE, NC (b) (6)
U.S.A.

Authority: Statutes and Regulations: 16 USC 1539(a); 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Conditions and Authorizations:

A. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law.

C. Valid for use by permittee named above.

D. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

E. Authorized to import the sport-hunted trophy of one female African lion (*Panthera leo melanochaita*), taken in South Africa for the purpose of enhancement of the survival of the species.

F. Specimen may not be sold or transferred for any financial remuneration.

G. **Trophy must have been taken during the 2016 hunting season.**

H. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of South Africa for the 2016 season.

I. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

RCVD APR 06 2016

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES Threatened-listed
(Appendix I of CITES and/or ESA) lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
RUDOLPH	LAWRENCE	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		

2. Tax identification no.	3. Description of business, agency, Tribe, or institution		

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #, no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
PARADISE VALLEY	AZ	(b) (6)	N/A	N/A

2.a. Mailing Address (include if different than physical address; include nam[redacted]e)
N/A

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 16US793796/9 No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subch[redacted] B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

(b) (6)

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 03/29/2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      ZAMBIA, MUMBWA WEST GMA

   b. Date wildlife is to be hunted: May 24TH 2016 → JUNE 20TH 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted: N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:
Business Name: MANGOMBA SAFARIS LTD.
Address: 133 FREEDOM WAY
Address:
City: LUSAKA
State/Province:
Country, Postal Code: ZAMBIA

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.
Please see information provided by Conservation Force, Zambian authorities, and Zambian operators.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [signature] (b)(6) Date: 3/29/16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
    John J. Jackson, III or Regina Lennox of Conservation Force
    504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: _____ (b) (6)

Name: Lawrence (b) (6) Rudolph (b) (6)

Date: 3/29/16

4/2/16

RCVD APR 06 2016

U.S. Fish and Wildlife Service
Division of Management Authority
Branch of Permits,MS:IA
5275 Lessburg Pike
Falls Church, VA 22041-3803

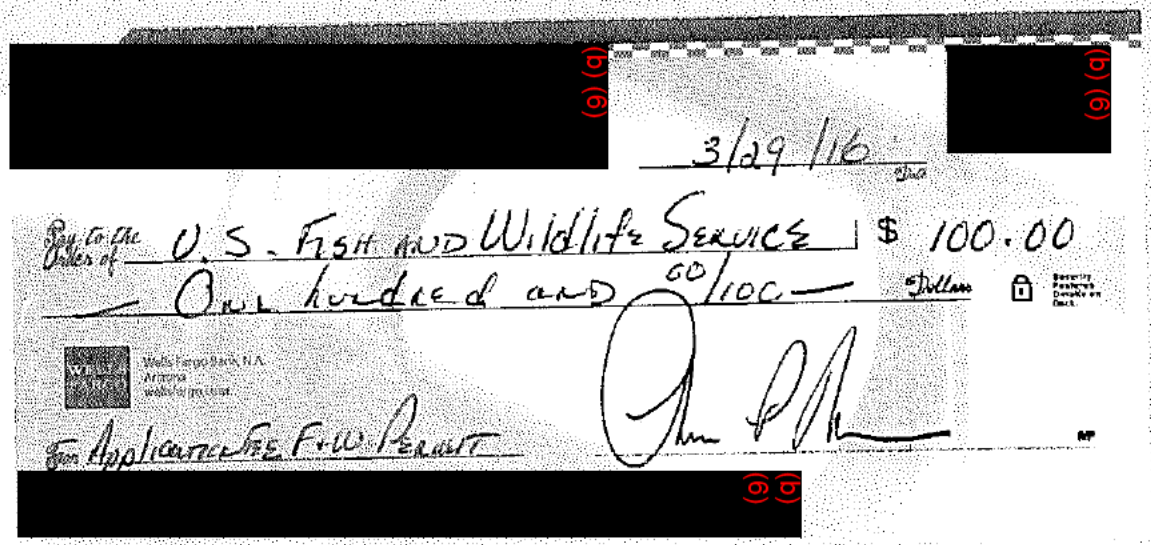
Dear Sirs;

Enclosed please find my application for the import of sport hunted trophy. I have attached the application fee of $100 and also a return, pre-paid FedEx envelope to send the permit in when processed.

Thank you for your time and attention to this application.

Sincerely

(b) (6) Larry Rudolph


[redacted] (6) (6)

3/29/16

Pay to the Order of U.S. Fish and Wildlife Service $ 100.00

One hundred and 00/100 Dollars

Wells Fargo Bank, N.A.
Arizona
wellsfargo.com

For Application Fee F.W. Permit

[redacted] (6) (6)

RCVD APR 06 2016

Vannorman, Tim <tim_vannorman@fws.gov>

Supplement to PRT US93398B/9 -- lion enhancement information

1 message

Regina A. Lennox <regina.lennox@conservationforce.org> Wed, Sep 7, 2016 at 7:05 PM
To: "Vannorman, Tim" <tim_vannorman@fws.gov>
Cc: "John J. Jackson, III" <cf@conservationforce.org>, darcy_vargas@fws.gov

Dear Tim,
We hope you are doing well. Below please find an email from one of our applicants, Mr. Lawrence (b) (6) Rudolph, PRT US93398B/9, with information regarding compliance with the new age-based regulation for lion hunting in Zambia. Mr. Rudolph attached a photo that reflects a mature (7+) lion.
Please consider this information in making an enhancement finding and issuing permits for import of lion trophies from Zambia.
Please let us know if you have any questions.
Best wishes,
Regina

-------- Forwarded Message --------
Subject:Zambia import lion
Date:Sun, 4 Sep 2016 08:32:06 -0700
From:Larry Rudolph (b) (6)
To:jjw-no@att.net

JJ
Had a very successful hunt in Zambia.. The news out of Zambia seems positive in that the lions taken , about 10 so far, at least the photos I have seen represent mature males meeting the set standards.

Mine is at least 7 +

What if anything have you heard from your rep?
Anything positive on importation into the USA?

Thanks, best to Chrissie

Larry Rudolph

--
Regina A. Lennox
Conservation Force
3240 S I-10 Service Road W, Suite 200
Metairie, Louisiana 70001 USA
504-837-1233 (office)
919-452-8652 (cell)
regina.lennox@conservationforce.org

2 attachments



IMG_2105.JPG
1156K

Attached Message Part
1K

LION ZAMBIA ESA TROPHY

Permit Number: MA93398B-0

Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

LAWRENCE (b) (6) RUDOLPH
(b) (6)
PARADISE VALLEY, AZ (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zambia for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zambia for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD APR 14 2016

LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Taunton	Oscar	(b) (6)	(b) (6)

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)		(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)
N/A	N/A

2. Tax identification no.	3. Description of business, agency, Tribe, or institution
N/A	N/A

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
N/A	N/A	N/A	N/A

5. Principal officer title	6. Primary contact name
N/A	N/A

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address
N/A	N/A	N/A	N/A

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Argyle	TX	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
N/A

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
N/A	N/A	N/A	N/A	N/A

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☒

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Oscar (b) (6) (b) (6) 03/21/2016
Signature ( ) of applica[illegible]sible for permit [illegible]ocopied or stamped signatures) Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES and/or ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please return the unused original permit. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least 90 days for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   African Lion (Panthera Leo)
   b. Sex (if known).
   Male
2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
   Zimbabwe - Mavinga Conservancy, Mashonaland West.
   16°33'32"S 30°5'5"E Mhangura
   b. Date wildlife is to be hunted:
   29 May 2016 → 20 June 2016
   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
   full mount Skin - Skull - NB Claws attached
3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):
   N/A
   b. Date wildlife was hunted:
   N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks):

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export document]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you **must** provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will appear on the face of the export permit].

Name: Andy Hunter
Business Name: Chipitani Safari Company
Address: 8 Revonia Drive
Address: Mount Pleasant
City: Harare
State/Province: Mashonaland
Country, Postal Code: Zimbabwe – Africa

5. Please be aware that the U.S. Fish and Wildlife Service may need to make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., how the funds from license/trophy fees will be spent, what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: N/A Date: N/A

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [redacted] Date: 03/21/2016

Be aware that there may be additional permitting or approval requirements by your local or state governments, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist where possible, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from _____. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

SAME Address AS page 1

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information: you will be contacted for this information. N/A

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed. N/A

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

Robert Jackson
(O) (b) (6) [redacted] (C) (b) (6) [redacted] EMAIL: (b) (6) [redacted]

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act. the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.



DATE 20/MARCH/2016

ATT: USFWS

DEPARTMENT: IMPORTATION OF LION AND ELEPHANT

REFERANCE :CLIENT : _____.

THIS LETTER SERVES TO EXPLAIN MY COMPANYS COMMITMENT TO CONSUMPTIVE UTILISATION IN THE MANINGA CONSERVANCY AND MSAIZE/MAPARI CONCESSIONS IN THE SAVE VALLEY CONCERVANCY.

DISCRIPTION AS FOLLOWS

MANINGA CANSERVANCY

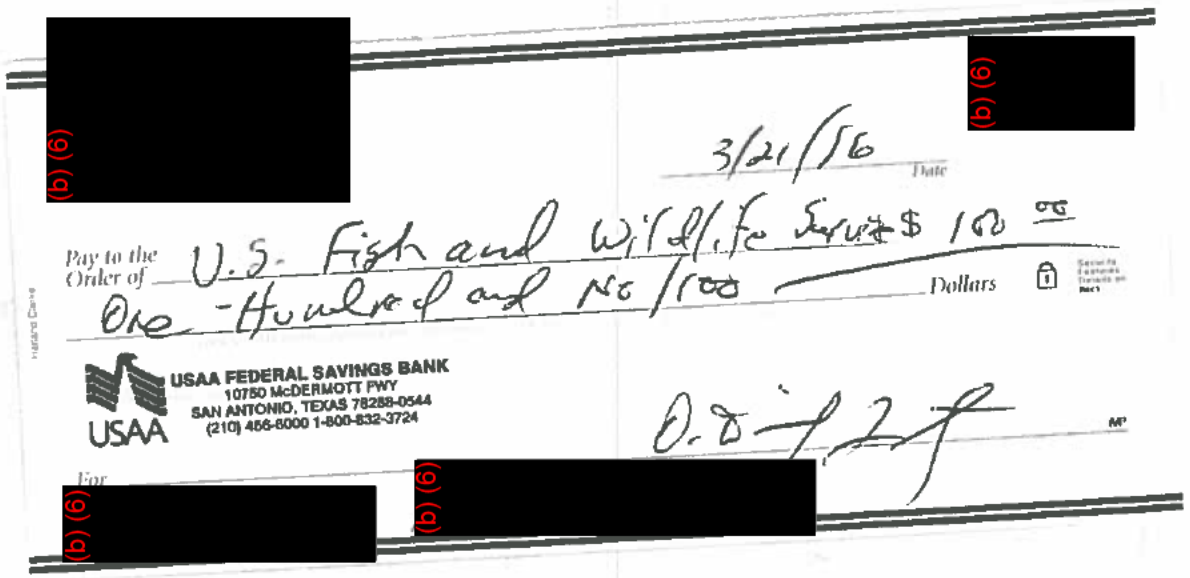
MANINGA ENCOMPASSES A TOTAL OF 480,000 (FOUR HUNDRED & EIGHTY THOUSAND ACRES) AND WITH IN THE BORDERS OF THIS AREA THERE ARE NO INTERNAL HABITATIONS OF LOCAL COMINITIES AND IN ESSANCE AN UP AND COMING CONSERVANCY THAT IS UNIQUE AS THE LAND IS OWNED BY EIGHT INDIGENOUS ZIMBABWEANS WHICH IS THE ONLY CONSERVANCY IN ZIMBABWE LEGALLY OWNED BY TRUE AFRICANS.

WE HAVE A LONG TERM PARTNERSHIP ON AN EXCLUSIVE OPERATIONAL BASIS AND WE UNDERTAKE ALL HUNTING SAFARIS AND MAINTENANCE AS WELL AS ALL ANTI POACHING OPERATIONS IN THIS AREA.

WE EMPLOY A FULL TIME CONTINGENT OF 1 (ONE) ANTI POACHING MANAGER AND 30 (THIRTY) GAME SCOUTS THAT ONLY FOCUS ON CARIYING OUT ACTIVE ANTI POACHING PATROLS.

WE HAVE ONE LION AND 4 ELEPHANT BULLS ON QUOTA FOR THE 2016 HUNTING SEASON.

THE VALUE OF CONTRIBUTES TO A HUGE PART OF OUR RUNNING EXPENCES TO HELP WITH CRITICAL FINANCIAL BACKING TO LOOK AFTER OUR NATURAL RESOURCES AND CURB ILLEGAL POACHING RINGS.



RCVD APR 14 2016

LION ZIMBABWE ESA TROPHY

Permit Number: MA94079B-0

Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

OSCAR (b) (6) TAUNTON (b) (b) (6)
ARGYLE, TX (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD APR 15 2016

LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
MACIEJ	JOSEPH	(b) (6)	MR

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)		(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
LITTLE FALLS	MN	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue. _____ No ☑

3. Certification. I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I unde(b) (6) any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 4-11-2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      GENUS-PANTHERA COMMON NAME - AFRICAN LION

   b. Sex (if known).

      1 MALE & 1 FEMALE

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      RANCH or FARM AURORA CITY VORSTERSHOOP

   b. Date wildlife is to be hunted:

      7/19/16 to 7/23/16

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      SKIN, SKULL, LIFE SIZE, CLAWS

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	JOHAN LEROUX
Business Name:	TROPHY PRO SA
Address:	P.O. BOX 548
Address:	
City:	MODIMOLLE
State/Province:	LIMPOPO
Country, Postal Code:	SOUTH AFRICA, 0510

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

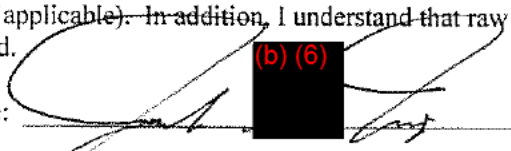
6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature:  Date: 4-11-2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).
COPPERSMITH CHICAGO, IL
9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
JOSEPH MACIEJ (b) (6)
(b) (6)

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

STANDING PERMIT

PERMIT NUMBER: S 25529

(Issued in terms of the provisions of the National Environmental Management: Biodiversity Act 2004, Act 10 of 2004)

NAME OF ISSUING AUTHORITY	
NAME	
ADDRESS	
PROVINCE	

X	PROVINCIAL DEPARTMENT		NATIONAL DEPARTMENT
	PROTECTED AREA MANAGEMENT AUTHORITY		VETERINARIAN
X	REGISTERED CAPTIVE BREEDING OPERATION		REGISTERED SCIENTIFIC INSTITUTION
	REGISTERED SANCTUARY		REGISTERED REHABILITATION FACILITY
	REGISTERED COMMERCIAL EXHIBITION FACILITY		REGISTERED GAME FARM
X	REGISTERED WILDLIFE TRADER		REGISTERED NURSERY

UNIQUE REGISTRATION NUMBER: VISS / 830917 5044 087

DETAILS OF PERMIT HOLDER

NAME	Gabriel G.	ID NO.	830917 5044 087
SURNAME	van Schalkwyk	PASSPORT NO.	N/A

	POSTAL ADDRESS	RESIDENTIAL ADDRESS
ADDRESS	P.O. Box 81	Awora farm 1/22
ADDRESS	Vorstershoop	Vorstershoop
ADDRESS		
TOWN	Vorstershoop	Vorstershoop
POSTAL CODE	8615	8615
PROVINCE	North West	North West

PROPERTY WHERE RESTRICTED ACTIVITIES WILL BE CARRIED OUT

NAME AND SURNAME OF APPLICANT	Gabriel G. van Schalkwyk
NAME AND SURNAME: RESPONSIBLE PERSON	Gabriel G. van Schalkwyk
NAME AND SURNAME OF AGENT	N/A
PHYSICAL ADDRESS OF FACILITY	Awora farm 1/22
PHYSICAL ADDRESS OF FACILITY	Vorstershoop
DISTRICT	Dr RSM
PROVINCE	North West
REGISTERED NAME AND NUMBER (in the case of game farm)	Awora - VISS/830917 5044 087

DETAILS OF SPECIES INVOLVED

SPECIES		SEX (if known)	QUANTITY	MARKING (if applicable)
COMMON NAME	SCIENTIFIC NAME			
Lion	Panthera leo	mixed		

DETAILS OF RESTRICTED ACITIVIES INVOLVED

As per attached addendum "A"
As per attached addendum "B"
As per attached addendum "C"

PERMIT VALIDATION

PERIOD OF VALIDITY: FROM: 2014-04-07 TO: 07-04-2017

RECEIPT NUMBER: R000-00 Dues deposit

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District

SIGNATURE OF ISSUING OFFICER

SIGNATURE PERMIT HOLDER

DATE STAMP: 2014 -04- 07

Private Bag x 34, Vryburg 8600

NORTH WEST PROVINCE

Standing Permit to conduct a business as a Registerd Game Farm in regards with NEMBA Act 10 of 2004 and TOPS Regulation

Special Conditions and Requirements:

1. This Standing Permit with registration number **V 185 /830917 5044 087** allows the holder thereof to conduct a business as a **Registered Game farm** as well as the purchasing and use of a "**Game farm hunting Book**" book.
2. This Standing Permit is **valid for 3 years** from date of issue.
3. This is a **Standing Permit** in regards with, NEMBA Act 10 of 2004 & TOPS Regulations 20 & 22.
4. This Standing Permit does not replace or repeal any other necessary Provincial, National or CITES Permit.
5. This certificate applies to species as indicated in **S 25529** only: (Except for the selling and / or buying of **Leopard** *Panthera pardus* & **Cheetah** *Acinonyx jubatus* live animals, skins or products. An additional TOPS Annexure I application form must be completed for this activity:
6. This Standing Permit is invalid without attached Permit Conditions as set out in this **Addendum B.**
7. This Standing Permit applies to restricted activities as indicated in **Addendum C** only:
8. This permit should be returned for amendments in case of offspring.
9. A register shall be kept with details of every animal number and permit numbers applicable, as well as the offspring.
10. This register should be forwarded to the local Nature Conservator every month.
11. Capturing take places only from the beginning of March until the end of September.
12. The District Nature Conservator may be present during the capturing.
13. The following species may not be kept in the same enclosure. If kept in the same enclosure, the game may not leave the farm alive (Blesbuck-Bontebok; Blesbuck-Tsessebe; Hartmans-Burchell Zebra & Blue-Black Wildebeest).
14. This permit does not authorize the Hunting, Selling, Buying, Transporting, Exporting, Importing and Capturing of these animals.
15. Only Approved camps may be used for activity.
16. This permit is subject to **APPROVED** Management plan
17. As soon as a lion escapes, died by means other than hunting, injures or kill a person the incident must be reported to the Vryburg Conservation Office within 24 hours after happening.

Signature of Issuing Officer: _____ Date: 2014-04-07

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

RESTRICTED ACTIVITIES AS PER TOPS REGULATIONS (only the "X" is authorized by this standing permit)	
Hunting or killing **(only applicable for Roan Antelope, Black Wildebeest with Game farm hunting book)**	X
Catching or capturing. **(Except for the capturing of Lion, Elephant & White Rhinoceros)**	
Gathering, collecting or plucking.	
Picking, cutting, chopping, uprooting, damaging or destroying.	
Importing, exporting or re-exporting.	X
Possession / Keeping.	X
...owing, cultivating or breeding.	
...nveying or translocation.	
Selling, buying, receiving, and donating. (or in any way acquire or dispose of)	

Signature of Issuing Officer: _____ Date: 2014-04-07

Signature of permit holder: _____ Date: 2014-04-10

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

STANDING PERMIT

(Issued in terms of the provisions of the National Environmental Management: Biodiversity Act 2004, Act 10 of 2004)

PERMIT NUMBER: S 25529

NAME OF ISSUING AUTHORITY	
NAME	
ADDRESS	
PROVINCE	

X	PROVINCIAL DEPARTMENT	NATIONAL DEPARTMENT	
	PROTECTED AREA MANAGEMENT AUTHORITY	VETERINARIAN	
X	REGISTERED CAPTIVE BREEDING OPERATION	REGISTERED SCIENTIFIC INSTITUTION	
	REGISTERED SANCTUARY	REGISTERED REHABILITATION FACILITY	
	REGISTERED COMMERCIAL EXHIBITION FACILITY	REGISTERED GAME FARM	
X	REGISTERED WILDLIFE TRADER	REGISTERED NURSERY	
UNIQUE REGISTRATION NUMBER	V185 / 830917 5044 087		

DETAILS OF PERMIT HOLDER			
NAME	Gabriel G.	ID NO.	830917 5044 087
SURNAME	van Schalkwyk	PASSPORT NO.	N/A
	POSTAL ADDRESS	RESIDENTIAL ADDRESS	
ADDRESS	P.O. Box 81	Aurora farm 1/20	
ADDRESS	Vorstershoop	Vorstershoop	
ADDRESS			
TOWN	Vorstershoop	Vorstershoop	
POSTAL CODE	8615	8615	
PROVINCE	North West	North West	

PROPERTY WHERE RESTRICTED ACTIVITIES WILL BE CARRIED OUT	
NAME AND SURNAME OF APPLICANT	Gabriel G. van Schalkwyk
NAME AND SURNAME: RESPONSIBLE PERSON	Gabriel G. van Schalkwyk
NAME AND SURNAME OF AGENT	N/A
PHYSICAL ADDRESS OF FACILITY	Aurora farm 1/20
PHYSICAL ADDRESS OF FACILITY	Vorstershoop
DISTRICT	Dr. R. S. M
PROVINCE	North West
REGISTERED NAME AND NUMBER (in the case of game farm)	Aurora - V185 / 830917 5044 087

DETAILS OF SPECIES INVOLVED

SPECIES		SEX (if known)	QUANTITY	MARKING (if applicable)
COMMON NAME	SCIENTIFIC NAME			
Lion	Panthera leo	mixed		

DETAILS OF RESTRICTED ACITIVIES INVOLVED

As per attached addendum "A"
As per attached addendum "B"
As per attached addendum "C"

PERMIT VALIDATION

PERIOD OF VALIDITY	FROM: 2014-04-07	TO: 07-04-2017	
RECEIPT NUMBER	R1000-00 Direct deposit		
SIGNATURE OF ISSUING OFFICER		SIGNATURE PERMIT HOLDER	
DATE STAMP			

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014-04-07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

Scientific Name	Common Name
MAMMALIA	
Panthera leo	Lion

Signature of Issuing Officer: _____ Date: 2014-04-07

Signature of permit holder: _____ Date: 2014-04-10

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

Addendum B / page 2 of 2 to Registration Certificate Captive Breeding Operations No: **10063**
(Aurora – Vorstershoop)

Registration Certificate to conduct a business as in regards with NEMBA Act 10 of 2004 and TOPS Regulation 27

Special Conditions and Requirements:

1. This certificate with registration number **V185 / 830917 5044 087** allows the holder thereof to apply for a standing permit to conduct a business as a **Registered Game Farm** as well as the purchasing of a "**Personal Effect Permit**" book after a Standing Permit being issued.
2. This certificate does not authorize the holder thereof to undertake any restricted activity involving any listed species, and is not allowed without the accompanying standing permit.
3. This registration certificate is **valid for 3 years** from date of issue.
4. This is a **Registration Certificate** in regards with, NEMBA Act 10 of 2004 & TOPS Regulations 27.
5. This certificate applies to species as indicated in Registration Certificate **10063** only: (Except for the selling and / or buying of **Leopard** *Panthera pardus* & **Cheetah** *Acinonyx jubatus* skins or products. An additional TOPS Annexure I application form must be completed for these activities.

Signature of Issuing Officer: _____ Date: 2014-04-07

Signature of permit holder: _____ Date: 2014-04-10

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

REGISTRATION CERTIFICATE

CERTIFICATE NUMBER 10083

(Issued in terms of the provisions of the National Environmental Management: Biodiversity Act 2004, Act 10 of 2004)

NAME OF ISSUING AUTHORITY	
NAME	
ADDRESS	
ADDRESS	
PROVINCE	

X	PROVINCIAL DEPARTMENT	NATIONAL DEPARTMENT	
X	CAPTIVE BREEDING OPERATIONS	COMMERCIAL EXHIBITION EXHIBITION	
	GAME FARMS	NURSERIES	
	SCIENTIFIC INSTITUTIONS	SANCTUARIES	
	REHABILITATION FACILITIES	WILDLIFE TRADERS	X
UNIQUE REGISTRATION NUMBER	VIBS/830917 5044 087		

DETAILS OF CERTIFICATE HOLDER			
NAME	Gabriel G.	ID NO.	830917 5044 087
SURNAME	Van Schalkwyk	PASSPORT NO.	N/A
	POSTAL ADDRESS		RESIDENTIAL ADDRESS
ADDRESS	P.O Box 81		Auvera farm 1/20
ADDRESS	Vaalwsheep		Vaalwsheep
ADDRESS			
TOWN	Vaalwsheep		Vaalwsheep
POSTAL CODE	8615		8615
PROVINCE	North West		North West

PROPERTY WHERE OPERATION WILL BE CONDUCTED	
NAME AND SURNAME OF APPLICANT	Gabriel G. Van Schalkwyk
NAME AND SURNAME OF AGENT	N/A
PHYSICAL ADDRESS OF FACILITY	Auvera farm 1/20
PHYSICAL ADDRESS OF FACILITY	Vaalwsheep
DISTRICT NAME	Dr. R.S.M.P
PROVINCE	North West
REGISTERED NAME AND NUMBER (in the case of game farm)	Auvera - VIBS/830917 5044 087

PARTICULARS OF SPECIES			
SPECIES		SEX	QUANTITY
COMMON NAME	SCIENTIFIC NAME	(if known)	
Lion	Panthera leo	mixed	

CERTIFICATE VALIDATION				
PERIOD OF VALIDITY	FROM	2014-04-07	TO	07-04-2017
RECEIPT NUMBER		R2000-00		Direct deposit

SIGNATURE ISSUING OFFICER

SIGNATURE CERTIFICATE HOLDER

DATE STAMP

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

RESTRICTED ACTIVITIES AS PER TOPS REGULATIONS **(only the "X" is authorized by this standing permit)**	
Hunting or killing **(only applicable for Roan Antelope, Black Wildebeest with Game farm hunting book)**	
Catching or capturing. **(Except for the capturing of Lion, Elephant & White Rhinoceros)**	X
Gathering, collecting or plucking.	
Picking, cutting, chopping, uprooting, damaging or destroying.	
Importing, exporting or re-exporting.	
Possession / Keeping.	X
owing, cultivating or breeding.	X
Conveying or translocation.	
Selling, buying, receiving, and donating. (or in any way acquire or dispose of)	

Signature of Issuing Officer: _____ Date: 2014-04-07

Signature of permit holder: _____ Date: 2014-04-10

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

Standing Permit to conduct a business as a Registerd Game Farm in regards with NEMBA Act 10 of 2004 and TOPS Regulation

Special Conditions and Requirements:

1. This Standing Permit with registration number **V 185 /830917 5044 087** allows the holder thereof to conduct a business as a **Registered Game farm** as well as the purchasing and use of a "**Game farm hunting Book**" book.
2. This Standing Permit is **valid for 3 years** from date of issue.
3. This is a **Standing Permit** in regards with, NEMBA Act 10 of 2004 & TOPS Regulations 20 & 22.
4. This Standing Permit does not replace or repeal any other necessary Provincial, National or CITES Permit.
5. This certificate applies to species as indicated in **S 25529** only: (Except for the selling and / or buying of **Leopard** *Panthera pardus* & **Cheetah** *Acinonyx jubatus* live animals, skins or products. An additional TOPS Annexure 1 application form must be completed for this activity:
6. This Standing Permit is invalid without attached Permit Conditions as set out in this **Addendum B.**
7. This Standing Permit applies to restricted activities as indicated in **Addendum C** only:
8. This permit should be returned for amendments in case of offspring.
9. A register shall be kept with details of every animal number and permit numbers applicable, as well as the offspring.
10. This register should be forwarded to the local Nature Conservator every month.
11. Capturing take places only from the beginning of March until the end of September.
12. The District Nature Conservator may be present during the capturing.
13. The following species may not be kept in the same enclosure. If kept in the same enclosure, the game may not leave the farm alive (Blesbuck-Bontebok; Blesbuck-Tsessebe; Hartmans-Burchell Zebra & Blue-Black Wildebeest).
14. This permit does not authorize the Hunting, Selling, Buying, Transporting, Exporting, Importing and Capturing of these animals.
15. Only Approved camps may be used for activity.
16. This permit is subject to **APPROVED** Management plan
17. As soon as a lion escapes, died by means other than hunting, injures or kill a person the incident must be reported to the Vryburg Conservation Office within 24 hours after happening.

Signature of Issuing Officer: _____ Date: 2014-04-07

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

Scientific Name	Common Name
MAMMALIA	
Panthera leo	Lion

gnature of Issuing Officer: _____ Date: 2-4-04-07

Signature of permit holder: _____ Date: _____

Department of Economic Development, Environment, Conservation & Tourism
Dr Ruth Segomotsi Mompati District
2014 -04- 07
Private Bag x 34, Vryburg 8600
NORTH WEST PROVINCE

read
Department:
Rural, Environment and Agricultural Development
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

Cnr. Noord & Molopo Str.
Mini Garona Complex
1st Floor Office DFG-19
Vryburg
8600

CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES
DIRECTORATE: Biodiversity Management

Tel: +27 (53) 928 0644
Fax: +27(86) 517 9137
E-Mail:

VALIDITY: 13/05/2014 to 12/05/2017

PERMIT 0089 /05/2014 NW

ISSUED IN TERMS OF THE PROVISIONS OF THE TRANSVAAL NATURE CONSERVATION ORDINANCE 12/83, CAPE NATURE CONSERVATION ORDINANCE 19/74 AND THE BOPHUTHATSWANA NATURE CONSERVATION ACT 3 OF 1973.
In terms of and subject to the provisions of the Ordinances and Law and the regulations framed there under, the permit holder is hereby authorized subject to the conditions and requirements appearing on this permit to carry out the activity with the wild animals or plants as mentioned in the permit during the period of validity of this permit.

1	Description of permitted activity.	**EXEMPTION INTERMS OF ARTICLE 47 OF ORD.12/83**		
		G.G. Van Schalkwyk	ID: 830917 5044 08 7	Tel: 083 260 4234
		Aurora farm: Vorstershoop - North West		Fax: 086 292 4772
		PO Box 81, Vorstershoop, 8615		Farm: **Aurora (Camp A)**
2	Description of permitted activity.			
	Particulars of person: ID, Home address & telephone			
3	Description of permitted activity.			
	Particulars of person: ID, Home address & telephone			
4	**Species and Additional info: Blesbuck -** *Damaliscus dorcas phillipsi,* **Blue wildebeest** - *Connochaetes taurinus,* **Burchelli's Zebra** – *Equus burchellii,* **Common duiker -** *Sylvicapra grimmia,* **Eland –** *Taurotragus oryx,* **Gemsbok -** *Oryx gazelle,* **Impala -** *Aepyceros melampus,* **Kudu -** *Tragelaphus strepsiceros,* **Nyala** – *Tragelaphus angasi,* **Red Hartebeest -** *Alcelaphus buselaphus,* **Sable Antelope** – *Hippotragus niger,* **Steen buck -** *Raphicerus campestris,* **Waterbuck** – *Kobus ellipsiprymnus,* **Warthog -** *Pacochoerrus arficanus,* **Buffalo** – *Syncerus caffer,* **Springbok** – *Antidorcas marsupialis,* **Mountain Reedbuck** – *Redunca fulvorufula,* **Springbuck-** *Antidorcas marsupialis*			
	THIS PERMIT ONLY AUTHORISES THE HUNTING, SELLING AND CAPTURING OF THE MENTIONED SPECIES.			
	CAPTURING MAY ONLY TAKE PLACE FROM THE BEGINNING OF MAY UNTIL THE END OF SEPTEMBER IN THE SAME YEAR.			
	THIS PERMIT IS VALID FOR ONLY THREE (3) YEARS FROM THE FIRST ISSUE.			

CONDITIONS AND REQUIREMENTS.

THE PERMIT IS NOT TRANSFERABLE. ONLY A PERSON AUTHORIZED THERETO MAY MAKE AN ALTERATION ON THIS PERMIT. THIS PERMIT SHALL BE SUBJECT TO THE PROVISIONS OF ANY LAW IN FORCE DURING THE PERIOD OF VALIDITY OF THE PERMIT. THE HOLDER OF THE PERMIT WHO CONTRAVENES OR FAILS TO COMPLY WITH ANY ONE OF THE CONDITIONS OR REQUIREMENTS, TO WHICH THIS PERMIT IS SUBJECT, SHALL BE GUILTY OF AN OFFENCE. THE HOLDER OF THE PERMIT SHALL HAVE THE PERMIT WITH HIM/HER WHEN THE ACTIVITY IS CARRIED OUT.

Authorized by:
Assistant Director
Biodiversity and Ecosystem Regulation
North West Province

D.B. MANGANYE
Assistant Director
Private Bag X34
Vryburg 8600
Tel: 053 927 1809
Fax: 053 927 2904

Drafted by: **AV Talakasi**
Permit Officer
Biodiversity and Ecosystem Regulation
North West Province

DEPT. OF RURAL, ENVIRONMENTAL & AGRICULTURAL DEVELOPMENT
DR RUTH SEGOMOTSI MOMPATI DISTRICT
29 -02- 2016
P.O. BOX 112, VRYBURG, 8600
NORTH WEST PROVINCE

EXEMPTION

PERMIT CONDITIONS TO: **PERMIT NO.** 0089 /05/2014 NW

PERMIT HOLDER: **G.G. Van Schalkwyk ID: 830917 5044 08 7**

THIS PERMIT DOES NOT AUTHORIZE THE:

A) SELLING OF LIVE GAME AT A PUBLIC AUCTION.
B) KEEPING OF GAME.
C) TRANSPORT OF LIVE GAME

2. **Exemption for the capture of Roan antelope, Sable, Tsessebe, Buffalo and Black and White Rhino is subject to the prior issuing of a transport permit, only excluding landowners holding a public auction on their own land and with their own game.**

3. **When the following game species occur together on the same land they may only be hunted and may not leave the farm/ property alive:**

    a) Blesbuck and Bontebok or
    b) Blesbuck and Tsessebe or
    c) Bontebok and Tsessebe or
    d) Hartman's zebra and Burchell's zebra or
    e) Black wildebeest and Blue wildebeest.

4. No colour mutation or exotic game may leave the farm/ property alive without the necessary permit.

Drafted by: AV Talakasi
Permit Officer
Biodiversity and Ecosystem Regulation
North West Province

read
Department:
Rural, Environmental and Agricultural Development
North West Provincial Government
Republic of South Africa

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DIRECTORATE: Biodiversity Management

Tel: +27 (53) 928 0644
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VALIDITY: 13/05/2014 to 12/05/2017

PERMIT 0086 /05/2014 NW

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Authorized by
Assistant Director
Biodiversity and Ecosystem Regulation
North West Province

D.B. MANGANYE
Assistant Director
Private Bag X34
Vryburg 8600
Tel: 053 927 1809
Fax: 053 927 2904

Drafted by: **AV Talakasi**
Permit Officer
Biodiversity and Ecosystem Regulation
North West Province

DEPT. OF RURAL, ENVIRONMENTAL & AGRICULTURAL DEVELOPMENT
DR RUTH SEGOMOTSI MOMPATI DISTRICT
29 -02- 2016
P.O. BOX 112, VRYBURG, 8600
NORTH WEST PROVINCE

EXEMPTION

PERMIT CONDITIONS TO: **PERMIT NO.** 0086 /05/2014 NW

PERMIT HOLDER: **G.G. Van Schalkwyk ID: 830917 5044 08 7**

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B) KEEPING OF GAME
C) TRANSPORT OF LIVE GAME.

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   b) Blesbuck and Tsessebe or
   c) Bontebok and Tsessebe or
   d) Hartman's zebra and Burchell's zebra or
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Biodiversity and Ecosystem Regulation
North West Province

DEPT. OF RURAL, ENVIRONMENTAL & AGRICULTURAL DEVELOPMENT
DR RUTH SEGOMOTSI MOMPATI DISTRICT
29 -02- 2016
P.O. BOX 112, VRYBURG, 8600
NORTH WEST PROVINCE

Department:
Rural, Environment and Agricultural Development
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

AgriCentre Building
Cnr. Dr. James Moroka and Stadium Rd
Private Bag X2039,
Mmabatho 2735
Republic of South Africa
Tel: +27 (18) 389 5032
Fax: +27 (18)389 5640
Fax to mail: +27 (86) 517 9137
Email: mons@nwpg.gov.za

CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES

DIRECTORATE: BIODIVERSITY MANAGEMENT

- PERMIT -

TO ACT AS HUNTING OUTFITTER

Permit Details

PROFESSIONAL HUNTING
NORTH WEST PROVINCE
21 OCT 2015
Private Bag X2039 Mmabatho 2735
Tel: +27 (0)18 389 5032 Fax: +27 (0)18 389 5640

Permit No : 2016/004
Reference : MBT – V 136
Date Issued : 21/10/2015
Expiry Date : 31/12/2016

Permit Holder

Full Names : van Schalkwyk G G Mr
Trade Name : N/A
Postal Address : P O Box 81
Vorstershoop
8615

ID No. : 830917 5044 087
Passport No : N/A
Valid Until : 31/12/2016
Physical Address : Aurora Farm
Vorstershoop
8615

In terms of and subject to the provisions of the Nature Conservation Ordinance, 1983 (Ordinance 12 of 1983), or in accordance with Nature and Environmental Conservation Ordinance (Ordinance 19/1974), and the regulations promulgated hereunder, the above-named person is hereby authorized, subject to the conditions and requirements appearing on this permit and the further conditions and requirements which the Director General may deem fit to impose, to act as Professional Hunter during the period of validity of this permit.

In terme van en ingevolge die bepaling van die Natuurbewaring Ordonnasie, 1983 (Ordonnasie 12 van 1983), of Natuur en Omgewingsbewaring Ordonnasie (Ordonnasie No 19/1974), en die regulasies wat invevolge daarvan opgestel is, is die bogenoemde persoon hierby gemagtig, onderhewing aan die kondisies en voorwaardes wat op die permit verskyn en die verdere kondisies en voorwardes wat die Direkteur General mag goed vind om toe te pas, om as 'n Professioncle Jagter op te tree gedurende die tydperk van die permit.

Biodiversity Permit Issuing Authority
Permitting and Criminal Investigations

Signature of Professional Hunter

See conditions and requirements on reverse side

Conditions and Requirements

This permit shall be subject to the following conditions and requirements:

(a) The permit shall not be transferable and shall be invalid until such time as the signature of the holder thereof has been appended to;

(b) Only a person authorized thereto by a member of the executive council may make alterations on the permit.

(c) The permit shall be subject to the provisions of any law in force during the period of the validity of the permit in the area where the holder of the permit acts in terms of the permit;

(d) In no event shall the prescribed fees paid in
respect of the permit be refundable;

(e) The holder of the permit shall when in terms of the permit carry the permit with him; and

(f) The permit shall authorize the organization of the hunting of a wild animal for a client only on land:

(i) of which the holder of the permit is the owner; or

(ii) in respect of which the holder of the permit has obtained the prior written authority of the owner of the land to organize thereon the hunt for the client.

Voorwaardes en Vereistes

Hierdie permit is onderworpe aan die volgende voorwaardes en vereistes:

(a) Hierdie permit is nie oordraagbaar nie en sal ongeldig wees totdat die handtekening daarop aangebring is;

(b) Slegs die persoon wat so gemagtig is deur 'n lid van die uitvoerende komitee mag 'n verandering op die permit aanbring.

(c) Die permit sal onderhewig wees aan die provisies van enige wet staande gedurende die tydperk van geldigheid van hierdie permit in die area waar die houer van die permit in terme vad die permit optree;

(d) Onder geen omstandighede sal die voorgeskrewe fooie wat betaal is, terugbetaal word;

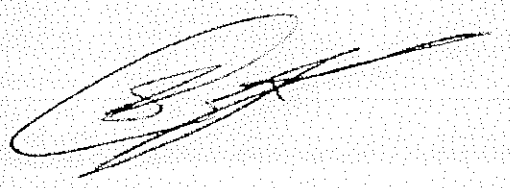
(e) Die houer van die permit sal, wanneer volgens die terme van die permit optree, die permit by hom/haar dra; en

(f) Hierdie permit bemagtig die organisering van die jag van 'n wilde dier op land alleenlik:

(i) van wie die houer van die permit is die eienaar; of

(ii) waarvan die houer van die permit die goedkeuring op skrif vooraf verkry het van die permit is die eienaar van die land waarop die jag vir die betrokke klient gaan plaasvind.

Special Conditions



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Ian Tolmay CMP Safaris 17 Victoria road oakdale PO Box 4426 Tygervallei 7536 VAT no: 439 0259242 Pl Today at 7:54 AM

Ian Tolmay <ian@ditholo.com> Today at 7:55 AM
To Shawn Hollermann

CMP Safaris
17 Victoria road oakdale
PO Box 4426
Tygervallei
7536
VAT no: 439 0259242

Plaas outfitter: GG van Schalkwyk
ID: 830917 5044 087
ADDRESS: Farm Aurora, VOrstershoop, 8615
Cell: 0027 83 260 4234
admin: 0027 72 208 7756
Email: auroravorstershoop@gmail.com

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Department:
Rural, Environment and Agricultural Development
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

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CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES

DIRECTORATE: BIODIVERSITY MANAGEMENT

- PERMIT -

TO ACT AS PROFESSIONAL HUNTER

Permit Details

Permit No : 2016/004
Reference : MBT – V 136
Date Issued : 21/10/2015
Expiry Date : 31/12/2016

PROFESSIONAL HUNTING
NORTH WEST PROVINCE
21 OCT 2015
Private Bag X2039 Mmabatho 2735
Tel: +27 (0)18 389 5032 Fax: +27 (0)18 389 5640

Permit Holder

Full Names : van Schalkwyk G G Mr
Trade Name : N/A
Postal Address : P O Box 81
Vorstershoop
8615

ID No. : 830917 5044 087
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Biodiversity Permit Issuing Authority
Permitting and Criminal Investigations

Signature of Professional Hunter

See conditions and requirements on reverse side

Conditions and Requirements

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(c) Die permit sal onderhewig wees aan die provisies van enige wet staande gedurende die tydperk van geldigheid van hierdie permit in die area waar die houer van die permit in terme vad die permit optree;

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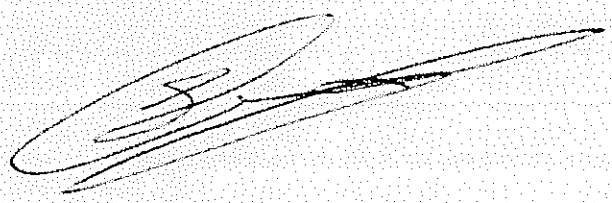
Special Conditions



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Biodiversity Permit Issuing Authority
Permitting and Criminal Investigations

Signature of Professional Hunter

See condiitions and requirements on reverse side

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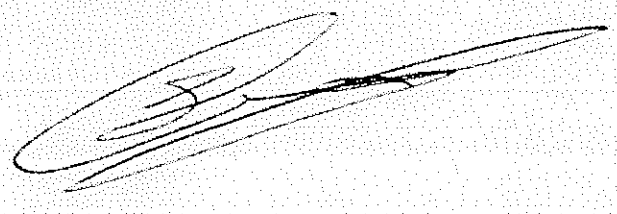

RCVD APR 15 2016

United States Department of the Interior

FISH AND WILDLIFE SERVICE
International Affairs
5275 Leesburg Pike, MS: IA
Falls Church, VA 22041-3803

In Reply Refer To:
FWS/AIA/DMA

Memorandum

To: The File

From: Chief, Branch of Permits OCT 19 2016

Subject: Unable to find Enhancement for Captive (or Captive-bred) Lions Taken as Sport-hunted Trophies in South Africa

After evaluating the available information from the Government of South Africa, other information available to the Service, and comments received from interested parties, the U.S. Fish & Wildlife Service (Service) has determined that, based on the information available, it is **unable** to find that permits for the importation of sport-hunted trophies of captive-bred lions (*P. l. melanochaita*) (referred to in this document and by the Government of South Africa as captive lions) taken in South Africa during the 2016 calendar year meet the enhancement criteria under 50 CFR 17.32. Therefore, applications received for import of such specimens will not be considered to meet this requirement, unless information becomes available through such an application or otherwise which would allow the Service to make the required enhancement finding. In accordance with the 4(d) rule for *P. l. melanochaita*, 50 CFR 17.40(r), the Service will review each application received for import of such specimens on a case-by-case basis and each application also needs to meet all other applicable permitting requirements before it may be authorized.

Governance of the Lion in the United States:

On October 29, 2014, the Service published in the Federal Register a finding that listing the African lion subspecies (*Panthera leo leo*) as a threatened species under the Endangered Species Act (Act) was warranted and proposed a rule under section 4(d) of the Act to provide conservation measures for the African lion. 79 Fed. Reg. 64472. On December 23, 2015, after fully considering the comments from the public and the peer reviewers on the proposed rule, the Service published in the Federal Register the final rule in which the taxonomic classification of the Asiatic lion (previously classified as *P. l. persica* and listed as an endangered species under the Act) was changed to *P. l. leo* (Asia and western, central and northern Africa) and listed as an endangered species, and the *P. l. melanochaita* (southern and eastern Africa) subspecies was listed as a threatened species with a rule under section 4(d) of the Act, which is set forth at 50 CFR 17.40(r) (USFWS 2015; 80 Fed. Reg. 79999). The effective date of this listing is January 22, 2016. Therefore, as of January 22, 2016, the lion subspecies *Panthera leo melanochaita*, whose range includes South Africa, is listed as

threatened under the ESA and is regulated under an ESA section 4(d) special rule [50 CFR 17.40(r)].

Section 9 of the Act and our implementing regulations at 50 CFR 17.21 and 50 CFR 17.31 set forth a series of general prohibitions that apply to all endangered and threatened wildlife, respectively, except where a 4(d) rule applies to threatened wildlife, in which case the 4(d) rule contains all the applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens. These prohibitions, at 50 CFR 17.21 and 17.31, in part, make it illegal for any person subject to the jurisdiction of the United States to "take" (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Permits may be issued to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits for endangered species, such as *P. l. leo*, are codified at 50 CFR 17.22. Regulations governing permits for threatened species, such as *P. l. melanochaita*, are codified at 50 CFR 17.32.

In sum, under paragraph 17.40(r)(1), all the prohibitions and exceptions under 50 CFR 17.31 and 50 CFR 17.32 apply to *P. l. melanochaita*. Accordingly, the Service may authorize the import of a sport-hunted lion trophy from South Africa, but only if it first makes a finding that permitting import of a trophy would enhance the survival of the species in the wild.

As we explained when finalizing the 4(d) rule for *P. l. melanochaita*, any person wishing to conduct an otherwise prohibited activity, including all imports of *P. l. melanochaita* specimens, must first obtain a permit under 50 CFR 17.32. As with all permit applications submitted under 50 CFR 17.32, the individual requesting authorization to import a sport-hunted trophy of *P. l. melanochaita* bears the burden of providing information in their application showing that the activity meets the requirements for issuance criteria under 50 CFR 17.32. In some cases, such as for import of sport-hunted trophies, it is not always possible for the applicant to provide all of the necessary information needed by the Service to make a positive determination under the Act to authorize the activity. In such cases, the Service may consult with the range country and other interested parties to the extent practicable to obtain necessary information. The Service has the discretion to make the required findings on sport-hunted trophy imports of *P. l. melanochaita* on a country-wide basis, although individual import permits will be evaluated and issued or denied for each applicant. While the Service may make enhancement findings for sport-hunted trophy imports of *P. l. melanochaita* on a country-wide basis, the Service encourages the submission of information from individual applicants. We rely on the information available to the Service and may rely on information from sources other than the applicant when making a permitting decision.

In evaluating the available data on lion hunting in South Africa, the Service is treating wild and wild-managed lions (referred to in this document as "wild") separately from captive lions raised for hunting purposes since the management and oversight of these specimens is different within South Africa and, therefore, information relevant to the Service's consideration of whether permitting import of sport-hunted trophies of lions may enhance the survival of the species in the wild is

different between wild lions and captive lions in South Africa. A separate determination will be made for wild and wild-managed lions.

General considerations:

As we also explained when finalizing the 4(d) rule, our threatened species permitting regulations at 50 CFR 17.32 provide issuance criteria for threatened species permits (50 CFR 17.32(a)(2)), but do not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of parts or products of *P. l. melanochaita,* including sport-hunted trophies. Therefore, when making a determination of whether an otherwise prohibited activity enhances the propagation or survival of *P. l. melanochaita,* the Service examines the overall conservation and management of the subspecies in the country where the specimen originated and whether that management of the subspecies addresses the threats to the subspecies (*i.e.,* that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluate whether the import contributes to the overall conservation of the species by considering whether the biological, social, and economic aspects of a program from which the specimen was obtained provide a net benefit to the subspecies and its ecosystem.

The Service will evaluate any application received that involves *P. l. melanochaita* in the context of enhancement of propagation or survival permitting in accordance with our threatened species permitting regulations at 50 CFR 17.32 and issuance criteria for threatened species permits (50 CFR 17.32(a)(2)). These include, in addition to the general permitting criteria in 50 CFR 13.21(b):

(i) Whether the purpose for which the permit is required is adequate to justify removing from the wild or otherwise changing the status of the wildlife sought to be covered by the permit;

(ii) The probable direct and indirect effect that issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit;

(iii) Whether the permit, if issued, would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed;

(iv) Whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species of wildlife sought to be covered by the permit;

(v) The opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application; and

(vi) Whether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application.

In addition to these factors, particularly in relation to sport hunting, we find the *IUCN Species Survival Commission (SSC) Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0* (IUCN SSC 2012), to provide useful principles, which, considered in conjunction with our threatened species issuance criteria, will aid the Service when

making an enhancement finding for importation of sport-hunted trophies of *P. l. melanochaita*. This document sets out guidance from experts in the field on the use of trophy hunting as a tool for "creating incentives for the conservation of species and their habitats and for the equitable sharing of the benefits of use of natural resources" (IUCN SSC 2012, p. 2) and recognizes that recreational hunting, particularly trophy hunting, can contribute to biodiversity conservation and more specifically, the conservation of the hunted species.

The SSC document lays out five guiding principles that, considered in conjunction with our threatened species issuance criteria, will aid the Service when making an enhancement finding for importation of sport-hunted trophies of *P. l. melanochaita:*

(a) *Biological sustainability:* The hunting program cannot contribute to the long-term decline of the hunted species. It should not alter natural selection and ecological function of the hunted species or any other species that share the habitat. The program should not inadvertently facilitate poaching or illegal trade in wildlife by acting as a cover for such illegal activities. The hunting program should also not manipulate the ecosystem or its component elements in a way that alters the native biodiversity.

(b) *Net Conservation Benefit:* The biologically sustainable hunting program should be based on laws, regulations, and scientifically based quotas, established with local input, that are transparent and periodically reviewed. The program should produce income, employment, and other benefits to create incentives for reducing the pressure on the target species. The program should create benefits for local residents to co-exist with the target species and other species. It is also imperative that the program is part of a legally recognized governance system that supports conservation.

(c) *Socio-Economic-Cultural Benefit:* A well-managed hunting program can serve as a conservation tool when it respects the local cultural values and practices. It should be accepted by most members of the community, involving and benefiting local residents in an equitable manner. The program should also adopt business practices that promote long-term economic sustainability.

(d) *Adaptive Management: Planning, Monitoring, and Reporting:* Hunting can enhance the species when it is based on appropriate resource assessments and monitoring (*e.g.*, population counts, trend data), upon which specific science-based quotas and hunting programs can be established. Resource assessments should be objective, well documented, and use the best science available. Adaptive management of quotas and programs based on the results of resource assessments and monitoring is essential. The program should monitor hunting activities to ensure that quotas and sex/age restrictions of harvested animals are met. The program should also generate reliable documentation of its biological sustainability and conservation benefits.

(e) *Accountable and Effective Governance:* A biologically sustainable trophy-hunting program should be subject to a governance structure that clearly allocates management responsibilities. The program should account for revenues in a transparent manner and distribute net revenues to conservation and community beneficiaries according to properly agreed decisions. All necessary steps to eliminate corruption should be taken and to ensure compliance with all

relevant national and international requirements and regulations by relevant bodies such as administrators, regulators and hunters.

The Service's approach to enhancement findings for the importation of sport-hunted trophies of *P. l. melanochaita* is consistent with the purpose and intent of the Endangered Species Act. Before we will authorize the importation of a sport-hunted trophy, we must determine that the trophy hunting program is managed to ensure the long-term survival of the species. In many parts of the world, wildlife exists outside of protected areas and must share the same habitat and compete with humans living in these areas for space and resources. If communities that share these resources with wildlife do not perceive any benefits from the presence of wildlife, they may be less willing to tolerate the wildlife. However, under certain circumstances, trophy hunting can address this problem by making wildlife more valuable to the local communities and encourage community support for managing and conserving the hunted species, as well as other species.

When evaluating whether the importation of a trophy of *P. l. melanochaita* would be authorized pursuant to 50 CFR 17.32, in accordance with our threatened species issuance criteria, we will examine how a country's management program for lions addresses the three main threats that have led to the decline of the subspecies: habitat loss, loss of prey base, and human-lion conflict. When examining a management program and whether trophies taken as part of that program meet the issuance criteria, we study a number of factors. Some of the factors we consider include whether the program is based on sound scientific information and identifies mechanisms that would arrest the loss of habitat or increase available habitat (*i.e.*, by establishing protected areas and ensuring adequate protection from human encroachment). We consider whether the management program actively addresses the loss of the lion's prey base by addressing poaching or unsustainable offtake within the country. A component of a management plan from which trophy imports would meet the issuance criteria would be whether there are government incentives in place that encourage habitat protection by private landowners and communities and incentives to local communities to reduce the incursion of livestock into protected areas or to actively manage livestock to reduce conflicts with lions. We examine if the hunting component of the management program supports all of these efforts by looking at whether hunting concessions/tracts are managed to ensure the long-term survival of the lion, its prey base, and habitat. Hunting, if properly conducted and well managed, can generate significant economic benefits that may contribute to the conservation of lions. In looking at whether we are able to authorize the import of a trophy under the issuance criteria of 50 CFR 17.32, we will examine if the trophy hunting provides financial assistance to the wildlife department to carry out elements of the management program and if there is a compensation scheme or other incentives to benefit local communities that may be impacted by lion predation. We will also consider how a U.S. hunter's participation in the hunting program contributes to the overall management of lions within a country.

Management programs for *P. l. melanochaita* are expected to address, but are not limited to, evaluating population levels and trends; the biological needs of the species; quotas; management practices; legal protection; local community involvement; and use of hunting fees for conservation. In evaluating these factors, we will work closely with the range countries and interested parties to obtain the information. By allowing entry into the United States of *P. l. melanochaita* trophies from range countries that have science-based management programs, we anticipate that other range countries would be encouraged to adopt and financially support the sustainable management of lions that benefits both the species and local communities. In addition to addressing the biological

needs of the subspecies, a scientifically based management program would provide economic incentives for local communities to protect and expand *P. l. melanochaita* habitat.

Basis for Finding for Captive lions taken in South Africa:

On January 12, 2016, the Service sent a letter to South Africa's Department of Environmental Affairs (DEA) with a list of questions that would aid the Service in evaluating the overall conservation and management of the subspecies, *P. l. melanochaita*, in South Africa and whether that management addresses the three main threats that have been identified as the primary contributors to the decline of the species: habitat loss, loss of prey base, and human-lion conflict. Additionally, the Service's letter referenced the IUCN Species Survival Commission (SSC) Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0 (IUCN SSC 2012), as it provides useful principles which, when considered in conjunction with the Service's permit issuance criteria, would aid in making the required enhancement finding for permitting importation of sport-hunted lion trophies.

In response to our January 12, 2016, letter, the South African Department of Environmental Affairs (DEA) informed the Service that South Africa has defined three populations of lions that exist within the country through their Biodiversity Management Plan for the Lion (*Panthera leo*) in South Africa (BMP; December 2015): *Wild lions,* who completely fulfil their role in biodiversity processes and are largely unmanaged, and exist only in formally proclaimed national parks and game reserves. This population's vital rates and demographics are not actively manipulated. *Wild-managed lions,* which include all lions that have been re-introduced into smaller fenced reserves ($<1{,}000 km^2$), and are managed to limit population growth and maintain genetic diversity. Some of the vital rates and demographics of these lions are actively manipulated. *Captive lions* (or captive-bred lions) are bred for financial gain, where all vital rates and demographics of these populations are actively manipulated. DEA informed the Service that it had limited control over the management and harvest of captive lions. There are approximately 2,200 wild lions in South Africa. In addition, there are approximately 800 wild-managed lions separated among 45 fenced reserves of less than 1,000 square kilometers each (BMP pg. 40). According to the BMP, there are over 6,000 captive lions maintained on over 200 farms/ranches.

Further, the Service has been contacted by the South African Predator Association (SAPA), an organization of captive lion breeders. On August 26, 2016, in response to an inquiry to SAPA, the Service received an e-mail that contained a list of nine hunting ranches that have been accredited by SAPA as complying with SAPA's hunting standards and code of conduct (five more are currently being considered). In addition, the e-mail contained an overview of how captive lions maintained by members of SAPA were contributing to the conservation of wild lions. The overview briefly discussed a number of activities being carried out by SAPA members and future activities that they intend to carry out to contribute to lion conservation. On September 28, 2016, during the 17th Meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Service met with SAPA to further discuss their contributions and how they viewed their activities would enhance the propagation and survival of lions in the wild. There was also the opportunity to discuss captive lions with Jonathan Denga of the Northwest Provincial Department of Rural, Environment, and Agricultural Development (READ) on September 28, 2016, to discuss how the provincial government was addressing captive lions.

The lion is listed as vulnerable in the South African list of Threatened and Protected Species under Section 56(1) of the National Environmental Management Biodiversity Act, 2004 (South Africa 2004; NEMBA; BMP pg. 1). NEMBA further regulates the permit system set out in the Biodiversity Act in regards to restricted activities involving specimens of listed threatened or protected species. Regulated activities in need of registration include, among others, captive breeding facilities, sanctuaries, scientific institutions, game farms, wildlife traders, wildlife product traders, taxidermists, wildlife translocators, and freight agents (NEMBA pg. 25).

In addition to South Africa's domestic laws, it is also a Party to CITES. The lion is listed in Appendix II of the Convention. As an Appendix-II species, certain criteria must be met before such species can be exported, including a finding from the exporting country's CITES Scientific Authority that the proposed activity will not be detrimental to the survival of the species in the wild. In their reply to our inquiry, South Africa provided a copy of their CITES non-detriment finding for lions. Their finding, while focusing only on wild and wild-managed lions, applied to all lion exports from South Africa, including the captive lion population. In personal communication with the SA Management Authority, the Service was informed that the finding may be amended to better clarify that the finding applies to all lions within South Africa. However, the DEA does not oversee captive lion activities within South Africa, only the CITES requirements for exports of live animals, trophies, parts, and products.

Although there has been some discussions with DEA and the SAPA since the listing went into effect, the Service has not receive any specific information about the hunting of captive lions and how these hunts contribute to the species in the wild. While the 2015 management plan, BMP, for wild and wild-managed lions does have some discussion of the captive lions within South Africa, it does not include any discussion of how captive lions are contributing to the long-term conservation of lions in the wid. The brief overview of SAPA activities received on August 26, 2016, and further discussion on September 28, 2016, provided some additional discussion of how captive lions could contribute to wild lion conservation, but primarily addressed activities and support that may be started in the future or activities that, while generally contributing to South Africa's overall economy, do not contribute directly or indirectly to conservation efforts for *P. l. melanochaita*. Further, of over 200 farms/ranches that maintain captive lions, SAPA only identified 9 that were accredited under their standards for hunting.

According to the BMP, captive lions in South Africa are primarily held and bred in private facilities under the governance of individual State provinces and account for upwards of 95 percent of lion trophies taken in South Africa over the last 5 years. The BMP points to a prevailing view amongst carnivore specialists that captive lions do not contribute to the conservation of the species, particularly given that inbreeding is known to occur with captive lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that captive breeding operations are supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing captive lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

There is an active lion bone trade from South Africa to several Asian countries for traditional medicinals that is primarily supplied from captive lions. Lion bones are being used as a substitute

for tiger bones, which is highly valued in Asia, primarily in China and Vietnam (Williams et al. 2015, p. 1; Gratwicke et al. 2008, pp. 2–5; Graham-Rowe 2011, pp. s101–s102). While it appears that the source of the bones is primarily from lions that are taken as trophies, there is some indication that captive lionesses and juvenile lions are also being culled to increase supply of bones (BMP pg. 30). In 2008, South Africa began issuing CITES permits for the export of skeletons of captive lions to Asia. These exports currently come primarily from South Africa's captive lion hunting industry as a byproduct of trophy hunting. The number of lion skeletons for which South Africa issued permits for export to Asia (China, Viet Nam, Thailand and Lao PDR) increased tenfold from 2008 to 2011, from about 50 to about 573 skeletons, respectively, representing a total of 1,160 skeletons or about 10.8 metric tons (11.9 US tons) of lion bone in 4 years (Williams 2015, pp. ix–x, 46). With respect to meeting demand for lion bone, Lindsey et al. (2012, p. 20) state that there are likely to be large numbers of lion bones available for export from game farms, from lionesses and nontrophy males, and as byproducts from animals shot as trophies. In addition, Williams et al. (2015, p. 41) report that there may be between 1,400 and 6,200 lion skeletons from past trophy hunts on South African game farms that could potentially be used to supply demand for lion bone.

While the BMP suggests that the value of bones, whether wild or captive, is not high enough to stimulate the illegal harvest of lions solely to sell the bones into the bone trade, there is the potential that if the value of bones increases due to increasing demand from Asian markets, that captive lions could be a legal source of bones that masks the illegal harvest of wild lions. However, evidence suggests that there may be incentive to poach wild lions for the bone trade. According to Williams et al. (2015, p. x), the 2013 price paid to South African game farmers and landowners for lion bones was $1,260–2,100 USD per skeleton. In many lion range states, this exceeds per capita GDP (gross domestic product) (World Bank 2015, unpaginated). Thus, the current price paid for lion bone may provide incentive in some countries to poach wild lions. While the lion bone trade appears to currently be based primarily in South Africa's captive lion hunting industry, the trade appears to be having little or no impact on wild lion populations in South Africa at this time—lion populations in South Africa are stable or increasing and there is little poaching of wild lions in the country (Funston and Levendal 2015, pp. 1, 26; Williams et al. 2015, pp. 79–80). However, the impact of the lion bone trade on lion populations outside South Africa is unknown. Based on the effect of the tiger bone trade on tiger populations, if current conditions—for example, rapidly increasing demand and involvement of an international crime syndicate in the lion bone trade (Final ESA listing rule, pg. 80026) —continue unchanged, then there is considerable potential for extensive poaching of wild lions to occur in order to meet demand.

Evaluation:

As stated earlier, the Service will evaluate any application in accordance with our threatened species permitting regulations at 50 CFR 17.32 and issuance criteria for threatened species permits (50 CFR 17.32(a)(2)). In evaluating each of these criteria on the basis of information available to the Service, we have been unable to determine if the import of captive lions would qualify for the issuance of the required import permit.

17.32(a)(2)(i): Whether the purpose for which the permit is required is adequate to justify removing from the wild or otherwise changing the status of the wildlife sought to be covered by the permit:

To date, there has been insufficient information to show how permitting the import of captive lion trophies would provide a benefit to the species in the wild, thus potentially justifying the issuance of an import permit. At this time, the Service has received largely conclusory assertions from SAPA that captive lions can be used to contribute the survival of lions in the wild, and therefore the continued activities of ranches utilizing captive lions need to be supported by allowing the import of such trophies. SAPA stated that captive lions constitute 25% of all *P. l. melanochaita* in the world, but does not document why maintaining these animals is important to overall conservation of the species. SAPA also commented on the benefit that ranches that have captive lions contribute by providing additional habitat for lions, although at this time it did not identify how much additional habitat is provided by maintaining these hunting ranches. SAPA stated that captive lions could be used for re-introduction or re-stocking efforts and identified two experiments in Zambia and Zimbabwe of releasing captive lions. However, according to the BMP, captive lions cannot be released into the wild or used for re-introduction/re-stocking purposes and lion researchers have consistently questioned the viability of such releases. SAPA also identified the establishment of a conservation fund based on surcharge of R10,000 (~$700) per lion hunted on SAPA-accredited ranches [During in-person discussions with representatives of SAPA at CoP17, it was stated that the conservation fund would be based on $1000 per lion hunted on SAPA-accredited ranches]. It is SAPA's assertion that this conservation fund would directly contribute to in-situ conservation efforts. However, other than a general statement on how the funds would be utilized, no specific information has been provided showing how the funds would be spent to provide a conservation benefit. Further, there are only 9 SAPA-accredited ranches out of over 200 ranches in South Africa. Given the limited number of ranches that apparently would be contributing to this fund, it is unclear if the limited funds, if directed to an appropriate conservation effort, would indicate sufficient support to justify changing the status of the specimens.

Therefore, there is no basis in the information available to the Service that the issuance of an import permit would justify changing the status of the captive specimens hunted.

17.32(a)(2)(ii): <u>The probable direct and indirect effect that issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit</u>:

Based on current information, there is probably no direct beneficial effect on wild lions by authorizing the import of captive sport-hunted lion trophies. If it could be demonstrated that hunting, and allowing the import of captive lions could provide an indirect beneficial effect, the issuance of import permits might be justified. However, other than general statements, there is little evidence that captive lions could be used for re-introduction or that these specimens could contribute to better genetic management of wild lions. In addition, while SAPA points to the value that maintaining hunting ranches can contribute to providing habitat and stable prey-base, two factors leading to listing under the Act, there has been no information on the quantity or quality of this additional habitat for wild lions. Finally, SAPA stated contribution to in-situ conservation would only apply to the ranches that are "accredited" by them and does not appear to constitute enough operations that the funds would have a meaningful impact on conservation efforts, if such efforts were clearly identified.

Therefore, there is no basis in the information available to the Service to determine the probable direct or indirect effect that issuing import permits for sport-hunted trophies of captive lions would provide to wild lions.

17.32(a)(2)(iii): Whether the permit, if issued, would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed:

Under current South African law, the oversight of captive lions is with the Department of Agriculture, while oversight of wild lions is with the Department of Environmental Affairs. Since captive lions cannot be used for re-introduction or re-stocking efforts, there does not appear to be any conflicts that would arise if import permits were to be issued for captive lion trophies. Further, since there is a limited number of poaching events of wild and wild-managed lions in South Africa, it does not appear that captive lion hunting is acting as a cover for illegal harvests.

However, as stated above, there is an active trade in bones for Asian traditional medicinals collected from captive lions. Lion bones are being used as a substitute for tiger bones, which is highly valued in Asia, primarily in China and Vietnam. It is clear that there has been a significant increase in the number of lion skeletons exported from South Africa over the last 10 years, and that the majority of these skeletons are obtained through trophy hunting of captive lions. There is very limited evidence that poaching of wild lions is a current problem in South Africa, so the current trade does not appear to have any impact on wild or managed-wild lions in South Africa. Further, it has been reported that there may be between 1,400 and 6,200 lion skeletons from past trophy hunts on South African game farms that could potentially be used to supply demand for lion bone, so it does not appear that this trade would have an immediate impact on wild lions in South Africa. However, there is some concern that trade in captive lion skeletons could have an impact on wild lions outside of South Africa by creating an incentive to poach wild lions. If the trade in captive lion skeletons, derived from trophy hunting, were to stimulate poaching or mask illegal harvest of lions outside of South Africa, this could adversely impact programs intending to enhance the survival of lions. So, while it does not currently appear to be an issue, this situation would need to be monitored over time.

Therefore, based on the information available to the Service, it currently appear to would be no direct or indirect conflict with known conservation programs for wild lions if import permits for captive lion trophies were issued.

17.32(a)(2)(iv): Whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species of wildlife sought to be covered by the permit:

Although there have been general statements by SAPA on potential benefits that could be obtained for wild lions through captive lion management and hunting activities, there has been no clear indications that these activities would reduce the threat of extinction facing wild lions. Wild lions in South Africa are well managed by the DEA (see October 19, 2016, "Enhancement Finding for Wild and Wild-managed Lions taken as Sport-hunted Trophies in South Africa"). Through this management, the three identified threats to wild lions (i.e., habitat loss, loss of prey-base, and lion-human conflicts) are being addressed, thus reducing the threat of extinction within South Africa. While permitting the import of captive lion trophies does not appear to have any negative impact on wild lions, there is also little evidence that it would reduce the threat of extinction.

Therefore, based on the information available to the Service, it does not appear that the import of captive lion trophies would reduce the threat of extinction facing lions in the wild.

17.32(a)(2)(v): The opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application:

While there are some concerns that breeding lions in captivity could compromise genetic integrity of lions, there appears to be general consensus that the captive lion hunting industry is not having a negative effect on wild lions. However, at the same time, there is little evidence obtained during this current review or information provided by commenters during the listing of lion under the Act that indicates that captive lion management, hunting, and the subsequent import of these trophies, would provide a benefit to the species. There have been a large number of comments from some NGOs and the public opposing hunting any lions, but particularly captive lions. This opposition, however, is primarily based on the perceived ethics of hunting. While these comments are an indication of concerns from some members of the public over hunting, they are not germane to our review process.

Therefore, based on the information available to the Service, the opinions or views provided by scientists or species experts that would be germane this review are that the import of captive lion trophies would not have a negative or positive impact on lion conservation.

17.32(a)(2)(vi): Whether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application:

As stated previously, the decision to issue or deny an application to import a captive lion trophy is made on a case-by-case evaluation of the submitted application. Therefore, it would not be possible to determine in this general review if the expertise or facilities of a particular US importer are adequate to successfully accomplish the objective stated in the application (i.e., whether permitting importation of a trophy of a captive lion would enhance the survival of the species). As such, we would need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. However, based on the currently available information, permitting the importation of a captive lion trophy does not appear to meet the purposes of the Act or the issuance criteria in 50 CFR 17.32(a)(2). As such, it does not appear that any applicant would have the expertise, facilities, or other resources that would enhance the propagation or survival of lions in the wild.

Therefore, based on the information available to the Service, the Service is **unable** to find that permits for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meet the enhancement criteria under 50 CFR 17.32.

Conclusion

Given the current status of lions within South Africa and the level of management and oversight provided to wild and wild-managed lions, it does not appear that harvest and import of captive lions as trophies is having an adverse effect on lion populations in South Africa. However, as explained above, permitting the import must go beyond not being detrimental. It must enhance the species by

having a clear benefit to the species and its management. There is no indication that permitting the import of trophies of captive lions sport-hunted in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Without additional information that would enable the Service to make such a finding in accordance with the general considerations laid out above, the Service is unable to make a determination that the import of captive lions would meet the issuance criteria under 50 CFR 17.32. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of captive lion trophies from South Africa**. Such specimens will not be considered to meet this requirement, unless information becomes available through such an application or otherwise which would allow the Service to make the required enhancement finding. In accordance with the 4(d) rule for *P. l. melanochaita*, 50 CFR 17.40(r), the Service will review each application received for import of such specimens on a case-by-case basis and each application also needs to meet all other applicable permitting requirements before it may be authorized.

REFERENCES:

Biodiversity Management Plan for the Lion (*Panthera leo*) in South Africa (BMP; December 2015): Funston, P. J. & Lavendal, M. (2015). Biodiversity Management Plan for the Lion (Panthera leo) in South Africa. Department of Environmental Affairs, Republic of South Africa. 63 pp

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South Africa (2004). National Environmental Management Biodiversity Act 10 of 2004. www.gpwonline.co.za

USFWS (2015) Final ESA listing rule for *Panthera leo leo* and *P. l. melanochaita*. 80 Fed. Reg. 79999.

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World Bank. 2015. The World Bank Annual Report 2015. Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/22550 License: CC BY 3.0 IGO.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
International Affairs
5275 Leesburg Pike, MS: IA
Falls Church, VA 22041-3803

In Reply Refer To:
FWS/AIA/DMA/PRT 94131B

OCT 20 2016

Mr. Joseph (b) (6) Maciej
(b) (6)
Little Falls, MN (b) (6)

Dear Mr. Maciej:

This letter responds to your April 11, 2016, application requesting a permit under the U.S. Endangered Species Act (Act) to import one male and one femal sport-hunted lion (*Panthera leo melanochaita*) hunted in South Africa on the Aurora Farm, Vorstershoop, Northwest Province. After careful review and consideration of your application, your request is being denied for the reasons described below.

The subspecies of lion found in Southern Africa (*P. leo melanochaita*) is listed as threatened under the Act with a rule under Section 4(d) of the Act, which is set forth in regulations found at 50 CFR 17.40(r)[1]. Section 9 of the Act[2] and our implementing regulations at 50 CFR 17.31 set forth a series of general prohibitions that apply to all threatened wildlife, except where there is a 4(d) rule, in which case the 4(d) rule contains all applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens, in part, making it illegal for any person subject to the jurisdiction of the United States to "take" (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Otherwise prohibited activities, such as import, may be permitted, but only if the U.S. Fish and Wildlife Service (Service) finds that the activity is consistent with the 4(d) rule and the purpose of the Act [Section 10(d)[2]]. The primary purpose of the Act is the conservation and continued existence of wild populations of

[1] The text of this regulation is available at: http://go.usa.gov/xr6m3
[2] The text of the Act is available at: http://go.usa.gov/xr6dd

endangered and threatened species and the ecosystem on which they depend (Section 2[2]). It is the requirement of the Act and its implementing regulations (50 CFR 17.32(a)(2)[1]) that the proposed activities of the applicant enhance the propagation or survival of the subspecies by reducing the threat of extinction or otherwise benefitting the species in the wild.

While the regulations at 50 CFR 17.32 provide issuance criteria for threatened species permits, it does not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of captive, or captive-bred, lion hunting trophies. Therefore, when making a determination of whether the importation of such a trophy would enhance the propagation or survival of *P. l. melanochaita,* the Service examined the overall management of the captive subspecies in South Africa and whether that management addresses the threats to the subspecies (*i.e.*, that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluated whether the import will/would contribute to the overall conservation of the subspecies in the wild by addressing loss of habitat, loss of prey base, and human-lion conflicts, which were the basis for listing the subspecies as threatened under the Act.

Since the subspecies was listed under the Act, the Service has had discussions with the South African Department of Environmental Affairs and the South Africa Predator Association (SAPA). However, the Service has not received any specific information about how the management and subsequent hunting of captive lions contributes to the species in the wild. While the 2015 Biodiversity Management Plan for the Lion (Panthera leo) in South Africa (BMP), the lion management plan for the country, has some discussion on captive lions within South Africa, it does not include any discussion of how captive lions are contributing to the long-term conservation of lions in the wild. The brief overview of activities being conducted or proposed to be conducted by SAPA, received on August 26, 2016, and further discussions on September 28, 2016, provided some additional insight on how captive lions could potentially contribute to wild lion conservation, but it primarily addressed activities and support that could be started in the future or activities that, while generally contributing to South Africa's overall economy, do not contribute directly or indirectly to conservation efforts for *P. l. melanochaita.* Further, of the over 200 farms/ranches that maintain captive lions, SAPA only identified 9 that were accredited under their standards for hunting, which would be the only facilities that might contribute to SAPA activities.

According to the BMP, captive lions in South Africa are primarily held and bred in private facilities under the governance of individual South African provinces. The BMP points to a prevailing view amongst carnivore specialists that captive lions do not contribute to the conservation of the species, particularly given that inbreeding is known to occur with captive lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that captive breeding operations are supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing captive lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

The decision to issue or deny an application to import a captive lion trophy is made on a case-by-case evaluation of the submitted application. As such, we would need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. However, based on the currently available information, and the information you provided in your application, your proposed import does not appear to meet the purposes of the Act or the issuance criteria in 50 CFR 17.32(a)(2).

Therefore, there is no indication that permitting the import of trophies of captive lions sport-hunted in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Without additional information that would enable the Service to make such a finding in accordance with the general considerations laid out above, the Service is unable to make a determination that the import of captive lions would meet the issuance criteria under 50 CFR 17.32. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of captive lion trophies from South Africa**. Please see attached October 19, 2016, enhancement finding for additional information.

As provided in 50 CFR 13.29 (a)[3], you may request reconsideration of our decision to deny your application. Such a request must be submitted in writing with the original signature of the person requesting reconsideration or by that person's legal representative, must contain a certification statement as provided at 50 CFR 13.12(a)(5)[3], should refer to your file number, PRT-94131B, and must be received in this office within 45 calendar days of the date of this letter. The reconsideration of the decision to deny your request will be based on the information you provided in your original application. As such, your letter requesting reconsideration must address how our decision to deny your application was based on a misinterpretation of the information provided in your application, or it must present clarification of this information. **Should you supply new information that changes the content of your original application, a new application will need to be submitted to this office before such information can be considered.**

If you have any questions, please contact Biologist Emma Nelson of this office: Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, Virginia 22041-3803 (1-800-358-2104, ext. 2296 or 703-358-2296).

Sincerely,

Timothy J. Van Norman, Chief
Branch of Permits
Division of Management Authority

[3] The text of this regulation is available at: http://go.usa.gov/xYDUk

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD APR 15 2016

LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Hollermann	Shawn	(b) (6)	MR

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)		(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Bertram	MN	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee.** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☒

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 4-1-16

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   genus - Panthera common name African lion

   b. Sex (if known).
   1 Male and 1 Female

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
   Ranch or Farm Aurora City Vorsterschoop

   b. Date wildlife is to be hunted:
   7-20-16 TO 7-23-16

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
   skin, skull, life size, claw's

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):
   NA

   b. Date wildlife was hunted:
   NA

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

NA

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

NA

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: → Johan LeRoux
Business Name: → Trophy Pro SA
Address: PO Box 548
Address:
City: modimolle 0510
State/Province: Limpopo ~~South Africa~~
Country, Postal Code: South Africa

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 4-1-16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

Coffee Smith

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

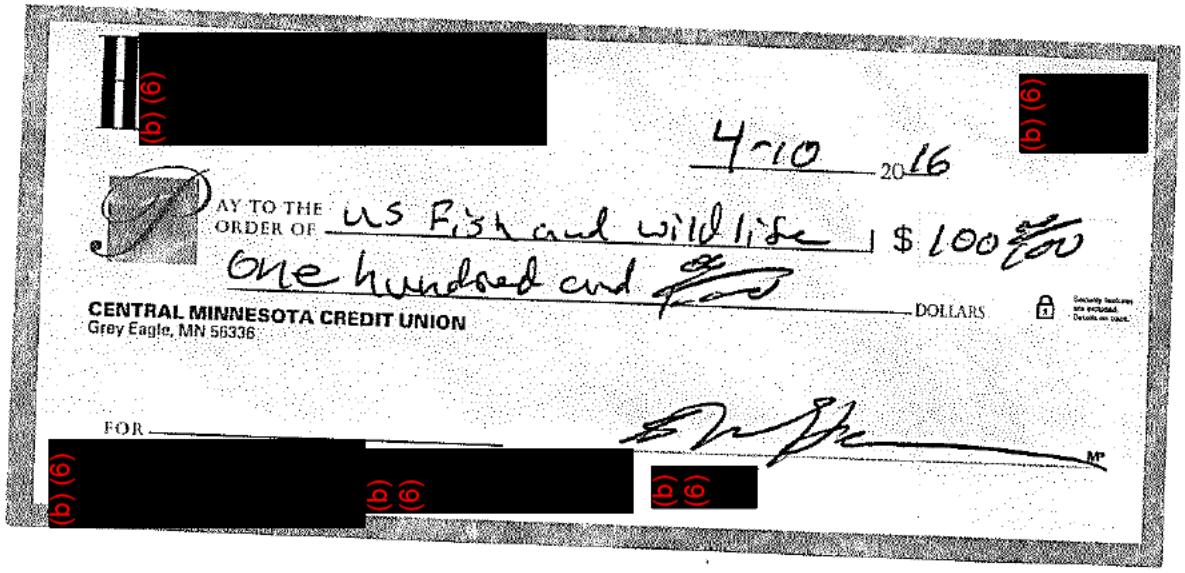
Shawn Hollermann (b) (6) [redacted]

(b) (6) [redacted]

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD APR 15 2016



United States Department of the Interior

FISH AND WILDLIFE SERVICE
International Affairs
5275 Leesburg Pike, MS: IA
Falls Church, VA 22041-3803

In Reply Refer To:
FWS/AIA/DMA

Memorandum

To: The File

From: Chief, Branch of Permits OCT 19 2016

Subject: Unable to find Enhancement for Captive (or Captive-bred) Lions Taken as Sport-hunted Trophies in South Africa

After evaluating the available information from the Government of South Africa, other information available to the Service, and comments received from interested parties, the U.S. Fish & Wildlife Service (Service) has determined that, based on the information available, it is **unable** to find that permits for the importation of sport-hunted trophies of captive-bred lions (*P. l. melanochaita*) (referred to in this document and by the Government of South Africa as captive lions) taken in South Africa during the 2016 calendar year meet the enhancement criteria under 50 CFR 17.32. Therefore, applications received for import of such specimens will not be considered to meet this requirement, unless information becomes available through such an application or otherwise which would allow the Service to make the required enhancement finding. In accordance with the 4(d) rule for *P. l. melanochaita*, 50 CFR 17.40(r), the Service will review each application received for import of such specimens on a case-by-case basis and each application also needs to meet all other applicable permitting requirements before it may be authorized.

Governance of the Lion in the United States:

On October 29, 2014, the Service published in the Federal Register a finding that listing the African lion subspecies (*Panthera leo leo*) as a threatened species under the Endangered Species Act (Act) was warranted and proposed a rule under section 4(d) of the Act to provide conservation measures for the African lion. 79 Fed. Reg. 64472. On December 23, 2015, after fully considering the comments from the public and the peer reviewers on the proposed rule, the Service published in the Federal Register the final rule in which the taxonomic classification of the Asiatic lion (previously classified as *P. l. persica* and listed as an endangered species under the Act) was changed to *P. l. leo* (Asia and western, central and northern Africa) and listed as an endangered species, and the *P. l. melanochaita* (southern and eastern Africa) subspecies was listed as a threatened species with a rule under section 4(d) of the Act, which is set forth at 50 CFR 17.40(r) (USFWS 2015; 80 Fed. Reg. 79999). The effective date of this listing is January 22, 2016. Therefore, as of January 22, 2016, the lion subspecies *Panthera leo melanochaita*, whose range includes South Africa, is listed as

threatened under the ESA and is regulated under an ESA section 4(d) special rule [50 CFR 17.40(r)].

Section 9 of the Act and our implementing regulations at 50 CFR 17.21 and 50 CFR 17.31 set forth a series of general prohibitions that apply to all endangered and threatened wildlife, respectively, except where a 4(d) rule applies to threatened wildlife, in which case the 4(d) rule contains all the applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens. These prohibitions, at 50 CFR 17.21 and 17.31, in part, make it illegal for any person subject to the jurisdiction of the United States to "take" (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Permits may be issued to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits for endangered species, such as *P. l. leo*, are codified at 50 CFR 17.22. Regulations governing permits for threatened species, such as *P. l. melanochaita*, are codified at 50 CFR 17.32.

In sum, under paragraph 17.40(r)(1), all the prohibitions and exceptions under 50 CFR 17.31 and 50 CFR 17.32 apply to *P. l. melanochaita*. Accordingly, the Service may authorize the import of a sport-hunted lion trophy from South Africa, but only if it first makes a finding that permitting import of a trophy would enhance the survival of the species in the wild.

As we explained when finalizing the 4(d) rule for *P. l. melanochaita*, any person wishing to conduct an otherwise prohibited activity, including all imports of *P. l. melanochaita* specimens, must first obtain a permit under 50 CFR 17.32. As with all permit applications submitted under 50 CFR 17.32, the individual requesting authorization to import a sport-hunted trophy of *P. l. melanochaita* bears the burden of providing information in their application showing that the activity meets the requirements for issuance criteria under 50 CFR 17.32. In some cases, such as for import of sport-hunted trophies, it is not always possible for the applicant to provide all of the necessary information needed by the Service to make a positive determination under the Act to authorize the activity. In such cases, the Service may consult with the range country and other interested parties to the extent practicable to obtain necessary information. The Service has the discretion to make the required findings on sport-hunted trophy imports of *P. l. melanochaita* on a country-wide basis, although individual import permits will be evaluated and issued or denied for each applicant. While the Service may make enhancement findings for sport-hunted trophy imports of *P. l. melanochaita* on a country-wide basis, the Service encourages the submission of information from individual applicants. We rely on the information available to the Service and may rely on information from sources other than the applicant when making a permitting decision.

In evaluating the available data on lion hunting in South Africa, the Service is treating wild and wild-managed lions (referred to in this document as "wild") separately from captive lions raised for hunting purposes since the management and oversight of these specimens is different within South Africa and, therefore, information relevant to the Service's consideration of whether permitting import of sport-hunted trophies of lions may enhance the survival of the species in the wild is

different between wild lions and captive lions in South Africa. A separate determination will be made for wild and wild-managed lions.

General considerations:

As we also explained when finalizing the 4(d) rule, our threatened species permitting regulations at 50 CFR 17.32 provide issuance criteria for threatened species permits (50 CFR 17.32(a)(2)), but do not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of parts or products of *P. l. melanochaita,* including sport-hunted trophies. Therefore, when making a determination of whether an otherwise prohibited activity enhances the propagation or survival of *P. l. melanochaita,* the Service examines the overall conservation and management of the subspecies in the country where the specimen originated and whether that management of the subspecies addresses the threats to the subspecies (*i.e.,* that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluate whether the import contributes to the overall conservation of the species by considering whether the biological, social, and economic aspects of a program from which the specimen was obtained provide a net benefit to the subspecies and its ecosystem.

The Service will evaluate any application received that involves *P. l. melanochaita* in the context of enhancement of propagation or survival permitting in accordance with our threatened species permitting regulations at 50 CFR 17.32 and issuance criteria for threatened species permits (50 CFR 17.32(a)(2)). These include, in addition to the general permitting criteria in 50 CFR 13.21(b):

(i) Whether the purpose for which the permit is required is adequate to justify removing from the wild or otherwise changing the status of the wildlife sought to be covered by the permit;

(ii) The probable direct and indirect effect that issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit;

(iii) Whether the permit, if issued, would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed;

(iv) Whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species of wildlife sought to be covered by the permit;

(v) The opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application; and

(vi) Whether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application.

In addition to these factors, particularly in relation to sport hunting, we find the *IUCN Species Survival Commission (SSC) Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0* (IUCN SSC 2012), to provide useful principles, which, considered in conjunction with our threatened species issuance criteria, will aid the Service when

making an enhancement finding for importation of sport-hunted trophies of *P. l. melanochaita*. This document sets out guidance from experts in the field on the use of trophy hunting as a tool for "creating incentives for the conservation of species and their habitats and for the equitable sharing of the benefits of use of natural resources" (IUCN SSC 2012, p. 2) and recognizes that recreational hunting, particularly trophy hunting, can contribute to biodiversity conservation and more specifically, the conservation of the hunted species.

The SSC document lays out five guiding principles that, considered in conjunction with our threatened species issuance criteria, will aid the Service when making an enhancement finding for importation of sport-hunted trophies of *P. l. melanochaita:*

(a) *Biological sustainability:* The hunting program cannot contribute to the long-term decline of the hunted species. It should not alter natural selection and ecological function of the hunted species or any other species that share the habitat. The program should not inadvertently facilitate poaching or illegal trade in wildlife by acting as a cover for such illegal activities. The hunting program should also not manipulate the ecosystem or its component elements in a way that alters the native biodiversity.

(b) *Net Conservation Benefit:* The biologically sustainable hunting program should be based on laws, regulations, and scientifically based quotas, established with local input, that are transparent and periodically reviewed. The program should produce income, employment, and other benefits to create incentives for reducing the pressure on the target species. The program should create benefits for local residents to co-exist with the target species and other species. It is also imperative that the program is part of a legally recognized governance system that supports conservation.

(c) *Socio-Economic-Cultural Benefit:* A well-managed hunting program can serve as a conservation tool when it respects the local cultural values and practices. It should be accepted by most members of the community, involving and benefiting local residents in an equitable manner. The program should also adopt business practices that promote long-term economic sustainability.

(d) *Adaptive Management: Planning, Monitoring, and Reporting:* Hunting can enhance the species when it is based on appropriate resource assessments and monitoring (*e.g.*, population counts, trend data), upon which specific science-based quotas and hunting programs can be established. Resource assessments should be objective, well documented, and use the best science available. Adaptive management of quotas and programs based on the results of resource assessments and monitoring is essential. The program should monitor hunting activities to ensure that quotas and sex/age restrictions of harvested animals are met. The program should also generate reliable documentation of its biological sustainability and conservation benefits.

(e) *Accountable and Effective Governance:* A biologically sustainable trophy-hunting program should be subject to a governance structure that clearly allocates management responsibilities. The program should account for revenues in a transparent manner and distribute net revenues to conservation and community beneficiaries according to properly agreed decisions. All necessary steps to eliminate corruption should be taken and to ensure compliance with all

relevant national and international requirements and regulations by relevant bodies such as administrators, regulators and hunters.

The Service's approach to enhancement findings for the importation of sport-hunted trophies of *P. l. melanochaita* is consistent with the purpose and intent of the Endangered Species Act. Before we will authorize the importation of a sport-hunted trophy, we must determine that the trophy hunting program is managed to ensure the long-term survival of the species. In many parts of the world, wildlife exists outside of protected areas and must share the same habitat and compete with humans living in these areas for space and resources. If communities that share these resources with wildlife do not perceive any benefits from the presence of wildlife, they may be less willing to tolerate the wildlife. However, under certain circumstances, trophy hunting can address this problem by making wildlife more valuable to the local communities and encourage community support for managing and conserving the hunted species, as well as other species.

When evaluating whether the importation of a trophy of *P. l. melanochaita* would be authorized pursuant to 50 CFR 17.32, in accordance with our threatened species issuance criteria, we will examine how a country's management program for lions addresses the three main threats that have led to the decline of the subspecies: habitat loss, loss of prey base, and human-lion conflict. When examining a management program and whether trophies taken as part of that program meet the issuance criteria, we study a number of factors. Some of the factors we consider include whether the program is based on sound scientific information and identifies mechanisms that would arrest the loss of habitat or increase available habitat (*i.e.*, by establishing protected areas and ensuring adequate protection from human encroachment). We consider whether the management program actively addresses the loss of the lion's prey base by addressing poaching or unsustainable offtake within the country. A component of a management plan from which trophy imports would meet the issuance criteria would be whether there are government incentives in place that encourage habitat protection by private landowners and communities and incentives to local communities to reduce the incursion of livestock into protected areas or to actively manage livestock to reduce conflicts with lions. We examine if the hunting component of the management program supports all of these efforts by looking at whether hunting concessions/tracts are managed to ensure the long-term survival of the lion, its prey base, and habitat. Hunting, if properly conducted and well managed, can generate significant economic benefits that may contribute to the conservation of lions. In looking at whether we are able to authorize the import of a trophy under the issuance criteria of 50 CFR 17.32, we will examine if the trophy hunting provides financial assistance to the wildlife department to carry out elements of the management program and if there is a compensation scheme or other incentives to benefit local communities that may be impacted by lion predation. We will also consider how a U.S. hunter's participation in the hunting program contributes to the overall management of lions within a country.

Management programs for *P. l. melanochaita* are expected to address, but are not limited to, evaluating population levels and trends; the biological needs of the species; quotas; management practices; legal protection; local community involvement; and use of hunting fees for conservation. In evaluating these factors, we will work closely with the range countries and interested parties to obtain the information. By allowing entry into the United States of *P. l. melanochaita* trophies from range countries that have science-based management programs, we anticipate that other range countries would be encouraged to adopt and financially support the sustainable management of lions that benefits both the species and local communities. In addition to addressing the biological

needs of the subspecies, a scientifically based management program would provide economic incentives for local communities to protect and expand *P. l. melanochaita* habitat.

Basis for Finding for Captive lions taken in South Africa:

On January 12, 2016, the Service sent a letter to South Africa's Department of Environmental Affairs (DEA) with a list of questions that would aid the Service in evaluating the overall conservation and management of the subspecies, *P. l. melanochaita*, in South Africa and whether that management addresses the three main threats that have been identified as the primary contributors to the decline of the species: habitat loss, loss of prey base, and human-lion conflict. Additionally, the Service's letter referenced the IUCN Species Survival Commission (SSC) Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives, Ver. 1.0 (IUCN SSC 2012), as it provides useful principles which, when considered in conjunction with the Service's permit issuance criteria, would aid in making the required enhancement finding for permitting importation of sport-hunted lion trophies.

In response to our January 12, 2016, letter, the South African Department of Environmental Affairs (DEA) informed the Service that South Africa has defined three populations of lions that exist within the country through their Biodiversity Management Plan for the Lion (*Panthera leo*) in South Africa (BMP; December 2015): *Wild lions,* who completely fulfil their role in biodiversity processes and are largely unmanaged, and exist only in formally proclaimed national parks and game reserves. This population's vital rates and demographics are not actively manipulated. *Wild-managed lions,* which include all lions that have been re-introduced into smaller fenced reserves ($<1{,}000 km^2$), and are managed to limit population growth and maintain genetic diversity. Some of the vital rates and demographics of these lions are actively manipulated. *Captive lions* (or captive-bred lions) are bred for financial gain, where all vital rates and demographics of these populations are actively manipulated. DEA informed the Service that it had limited control over the management and harvest of captive lions. There are approximately 2,200 wild lions in South Africa. In addition, there are approximately 800 wild-managed lions separated among 45 fenced reserves of less than 1,000 square kilometers each (BMP pg. 40). According to the BMP, there are over 6,000 captive lions maintained on over 200 farms/ranches.

Further, the Service has been contacted by the South African Predator Association (SAPA), an organization of captive lion breeders. On August 26, 2016, in response to an inquiry to SAPA, the Service received an e-mail that contained a list of nine hunting ranches that have been accredited by SAPA as complying with SAPA's hunting standards and code of conduct (five more are currently being considered). In addition, the e-mail contained an overview of how captive lions maintained by members of SAPA were contributing to the conservation of wild lions. The overview briefly discussed a number of activities being carried out by SAPA members and future activities that they intend to carry out to contribute to lion conservation. On September 28, 2016, during the 17th Meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Service met with SAPA to further discuss their contributions and how they viewed their activities would enhance the propagation and survival of lions in the wild. There was also the opportunity to discuss captive lions with Jonathan Denga of the Northwest Provincial Department of Rural, Environment, and Agricultural Development (READ) on September 28, 2016, to discuss how the provincial government was addressing captive lions.

The lion is listed as vulnerable in the South African list of Threatened and Protected Species under Section 56(1) of the National Environmental Management Biodiversity Act, 2004 (South Africa 2004; NEMBA; BMP pg. 1). NEMBA further regulates the permit system set out in the Biodiversity Act in regards to restricted activities involving specimens of listed threatened or protected species. Regulated activities in need of registration include, among others, captive breeding facilities, sanctuaries, scientific institutions, game farms, wildlife traders, wildlife product traders, taxidermists, wildlife translocators, and freight agents (NEMBA pg. 25).

In addition to South Africa's domestic laws, it is also a Party to CITES. The lion is listed in Appendix II of the Convention. As an Appendix-II species, certain criteria must be met before such species can be exported, including a finding from the exporting country's CITES Scientific Authority that the proposed activity will not be detrimental to the survival of the species in the wild. In their reply to our inquiry, South Africa provided a copy of their CITES non-detriment finding for lions. Their finding, while focusing only on wild and wild-managed lions, applied to all lion exports from South Africa, including the captive lion population. In personal communication with the SA Management Authority, the Service was informed that the finding may be amended to better clarify that the finding applies to all lions within South Africa. However, the DEA does not oversee captive lion activities within South Africa, only the CITES requirements for exports of live animals, trophies, parts, and products.

Although there has been some discussions with DEA and the SAPA since the listing went into effect, the Service has not receive any specific information about the hunting of captive lions and how these hunts contribute to the species in the wild. While the 2015 management plan, BMP, for wild and wild-managed lions does have some discussion of the captive lions within South Africa, it does not include any discussion of how captive lions are contributing to the long-term conservation of lions in the wid. The brief overview of SAPA activities received on August 26, 2016, and further discussion on September 28, 2016, provided some additional discussion of how captive lions could contribute to wild lion conservation, but primarily addressed activities and support that may be started in the future or activities that, while generally contributing to South Africa's overall economy, do not contribute directly or indirectly to conservation efforts for *P. l. melanochaita*. Further, of over 200 farms/ranches that maintain captive lions, SAPA only identified 9 that were accredited under their standards for hunting.

According to the BMP, captive lions in South Africa are primarily held and bred in private facilities under the governance of individual State provinces and account for upwards of 95 percent of lion trophies taken in South Africa over the last 5 years. The BMP points to a prevailing view amongst carnivore specialists that captive lions do not contribute to the conservation of the species, particularly given that inbreeding is known to occur with captive lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that captive breeding operations are supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing captive lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

There is an active lion bone trade from South Africa to several Asian countries for traditional medicinals that is primarily supplied from captive lions. Lion bones are being used as a substitute

for tiger bones, which is highly valued in Asia, primarily in China and Vietnam (Williams et al. 2015, p. 1; Gratwicke et al. 2008, pp. 2–5; Graham-Rowe 2011, pp. s101–s102). While it appears that the source of the bones is primarily from lions that are taken as trophies, there is some indication that captive lionesses and juvenile lions are also being culled to increase supply of bones (BMP pg. 30). In 2008, South Africa began issuing CITES permits for the export of skeletons of captive lions to Asia. These exports currently come primarily from South Africa's captive lion hunting industry as a byproduct of trophy hunting. The number of lion skeletons for which South Africa issued permits for export to Asia (China, Viet Nam, Thailand and Lao PDR) increased tenfold from 2008 to 2011, from about 50 to about 573 skeletons, respectively, representing a total of 1,160 skeletons or about 10.8 metric tons (11.9 US tons) of lion bone in 4 years (Williams 2015, pp. ix–x, 46). With respect to meeting demand for lion bone, Lindsey et al. (2012, p. 20) state that there are likely to be large numbers of lion bones available for export from game farms, from lionesses and nontrophy males, and as byproducts from animals shot as trophies. In addition, Williams et al. (2015, p. 41) report that there may be between 1,400 and 6,200 lion skeletons from past trophy hunts on South African game farms that could potentially be used to supply demand for lion bone.

While the BMP suggests that the value of bones, whether wild or captive, is not high enough to stimulate the illegal harvest of lions solely to sell the bones into the bone trade, there is the potential that if the value of bones increases due to increasing demand from Asian markets, that captive lions could be a legal source of bones that masks the illegal harvest of wild lions. However, evidence suggests that there may be incentive to poach wild lions for the bone trade. According to Williams et al. (2015, p. x), the 2013 price paid to South African game farmers and landowners for lion bones was $1,260–2,100 USD per skeleton. In many lion range states, this exceeds per capita GDP (gross domestic product) (World Bank 2015, unpaginated). Thus, the current price paid for lion bone may provide incentive in some countries to poach wild lions. While the lion bone trade appears to currently be based primarily in South Africa's captive lion hunting industry, the trade appears to be having little or no impact on wild lion populations in South Africa at this time—lion populations in South Africa are stable or increasing and there is little poaching of wild lions in the country (Funston and Levendal 2015, pp. 1, 26; Williams et al. 2015, pp. 79–80). However, the impact of the lion bone trade on lion populations outside South Africa is unknown. Based on the effect of the tiger bone trade on tiger populations, if current conditions—for example, rapidly increasing demand and involvement of an international crime syndicate in the lion bone trade (Final ESA listing rule, pg. 80026) —continue unchanged, then there is considerable potential for extensive poaching of wild lions to occur in order to meet demand.

Evaluation:

As stated earlier, the Service will evaluate any application in accordance with our threatened species permitting regulations at 50 CFR 17.32 and issuance criteria for threatened species permits (50 CFR 17.32(a)(2)). In evaluating each of these criteria on the basis of information available to the Service, we have been unable to determine if the import of captive lions would qualify for the issuance of the required import permit.

17.32(a)(2)(i): Whether the purpose for which the permit is required is adequate to justify removing from the wild or otherwise changing the status of the wildlife sought to be covered by the permit:

To date, there has been insufficient information to show how permitting the import of captive lion trophies would provide a benefit to the species in the wild, thus potentially justifying the issuance of an import permit. At this time, the Service has received largely conclusory assertions from SAPA that captive lions can be used to contribute the survival of lions in the wild, and therefore the continued activities of ranches utilizing captive lions need to be supported by allowing the import of such trophies. SAPA stated that captive lions constitute 25% of all *P. l. melanochaita* in the world, but does not document why maintaining these animals is important to overall conservation of the species. SAPA also commented on the benefit that ranches that have captive lions contribute by providing additional habitat for lions, although at this time it did not identify how much additional habitat is provided by maintaining these hunting ranches. SAPA stated that captive lions could be used for re-introduction or re-stocking efforts and identified two experiments in Zambia and Zimbabwe of releasing captive lions. However, according to the BMP, captive lions cannot be released into the wild or used for re-introduction/re-stocking purposes and lion researchers have consistently questioned the viability of such releases. SAPA also identified the establishment of a conservation fund based on surcharge of R10,000 (~$700) per lion hunted on SAPA-accredited ranches [During in-person discussions with representatives of SAPA at CoP17, it was stated that the conservation fund would be based on $1000 per lion hunted on SAPA-accredited ranches]. It is SAPA's assertion that this conservation fund would directly contribute to in-situ conservation efforts. However, other than a general statement on how the funds would be utilized, no specific information has been provided showing how the funds would be spent to provide a conservation benefit. Further, there are only 9 SAPA-accredited ranches out of over 200 ranches in South Africa. Given the limited number of ranches that apparently would be contributing to this fund, it is unclear if the limited funds, if directed to an appropriate conservation effort, would indicate sufficient support to justify changing the status of the specimens.

Therefore, there is no basis in the information available to the Service that the issuance of an import permit would justify changing the status of the captive specimens hunted.

17.32(a)(2)(ii): <u>The probable direct and indirect effect that issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit</u>:

Based on current information, there is probably no direct beneficial effect on wild lions by authorizing the import of captive sport-hunted lion trophies. If it could be demonstrated that hunting, and allowing the import of captive lions could provide an indirect beneficial effect, the issuance of import permits might be justified. However, other than general statements, there is little evidence that captive lions could be used for re-introduction or that these specimens could contribute to better genetic management of wild lions. In addition, while SAPA points to the value that maintaining hunting ranches can contribute to providing habitat and stable prey-base, two factors leading to listing under the Act, there has been no information on the quantity or quality of this additional habitat for wild lions. Finally, SAPA stated contribution to in-situ conservation would only apply to the ranches that are "accredited" by them and does not appear to constitute enough operations that the funds would have a meaningful impact on conservation efforts, if such efforts were clearly identified.

Therefore, there is no basis in the information available to the Service to determine the probable direct or indirect effect that issuing import permits for sport-hunted trophies of captive lions would provide to wild lions.

17.32(a)(2)(iii): Whether the permit, if issued, would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed:

Under current South African law, the oversight of captive lions is with the Department of Agriculture, while oversight of wild lions is with the Department of Environmental Affairs. Since captive lions cannot be used for re-introduction or re-stocking efforts, there does not appear to be any conflicts that would arise if import permits were to be issued for captive lion trophies. Further, since there is a limited number of poaching events of wild and wild-managed lions in South Africa, it does not appear that captive lion hunting is acting as a cover for illegal harvests.

However, as stated above, there is an active trade in bones for Asian traditional medicinals collected from captive lions. Lion bones are being used as a substitute for tiger bones, which is highly valued in Asia, primarily in China and Vietnam. It is clear that there has been a significant increase in the number of lion skeletons exported from South Africa over the last 10 years, and that the majority of these skeletons are obtained through trophy hunting of captive lions. There is very limited evidence that poaching of wild lions is a current problem in South Africa, so the current trade does not appear to have any impact on wild or managed-wild lions in South Africa. Further, it has been reported that there may be between 1,400 and 6,200 lion skeletons from past trophy hunts on South African game farms that could potentially be used to supply demand for lion bone, so it does not appear that this trade would have an immediate impact on wild lions in South Africa. However, there is some concern that trade in captive lion skeletons could have an impact on wild lions outside of South Africa by creating an incentive to poach wild lions. If the trade in captive lion skeletons, derived from trophy hunting, were to stimulate poaching or mask illegal harvest of lions outside of South Africa, this could adversely impact programs intending to enhance the survival of lions. So, while it does not currently appear to be an issue, this situation would need to be monitored over time.

Therefore, based on the information available to the Service, it currently appear to would be no direct or indirect conflict with known conservation programs for wild lions if import permits for captive lion trophies were issued.

17.32(a)(2)(iv): Whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species of wildlife sought to be covered by the permit:

Although there have been general statements by SAPA on potential benefits that could be obtained for wild lions through captive lion management and hunting activities, there has been no clear indications that these activities would reduce the threat of extinction facing wild lions. Wild lions in South Africa are well managed by the DEA (see October 19, 2016, "Enhancement Finding for Wild and Wild-managed Lions taken as Sport-hunted Trophies in South Africa"). Through this management, the three identified threats to wild lions (i.e., habitat loss, loss of prey-base, and lion-human conflicts) are being addressed, thus reducing the threat of extinction within South Africa. While permitting the import of captive lion trophies does not appear to have any negative impact on wild lions, there is also little evidence that it would reduce the threat of extinction.

Therefore, based on the information available to the Service, it does not appear that the import of captive lion trophies would reduce the threat of extinction facing lions in the wild.

17.32(a)(2)(v): The opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application:

While there are some concerns that breeding lions in captivity could compromise genetic integrity of lions, there appears to be general consensus that the captive lion hunting industry is not having a negative effect on wild lions. However, at the same time, there is little evidence obtained during this current review or information provided by commenters during the listing of lion under the Act that indicates that captive lion management, hunting, and the subsequent import of these trophies, would provide a benefit to the species. There have been a large number of comments from some NGOs and the public opposing hunting any lions, but particularly captive lions. This opposition, however, is primarily based on the perceived ethics of hunting. While these comments are an indication of concerns from some members of the public over hunting, they are not germane to our review process.

Therefore, based on the information available to the Service, the opinions or views provided by scientists or species experts that would be germane this review are that the import of captive lion trophies would not have a negative or positive impact on lion conservation.

17.32(a)(2)(vi): Whether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application:

As stated previously, the decision to issue or deny an application to import a captive lion trophy is made on a case-by-case evaluation of the submitted application. Therefore, it would not be possible to determine in this general review if the expertise or facilities of a particular US importer are adequate to successfully accomplish the objective stated in the application (i.e., whether permitting importation of a trophy of a captive lion would enhance the survival of the species). As such, we would need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. However, based on the currently available information, permitting the importation of a captive lion trophy does not appear to meet the purposes of the Act or the issuance criteria in 50 CFR 17.32(a)(2). As such, it does not appear that any applicant would have the expertise, facilities, or other resources that would enhance the propagation or survival of lions in the wild.

Therefore, based on the information available to the Service, the Service is **unable** to find that permits for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meet the enhancement criteria under 50 CFR 17.32.

Conclusion

Given the current status of lions within South Africa and the level of management and oversight provided to wild and wild-managed lions, it does not appear that harvest and import of captive lions as trophies is having an adverse effect on lion populations in South Africa. However, as explained above, permitting the import must go beyond not being detrimental. It must enhance the species by

having a clear benefit to the species and its management. There is no indication that permitting the import of trophies of captive lions sport-hunted in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Without additional information that would enable the Service to make such a finding in accordance with the general considerations laid out above, the Service is unable to make a determination that the import of captive lions would meet the issuance criteria under 50 CFR 17.32. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of captive lion trophies from South Africa**. Such specimens will not be considered to meet this requirement, unless information becomes available through such an application or otherwise which would allow the Service to make the required enhancement finding. In accordance with the 4(d) rule for *P. l. melanochaita*, 50 CFR 17.40(r), the Service will review each application received for import of such specimens on a case-by-case basis and each application also needs to meet all other applicable permitting requirements before it may be authorized.

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United States Department of the Interior

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In Reply Refer To:
FWS/AIA/DMA/PRT 94133B

OCT 20 2016

Mr. Shawn (b) Hollermann
(b) (6)
Burtrum, MN (b) (6)

Dear Mr. Hollermann:

This letter responds to your April 1, 2016, application requesting a permit under the U.S. Endangered Species Act (Act) to import one male and one femal sport-hunted lion (*Panthera leo melanochaita*) hunted in South Africa on the Aurora Farm, Vorstershoop, Northwest Province. After careful review and consideration of your application, your request is being denied for the reasons described below.

The subspecies of lion found in Southern Africa (*P. leo melanochaita*) is listed as threatened under the Act with a rule under Section 4(d) of the Act, which is set forth in regulations found at 50 CFR 17.40(r)[1]. Section 9 of the Act[2] and our implementing regulations at 50 CFR 17.31 set forth a series of general prohibitions that apply to all threatened wildlife, except where there is a 4(d) rule, in which case the 4(d) rule contains all applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens, in part, making it illegal for any person subject to the jurisdiction of the United States to "take" (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Otherwise prohibited activities, such as import, may be permitted, but only if the U.S. Fish and Wildlife Service (Service) finds that the activity is consistent with the 4(d) rule and the purpose of the Act [Section 10(d)[2]]. The

[1] The text of this regulation is available at: http://go.usa.gov/xr6m3
[2] The text of the Act is available at: http://go.usa.gov/xr6dd

primary purpose of the Act is the conservation and continued existence of wild populations of endangered and threatened species and the ecosystem on which they depend (Section 2[2]). It is the requirement of the Act and its implementing regulations (50 CFR 17.32(a)(2)[1]) that the proposed activities of the applicant enhance the propagation or survival of the subspecies by reducing the threat of extinction or otherwise benefitting the species in the wild.

While the regulations at 50 CFR 17.32 provide issuance criteria for threatened species permits, it does not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of captive, or captive-bred, lion hunting trophies. Therefore, when making a determination of whether the importation of such a trophy would enhance the propagation or survival of *P. l. melanochaita,* the Service examined the overall management of the captive subspecies in South Africa and whether that management addresses the threats to the subspecies (*i.e.*, that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluated whether the import will/would contribute to the overall conservation of the subspecies in the wild by addressing loss of habitat, loss of prey base, and human-lion conflicts, which were the basis for listing the subspecies as threatened under the Act.

Since the subspecies was listed under the Act, the Service has had discussions with the South African Department of Environmental Affairs and the South Africa Predator Association (SAPA). However, the Service has not received any specific information about how the management and subsequent hunting of captive lions contributes to the species in the wild. While the 2015 Biodiversity Management Plan for the Lion (Panthera leo) in South Africa (BMP), the lion management plan for the country, has some discussion on captive lions within South Africa, it does not include any discussion of how captive lions are contributing to the long-term conservation of lions in the wild. The brief overview of activities being conducted or proposed to be conducted by SAPA, received on August 26, 2016, and further discussions on September 28, 2016, provided some additional insight on how captive lions could potentially contribute to wild lion conservation, but it primarily addressed activities and support that could be started in the future or activities that, while generally contributing to South Africa's overall economy, do not contribute directly or indirectly to conservation efforts for *P. l. melanochaita*. Further, of the over 200 farms/ranches that maintain captive lions, SAPA only identified 9 that were accredited under their standards for hunting, which would be the only facilities that might contribute to SAPA activities.

According to the BMP, captive lions in South Africa are primarily held and bred in private facilities under the governance of individual South African provinces. The BMP points to a prevailing view amongst carnivore specialists that captive lions do not contribute to the conservation of the species, particularly given that inbreeding is known to occur with captive lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that captive breeding operations are supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing captive lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

The decision to issue or deny an application to import a captive lion trophy is made on a case-by-case evaluation of the submitted application. As such, we would need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of captive lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. However, based on the currently available information, and the information you provided in your application, your proposed import does not appear to meet the purposes of the Act or the issuance criteria in 50 CFR 17.32(a)(2).

Therefore, there is no indication that permitting the import of trophies of captive lions sport-hunted in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Without additional information that would enable the Service to make such a finding in accordance with the general considerations laid out above, the Service is unable to make a determination that the import of captive lions would meet the issuance criteria under 50 CFR 17.32. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of captive lion trophies from South Africa.** Please see attached October 19, 2016, enhancement finding for additional information.

As provided in 50 CFR 13.29 (a)[3], you may request reconsideration of our decision to deny your application. Such a request must be submitted in writing with the original signature of the person requesting reconsideration or by that person's legal representative, must contain a certification statement as provided at 50 CFR 13.12(a)(5)[3], should refer to your file number, PRT-94133B, and must be received in this office within 45 calendar days of the date of this letter. The reconsideration of the decision to deny your request will be based on the information you provided in your original application. As such, your letter requesting reconsideration must address how our decision to deny your application was based on a misinterpretation of the information provided in your application, or it must present clarification of this information. **Should you supply new information that changes the content of your original application, a new application will need to be submitted to this office before such information can be considered.**

If you have any questions, please contact Bioloigst Emma Nelson of this office: Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, Virginia 22041-3803 (1-800-358-2104, ext. 2296 or 703-358-2296).

Sincerely,

Timothy J. Van Norman, Chief
Branch of Permits
Division of Management Authority

[3] The text of this regulation is available at: http://go.usa.gov/xYDUk

RCVD APR 20 2016

OMB No. 1018-0093
Expires 05/31/2017

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Bakken	Adolph	(b) (6)	(b) (6)

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)		(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code	1.e. County/Province	1.f. Country
Madison	MS	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any (b) (6) herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 04/16/2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melanochaita - Lion

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Country: South Africa, Venetia Limpopo Nature Reserve, Limpopo Province, GPS 22°21'12.2"S; 29°17'26.3"E
      Closest Town or City: Aldays or Mussina Please see attached MAP

   b. Date wildlife is to be hunted:

      August 11 to 26, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      Skin and skull

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Cecil Corringham
Business Name:	Life Form Taxidermy
Address:	7 Aluminum Road
Address:	
City:	White River
State/Province:	Mpumalanga
Country, Postal Code:	South Africa, 1240

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see the attached

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ (b) (6) [redacted] Date: 04/16/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

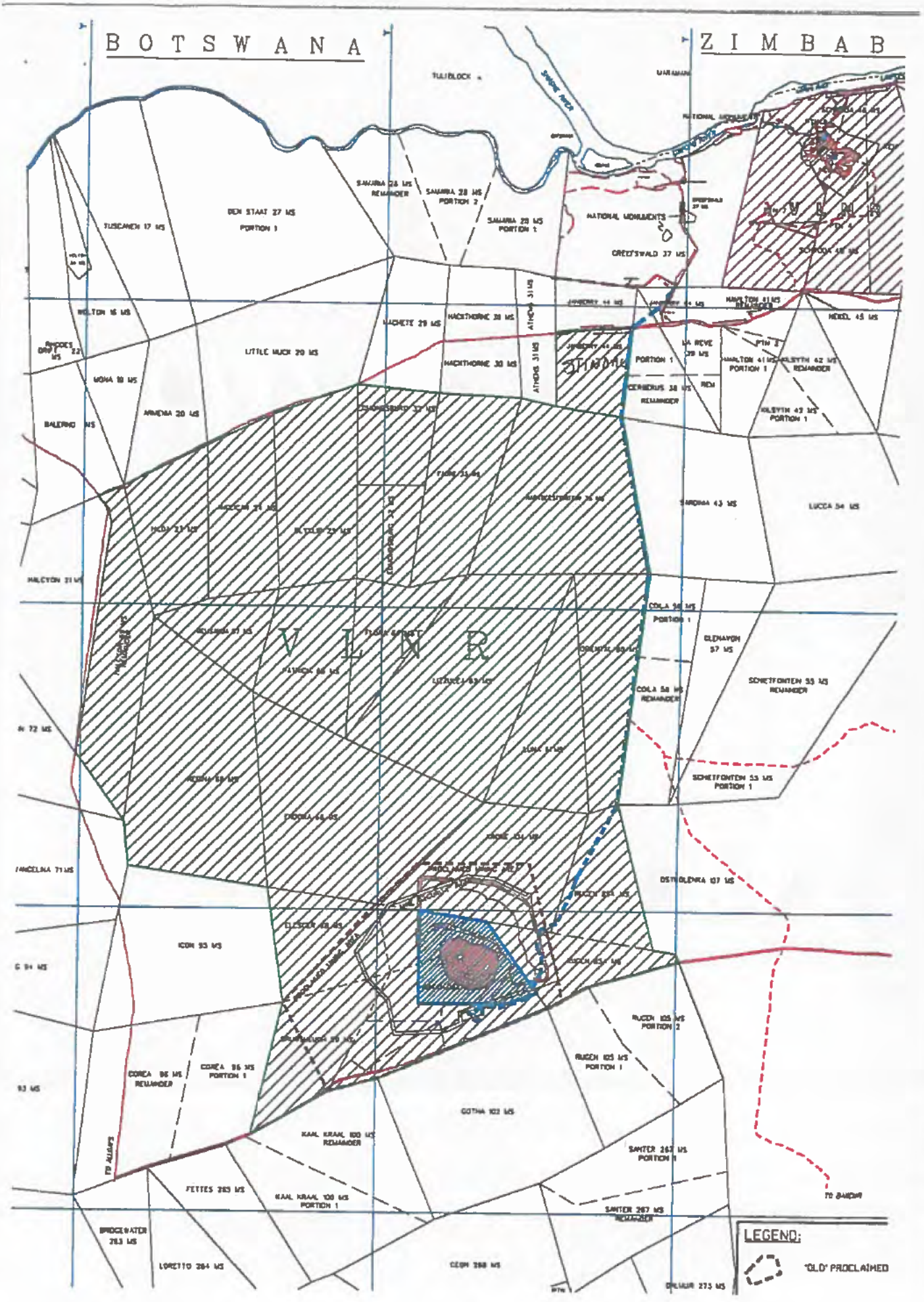
10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☑ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John Abraham (b) (6) [redacted]

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.


BOTSWANA
ZIMBAB
TULIBLOCK
SAMARIA 28 MS REMAINDER
SAMARIA 28 MS PORTION 2
SAMARIA 28 MS PORTION 1
DEN STAAT 27 MS PORTION 1
TUSCANEN 17 MS
NATIONAL MONUMENTS
GREEFSWALD 37 MS
WOLTON 16 MS
LITTLE MUCK 20 MS
MACHETE 29 MS
HACKTHORNE 30 MS
ATHENS 31 MS
JANBERRY 44 MS
HAMILTON 41 MS REMAINDER
NEKEL 45 MS
LA REVE 39 MS
PORTION 1
HAMILTON 41 MS PORTION 1
KILSYTH 42 MS REMAINDER
CERBERUS 38 MS REMAINDER
KILSYTH 42 MS PORTION 1
MONA 19 MS
ARMENIA 20 MS
BALERNO MS
SARDINIA 43 MS
LUCCA 54 MS
HALCYON 21 MS
COLA 58 MS PORTION 1
GLENAVON 57 MS
SCHIETFONTEN 55 MS REMAINDER
COLA 58 MS REMAINDER
SCHIETFONTEN 55 MS PORTION 1
OSTROLENKA 107 MS
ICON 93 MS
RUGEN 105 MS PORTION 2
RUGEN 105 MS PORTION 1
COREA 96 MS REMAINDER
COREA 96 MS PORTION 1
GOTHA 102 MS
KAAL KRAAL 100 MS REMAINDER
SANTER 267 MS PORTION 1
FETTES 283 MS
KAAL KRAAL 100 MS PORTION 1
SANTER 267 MS REMAINDER
BRIDGEWATER 283 MS
LORETTO 284 MS
CEGN 288 MS
DALMUIR 273 MS
TO ALLIANS
TO BAKOUR
LEGEND:
'OLD' PROCLAIMED

5. Please be aware that the U.s. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

"The VLNR sustainably managed their lion population successfully over a period of 16 years. The business goal of the reserve is sustainable conservation at a break-even scenario (no profit).

Spending of trophy fees:

- Constant monitoring of the lion population via satellite telemetry collars fitted to preselected animals
- Facilitating lions from the outside to ensure genetic integrity and sustainability
- Practicing of a well-managed contraception program of preselected females as part of the management plan
- Regular introduction of prey species when lion impacts are noticeable.

Portion of fees for conservation:
100% of fees generated by trophy hunting are ploughed back into conservation (VLNR on a break-even scenario). A breakdown as follows:

- 75 % of fees go directly to lion sustainable lion conservation and management, as discussed above;
- 25% of fees go indirectly to conservation through fence erection and maintenance, regular fence and anti-poaching patrols, scout training activities, daily management activities, etc.
- Females become sexually mature at 2 years, but are only socially mature at 4 years. Females are normally only hunted at an age of 6+ years to ensure at least one litter.
- Females can breed up to 17 years of age, but the lifespan of a lioness in the wild (natural) normally only lasts 15-16 years.

RCVD APR 20 2016

(b) (6)

Morgan Stanley

(b) (6)

16-Apr-2016
Date

Pay to the Order of US Fish and Wildlife Service | $ 100.00

One hundred and 00/100 Dollars

Expense Analyzer

UMB Bank, N.A.
Kansas City, MO 64106
1-800-688-3462

For Application Fee

(b) (6)

LION SOUTH AFRICAN ESA TROPH

Permit Number: MA94481B-(

Effective: 10/20/2016 Expires: 10/19/201

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
ADOLPH (b) (6) **BAKKEN** (b) (6)
(b) (6)
MADISON, MS (b) (6)
U.S.A.

Authority: Statutes and Regulations: 16 USC 1539(a); 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Conditions and Authorizations:

A. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law.

C. Valid for use by permittee named above.

D. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

E. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in South Africa for the purpose of enhancement of the survival of the species.

F. Specimen may not be sold or transferred for any financial remuneration.

G. **Trophy must have been taken during the 2016 hunting season.**

H. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of South Africa for the 2016 season.

I. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

RCVD APR 27 2016

OMB No. 1018-0093
Expires 05/31/2017

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Meade	Gary	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	(b) (6)

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	N/A	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Spring	TX	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee.** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 1 No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

(b) (6) Meade — 03/30/2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera Leo Melanochaita - Lion

   b. Sex (if known).

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Country: South Africa, Venetia Limpopo Nature Reserve, Limpopo Province, GPS 22 21' 12.2"S 29 17' 26.3"E

   b. Date wildlife is to be hunted:

      9/7/2016 - 9/18/2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      Skin, skull, claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☑ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Gary (b) Meade, (b) (6) [redacted]

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD APR 27 2016

GARY (b) MEADE
(b) (6)
SPRING, TX (b) (6)

(b) (6)

4/18/2016
Date

Pay to the Order of U.S. Fish and Wildlife Service $ 100.00

one hundred and no/100 Dollars

WELLS FARGO Wells Fargo Bank, N.A. Texas wellsfargo.com

For Gary Meade Cites Permit Gary Meade

(b) (6)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
International Affairs
5275 Leesburg Pike, MS: IA
Falls Church, VA 22041-3803

OCT 04 2017

In Reply Refer To:
FWS/AIA/DMA/PRT-94855B

Gary (b) Meade
(b) (6)
Spring, Texas (b) (6)

Dear Mr. Meade:

This letter responds to your March 30, 2016, application requesting a permit under the U.S. Endangered Species Act (Act) to import a sport-hunted lion (*Panthera leo melanochaita*) hunted in South Africa on the Venetia Limpopo Nature Reserve in Limpopo Province. After careful review and consideration of your application, your request is being denied for the reasons described below.

The subspecies of lion found in Southern Africa (*P. leo melanochaita*) is listed as threatened under the Act with a rule under Section 4(d) of the Act, which is set forth in regulations found at 50 CFR 17.40(r)[1]. Section 9 of the Act[2] and our implementing regulations at 50 CFR 17.21 and 50 CFR 17.31 set forth a series of general prohibitions that apply to all endangered and threatened wildlife, respectively, except where there is a 4(d) rule that applies to threatened wildlife, in which case the 4(d) rule contains all the applicable prohibitions and exceptions. Under the 4(d) rule for *P. l. melanochaita*, all of the prohibitions under 50 CFR 17.31 apply to *P. l. melanochaita* specimens. The prohibitions at 50 CFR 17.21 and 17.31, in part, make it illegal for any person subject to the jurisdiction of the United States to "take" (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) within the United States or upon the high seas; import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever, in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any lion specimens. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken in violation of the Act. Otherwise prohibited activities, such as import, may be permitted, but only if the U.S. Fish and Wildlife Service (Service) finds that the activity is consistent with the 4(d) rule and the purpose of the Act [Section 10(d)[2]]. The primary purpose of the Act is the conservation and

[1] The text of this regulation is available at: http://go.usa.gov/xr6m3
[2] The text of the Act is available at: http://go.usa.gov/xr6dd

continued existence of wild populations of endangered and threatened species and the ecosystem on which they depend [Section 2[2]]. It is a requirement of the Act and its implementing regulations [50 CFR 17.32(a)(2)[1]] that the proposed activities of the applicant enhance the propagation or survival of the subspecies by reducing the threat of extinction in the wild, or otherwise benefits the species in the wild.

While the regulations at 50 CFR 17.32(a)(2) provides issuance criteria for threatened species permits, it does not specify what would constitute the enhancement of propagation or survival with regard to authorizing the import of lion hunting trophies from South Africa. Therefore, when making a determination of whether the importation of such trophies would enhance the propagation or survival of *P. l. melanochaita,* the Service examined the overall management of lion subspecies in South Africa and whether that management addresses the threats to the subspecies (*i.e.,* that it is based on sound scientific principles and that the management program is actively addressing the current and longer term threats to the subspecies). In that review, we evaluate whether the import contributes to the overall conservation of the subspecies in wild by addressing loss of habitat, loss of prey base and human-lion conflicts, the basis for listing the subspecies as threatened under the Act.

In evaluating the available data on lion hunting in South Africa, the Service is treating wild and wild-managed lions separately from lions that are not identified/confirmed as wild or wild-managed or are identified as captive-bred animals raised for hunting purposes since the management and oversight of these specimens is different within South Africa and, therefore, information relevant to the Service's consideration of whether permitting the import of sport-hunted trophies of lions may enhance the survival of the species in the wild is different between wild and wild-managed lions, and captive-bred lions in South Africa.

In correspondence with the South African Department of Environmental Affairs (DEA) in early 2017, the concept of "uncertified wild-managed" and "uncertified" lions was raised. According to this correspondence, there are some reserves or farms in South Africa that have lions that do not currently meet the definitions established by DEA as wild-managed or have management programs that have not been evaluated to determine if they meet this definition. Without further information on what category (i.e., wild, wild-managed, or captive) the lion you took falls into, the Service is unable to consider it under our finding for wild and wild-managed lions for 2016. According to your application, the lion trophy was to be taken on the Venetia Limpopo Nature Reserve in Limpopo Province. This reserve was identified by DEA as having uncertified wild-managed lions indicating that the reserve holds wild-managed lions, but that the appropriate management plans are not in place for the lions to be properly certified.

Since the subspecies was listed under the Act, the Service has had discussions with DEA and the South Africa Predator Association (SAPA). However, the Service has not received any specific information about how the management and subsequent hunting of uncertified lions contributes to the species in the wild. While the 2015 Biodiversity Management Plan for the Lion (Panthera leo) in South Africa (BMP), the lion management plan for the country, has some discussion on uncertified lions within South Africa, it does not include any discussion of how uncertified lions are contributing to the long-term conservation of lions in the wild.

According to the BMP, a prevailing view amongst carnivore specialists is that uncertified lions may not contribute to the conservation of the species, particularly given that inbreeding might occur with uncertified lions. This could compromise genetic integrity and provenance and therefore not make these lions suitable for reintroduction purposes. Further, based on the limited information currently available, there is no evidence to suggest that the operation where you took your lion is supporting or contributing to any in-situ conservation efforts for wild lions. Given the level of management and oversight that is afforded wild and wild-managed lions, the claim that has been voiced by some that utilizing uncertified lions as trophy animals reduces the demand on wild lions is not demonstrated to be accurate based on available information.

The decision to issue or deny an application to import a lion trophy is made on a case-by-case evaluation of the submitted application. As such, we need to evaluate each application individually to determine if the information provided by the applicant would enable the Service to find that a permit for the importation of sport-hunted trophies of lions (*P. l. melanochaita*) taken in South Africa during the 2016 calendar year meets the enhancement criteria under 50 CFR 17.32. Based on the current available information, and the information you provided in your application, we are currently unable to authorize the import of your lion trophy into the United States, until such time that the Government of South Africa is able to determine that this reserve qualifies as having certified wild-managed lions. As such, your proposed import does not appear to meet the purposes of the Act or the issuance criteria found in 50 CFR 17.32(a)(2) and, there is no indication that permitting the import of trophies of lions sport-hunted on the Venetia Limpopo Nature Reserve in South Africa in 2016 would enhance the propagation or survival of the species in the wild. Therefore, until such time as additional information becomes available that would affect this finding, the Service **is unable to authorize the import of your lion trophy from the Venetia Limpopo Nature Reserve in South Africa.**

As provided in 50 CFR 13.29 (a)[3], you may request reconsideration of our decision to deny your application. Such a request must be submitted in writing with the original signature of the person requesting reconsideration or by that person's legal representative, must contain a certification statement as provided at 50 CFR 13.12(a)(5)[3] should refer to your file number, PRT-94855B, and must be received in this office within 45 calendar days of the date of this letter. The reconsideration of the decision to deny your request will be based on the information you provided in your original application. As such, your letter requesting reconsideration must address how our decision to deny your application was based on a misinterpretation of the information provided in your application, or it must present clarification of this information. **Should you supply new information that changes the content of your original application, a new application will need to be submitted to this office before such information can be considered.**

[3] The text of this regulation is available at: http://go.usa.gov/xYDUk

If you have any questions, please contact Biologist Jorge Villavicencio of this office: Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, Virginia 22041-3803 (1-800-358-2104, ext. 2483 or 703-358-2483).

Sincerely,

Timothy J. Van Norman, Chief
Branch of Permits
Division of Management Authority

RCVD APR 27 2016

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Glass	Philip	(b)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Water Valley	Texas	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
Water Valley	Texas	(b) (6)	(b) (6)	USA

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature **(in blue ink)** of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 2-12-16

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

   b. Date wildlife is to be hunted:

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:
Business Name: TROPHY CONSULTANTS INTERNATIONAL
Address: 4 JOSIAH CHINA MANO RD
Address: BELMONT
City: BULAWAYO
State/Province:
Country, Postal Code: ZIMBABWE

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information provided by Conservation Force, Bubye and Save Valley Conservancies, and Zimbabwe authorities.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 2-12-16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, **if** different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

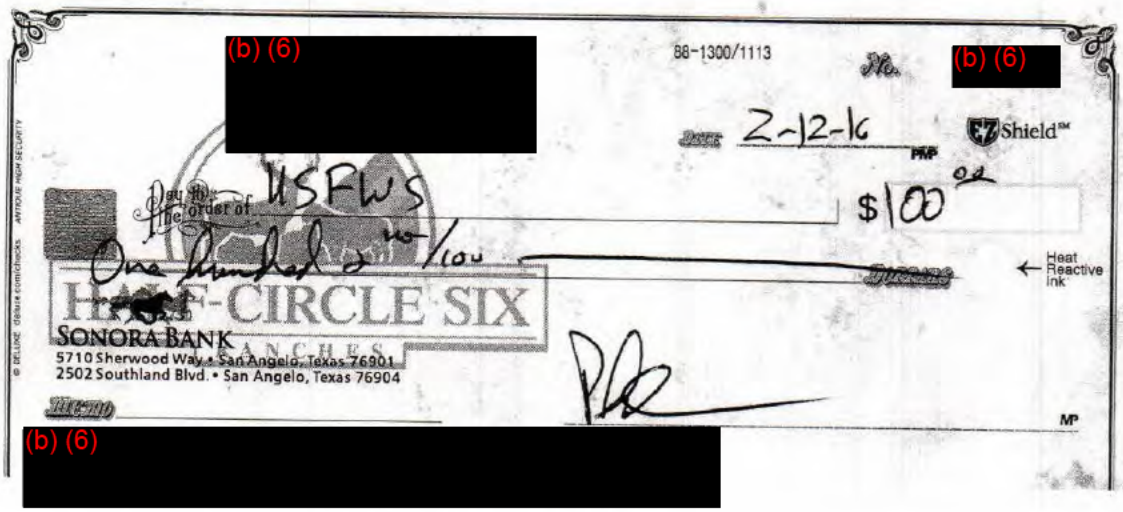
John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: _____

Name: Philip Glass

Date: 2-12-16

RCVD APR 27 2016



LION ZIMBABWE ESA TROPHY

Permit Number: MA94865B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
PHILIP (b) (6) GLASS
(b) (6)
WATER VALLEY, TX (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD APR 27 2016

OMB No. 1018-0093
Expires 05/31/2017

Department of the Interior
U.S. Fish and Wildlife Service

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
HALEY	TIMOTHY	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	(b) (6)

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)		(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		
2. Tax identification no.	3. Description of business, agency, Tribe, or institution		
4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title	6. Primary contact name		
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
PALO ALTO	CA	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
SAME

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001

[signature] 01/31/2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   AFRICAN LION, PANTHERA LEO MELANOCHAITA

   b. Sex (if known).
   MALE

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
   ZIMBABWE, ZAMBEZI VALLEY, HURUNGWE SAFARI AREA, RIFA CONCESSION CHIRUNDU TOWN, MARONGORA ALEA HQ

   b. Date wildlife is to be hunted:
   15TH APRIL 2016 - 10TH MAY 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
   SKIN, SCULL, CLAWS, TEETH

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: OUTBOUND EXPORTERS,
Business Name: OUTBOUND EXPORTERS
Address: 5 GRANTHAM ROAD.
Address: BELMONT
City: BULAWAYO
State/Province: ZIMBABWE - AFRICA
Country, Postal Code:

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

PLEASE SEE INFORMATION SUBMITTED WITH THIS FORM AND PREVIOUSLY SUBMITTED BY CONSERVATION FORCE, + ZIMBABWE OPERATO CONSERVANCIES, + GOVERNMENT

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: _____ Date: 8/31/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
APPLICANT OR JOHN JACKSON AT CONSERVATION FORCE
504 837 1233 JWJ702@ATTNET

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

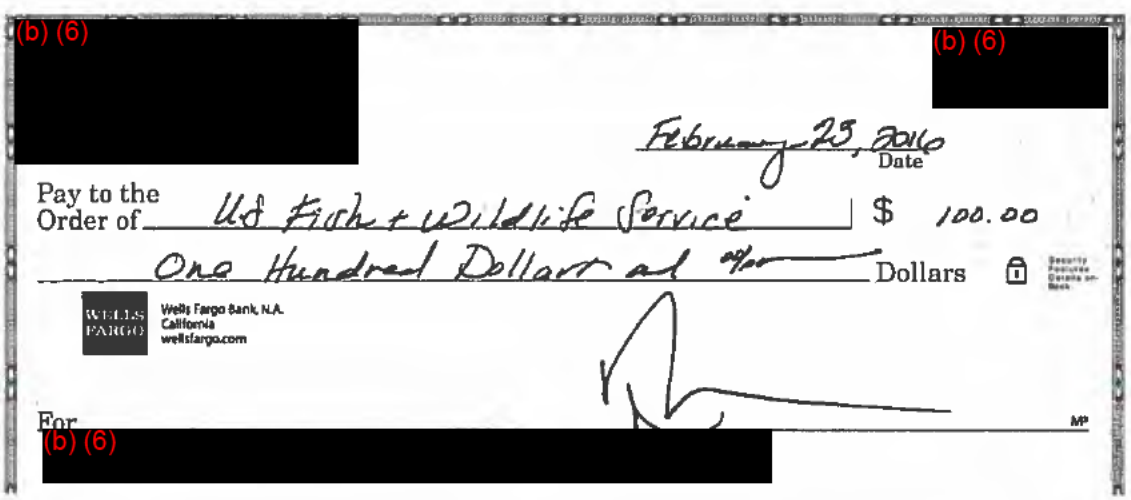
John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: _____

Name: Timothy Haley

Date: 02/23/2014

RCVD APR 27 2016


(b) (6)

(b) (6)

February 29, 2016
Date

Pay to the Order of US Fish + Wildlife Service $ 100.00

One Hundred Dollars and 00/100 Dollars

WELLS FARGO
Wells Fargo Bank, N.A.
California
wellsfargo.com

For (b) (6)

RCVD APR 27 2016

CONSERVATION FORCE
A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G[illegible]
† BART O'GARA, PH.D.

Mr. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

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April 20, 2016

Dear Chief Van Norman:

Enclosed please find five applications for permits to import the sport-hunted trophies of African lion (*P. l. melanochaita*) from Zimbabwe. In evaluating these applications, please consider the enclosed information and the information previously submitted by Conservation Force, Bubye Valley Conservancy, Zimbabwe's Parks and Wildlife Management Authority, and others. An index of documents submitted by Conservation Force is enclosed with this letter.

This information demonstrates that Zimbabwe's hunting program enhances the survival of the lion in the wild for three main reasons: (1) the hunting program is well-managed scientifically-based, and sustainable; (2) Zimbabwe's lion management addresses the three primary threats to lion (e.g., loss of habitat and prey base, and human-lion conflict); and (3) U.S. hunter revenues are ploughed back into lion conservation and provide critical incentives for landholders to manage lion at high densities.

I. Zimbabwe's conservation hunting program is well-managed, sustainable, and science-based.

A. The hunting program is governed by an effectively and adaptively implemented "Conservation Strategy and Action Plan."

Lion in Zimbabwe are adaptively managed and hunted under the Conservation Strategy and Action Plan (Action Plan).[1] The Action Plan is the result of a participatory workshop involving lion scientists, NGOs, industry representatives, and other stakeholders.[2] Both the Action Plan's "Vision (Long-term objective)" and "Goal (Immediate objective or purpose)" incorporate the sustainable use of lion:

> **4.1 Vision** (Long-term objective)
>
> *Lions conserved and managed sustainably for their aesthetic, cultural and ecological value, and the socio-economic development of Zimbabwe.*
>
> **4.2 Goal** (Immediate objective or purpose)

[1] Zimbabwe Parks and Wildlife Management Authority (PWMA), Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe (*Action Plan*).
[2] *Action Plan*, p. 6; PWMA, Conservation Status of the African Lion (*Panthera leo*) in Zimbabwe (Jan. 2015) (*Non-Detriment Finding*), p. 22.

To secure and where possible, restore as many viable lion populations as possible ... whilst mitigating their negative impact and enhancing the value for the benefit of people through sustainable use.[3]

The Action Plan identifies targets, outputs, and detailed activities to conserve the lion, and describes the roles and responsibilities of the stakeholders involved in lion management. Among the main targets are: to improve data collection and research; to increase community benefits; and to ensure licensed hunting is sustainable. These targets have been met.

Target	Achievement
To improve data collection and research	Current density and population estimates are available for ~70% of Zimbabwe's lion range[4] Long-standing research partnerships with Wild CRU (1999) and other scientists (2007) have been established[5]
To increase community benefits	Increased benefits-sharing has been the norm since the 2007 revision of the CAMPFIRE Revenue Sharing Guidelines requiring that 55% of fees are to be deposited in producer ward accounts, and 41% of the fees are directed to Rural District Councils for infrastructure building and projects[6]
To ensure licensed hunting is sustainable	In 2013/2014, Zimbabwe adopted or reconfirmed its best practices to ensure the sustainability of legal hunting[7]

These efforts show how the Action Plan is being successfully implemented and its targets achieved, and that Zimbabwe is properly managing its lion population and sustainable use-based hunting program.[8]

B. Zimbabwe's lion hunting program was updated in 2013 to enhance its sustainability.

Since July 2013, Zimbabwe's lion hunting regulations have been updated to ensure sustainability and the adoption of best practices, an "internal reform ... that is actively participated in and supported by all of the relevant stakeholders," including the Zimbabwe Parks and Wildlife Management Authority (PWMA), non-governmental organizations, professional hunters and safari operators, CAMPFIRE districts, and scientists and researchers.[9] These updates included the adoption of an age-based approach to lion hunting and the

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[3] *Action Plan*, p. 9.

[4] *Non-Detriment Finding*, p. 8-10; Dr. B. du Preez, Dr. R. Groom, O. Mufute, R. Mandisodza-Chikerema, Zimbabwe Lion Conservation Research Report 2016: Sport-Hunting and Lion (*Panthera leo*) Conservation in Zimbabwe (Jan. 31, 2016) (*Zimbabwe Lion Conservation Report 2016*), p. 5-7.

[5] Dr. B. du Preez, Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016) (*BVC Report*), p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 4, 13, 21. The team of researchers at Bubye Valley Conservancy is large and impressive, and includes an orphaned rhino manager. *See* www.bubyevalleyconservancy.com/team.

[6] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[7] L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (ZPHGA Letter) (Jan. 20, 2016), p. 1.

[8] Some management units have their own plans. For example, in 2011 Savé Valley Conservancy commissioned a lion management plan "to provide members with a science-based plan to help them ethically and sustainably manage their lion population," and which "specifically advocates the use of hunting as a conservation management tool. It demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals." Dr. R. Groom, Hunting in Zimbabwe's Savé Valley Conservancy (Jan. 27, 2013) (*SVC Report*), p. 4.

[9] *Zimbabwe Lion Conservation Report 2016*, p. 5.

imposition of penalties for harvest of lions younger than five;[10] revision of the annual quotas and use of an adaptive quota-setting approach based on results of the lion aging approach; the removal of female lions from hunting quotas; and the termination of fixed quotas.[11]

These updates are being effectively implemented. The lion aging is conducted by PWMA and overseen by the non-profit Panthera. Operators and PHs immediately adopted the age-based approach. One year after its adoption, harvest of underage lion represented only 20% of total offtakes.[12] This approach is allowing male lions to mature and increasing the numbers of older males.[13] Zimbabwe's sport-hunting program for lion is sustainable, and the benefits outweigh the limited offtake.

C. **Using the best-available information Zimbabwe's Scientific Authority concluded that hunting is not detrimental to the survival of the lion.**

Zimbabwe's lion hunting is permitted subject to a Non-Detriment Finding made in January 2015.[14] In this finding, PWMA, the CITES scientific authority, concluded:

> The species contributes positively to the livelihoods of local communities through sport hunting. Hunting also contributes to the conservation of lions through financial benefits that are ploughed back into conservation and that local communities use for rural development programmes. Trophy hunting of the lion is undertaken through a strict scientific based quota setting process with an objective of ensuring that utilization and any form of harvesting is sustainable.
>
> The African lion population is increasing in most areas. Research and monitoring of the species is being done collaboratively with external researchers and there is a lot of baseline information and publications. Zimbabwe has a lion management plan and strategy that is being implemented and reviewed on a regular basis. Rigorous monitoring of trophy hunting through adaptive management principles is carried out in Zimbabwe and non-detrimental findings are conducted for all exports. *In conclusion, harvesting and any other forms of off take are not detrimental to the survival of the African lion in Zimbabwe.*[15]

PWMA based its finding on current estimates from primary lion range areas, reflecting a lion population of at least 2,346.[16] But that did not even include updated estimates from Bubye Valley Conservancy (BVC) and Savé Valley Conservancy (SVC), which increase the 2016 estimate to approximately 2,600 lions.[17] Both

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[10] PWMA, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014).

[11] *Zimbabwe Lion Conservation Report 2016*, p. 24; ZPHGA Letter, p. 1-3. Other steps taken include the creation of an Ethics Committee, currently charged with updating the Code of Conduct and "best practices" manual for Zimbabwe's operators and professional hunters. Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016) (*The Role of Hunting in Conservation and Livelihood Resilience*), p. 8, 16.

[12] ZPHGA Letter, p 4; *see also* L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion *Panthera Leo* (Jan. 25, 2016) (*Pro Safaris Report*), p. 2.

[13] *E.g., Pro Safaris Report*, p. 2.

[14] *Non-Detriment Finding*, p. 1.

[15] *Id.* at 1 (added emphasis).

[16] *Id.* at 11.

[17] The current population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals (Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley

populations grew from reintroduced lion and have skyrocketed since the introductions.[18] Populations in Hwange and Gonarezhou National Parks have also increased since the late 2000s.[19] The 2015 IUCN *Red List* assessment for African lion acknowledges this growth. It inferred population declines in many parts of the lion's continental range, but *not* in Zimbabwe. Rather, the *Red List* pointed to an overall *increase* in sample lion populations in Zimbabwe.[20]

Based on this large population size, data from stakeholders (including hunting operators, who often track lion sightings in their areas),[21] and aging returns from the 2014 season, PWMA scientists set a 2015 quota of 85 lions.[22] This represents approximately 3.62% of the population, and it is well within the guideline of <5% for a sustainable offtake. This quota is carefully allocated based on the type of land use. On state-protected lands (i.e., the PWMA and Forestry Estates), a lower quota is allocated than on communal lands, as managed hunting is used to mitigate human-lion conflict in some communal areas.[23] Lion are extremely dense on private conservancies, and the quotas are allocated based on this density.[24]

However, because of the age-based limitation on lawful lion trophies, actual offtake is far below the quota. In 2015, only 39 lions were harvested representing ~46% of the quota and only 1.5% of a population of

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> Complex: 600], though the actual number would be larger if there were data available for the countries [*sic*] minor lion areas that are yet to be surveyed] (ZPWMA 2015).

Zimbabwe Lion Conservation Report 2016, p. 6.

[18] In BVC, 13 lions were reintroduced and four "broke in" in 1999. From those 17, the population has grown to ~280 in 2009, "when robust population surveys were initiated," to over 500 lions today. *BVC Report*, p. 3. In SVC, the lion was reintroduced, and that and other reintroductions have given the conservancy its strong wildlife base:

> Trophy hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhino now found there.

SVC Report, p. 2; *see also Zimbabwe Lion Conservation Report 2016*, p. 12-19.

[19] Lion populations can increase in abundance rapidly and can "achieve exponential growth rates." *Zimbabwe Lion Conservation Report 2016*, p. 8. Regulated, managed sport-hunting does not affect growth rates. *Id.* To the contrary, as the Non-Detriment finding suggests, hunting is not a population control method; however, the "positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-takes; neither of which generally jeopardise populations and also suggest that hunting could play a role in population recovery." *Id.*; *Non-Detriment Finding*, p. 1.

[20] H. Bauer et al., Panthera Leo, The IUCN Red List of Threatened Species (2015), http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T15951A79929984.en ("Table 3 ... shows the estimated Lion population size in 1993 and 2014 for each of the 47 sample subpopulations ... it can be seen that most countries had a declining trend ... with only four countries (India, Namibia, South Africa and Zimbabwe) seeing a growth trend ... The sample Lion population in five countries (Botswana, India, Namibia, South Africa, Zimbabwe) grew by an estimated 12%, whereas the Lion population in the remaining African range countries declined by an estimated 61% ...").

[21] *E.g.*, *Pro Safaris Report*, p. 1 (observed at least 68 lions in the Rifa SA as of August 2015: "Population estimates are done with daily game sighting reports by Professional Hunters and Game Scouts ... camera traps and spoor counts done during the season"; operator also monitors prey base including buffalo, kudu, eland, impala, zebra, hippo, etc. and keeps population counts based on sightings/tracking; in 2015 observed 1,829 impalas and 646 buffalo in area); Cliff Walker Safaris, Enhancement Report (2016) (*CWS Report*) (showing tracking of 360 lions over 14 hunts in three seasons, including 97 males).

[22] *Zimbabwe Lion Conservation Report 2016*, p. 9.

[23] *Id.* at 18.

[24] *E.g.*, *id.* (density for BVC is ~0.187 lions/km^2) ("The success of the [BVC], in terms of both its hunted lion and non-hunted rhino populations, provides the incentive for other areas in the country to sustainably manage their wildlife resource...").

2,600 lions.[25] Because the offtake was lower, the precautionary 2016 quota has adaptively been set at 75 lions, representing only 2.9% of the population.[26]

Although the biological impact of the offtake is minute, its financial impact is not. The estimated value of selling the full lion quota is $6,800,000.[27] The value of daily fees for just the lion harvested is $2,800,000.[28] Assuming an average land management cost of $150 per km^2, sale of the lion quota can support 45,333 km^2 in habitat[29] – an area almost the PWMA Estate (~50,000 km^2) and about the size of Kenya's national parks and national reserves (44,702 km^2).[30]

Based on the effective implementation of Zimbabwe's carefully crafted aging approach, the science-based and sustainable quota, the limited offtake, and the "benefits that are ploughed back into conservation and that local communities use for rural development programmes," Zimbabwe's Scientific Authority properly concluded there is "no net harm" from the limited, regulated offtake, the net benefits of hunting greatly outweigh the limited offtake, and it is not detrimental to the species' survival. The critical role of regulated and sustainable hunting is evident in the fact that "Safari hunting demonstrably remains the single largest source of funding for wildlife-based land use and Community Based Natural Resource Management (CBNRM) in Zimbabwe – providing financial incentive to conserve."[31]

II. Zimbabwe's lion hunting and conservation program sufficiently address the three main threats to lion.

A. Sport-hunting in Zimbabwe extends the available protected lion range and incentivizes the use of communal and private land as habitat.

Protected areas in Zimbabwe cover more than 100,000 km^2 and include national parks, safari areas, private conservancies, and CAMPFIRE.[32] National parks cover about 27,000 km^2, but hunting areas exceed 76,000 km^2 (including approximately 19,000 km^2 in safari areas; ~7,000 in conservancies, and 48,000 in CAMPFIRE areas).[33] "Hunting remains by far the highest earner of revenue sustaining biodiversity conservation and wildlife-based land use in Zimbabwe – be it under communal, private or state tenure. Hunting revenues not only incentivise and pay for wildlife as a primary land-use option on private and communal land, but

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[25] *Id.* at 9.

[26] *Id.* In sum: Zimbabwe's quotas are based on scientific population density information, determined by experts and adaptively managed in accordance with the aging restrictions, and allocated by area according to density. The age-based approach and maximum quota conform to the best available scientific information and best practices as the FWS identified in the Final Rule.

[27] Assuming an average safari cost of $80,000 is low. *Zimbabwe Lion Conservation Report 2016*, p. 22; *CWS Report* (average cost of $107,000).

[28] *Id.*

[29] *Id.*

[30] PWMA, Website, www.zimparks.org/index.php/about-us/profile; IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[31] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 7.

[32] This does not include the sizable forest reserves, many of which allow licensed safari hunting. *See also The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 17-18.

[33] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014); IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

so too, in the face of ever mounting pressure for land, does it stave off political and social pressure to de-gazette protected areas (PA's) on state land."[34]

The Community Areas Management Program for Indigenous Resources (CAMPFIRE) program "is premised on the conservation of wildlife and other natural resources as a livelihood option for rural communities in marginal areas of Zimbabwe."[35] CAMPFIRE provides habitat and anti-poaching protection for wildlife, and generates revenues for poor rural communities.[36] It benefits wildlife and people both. Through CAMPFIRE the revenues from hunting help to increase local tolerance and decrease human-lion-livestock conflict.[37] But for the revenues generated from lion hunting, it is unlike CAMPFIRE communities would be willing to tolerate lion at the levels they do.[38]

As for private land, Conservation Force sent three previous reports describing the habitat supporting the large wildlife populations in BVC and SVC. "In fact, 3 of the last 10 IUCN Key 1 Populations of Black Rhino remaining in Africa are to be found on private hunting conservancies in Zimbabwe."[39] BVC and SVC (~6,800 km^2) depend entirely on revenue from sport hunting to fund their operations.[40]

Without sport-hunting, this habitat would likely return to cattle ranching, and large populations of wildlife would be lost. Likewise, without the incentives generated through hunting, much CAMPFIRE land would be lost as habitat. This is *not* conjecture. It is empirical fact, based on the limited and inconsistent demand for non-consumptive tourism in Zimbabwe.[41]

Both communal and private areas have tried and failed to attract sustainable photographic tourism, due to "a combination of intractable contributing factors – from the global recession and downturn in tourism to poor international perception and desirability of Zimbabwe as a tourist destination, compounded by a severely depressed local economy, decaying infrastructure and diminished road and air-travel access. The industry operates at well below 50% occupancy based on current beds available and there is not a single

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[34] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2.
[35] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).
[36] *Id.*; *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2, 17.
[37] *Id.* (As of 2014, "CAMPFIRE generates on average US$2 million in net income every year which is much lower than estimated potential earnings for the Program. Income generation is mostly through the lease of sport hunting rights to commercial safari operators, as well as sales of hides and ivory, tourism leases on communal land and other natural resources management activities. As an industry, safari hunting has proven to be robust both environmentally and economically and, although not unscathed, [has been] fairly resilient in the face of serious socio-political uncertainty ... Although human encroachment and poaching has affected some communal wildlife areas in recent years, the CAMPFIRE program at national level still protects an area of wild land in excess of 50,000km^2, roughly equivalent in extent to the Parks and Wildlife Estate (Table 1). There are over 200,000 households that actively participate in the Program in CAMPFIRE hunting areas. Revenue received by communities, though relatively small, is used to directly offset the costs of living with wildlife through employment of game scouts or resource monitors.").
[38] *Zimbabwe Lion Conservation Report 2016*, p. 14; *Non-Detriment Finding*, p. 6-7, 9.
[39] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.
[40] *SVC Report*, p. 5-6; *BVC Report*; M. Schwartz, National Geographic Cat Watch (Feb. 25, 2016) ("remember that the BVC used to be a cattle-ranching area, and if wildlife becomes unviable, then there is no reason not to convert it back to a cattle ranching area again"). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 2, 5, 7, 12.
[41] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 24; *SVC Report*, p. 2-3 ("Sport hunting and trophy hunting became the only economically viable land use options and have remained the only tangible source of income to the landowners of the SVC. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancelation of the confirmed bookings.").

working example of a community-owned non-hunting tourism venture catering to international clientele in the country."[42] Given Zimbabwe's poor economy it is difficult to see them trying again, as photo-tourists require greater infrastructure and accessibility than hunting tourists do.[43] Sport-hunting alone incentivizes the preservation of most habitat in Zimbabwe:[44] "In Zimbabwe, over 75% of all conservation land under private, community and state tenure is entirely dependent on safari hunting revenues..." (7.9 million ha).[45]

Hunting also incentivizes and pays for *improvements* in wildlife habitat. For example, BVC and SVC spend significant revenue on water provision. A smaller operator, Pro Safaris spends 6% of its gross turnover on "conservation," largely for "water points installation, pipeline maintenance, water pumping, and de-silting of water pans..."[46] Water holes are one of the ways safari operators routinely improve available habitat.[47]

Without hunting wildlife exists only in national parks. By providing, securing, and improving habitat, sport-hunting provides enhancement for the lion.

B. Sport-hunting in Zimbabwe provides significant anti-poaching support to protect the lion's prey base.

Hunting revenues underwrite much of the anti-poaching which allows the lion's prey base to flourish, and which thereby allows lion populations to grow. For example:

- In 2015 BVC spent $590,000 in funds generated exclusively from sport-hunting to employ scouts, purchase equipment, and cover anti-poaching.[48] BVC protects the world's third largest population of black rhino and incurs significant anti-poaching expenses to keep them secure from poachers.[49]
- On average, SVC spends $546,000 annually on anti-poaching, including a large expenditure for the protection of their black rhino population (approximately $200,000/year).[50] The funds are largely generated from sport-hunting and donations from clients.[51]
- The Dande Anti-Poaching Unit (DAPU) in the Zambezi Valley is among the most successful. They reduced elephant poaching in their concessions from 40 carcasses in 2010 to only three in 2015. DAPU supports 22 community scouts and 18 council scouts. In 2014, they picked up 2,375 snares,

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[42] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[43] *Id.* at 24 ("By comparison to [photo]-tourism, safari hunting operates on much higher income per tourist with much lower tourist throughflow and total bed-nights and requires far less capital outlay for accommodation and hospitality infrastructure. Not only are these extremely important considerations in the context of the poor socio-economic and political climate for investment and tourism in Zimbabwe ... Public health scares such as Ebola, terrorism, political unrest and social disturbances have had demonstrably serious impact on tourism traffic to different parts of Africa and is especially true of non-consumptive ecotourism which is far more sensitive to such deterrents than is trophy hunting ..."). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 8.

[44] Sport hunting incentivizes the preservation of an area larger than Kenya's national parks. CAMPFIRE areas alone represent almost 50,000 km^2, and Kenya's NPs are only ~47,000. *See* IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[45] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 11-12, 17-18.

[46] *Pro Safaris Report*, p. 3.

[47] *See, e.g., CWS Report*; *Zimbabwe Lion Conservation Report 2016*, p. 18.

[48] *Zimbabwe Lion Conservation Report 2016*, p. 20 (this amount does not include incentives and rewards donated for these purposes).

[49] *BVC Report*, p. 5.

[50] *Id.* at p. 5.

[51] *SVC Report*, p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 20.

convicted 19 meat poachers, retrieved 22 weapons, and paid over $9,000 in rewards.[52] This unit is wholly funded by hunting operator Charlton McCallum Safaris, and the contributions of its safari clients.[53] By protecting the lion's prey base, DAPU is significantly supporting lion conservation.

- Pro Safaris in the Rifa Safari Area contributes 39% of their gross revenue to PWMA, which supports wildlife management and monitoring as well as PWMA anti-poaching rangers.[54] They spend 6% of their gross to fund their own anti-poaching unit of ten scouts. Their team coordinate with PWMA rangers to police the 40-km international border with Zambia and an area covering ~506 km^2 (close to the size of Redwood National and State Parks in California combined). Ivory poaching is a threat, and funds generated from hunting help protect the elephant and other prey in the area.[55]
- In 2013-2014, the anti-poaching teams supported by Martin Pieters Safaris conducted 289 patrols, recovered 165+ snares (a total of 15,000+ since 2007), recovered five firearms and ammunition, recovered four pairs of tusks as well as poached fish and meat, and arrested 123 poachers.[56] This company spends more than $40,000/year on anti-poaching in their concessions.[57]
- Martin Pieters Safaris is also helping establish a communal conservancy in the Omay area that has two seven-man anti-poaching teams. They have been extensively trained in weapons, tactics, and offensive maneuvers with the operator's support. This unit has branched into Gokwe and other communal lands, and cooperates extensively with Police and community scouts. As of November, this unit arrested over 120 poachers and traffickers, many of whom were hardened, professional poachers whose removal significantly benefits the lion's prey base.[58]
- In March, a safari operator father and son lost their lives in a tragic accident as they were waiting to assist an anti-poaching patrol.[59] They dedicated their funds, their time, and ultimately their lives to protecting wildlife. The commitment of hunting operators cannot be questioned. Their efforts are obviously enhancement for the lion and other species.

These are but a few examples of the essential support safari operators provide to maintain and increase the lion's prey base, addressing this threat and enhancing the survival of the lion in the wild.

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[52] DAPU, Year-End 2015 Report (Oct./Nov. 2015), p. 9-20; DAPU, End-of-Year Report (Oct.-Dec. 2015).
[53] *Id.* at 3, 19.
[54] *Pro Safaris Report*, p. 3.
[55] *Id.*; *see also CWS Report.*
[56] Martin Pieters Safaris, Sustainable Use Benefiting Communities, Blog (Nov. 18, 2015); Martin Pieters Safaris, Lion Data (2016) (*M.P. Report*), p. 9.
[57] Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016).
[58] *Id.*
[59] The Zambezi Society, Factual Report on the Tragic Deaths of Two Wildlife Conservation Volunteers in Mana Pools National Park (Mar. 14, 2016), http://www.zamsoc.org/?p=2121; *see also* The Zambezi Society, Update Letter (Apr. 2016) (offering memorial to these operators; also describing the operations of MAPP, an anti-poaching unit run by another hunting operator), http://us10.campaign-archive1.com/?u=f4943277ce971cb1c9028d068&id=a10245916e&e=959ad7ac3f.

C. Sustainable use through sport-hunting is essential to reducing human-wildlife conflicts and the success of Zimbabwe's community based conservation program.

Sustainable use, largely through sport-hunting, is a pillar of CAMPFIRE.[60] This is due to the basic principle that co-existence of wildlife and people is improved, and people are more tolerant of the negative effects of wildlife, if wildlife has value.[61] For instance, lion "hunting contributes to the conservation of lions via the financial revenue generated [through CAMPFIRE], which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs."[62]

Consistent with CAMPFIRE revenue-sharing guidelines, hunting operators in communal areas pay a large percentage of revenues and fee income to the communities. For example, in the Dande area one operator pays well over 40% of gross sales to CAMPFIRE wards and councils. When payments to the government are included, the company retains less than half its income.[63] Like many others in Zimbabwe, the company believes "People MUST get FAIR value for their game, or all is lost," "make[s] sure that all hunting proceeds are correctly chanelled [sic] in to producer ward accounts," and operate with "[s]trong social responsibility i.e. we allocate $67,000 per annum to District and Ward projects and we ensure there is transparency."[64]

In the Omay area, Martin Pieters Safaris and its associates contribute over $200,000 annually "straight to the producer communities for community developmental projects."[65] In 2013-2014 the communities used these funds for a range of projects, including but not limited to:

- Building or repairing five teachers' houses, ten classrooms/blocks, and four administrative offices;
- Building or obtaining school supplies including two blackboards;
- Rehabilitating three water pipelines or boreholes;
- Constructing feeder roads;
- Obtaining or repairing heavy equipment including one tractor;
- Helping the community obtain construction materials, build toilets, and use funds for traditional ceremonies.[66]

These direct benefits increase tolerance, and thus increase numbers of wildlife, in an area of ~8,094 km^2.[67] "Communities receive direct benefit both financially and through various projects implemented by Martin Pieters Safaris such as clinics, schools, vehicles for anti-poaching and the employment of scouts."[68] These benefits arise in "a remote inhospitable concession that has no other land use model due to very erratic

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[60] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2015); CAMPFIRE Association, Website ("Vision: To see rural communities in Zimbabwe freed from the vagaries of poverty and enjoying the benefits of the sustainable use of their natural resources ..."); *see also M.P. Report*, p. 1; IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 4-7.

[61] *Zimbabwe Lion Conservation Report 2016*, p. 11; *see also* Chiefs, EU in Wildlife Talks, The Herald (Apr. 2, 2016), http://www.herald.co.zw/chiefs-eu-in-wildlife-talks/.

[62] *Id.*

[63] DAPU, Year End Report (2015).

[64] *Id.* at p. 3

[65] *M.P. Report*, p. 1-7; Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015).

[66] *Id.*

[67] *Id.*

[68] *Id.*

and low rainfalls, and abundance of mosquitos, tsetse flies and poor soils. The only benefit local people have, is to receive financial remuneration from hunting safari off take and employment."[69]

Outside of communal areas, hunting also generates benefits for rural Zimbabweans. Operators contribute to enhancing quality of life for those impacted by wildlife to incentivize tolerance and conservation. These contributions are made in cash, much-needed goods or services, and game meat.

For example, BVC's community assistance projects include drilling and equipping eight boreholes, building a clinic and staff houses with electrification and running water, contributing sport uniforms and transport for the youth soccer program, and more. According to the Conservancy's manager, "the identifiable costs of the clinic amount to just over $178,000 but there are many other hidden costs involved."[70]

Over and above these contributions, BVC has contributed 1,600 kg of meat each month since July 2011 to a trust administered by local chiefs to provide protein for school and community events and allow for the sale of excess meat to fund community projects.[71] Overall, BVC donates over *45 tons* of meat annually to local communities.[72]

Similarly, SVC supports nearby communities through cash, service, in-kind, and meat donations. In 2012, for example, the conservancies' contributions topped $100,000 and included provision of water, repair or construction of schools and clinics, payment of school fees, provision of computer equipment, and regular meat donations, among other things.[73] Game meat contributions are a key benefit for local people:

> [SVC] recently entered into a mutually dependent agreement with the Chiefs representing communities surrounding ... The agreement links the communities to the natural resource utilisation that occurs through the business operation of the conservancy and opens up opportunities for local indigenous populations to share in wealth creation... The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from lion hunting constitute a significant portion of inflow and thus an important part of the community benefits.[74]

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[69] *Id.* ("Every year several local villagers are killed or maimed by elephant, lion, buffalo, hippo and crocodile, they live in close proximity to these animals and only tolerate them because we as a hunting company give back to the community. It is very important for the protection of our wildlife in these remote areas that we continue to assist the RDC with anti-poaching continue to pay for the sustainable off take of a select quota, because if we do not, the locals will kill every animal, they will not tolerate wildlife disruptions to their families, be it through destruction of their crops on an annual basis, or the loss of their family members.").

[70] B. Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC and attached spreadsheet (Jan. 20, 2016).

[71] *Id.* Similarly, 1,000 kg of meat each (2,000 total) is donated to the Beit Bridge communities (since April 2014) and the Mwenezi communities (since Aug. 2013). *Id.*; *Zimbabwe Lion Conservation Report 2016*, p. 14-15; Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015) (*Fate of the African Lion Film*), http://theconservationimperative.com/?p=112 (game meat donations are a "direct spinoff" of the hunting program, and help build strong relationships with local chiefs. Any poachers found in the area are taken to the chiefs' courts and prosecuted there, and "asked to compensate for the value of the animals killed and the compensation goes back to the community kitty." This is a powerful community engagement system that benefits the wildlife directly.

[72] *Zimbabwe Lion Conservation Report 2016*, p. 12 (BVC's "meat donation is worth over US$100,000 per year, and the communities are free to decide how they use it.").

[73] *Id.*

[74] *SVC Report*, p. 5.

Hunting operators are also employers in a tough economy.[75] A small operator can employ 14-20 people; a medium operator can employ 14 staff, ten scouts, six trackers, and three professional hunters;[76] and a large operator like BVC can employ 350-400 staff and thereby support approximately 2,000 people.[77]

It should also be noted that hunting clients make substantial contributions to local communities. One lion hunter expects to contribute over $7,500 in gratuities during his safari, a "blue bag" donation, and perhaps an additional cash donation to a community or conservation purpose.[78] This is but one example – voluntary donations also help cover the anti-poaching expenses of DAPU, BVC, and SVC, among other things, and in turn this provides employment for local trackers and scouts.

The importance of these benefits cannot be overstated, because human-lion conflict is arguably the prime threat to lion in Zimbabwe.[79] This is one hunter of many, but put together these gifts provide considerable extra revenue for the poor and marginalized in a poor country, and sustain expensive anti-poaching efforts to protect endangered species. Added to the revenue/fee sharing and voluntary contributions from safari operators, hunting demonstrably benefits people, which in turn enhances the lion's survival.

III. Revenue from U.S. hunters is used for conservation and maintaining viable lion populations.

The revenue generated from U.S. clients contributes hugely to lion conservation and habitat protection in Zimbabwe.

BVC and SVC each rely *solely* on the income from hunting, especially lion hunting, to fund their operations. Their clientele is overwhelmingly American.[80] These conservancies represent ~6,400 km^2 of former cattle ranches that instead host large and sustainable rhino, antelope, cheetah, wild dog, and lion populations (among others).[81] The hunting of lion pays for the conservation of these other species, and the inability to sell lion hunts in their largest market puts the habitat, the prey base, the lion and all these other species at risk due to lack of funding. As BVC's anti-poaching manager explained in a video sent to the FWS:

> The BVC is about 3,000 square km ... It derives its whole income from hunting operations ... *Without the hunting there would be basically no reason for this area to exist or it would be a cattle area.* Having this large unit of land set aside for wildlife has meant that endangered species like black and white rhinoceros thrive here. We've got important populations of cheetah, wild dog as well, brown hyena, pangolins. So under the umbrella of hunting, this whole habitat is benefiting a whole variety of other species that are not consumptively hunted but they are benefiting from this wildlife area. Without hunting we would be very

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[75] Zimbabwe faces a 95% unemployment rate. CIA World Factbook, https://www.cia.gov/library/publications/the-world-factbook/geos/zi.html.

[76] *Pro Safaris Report*, p. 3 (19% of turnover goes to salaries and on average supports 165 people; because concession is not located near a community, operator donates game meat to PWMA rangers and scouts, to government for state functions, and to orphanage, for total of 6,137 kg annually ($12,250 and 2% of their gross income)).

[77] *CWS Report*; *Fate of the African Lion Film*.

[78] J. Hedgecock Statement (attached to import permit application); J. Hedgecock, pers. comm. (2015-2016).

[79] *Zimbabwe Lion Conservation Report 2016*, p. 11. Note that in a three-year period, seven people were killed.

[80] U.S. citizens represent over 90% of BVC and SVC's respective clientele. *Zimbabwe Lion Conservation Report 2016*, p. 23; *SVC Report*, p. 4.

[81] *Zimbabwe Lion Conservation Report 2016*, p. 4.

> hard put to justify keeping this big expensive land in its current land use. The conservancy covers all its own anti-poaching costs. It is quite an expensive operation.[82]

Lion hunting generates an estimated 33.9% of BVC's annual gross revenue – one-third of the funds needed to keep: the conservancy open as prime habitat, the anti-poaching patrols on the ground, and the future of the lion, black rhino, wild dog, and other species secure.[83] This is undoubtedly enhancement.

Likewise, as SVC reports, a "ban on lion trophy imports into the US will effectively result in a collapse of the lion hunting industry in the Savé Valley Conservancy, where on average 90% of hunting clients are American (up to 98% for some properties) ... The loss of the [approx.] $375,000 annual revenue will be catastrophic for the conservancy, inevitably resulting in less investment in security and other conservation measures."[84]

In short, the revenue from U.S. hunters is critical because lion in conservancies eat hundreds of thousands of dollars in huntable prey per year. And if the lions do not generate revenue there will be no incentive to maintain their large populations.[85]

On a smaller scale, high-quality operators like Cliff Walker and Pro Safaris, which together police the Rifa Safari Area, could not exist but for U.S. clients. Mr. Walker maintains high hunting and conservation ethics and targets U.S. clients because they share these values.[86] Almost all (86%) of his clients are U.S. citizens paying an average of $107,500 each in fees, which are ploughed back into Rifa SA, salaries, anti-poaching, and PWMA anti-poaching.

Similarly, lions are a major contributor to Pro Safaris' conservation/operating budget, and U.S. citizens are the main source of Pro Safaris' clients (75% of their lion were harvested by U.S. citizens).[87] The operator estimates that its conservation funding would fall by 36% if lion hunting declined because of an import ban. "Rifa Safari area has a small quota on all species. Lion therefore is a major contributor to the conservation of Elephant and the habitat to all species ... the Loss of the US Hunters will have a major negative impact on the survival of the viability of this area as a wildlife area."[88]

U.S. hunters are huge contributors to Zimbabwe's conservation hunting program: they are the force that keeps Zimbabwe's hunters in business and keeps most habitat, anti-poaching, and CAMPFIRE benefits in place. Their presence enhances the survival of the lion, and their absence will do the opposite.

Conclusion

On the whole, the U.S. market represented "70.4% of the total Zimbabwean lion sport-hunting industry" between 2005 and 2015,[89] and that may even be higher. This means at least $7 out of every $10 directed

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[82] *Fate of the African Lion Film*; *see also Zimbabwe Lion Conservation Report 2016*, p. 20 ("saturation of lions in wildlife areas on both state and private land is positive for their future conservation security ... it is also critical to incidentally conserved endangered species, such as both species of rhino on private wildlife conservancies in Zimbabwe ..., which benefit from the same resources and protection incentivized and provided by the revenue generated from hunting").
[83] *Zimbabwe Lion Conservation Report 2016*, p. 22.
[84] *SVC Report*, p. 4.
[85] *BVC Report*, p. 5-6.
[86] *CWS Report*.
[87] *Pro Safaris Report*, p. 4.
[88] *Id.*
[89] *Zimbabwe Lion Conservation Report 2016*, p. 23.

to habitat protection comes from U.S. citizens. $7 of every $10 directed to anti-poaching comes from U.S. citizens (and that amount is likely higher given the voluntarily donations often made by U.S. clients). And $7 of every $10 contributed to communities to reduce human-lion conflict comes from U.S. clients. The contributions of U.S. clients are enhancing the survival of the lion in Zimbabwe far more than anyone else.

The Final Rule identified three primary threats to lion: loss of habitat, loss of prey base, and human-lion conflict. As shown here, in the enclosed, and in the previously submitted documents, U.S. citizens are the greatest contributors to efforts that reduce or remediate these threats. Sport-hunting in Zimbabwe, and lion hunting specifically, provides a reason to preserve thousands of kilometers of habitat for lion and prey species. It is the primary funder of the anti-poaching units that maintain or increase the lion's prey base. Hunting revenues provide the main funding for Zimbabwe's CBNRM program and the main contributor of other benefits to Zimbabwe's rural communities.

Because it substantially reduces the threats and contributes to the growth of Zimbabwe's lion population, Zimbabwe's well-managed sport-hunting program enhances the lion's survival. Accordingly, the enclosed permit applications, and those previously submitted, should be approved and permits issued.

We believe this information and the information already in the FWS' possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. We ask that you consider all that information in evaluating these permit applications. We will also continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,



John J. Jackson, III
Regina Lennox

Enclosures:

- Application submitted on behalf of Phillip Glass to import a sport-hunted lion trophy to be hunted in Nyaminyami CAMPFIRE Area, Zimbabwe
- Application submitted on behalf of Timothy Haley to import a sport-hunted lion trophy to be hunted in Rifa Safari Area, Zimbabwe
- Application submitted on behalf of Justin Hedgecock to import a sport-hunted lion trophy to be hunted in Matetsi Safari Area, Zimbabwe
- Application submitted on behalf of Eric Rau to import a sport-hunted lion trophy to be hunted in NW Matabeleland, Zimbabwe
- Application submitted on behalf of Cooper Ribman to import a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Enclosed and Submitted

ENHANCEMENT INFORMATION ON THE AFRICAN LION

ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC, attaching spreadsheet (Jan. 20, 2016)	1/26/16
5	L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (Jan. 20, 2016)	1/26/16
6	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16
7	Dr. Byron du Preez et al., Zimbabwe Lion Conservation Research Report 2016: Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 31, 2016)	2/1/16
8	Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015)	2/24/16
9	Martin Pieters Safaris, "Lion Data" (2016)	4/20/16
10	Michael Schwartz, Culling to Conserve: A Hard Truth for Lion Conservation, National Geographic Cat Watch (Feb. 25, 2016)	4/20/16
11	Zimbabwe Parks & Wildlife Management Authority, Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe	4/20/16
12	CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014)	4/20/16
13	CAMPFIRE Association, Update to Hunting in CAMPFIRE Areas (2015)	4/20/16
14	Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016)	4/20/16
15	L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion Panthera Leo (Jan. 25, 2016)	4/20/16
16	Cliff Walker Safaris, Enhancement Report (2016)	4/20/16
17	IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016)	4/20/16
18	DAPU, Year-End 2015 Report (Oct./Nov. 2015)	4/20/16
19	DAPU, End-of-Year Report (Oct.-Dec. 2015)	4/20/16
20	Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015)	4/20/16
21	Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016)	4/20/16
22	Nengasha Safaris, Letter re: Enhancement (2016)	4/20/16

LION ZIMBABWE ESA TROPHY

Permit Number: MA94867B-0

Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

TIMOTHY (b) HALEY
(b) (6)
PALO ALTO, CA (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD APR 27 20

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Hedgecock	Justin	(b) (6)	—

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	—	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		

2. Tax identification no.	3. Description of business, agency, Tribe, or institution		

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Gallatin Gateway	Montana	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
Same as physical address.

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee.** Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 14US47548B/9 No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50,*** and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Justin (b) (6) Hedgecock — 01/14/2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   Panthera leo Meknochaita → Panthera leo Melanochaita
   Common name-African Lion
   b. Sex (if known).
   Male
2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
   Zimbabwe, Matetsi Unit 5, Matabele Province, Victoria Falls
   Unit 5 Camp S18 30 391 E025 55 290
   b. Date wildlife is to be hunted:
   September 1-21 2016
   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
   Full skin (including claws), skull, 2 floating bones, teeth
3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):
   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: Cuan Meredith
Business Name: Trophy Consultants International
Address: 4 Josiah Chinamano Rd.,
Address: Belmont
City: Bulawayo
State/Province: Matebeleland
Country, Postal Code: Zimbabwe

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information submitted by Conservation Force & attachments & information subm by Zimbabwe Parks & Wildlife

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Justin (b) (6) Hedgework Date: 01/14/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):
Same as physical address page 1.

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
Justin Hedgecock (b) (6) [redacted]

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

5. **Enhancement**

I, Justin Hedgecock, booked my 2016 lion safari with Cliff Walker, a native of Zimbabwe. Mr. Walker conducts hunts throughout Africa. Mr. Walker has provided information on enhancement (please see enclosed documents). Mr. Walker and I booked this lion Safari in Matetsi Unit 5, an area that is managed by Zimbabwe National Parks and Wildlife. The "Matetsi" blocks had historically been livestock areas. However, it was determined that the areas could generate more revenue through sustainable use hunting. Therefore, instead of killing off large numbers of predators to protect livestock the livestock was removed and wildlife reestablished overtime. The wildlife has been managed ever since. This has a positive effect on wildlife, reducing the human/wildlife conflict in these areas.

Zimbabwe National Parks and Wildlife manages Matetsi Unit 5, where this safari will take place. Please refer to information provided by Zimbabwe National Parks and Wildlife regarding additional proof of enhancement.

I, Justin Hedgecock, will be participating in the "Safari Club Blue Bag Program" on this safari. This means I will take a duffle bag with 50 pounds of humanitarian supplies (medical, dental, clothing, etc.) into the local community adjacent to our safari hunting area. As I have done on previous safaris I will meet with members of the local community and distribute these items. Probably the most important part of this meeting is when I sit down with members of the local community to discuss wildlife conservation, the importance of anti poaching, and learn what issues are going on at a local level with wildlife. If there is an issue that I am able to take action on to help wildlife, in particular on this safari to help lion, then I will. An example of where I have been involved in the past is providing funding for light aircraft anti poaching patrols in the Lake Natron region of Tanzania. I personally contributed $2,500 to these efforts.

I, Justin Hedgecock, will also be taking additional funds with me, in the amount of $7,500 that will be used for gratuities on this safari. This money will be divided among the professional hunter, camp staff, trackers, and anti poaching teams who are working on my behalf during the course of the safari. The impact of these funds is important to putting value on wildlife; it gives the local workforce a reason to protect wildlife, to protect the lion. These funds are distributed based on work ethic during the safari and how well I feel wildlife in the area is being cared for by these stewards.

Please do not hesitate to contact me directly with any additional questions. (b) (6) [redacted]

ENHANCEMENT REPORT

Cliff Walker Safaris
Africa

I. DESCRIPTION OF PROFESSIONAL HUNTER , COMPANY AND OPERATIONS

Cliff Walker started his hunting career, as a qualified Zimbabwean professional hunter, 21 years ago. He worked for 3 different operators for the first 16 years as a professional in 11 countries across Africa affording him opportunities to hunt almost every accessible huntable species on the continent.

Over his 21 years in the safari industry, Mr. Walker has successfully guided clients to 73 trophy lions in all manner of areas from Mozambique to Ethiopia - arguably making him the most experienced lion hunter in Africa alive, given the diversity of his operations.

Mr. Walker's passion for lion hunting steered him to form his own company, CLIFF WALKER SAFARIS (CWS), in 2008 - which would facilitate taking his own clients where they needed to go for the best chance at harvesting their dream lions.

CWS specializes in free range hunting of mature African lions in areas Mr. Walker himself deems to be sustainable. CWS unequivocally distances itself from any form of canned lion hunting.

As a result their marketing activities target the discerning American arena through Safari Club International and Dallas Safari Club, where hunters are more readily prepared to put in the time and work required to hunt under the free-range umbrella.

Once a client has expressed their commitment to hunting a lion with CWS, Mr. Walker researches options based on the clients requirements and secures a tag through a recognized concessioner in a suitable area. CWS has focused efforts in both Tanzania and Zimbabwe as prime lion countries – but with the implementation of age restrictions for lions and tightening of quota allocation and regulation in 2013 by the Zimbabwe Parks and Wildlife Management Authority, CWS has shifted the bulk of their operations to Zimbabwe.

CWS operates all but exclusively in areas where it is forbidden to hunt at night or use electronic devices to attract a predator. Hence, the legal use of bait to attract lions in conjunction with state of the art camera traps is employed to assess lions and their movements over the course of a safari.

•CWS sells all their lion hunts as 21 day safaris.
Over the past three years:
•On average, 9 bait sites with camera traps are established over the course of a safari.

- These cameras, together with spoor transects and actual sightings revealed an average of 29 independent lions noted. Of these an average of 7.86 were males of 2.5 years or older.
- CWS contracts an independent media company AAVideos to document, with video and SLR, sightings of lions on safari for analysis during and after the safari.
- In the past 3 years CWS has conducted 14 lion hunts – harvesting 13 lions, with an average estimated age of 5.73 years. One lion in 2013 was adjudged to be 4.5 years old – the remaining 12 passed the 5 year criteria enforced since January 2013 as suggested by Panthera Leo.
- 12 of the 14 clients were U.S. Citizens.
- Of these safaris 11 were conducted in Zimbabwe.
- Mr. Walker guided all of these personally - making him the most successful free-range lion hunter in Zimbabwe for 3 years running.
- Average cost to client over the past 3 years on a CWS lion hunt is $107500.
- Between 14 and 20 staff are employed, housed and fed for the month of the CWS safari in the respective concessions used by CWS. An unofficial estimate of Zimbabwe's unemployment rate sitting at 90%, would suggest that a total of between 140 and 200 adults are supported for the month of each safari as well as their dependent children.
- Between 2 and 5 water sources are maintained and operated for a month with the income from 1 CWS lion safari.
-

II. ANTI POACHING EFFORTS

Areas under third party management

a)Because CWS does not have leases for the majority of concessions they are active in, official anti-poaching efforts lie with their respective concessioners and ZNPWA regional entities.

However extensive coverage of areas by vehicle and on foot, and investment by CWS in Satellite phones; 2 way and VHF radios, position Mr. Walker to observe, identify and report poaching activity for the duration of all CWS safaris, in his personal capacity.

- All Safari Areas in Zimbabwe require a ZPWMA representative to accompany and observe a safari.
- Legally, as a professional hunter in Zimbabwe, Mr. Walker is in charge of the safari.
- Mr. Walker in this capacity is allowed (But not obliged) to halt the safari to react to a poaching incident provided he is accompanied by the ZPWMA representative.
- Mr. Walker has acted on this right, innumerable times over the years, to remove snares; free snared animals; report victims of poaching; investigate suspicious gunfire and track armed poaching gangs. Two such reactions to poaching gang activity resulted in the shooting of ivory poachers, and several others in the recovery of boats, supplies, weapons and ivory caches.

Rifa Safari Area (Part of the greater Hurungwe Safari Area)
b) CWS has a 50% interest in the Rifa Safari Area lease, in Zimbabwe's Lower Zambezi Valley. Together with CWS' partner(Pro Safaris), CWS funds and coordinates anti-poaching efforts in the 125000 Acre interior of Rifa as well as the 40 km of the Zambezi river that designates the international boundary with Zambia and Zimbabwe, and forms Rifa's northern boundary.

"For the first time in 18 years, I do not have an American client pre-booked for future years (2017 on). Cancelations by American clients, previously booked on lion hunts in Rifa, have drastically diminished our potential to effectively counter poaching and maintain ecological stability through water management." – Mr. Walker

Cliff Walker
Operating as Cliff Walker Safaris

		2013	April	June	July	August	November	2014	April	June	July	November	2015	May	July	August	Septmber	November		Total	Average
1	Duration of hunt		28	21	21	21	24		21	21	21	21		21	21	21	21	21		255	21.71
2	Nationality of client		US	US	US	US	US		US	US	US	US		US	US	Ca	UAE	US			
3	Country		Zw	Zw	Zw	Zw	Zw		Zw	Zw	Zw	Zw		Zw	Zw	Zw	Zw	Zw			
4	Concession & approximate Area		Rifa 125KAcre	Rifa 125KAcre	TZ, Rungwa 460KAcre	TZ, Rungwa 460KAcre	TZ, Maswa 150KAcre		Rifa 125KAcre	Matetsi(1) 100KAcre	Matetsi(3) 90KAcre	Matetsi(3) 90KAcre		Rifa 125KAcre	Matetsi(5) 90KAcre	Matetsi(1) 100KAcre	Rifa 125KAcre	Save Vlly 50KAcre			
5	Number sites with Camera Traps		9	10	12	9	10		20	8	7	5		12	8	11	4	3		109	9.14
6	Percent of cameras activated		78	70	67	89	20		85	87	100	100		83	63	91	75	100			
7	Number of lions noted - camera, tracks & sightings		20	26	54	48	15		35	42	39	28		21	19	33	12	14		360	29.0
	Number of males		6	7	10	11	3		13	10	9	9		8	7	8	4	5		97	7.86
8	Percentage of these male (Including sub-adults)		30	27	18	23	20		37	21	23	32		38	37	25	25	36			
9	Day on Safari Lion Harvested		11	15	10	10	22		21	10	7	8		12	4	15	9	4			11.29
10	Age of Lion Harvested (Panthera)		6	5	6	6	6		na	4.5	4.5	8		5	6	5	5	7.5		63.5	5.73
11	Approximate Cost of Hunt to client.		$120,000	$100,000	$115,000	$115,000	$120,000		$100,000	$110,000	$110,000	$110,000		$95,000	$110,000	$110,000	$100,000	$90,000		$1,505,000	$107,500

Cliff Walker
Operating as Cliff Walker Safaris

Notes:

1 Majority of Lion hunts are sold as 21 day hunts. Clients will occasionaly leave the safari once all target species have been harvested. They are however still billed for the full 21 days.
3 Stabilisation of lion populations in Zim Safari areas negates the need to look elsewhere for quota for clients wishing to hunt with Cliff.
4 This is approximate area for the concession on permit. Non of the areas are fenced and therefor wildlife is truly free range.
5 Cliff has 10 camera traps at his disposal. Camera traps are moved if the site is deemed to be non productive to different territories.
6 Cliff has an in depth knowledge of the topography of the areas he is active in. Often 2 baits will be set up in relative proximity to each other to target one zone of activity. Invariably only one bait/Camera trap will be activated.
7 Numbers of lions noted is affected greatly by the time of year-lion sightings increase as visibility increases and water becomes more localised.
10 Lion aging as a regulatory control was established in Zimbabwe in 2013. This is monitored by Panthera Leo for the ZNPWA

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: Justin (b) (6) Hedgecock

Name: Justin (b) (6) Hedgecock

Date: 2-12-2016

RCVD APR 27 2016

(b) (6)

(b) (6)

(b) (6)

DATE March 28 2016

PAY TO THE ORDER OF U.S. Fish and Wildlife $ 100.00

One hundred & 00/100 DOLLARS

First Interstate Bank
888-752-3338
www.firstinterstatebank.com

MEMO African Lion Cites Application

(b) (6)

(b) (6)

RCVD APR 27 2016

CONSERVATION FORCE
A FORCE FOR WILDLIFE CONSERVATION

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M. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

April 20, 2016

Dear Chief Van Norman:

Enclosed please find five applications for permits to import the sport-hunted trophies of African lion (*P. l. melanochaita*) from Zimbabwe. In evaluating these applications, please consider the enclosed information and the information previously submitted by Conservation Force, Bubye Valley Conservancy, Zimbabwe's Parks and Wildlife Management Authority, and others. An index of documents submitted by Conservation Force is enclosed with this letter.

This information demonstrates that Zimbabwe's hunting program enhances the survival of the lion in the wild for three main reasons: (1) the hunting program is well-managed scientifically-based, and sustainable; (2) Zimbabwe's lion management addresses the three primary threats to lion (e.g., loss of habitat and prey base, and human-lion conflict); and (3) U.S. hunter revenues are ploughed back into lion conservation and provide critical incentives for landholders to manage lion at high densities.

I. Zimbabwe's conservation hunting program is well-managed, sustainable, and science-based.

A. The hunting program is governed by an effectively and adaptively implemented "Conservation Strategy and Action Plan."

Lion in Zimbabwe are adaptively managed and hunted under the Conservation Strategy and Action Plan (Action Plan).[1] The Action Plan is the result of a participatory workshop involving lion scientists, NGOs, industry representatives, and other stakeholders.[2] Both the Action Plan's "Vision (Long-term objective)" and "Goal (Immediate objective or purpose)" incorporate the sustainable use of lion:

> **4.1 Vision** (Long-term objective)
>
> *Lions conserved and managed sustainably for their aesthetic, cultural and ecological value, and the socio-economic development of Zimbabwe.*
>
> **4.2 Goal** (Immediate objective or purpose)

[1] Zimbabwe Parks and Wildlife Management Authority (PWMA), Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe (*Action Plan*).
[2] *Action Plan*, p. 6; PWMA, Conservation Status of the African Lion (*Panthera leo*) in Zimbabwe (Jan. 2015) (*Non-Detriment Finding*), p. 22.

To secure and where possible, restore as many viable lion populations as possible ... whilst mitigating their negative impact and enhancing the value for the benefit of people through sustainable use.[3]

The Action Plan identifies targets, outputs, and detailed activities to conserve the lion, and describes the roles and responsibilities of the stakeholders involved in lion management. Among the main targets are: to improve data collection and research; to increase community benefits; and to ensure licensed hunting is sustainable. These targets have been met.

Target	Achievement
To improve data collection and research	Current density and population estimates are available for ~70% of Zimbabwe's lion range[4] Long-standing research partnerships with Wild CRU (1999) and other scientists (2007) have been established[5]
To increase community benefits	Increased benefits-sharing has been the norm since the 2007 revision of the CAMPFIRE Revenue Sharing Guidelines requiring that 55% of fees are to be deposited in producer ward accounts, and 41% of the fees are directed to Rural District Councils for infrastructure building and projects[6]
To ensure licensed hunting is sustainable	In 2013/2014, Zimbabwe adopted or reconfirmed its best practices to ensure the sustainability of legal hunting[7]

These efforts show how the Action Plan is being successfully implemented and its targets achieved, and that Zimbabwe is properly managing its lion population and sustainable use-based hunting program.[8]

B. Zimbabwe's lion hunting program was updated in 2013 to enhance its sustainability.

Since July 2013, Zimbabwe's lion hunting regulations have been updated to ensure sustainability and the adoption of best practices, an "internal reform ... that is actively participated in and supported by all of the relevant stakeholders," including the Zimbabwe Parks and Wildlife Management Authority (PWMA), non-governmental organizations, professional hunters and safari operators, CAMPFIRE districts, and scientists and researchers.[9] These updates included the adoption of an age-based approach to lion hunting and the

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[3] *Action Plan*, p. 9.

[4] *Non-Detriment Finding*, p. 8-10; Dr. B. du Preez, Dr. R. Groom, O. Mufute, R. Mandisodza-Chikerema, Zimbabwe Lion Conservation Research Report 2016: Sport-Hunting and Lion (*Panthera leo*) Conservation in Zimbabwe (Jan. 31, 2016) (*Zimbabwe Lion Conservation Report 2016*), p. 5-7.

[5] Dr. B. du Preez, Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016) (*BVC Report*), p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 4, 13, 21. The team of researchers at Bubye Valley Conservancy is large and impressive, and includes an orphaned rhino manager. *See* www.bubyevalleyconservancy.com/team.

[6] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[7] L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (ZPHGA Letter) (Jan. 20, 2016), p. 1.

[8] Some management units have their own plans. For example, in 2011 Savé Valley Conservancy commissioned a lion management plan "to provide members with a science-based plan to help them ethically and sustainably manage their lion population," and which "specifically advocates the use of hunting as a conservation management tool. It demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals." Dr. R. Groom, Hunting in Zimbabwe's Savé Valley Conservancy (Jan. 27, 2013) (*SVC Report*), p. 4.

[9] *Zimbabwe Lion Conservation Report 2016*, p. 5.

imposition of penalties for harvest of lions younger than five;[10] revision of the annual quotas and use of an adaptive quota-setting approach based on results of the lion aging approach; the removal of female lions from hunting quotas; and the termination of fixed quotas.[11]

These updates are being effectively implemented. The lion aging is conducted by PWMA and overseen by the non-profit Panthera. Operators and PHs immediately adopted the age-based approach. One year after its adoption, harvest of underage lion represented only 20% of total offtakes.[12] This approach is allowing male lions to mature and increasing the numbers of older males.[13] Zimbabwe's sport-hunting program for lion is sustainable, and the benefits outweigh the limited offtake.

C. **Using the best-available information Zimbabwe's Scientific Authority concluded that hunting is not detrimental to the survival of the lion.**

Zimbabwe's lion hunting is permitted subject to a Non-Detriment Finding made in January 2015.[14] In this finding, PWMA, the CITES scientific authority, concluded:

> The species contributes positively to the livelihoods of local communities through sport hunting. Hunting also contributes to the conservation of lions through financial benefits that are ploughed back into conservation and that local communities use for rural development programmes. Trophy hunting of the lion is undertaken through a strict scientific based quota setting process with an objective of ensuring that utilization and any form of harvesting is sustainable.
>
> The African lion population is increasing in most areas. Research and monitoring of the species is being done collaboratively with external researchers and there is a lot of baseline information and publications. Zimbabwe has a lion management plan and strategy that is being implemented and reviewed on a regular basis. Rigorous monitoring of trophy hunting through adaptive management principles is carried out in Zimbabwe and non-detrimental findings are conducted for all exports. *In conclusion, harvesting and any other forms of off take are not detrimental to the survival of the African lion in Zimbabwe.*[15]

PWMA based its finding on current estimates from primary lion range areas, reflecting a lion population of at least 2,346.[16] But that did not even include updated estimates from Bubye Valley Conservancy (BVC) and Savé Valley Conservancy (SVC), which increase the 2016 estimate to approximately 2,600 lions.[17] Both

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[10] PWMA, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014).

[11] *Zimbabwe Lion Conservation Report 2016*, p. 24; ZPHGA Letter, p. 1-3. Other steps taken include the creation of an Ethics Committee, currently charged with updating the Code of Conduct and "best practices" manual for Zimbabwe's operators and professional hunters. Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016) (*The Role of Hunting in Conservation and Livelihood Resilience*), p. 8, 16.

[12] ZPHGA Letter, p 4; *see also* L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion *Panthera Leo* (Jan. 25, 2016) (*Pro Safaris Report*), p. 2.

[13] *E.g., Pro Safaris Report*, p. 2.

[14] *Non-Detriment Finding*, p. 1.

[15] *Id.* at 1 (added emphasis).

[16] *Id.* at 11.

[17] The current population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals [Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley

populations grew from reintroduced lion and have skyrocketed since the introductions.[18] Populations in Hwange and Gonarezhou National Parks have also increased since the late 2000s.[19] The 2015 IUCN *Red List* assessment for African lion acknowledges this growth. It inferred population declines in many parts of the lion's continental range, but *not* in Zimbabwe. Rather, the *Red List* pointed to an overall *increase* in sample lion populations in Zimbabwe.[20]

Based on this large population size, data from stakeholders (including hunting operators, who often track lion sightings in their areas),[21] and aging returns from the 2014 season, PWMA scientists set a 2015 quota of 85 lions.[22] This represents approximately 3.62% of the population, and it is well within the guideline of <5% for a sustainable offtake. This quota is carefully allocated based on the type of land use. On state-protected lands (i.e., the PWMA and Forestry Estates), a lower quota is allocated than on communal lands, as managed hunting is used to mitigate human-lion conflict in some communal areas.[23] Lion are extremely dense on private conservancies, and the quotas are allocated based on this density.[24]

However, because of the age-based limitation on lawful lion trophies, actual offtake is far below the quota. In 2015, only 39 lions were harvested representing ~46% of the quota and only 1.5% of a population of

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> Complex: 600], though the actual number would be larger if there were data available for the countries [*sic*] minor lion areas that are yet to be surveyed] (ZPWMA 2015).

Zimbabwe Lion Conservation Report 2016, p. 6.

[18] In BVC, 13 lions were reintroduced and four "broke in" in 1999. From those 17, the population has grown to ~280 in 2009, "when robust population surveys were initiated," to over 500 lions today. *BVC Report*, p. 3. In SVC, the lion was reintroduced, and that and other reintroductions have given the conservancy its strong wildlife base:

> Trophy hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhino now found there.

SVC Report, p. 2; *see also Zimbabwe Lion Conservation Report 2016*, p. 12-19.

[19] Lion populations can increase in abundance rapidly and can "achieve exponential growth rates." *Zimbabwe Lion Conservation Report 2016*, p. 8. Regulated, managed sport-hunting does not affect growth rates. *Id.* To the contrary, as the Non-Detriment finding suggests, hunting is not a population control method; however, the "positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-takes; neither of which generally jeopardise populations and also suggest that hunting could play a role in population recovery." *Id.*; *Non-Detriment Finding*, p. 1.

[20] H. Bauer et al., Panthera Leo, The IUCN Red List of Threatened Species (2015), http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T15951A79929984.en ("Table 3 ... shows the estimated Lion population size in 1993 and 2014 for each of the 47 sample subpopulations ... it can be seen that most countries had a declining trend ... with only four countries (India, Namibia, South Africa and Zimbabwe) seeing a growth trend ... The sample Lion population in five countries (Botswana, India, Namibia, South Africa, Zimbabwe) grew by an estimated 12%, whereas the Lion population in the remaining African range countries declined by an estimated 61% ...").

[21] *E.g., Pro Safaris Report*, p. 1 (observed at least 68 lions in the Rifa SA as of August 2015: "Population estimates are done with daily game sighting reports by Professional Hunters and Game Scouts ... camera traps and spoor counts done during the season"; operator also monitors prey base including buffalo, kudu, eland, impala, zebra, hippo, etc. and keeps population counts based on sightings/tracking; in 2015 observed 1,829 impalas and 646 buffalo in area); Cliff Walker Safaris, Enhancement Report (2016) (*CWS Report*) (showing tracking of 360 lions over 14 hunts in three seasons, including 97 males).

[22] *Zimbabwe Lion Conservation Report 2016*, p. 9.

[23] *Id.* at 18.

[24] *E.g., id.* (density for BVC is ~0.187 lions/km^2) ("The success of the [BVC], in terms of both its hunted lion and non-hunted rhino populations, provides the incentive for other areas in the country to sustainably manage their wildlife resource...").

2,600 lions.[25] Because the offtake was lower, the precautionary 2016 quota has adaptively been set at 75 lions, representing only 2.9% of the population.[26]

Although the biological impact of the offtake is minute, its financial impact is not. The estimated value of selling the full lion quota is $6,800,000.[27] The value of daily fees for just the lion harvested is $2,800,000.[28] Assuming an average land management cost of $150 per km^2, sale of the lion quota can support 45,333 km^2 in habitat[29] – an area almost the PWMA Estate (~50,000 km^2) and about the size of Kenya's national parks and national reserves (44,702 km^2).[30]

Based on the effective implementation of Zimbabwe's carefully crafted aging approach, the science-based and sustainable quota, the limited offtake, and the "benefits that are ploughed back into conservation and that local communities use for rural development programmes," Zimbabwe's Scientific Authority properly concluded there is "no net harm" from the limited, regulated offtake, the net benefits of hunting greatly outweigh the limited offtake, and it is not detrimental to the species' survival. The critical role of regulated and sustainable hunting is evident in the fact that "Safari hunting demonstrably remains the single largest source of funding for wildlife-based land use and Community Based Natural Resource Management (CBNRM) in Zimbabwe – providing financial incentive to conserve."[31]

II. Zimbabwe's lion hunting and conservation program sufficiently address the three main threats to lion.

A. Sport-hunting in Zimbabwe extends the available protected lion range and incentivizes the use of communal and private land as habitat.

Protected areas in Zimbabwe cover more than 100,000 km^2 and include national parks, safari areas, private conservancies, and CAMPFIRE.[32] National parks cover about 27,000 km^2, but hunting areas exceed 76,000 km^2 (including approximately 19,000 km^2 in safari areas; ~7,000 in conservancies, and 48,000 in CAMPFIRE areas).[33] "Hunting remains by far the highest earner of revenue sustaining biodiversity conservation and wildlife-based land use in Zimbabwe – be it under communal, private or state tenure. Hunting revenues not only incentivise and pay for wildlife as a primary land-use option on private and communal land, but

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[25] *Id.* at 9.

[26] *Id.* In sum: Zimbabwe's quotas are based on scientific population density information, determined by experts and adaptively managed in accordance with the aging restrictions, and allocated by area according to density. The age-based approach and maximum quota conform to the best available scientific information and best practices as the FWS identified in the Final Rule.

[27] Assuming an average safari cost of $80,000 is low. *Zimbabwe Lion Conservation Report 2016*, p. 22; *CWS Report* (average cost of $107,000).

[28] *Id.*

[29] *Id.*

[30] PWMA, Website, www.zimparks.org/index.php/about-us/profile; IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[31] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 7.

[32] This does not include the sizable forest reserves, many of which allow licensed safari hunting. *See also The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 17-18.

[33] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014); IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

so too, in the face of ever mounting pressure for land, does it stave off political and social pressure to de-gazette protected areas (PA's) on state land."[34]

The Community Areas Management Program for Indigenous Resources (CAMPFIRE) program "is premised on the conservation of wildlife and other natural resources as a livelihood option for rural communities in marginal areas of Zimbabwe."[35] CAMPFIRE provides habitat and anti-poaching protection for wildlife, and generates revenues for poor rural communities.[36] It benefits wildlife and people both. Through CAMPFIRE the revenues from hunting help to increase local tolerance and decrease human-lion-livestock conflict.[37] But for the revenues generated from lion hunting, it is unlike CAMPFIRE communities would be willing to tolerate lion at the levels they do.[38]

As for private land, Conservation Force sent three previous reports describing the habitat supporting the large wildlife populations in BVC and SVC. "In fact, 3 of the last 10 IUCN Key 1 Populations of Black Rhino remaining in Africa are to be found on private hunting conservancies in Zimbabwe."[39] BVC and SVC (~6,800 km^2) depend entirely on revenue from sport hunting to fund their operations.[40]

Without sport-hunting, this habitat would likely return to cattle ranching, and large populations of wildlife would be lost. Likewise, without the incentives generated through hunting, much CAMPFIRE land would be lost as habitat. This is *not* conjecture. It is empirical fact, based on the limited and inconsistent demand for non-consumptive tourism in Zimbabwe.[41]

Both communal and private areas have tried and failed to attract sustainable photographic tourism, due to "a combination of intractable contributing factors – from the global recession and downturn in tourism to poor international perception and desirability of Zimbabwe as a tourist destination, compounded by a severely depressed local economy, decaying infrastructure and diminished road and air-travel access. The industry operates at well below 50% occupancy based on current beds available and there is not a single

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[34] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2.

[35] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[36] *Id.*; *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2, 17.

[37] *Id.* (As of 2014, "CAMPFIRE generates on average US$2 million in net income every year which is much lower than estimated potential earnings for the Program. Income generation is mostly through the lease of sport hunting rights to commercial safari operators, as well as sales of hides and ivory, tourism leases on communal land and other natural resources management activities. As an industry, safari hunting has proven to be robust both environmentally and economically and, although not unscathed, [has been] fairly resilient in the face of serious socio-political uncertainty ... Although human encroachment and poaching has affected some communal wildlife areas in recent years, the CAMPFIRE program at national level still protects an area of wild land in excess of 50,000km^2, roughly equivalent in extent to the Parks and Wildlife Estate (Table 1). There are over 200,000 households that actively participate in the Program in CAMPFIRE hunting areas. Revenue received by communities, though relatively small, is used to directly offset the costs of living with wildlife through employment of game scouts or resource monitors.").

[38] *Zimbabwe Lion Conservation Report 2016*, p. 14; *Non-Detriment Finding*, p. 6-7, 9.

[39] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[40] *SVC Report*, p. 5-6; *BVC Report*; M. Schwartz, National Geographic Cat Watch (Feb. 25, 2016) ("remember that the BVC used to be a cattle-ranching area, and if wildlife becomes unviable, then there is no reason not to convert it back to a cattle ranching area again"). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 2, 5, 7, 12.

[41] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 24; *SVC Report*, p. 2-3 ("Sport hunting and trophy hunting became the only economically viable land use options and have remained the only tangible source of income to the landowners of the SVC. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancelation of the confirmed bookings.").

working example of a community-owned non-hunting tourism venture catering to international clientele in the country."[42] Given Zimbabwe's poor economy it is difficult to see them trying again, as photo-tourists require greater infrastructure and accessibility than hunting tourists do.[43] Sport-hunting alone incentivizes the preservation of most habitat in Zimbabwe:[44] "In Zimbabwe, over 75% of all conservation land under private, community and state tenure is entirely dependent on safari hunting revenues..." (7.9 million ha).[45]

Hunting also incentivizes and pays for *improvements* in wildlife habitat. For example, BVC and SVC spend significant revenue on water provision. A smaller operator, Pro Safaris spends 6% of its gross turnover on "conservation," largely for "water points installation, pipeline maintenance, water pumping, and de-silting of water pans..."[46] Water holes are one of the ways safari operators routinely improve available habitat.[47]

Without hunting wildlife exists only in national parks. By providing, securing, and improving habitat, sport-hunting provides enhancement for the lion.

B. Sport-hunting in Zimbabwe provides significant anti-poaching support to protect the lion's prey base.

Hunting revenues underwrite much of the anti-poaching which allows the lion's prey base to flourish, and which thereby allows lion populations to grow. For example:

- In 2015 BVC spent $590,000 in funds generated exclusively from sport-hunting to employ scouts, purchase equipment, and cover anti-poaching.[48] BVC protects the world's third largest population of black rhino and incurs significant anti-poaching expenses to keep them secure from poachers.[49]
- On average, SVC spends $546,000 annually on anti-poaching, including a large expenditure for the protection of their black rhino population (approximately $200,000/year).[50] The funds are largely generated from sport-hunting and donations from clients.[51]
- The Dande Anti-Poaching Unit (DAPU) in the Zambezi Valley is among the most successful. They reduced elephant poaching in their concessions from 40 carcasses in 2010 to only three in 2015. DAPU supports 22 community scouts and 18 council scouts. In 2014, they picked up 2,375 snares,

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[42] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[43] *Id.* at 24 ("By comparison to [photo]-tourism, safari hunting operates on much higher income per tourist with much lower tourist throughflow and total bed-nights and requires far less capital outlay for accommodation and hospitality infrastructure. Not only are these extremely important considerations in the context of the poor socio-economic and political climate for investment and tourism in Zimbabwe ... Public health scares such as Ebola, terrorism, political unrest and social disturbances have had demonstrably serious impact on tourism traffic to different parts of Africa and is especially true of non-consumptive ecotourism which is far more sensitive to such deterrents than is trophy hunting ..."). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 8.

[44] Sport hunting incentivizes the preservation of an area larger than Kenya's national parks. CAMPFIRE areas alone represent almost 50,000 km^2, and Kenya's NPs are only ~47,000. *See* IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[45] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 11-12, 17-18.

[46] *Pro Safaris Report*, p. 3.

[47] *See, e.g., CWS Report*; *Zimbabwe Lion Conservation Report 2016*, p. 18.

[48] *Zimbabwe Lion Conservation Report 2016*, p. 20 (this amount does not include incentives and rewards donated for these purposes).

[49] *BVC Report*, p. 5.

[50] *Id.* at p. 5.

[51] *SVC Report*, p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 20.

convicted 19 meat poachers, retrieved 22 weapons, and paid over $9,000 in rewards.[52] This unit is wholly funded by hunting operator Charlton McCallum Safaris, and the contributions of its safari clients.[53] By protecting the lion's prey base, DAPU is significantly supporting lion conservation.

- Pro Safaris in the Rifa Safari Area contributes 39% of their gross revenue to PWMA, which supports wildlife management and monitoring as well as PWMA anti-poaching rangers.[54] They spend 6% of their gross to fund their own anti-poaching unit of ten scouts. Their team coordinate with PWMA rangers to police the 40-km international border with Zambia and an area covering ~506 km^2 (close to the size of Redwood National and State Parks in California combined). Ivory poaching is a threat, and funds generated from hunting help protect the elephant and other prey in the area.[55]
- In 2013-2014, the anti-poaching teams supported by Martin Pieters Safaris conducted 289 patrols, recovered 165+ snares (a total of 15,000+ since 2007), recovered five firearms and ammunition, recovered four pairs of tusks as well as poached fish and meat, and arrested 123 poachers.[56] This company spends more than $40,000/year on anti-poaching in their concessions.[57]
- Martin Pieters Safaris is also helping establish a communal conservancy in the Omay area that has two seven-man anti-poaching teams. They have been extensively trained in weapons, tactics, and offensive maneuvers with the operator's support. This unit has branched into Gokwe and other communal lands, and cooperates extensively with Police and community scouts. As of November, this unit arrested over 120 poachers and traffickers, many of whom were hardened, professional poachers whose removal significantly benefits the lion's prey base.[58]
- In March, a safari operator father and son lost their lives in a tragic accident as they were waiting to assist an anti-poaching patrol.[59] They dedicated their funds, their time, and ultimately their lives to protecting wildlife. The commitment of hunting operators cannot be questioned. Their efforts are obviously enhancement for the lion and other species.

These are but a few examples of the essential support safari operators provide to maintain and increase the lion's prey base, addressing this threat and enhancing the survival of the lion in the wild.

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[52] DAPU, Year-End 2015 Report (Oct./Nov. 2015), p. 9-20; DAPU, End-of-Year Report (Oct.-Dec. 2015).
[53] *Id.* at 3, 19.
[54] *Pro Safaris Report*, p. 3.
[55] *Id.*; *see also CWS Report*.
[56] Martin Pieters Safaris, Sustainable Use Benefiting Communities, Blog (Nov. 18, 2015); Martin Pieters Safaris, Lion Data (2016) (*M.P. Report*), p. 9.
[57] Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016).
[58] *Id.*
[59] The Zambezi Society, Factual Report on the Tragic Deaths of Two Wildlife Conservation Volunteers in Mana Pools National Park (Mar. 14, 2016), http://www.zamsoc.org/?p=2121; *see also* The Zambezi Society, Update Letter (Apr. 2016) (offering memorial to these operators; also describing the operations of MAPP, an anti-poaching unit run by another hunting operator), http://us10.campaign-archive1.com/?u=f4943277ce971cb1c9028d068&id=a10245916e&e=959ad7ac3f.

C. Sustainable use through sport-hunting is essential to reducing human-wildlife conflicts and the success of Zimbabwe's community based conservation program.

Sustainable use, largely through sport-hunting, is a pillar of CAMPFIRE.[60] This is due to the basic principle that co-existence of wildlife and people is improved, and people are more tolerant of the negative effects of wildlife, if wildlife has value.[61] For instance, lion "hunting contributes to the conservation of lions via the financial revenue generated [through CAMPFIRE], which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs."[62]

Consistent with CAMPFIRE revenue-sharing guidelines, hunting operators in communal areas pay a large percentage of revenues and fee income to the communities. For example, in the Dande area one operator pays well over 40% of gross sales to CAMPFIRE wards and councils. When payments to the government are included, the company retains less than half its income.[63] Like many others in Zimbabwe, the company believes "People MUST get FAIR value for their game, or all is lost," "make[s] sure that all hunting proceeds are correctly chanelled [sic] in to producer ward accounts," and operate with "[s]trong social responsibility i.e. we allocate $67,000 per annum to District and Ward projects and we ensure there is transparency."[64]

In the Omay area, Martin Pieters Safaris and its associates contribute over $200,000 annually "straight to the producer communities for community developmental projects."[65] In 2013-2014 the communities used these funds for a range of projects, including but not limited to:

- Building or repairing five teachers' houses, ten classrooms/blocks, and four administrative offices;
- Building or obtaining school supplies including two blackboards;
- Rehabilitating three water pipelines or boreholes;
- Constructing feeder roads;
- Obtaining or repairing heavy equipment including one tractor;
- Helping the community obtain construction materials, build toilets, and use funds for traditional ceremonies.[66]

These direct benefits increase tolerance, and thus increase numbers of wildlife, in an area of ~8,094 km^2.[67] "Communities receive direct benefit both financially and through various projects implemented by Martin Pieters Safaris such as clinics, schools, vehicles for anti-poaching and the employment of scouts."[68] These benefits arise in "a remote inhospitable concession that has no other land use model due to very erratic

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[60] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2015); CAMPFIRE Association, Website ("Vision: To see rural communities in Zimbabwe freed from the vagaries of poverty and enjoying the benefits of the sustainable use of their natural resources ..."); *see also M.P. Report*, p. 1; IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 4-7.

[61] *Zimbabwe Lion Conservation Report 2016*, p. 11; *see also* Chiefs, EU in Wildlife Talks, The Herald (Apr. 2, 2016), http://www.herald.co.zw/chiefs-eu-in-wildlife-talks/.

[62] *Id.*

[63] DAPU, Year End Report (2015).

[64] *Id.* at p. 3

[65] *M.P. Report*, p. 1-7; Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015).

[66] *Id.*

[67] *Id.*

[68] *Id.*

and low rainfalls, and abundance of mosquitos, tsetse flies and poor soils. The only benefit local people have, is to receive financial remuneration from hunting safari off take and employment."[69]

Outside of communal areas, hunting also generates benefits for rural Zimbabweans. Operators contribute to enhancing quality of life for those impacted by wildlife to incentivize tolerance and conservation. These contributions are made in cash, much-needed goods or services, and game meat.

For example, BVC's community assistance projects include drilling and equipping eight boreholes, building a clinic and staff houses with electrification and running water, contributing sport uniforms and transport for the youth soccer program, and more. According to the Conservancy's manager, "the identifiable costs of the clinic amount to just over $178,000 but there are many other hidden costs involved."[70]

Over and above these contributions, BVC has contributed 1,600 kg of meat each month since July 2011 to a trust administered by local chiefs to provide protein for school and community events and allow for the sale of excess meat to fund community projects.[71] Overall, BVC donates over *45 tons* of meat annually to local communities.[72]

Similarly, SVC supports nearby communities through cash, service, in-kind, and meat donations. In 2012, for example, the conservancies' contributions topped $100,000 and included provision of water, repair or construction of schools and clinics, payment of school fees, provision of computer equipment, and regular meat donations, among other things.[73] Game meat contributions are a key benefit for local people:

> [SVC] recently entered into a mutually dependent agreement with the Chiefs representing communities surrounding ... The agreement links the communities to the natural resource utilisation that occurs through the business operation of the conservancy and opens up opportunities for local indigenous populations to share in wealth creation... The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from lion hunting constitute a significant portion of inflow and thus an important part of the community benefits.[74]

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[69] *Id.* ("Every year several local villagers are killed or maimed by elephant, lion, buffalo, hippo and crocodile, they live in close proximity to these animals and only tolerate them because we as a hunting company give back to the community. It is very important for the protection of our wildlife in these remote areas that we continue to assist the RDC with anti-poaching continue to pay for the sustainable off take of a select quota, because if we do not, the locals will kill every animal, they will not tolerate wildlife disruptions to their families, be it through destruction of their crops on an annual basis, or the loss of their family members.").

[70] B. Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC and attached spreadsheet (Jan. 20, 2016).

[71] *Id.* Similarly, 1,000 kg of meat each (2,000 total) is donated to the Beit Bridge communities (since April 2014) and the Mwenezi communities (since Aug. 2013). *Id.*; *Zimbabwe Lion Conservation Report 2016*, p. 14-15; Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015) (*Fate of the African Lion Film*), http://theconservationimperative.com/?p=112 (game meat donations are a "direct spinoff" of the hunting program, and help build strong relationships with local chiefs. Any poachers found in the area are taken to the chiefs' courts and prosecuted there, and "asked to compensate for the value of the animals killed and the compensation goes back to the community kitty." This is a powerful community engagement system that benefits the wildlife directly.

[72] *Zimbabwe Lion Conservation Report 2016*, p. 12 (BVC's "meat donation is worth over US$100,000 per year, and the communities are free to decide how they use it.").

[73] *Id.*

[74] *SVC Report*, p. 5.

Hunting operators are also employers in a tough economy.[75] A small operator can employ 14-20 people; a medium operator can employ 14 staff, ten scouts, six trackers, and three professional hunters;[76] and a large operator like BVC can employ 350-400 staff and thereby support approximately 2,000 people.[77]

It should also be noted that hunting clients make substantial contributions to local communities. One lion hunter expects to contribute over $7,500 in gratuities during his safari, a "blue bag" donation, and perhaps an additional cash donation to a community or conservation purpose.[78] This is but one example—voluntary donations also help cover the anti-poaching expenses of DAPU, BVC, and SVC, among other things, and in turn this provides employment for local trackers and scouts.

The importance of these benefits cannot be overstated, because human-lion conflict is arguably the prime threat to lion in Zimbabwe.[79] This is one hunter of many, but put together these gifts provide considerable extra revenue for the poor and marginalized in a poor country, and sustain expensive anti-poaching efforts to protect endangered species. Added to the revenue/fee sharing and voluntary contributions from safari operators, hunting demonstrably benefits people, which in turn enhances the lion's survival.

III. Revenue from U.S. hunters is used for conservation and maintaining viable lion populations.

The revenue generated from U.S. clients contributes hugely to lion conservation and habitat protection in Zimbabwe.

BVC and SVC each rely *solely* on the income from hunting, especially lion hunting, to fund their operations. Their clientele is overwhelmingly American.[80] These conservancies represent ~6,400 km^2 of former cattle ranches that instead host large and sustainable rhino, antelope, cheetah, wild dog, and lion populations (among others).[81] The hunting of lion pays for the conservation of these other species, and the inability to sell lion hunts in their largest market puts the habitat, the prey base, the lion and all these other species at risk due to lack of funding. As BVC's anti-poaching manager explained in a video sent to the FWS:

> The BVC is about 3,000 square km ... It derives its whole income from hunting operations ... *Without the hunting there would be basically no reason for this area to exist or it would be a cattle area.* Having this large unit of land set aside for wildlife has meant that endangered species like black and white rhinoceros thrive here. We've got important populations of cheetah, wild dog as well, brown hyena, pangolins. So under the umbrella of hunting, this whole habitat is benefiting a whole variety of other species that are not consumptively hunted but they are benefiting from this wildlife area. Without hunting we would be very

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[75] Zimbabwe faces a 95% unemployment rate. CIA World Factbook, https://www.cia.gov/library/publications/the-world-factbook/geos/zi.html.

[76] *Pro Safaris Report*, p. 3 (19% of turnover goes to salaries and on average supports 165 people; because concession is not located near a community, operator donates game meat to PWMA rangers and scouts, to government for state functions, and to orphanage, for total of 6,137 kg annually ($12,250 and 2% of their gross income)).

[77] *CWS Report*; *Fate of the African Lion Film*.

[78] J. Hedgecock Statement (attached to import permit application); J. Hedgecock, pers. comm. (2015-2016).

[79] *Zimbabwe Lion Conservation Report 2016*, p. 11. Note that in a three-year period, seven people were killed.

[80] U.S. citizens represent over 90% of BVC and SVC's respective clientele. *Zimbabwe Lion Conservation Report 2016*, p. 23; *SVC Report*, p. 4.

[81] *Zimbabwe Lion Conservation Report 2016*, p. 4.

> hard put to justify keeping this big expensive land in its current land use. The conservancy covers all its own anti-poaching costs. It is quite an expensive operation.[82]

Lion hunting generates an estimated 33.9% of BVC's annual gross revenue – one-third of the funds needed to keep: the conservancy open as prime habitat, the anti-poaching patrols on the ground, and the future of the lion, black rhino, wild dog, and other species secure.[83] This is undoubtedly enhancement.

Likewise, as SVC reports, a "ban on lion trophy imports into the US will effectively result in a collapse of the lion hunting industry in the Savé Valley Conservancy, where on average 90% of hunting clients are American (up to 98% for some properties) ... The loss of the [approx.] $375,000 annual revenue will be catastrophic for the conservancy, inevitably resulting in less investment in security and other conservation measures."[84]

In short, the revenue from U.S. hunters is critical because lion in conservancies eat hundreds of thousands of dollars in huntable prey per year. And if the lions do not generate revenue there will be no incentive to maintain their large populations.[85]

On a smaller scale, high-quality operators like Cliff Walker and Pro Safaris, which together police the Rifa Safari Area, could not exist but for U.S. clients. Mr. Walker maintains high hunting and conservation ethics and targets U.S. clients because they share these values.[86] Almost all (86%) of his clients are U.S. citizens paying an average of $107,500 each in fees, which are ploughed back into Rifa SA, salaries, anti-poaching, and PWMA anti-poaching.

Similarly, lions are a major contributor to Pro Safaris' conservation/operating budget, and U.S. citizens are the main source of Pro Safaris' clients (75% of their lion were harvested by U.S. citizens).[87] The operator estimates that its conservation funding would fall by 36% if lion hunting declined because of an import ban. "Rifa Safari area has a small quota on all species. Lion therefore is a major contributor to the conservation of Elephant and the habitat to all species ... the Loss of the US Hunters will have a major negative impact on the survival of the viability of this area as a wildlife area."[88]

U.S. hunters are huge contributors to Zimbabwe's conservation hunting program: they are the force that keeps Zimbabwe's hunters in business and keeps most habitat, anti-poaching, and CAMPFIRE benefits in place. Their presence enhances the survival of the lion, and their absence will do the opposite.

Conclusion

On the whole, the U.S. market represented "70.4% of the total Zimbabwean lion sport-hunting industry" between 2005 and 2015,[89] and that may even be higher. This means at least $7 out of every $10 directed

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[82] *Fate of the African Lion Film*; *see also Zimbabwe Lion Conservation Report 2016*, p. 20 ("saturation of lions in wildlife areas on both state and private land is positive for their future conservation security ... it is also critical to incidentally conserved endangered species, such as both species of rhino on private wildlife conservancies in Zimbabwe ..., which benefit from the same resources and protection incentivized and provided by the revenue generated from hunting").
[83] *Zimbabwe Lion Conservation Report 2016*, p. 22.
[84] *SVC Report*, p. 4.
[85] *BVC Report*, p. 5-6.
[86] *CWS Report*.
[87] *Pro Safaris Report*, p. 4.
[88] *Id.*
[89] *Zimbabwe Lion Conservation Report 2016*, p. 23.

to habitat protection comes from U.S. citizens. $7 of every $10 directed to anti-poaching comes from U.S. citizens (and that amount is likely higher given the voluntarily donations often made by U.S. clients). And $7 of every $10 contributed to communities to reduce human-lion conflict comes from U.S. clients. The contributions of U.S. clients are enhancing the survival of the lion in Zimbabwe far more than anyone else.

The Final Rule identified three primary threats to lion: loss of habitat, loss of prey base, and human-lion conflict. As shown here, in the enclosed, and in the previously submitted documents, U.S. citizens are the greatest contributors to efforts that reduce or remediate these threats. Sport-hunting in Zimbabwe, and lion hunting specifically, provides a reason to preserve thousands of kilometers of habitat for lion and prey species. It is the primary funder of the anti-poaching units that maintain or increase the lion's prey base. Hunting revenues provide the main funding for Zimbabwe's CBNRM program and the main contributor of other benefits to Zimbabwe's rural communities.

Because it substantially reduces the threats and contributes to the growth of Zimbabwe's lion population, Zimbabwe's well-managed sport-hunting program enhances the lion's survival. Accordingly, the enclosed permit applications, and those previously submitted, should be approved and permits issued.

We believe this information and the information already in the FWS' possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. We ask that you consider all that information in evaluating these permit applications. We will also continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,



John J. Jackson, III
Regina Lennox

Enclosures:

- Application submitted on behalf of Phillip Glass to import a sport-hunted lion trophy to be hunted in Nyaminyami CAMPFIRE Area, Zimbabwe
- Application submitted on behalf of Timothy Haley to import a sport-hunted lion trophy to be hunted in Rifa Safari Area, Zimbabwe
- Application submitted on behalf of Justin Hedgecock to import a sport-hunted lion trophy to be hunted in Matetsi Safari Area, Zimbabwe
- Application submitted on behalf of Eric Rau to import a sport-hunted lion trophy to be hunted in NW Matabeleland, Zimbabwe
- Application submitted on behalf of Cooper Ribman to import a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Enclosed and Submitted

ENHANCEMENT INFORMATION ON THE AFRICAN LION

ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC, attaching spreadsheet (Jan. 20, 2016)	1/26/16
5	L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (Jan. 20, 2016)	1/26/16
6	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16
7	Dr. Byron du Preez et al., Zimbabwe Lion Conservation Research Report 2016: Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 31, 2016)	2/1/16
8	Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015)	2/24/16
9	Martin Pieters Safaris, "Lion Data" (2016)	4/20/16
10	Michael Schwartz, Culling to Conserve: A Hard Truth for Lion Conservation, National Geographic Cat Watch (Feb. 25, 2016)	4/20/16
11	Zimbabwe Parks & Wildlife Management Authority, Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe	4/20/16
12	CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014)	4/20/16
13	CAMPFIRE Association, Update to Hunting in CAMPFIRE Areas (2015)	4/20/16
14	Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016)	4/20/16
15	L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion Panthera Leo (Jan. 25, 2016)	4/20/16
16	Cliff Walker Safaris, Enhancement Report (2016)	4/20/16
17	IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016)	4/20/16
18	DAPU, Year-End 2015 Report (Oct./Nov. 2015)	4/20/16
19	DAPU, End-of-Year Report (Oct.-Dec. 2015)	4/20/16
20	Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015)	4/20/16
21	Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016)	4/20/16
22	Nengasha Safaris, Letter re: Enhancement (2016)	4/20/16

LION ZIMBABWE ESA TROPHY

Permit Number: MA94868B-0

Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

JUSTIN (b) (6) HEDGECOCK
(b) (6)
GALLATIN GATEWAY, MT (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD APR 27 2016

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Ribman	Cooper	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)		(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		

2. Tax identification no	3. Description of business, agency, Tribe, or institution		

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name		

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address, Apartment #, Suite #, or Room #, no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code	1.e. County/Province	1.f. Country
DALLAS	TX	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
SAME

2.b. City	2.c. State	2.d. Zip code/Postal code	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE in the amount of $100, nonrefundable processing fee. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – *attach documentation of fee exempt status as outlined in instructions.* (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☑ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 14052838819 No ☐

3. Certification. I hereby certify that I have read and am familiar with the regulations contained in *Title 50, Part 13 of the Code of Federal Regulations* and the other *applicable parts in subchapter B of Chapter I of Title 50*, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001

Cooper Ribman — Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures)

02-15-2016 — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES and/or ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      ZIMBABWE - BUBYE VALLEY CONSERVANCY

   b. Date wildlife is to be hunted:

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:
Business Name: TROPHY CONSULTANTS INTERNATIONAL
Address: 4 JOSIAH CHINAMANO LOAD
Address: BELMONT
City: BULAWAYO
State/Province:
Country, Postal Code: ZIMBABWE

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information provided by Conservation Force, Bubye and Save Valley Conservancies, and Zimbabwe authorities.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Cooper Ribman Date: 02/15/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

SAME

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

N/A

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):
John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have named, constituted and appointed John J. Jackson, III, Conservation Force, 3240 S. I-10 Service Rd. W., Suite 200, Metairie, Louisiana, 70001, telephone (504) 837-1233, FAX (504) 837-1145, jjw-no@att.net as my attorney and legal representative for all matters concerning my ~~big horn sheep~~ African Lion import permit application.

This authority is all inclusive, including, but not limited to permit filing, permit supplementation, reconsideration, administrative appeal and request for time delays or extensions.

I also request that John J. Jackson, III be copied with all correspondence, acknowledgements, notices and decisions concerning my permit during its processing and during any and all steps in its administrative reconsideration or appeal.

Cooper Ribman
SIGNATURE

Cooper Ribman
PRINTED NAME

02-15-2016
DATE

RCVD APR 27 2016

(b) (6) [redacted]

(b) (6) [redacted]

(b) (6) [redacted]

DATE FEB 21 2016

PAY TO U.S. FISH AND WILDLIFE SERVICE $ 100 00

THE ORDER OF

One Hundred and NO/100 DOLLARS

Heat Reactive Ink

TEXAS CAPITAL BANK
Dallas, Texas

MEMO Conner Ribman's Lion Application

(b) (6) [redacted]

RCVD APR 27 2016

CONSERVATION FORCE
A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G. MEEK, M.D.
† BART O'GARA, PH.D.

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Mr. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

April 20, 2016

Dear Chief Van Norman:

Enclosed please find five applications for permits to import the sport-hunted trophies of African lion (*P. l. melanochaita*) from Zimbabwe. In evaluating these applications, please consider the enclosed information and the information previously submitted by Conservation Force, Bubye Valley Conservancy, Zimbabwe's Parks and Wildlife Management Authority, and others. An index of documents submitted by Conservation Force is enclosed with this letter.

This information demonstrates that Zimbabwe's hunting program enhances the survival of the lion in the wild for three main reasons: (1) the hunting program is well-managed scientifically-based, and sustainable; (2) Zimbabwe's lion management addresses the three primary threats to lion (e.g., loss of habitat and prey base, and human-lion conflict); and (3) U.S. hunter revenues are ploughed back into lion conservation and provide critical incentives for landholders to manage lion at high densities.

I. Zimbabwe's conservation hunting program is well-managed, sustainable, and science-based.

A. The hunting program is governed by an effectively and adaptively implemented "Conservation Strategy and Action Plan."

Lion in Zimbabwe are adaptively managed and hunted under the Conservation Strategy and Action Plan (Action Plan).[1] The Action Plan is the result of a participatory workshop involving lion scientists, NGOs, industry representatives, and other stakeholders.[2] Both the Action Plan's "Vision (Long-term objective)" and "Goal (Immediate objective or purpose)" incorporate the sustainable use of lion:

> **4.1 Vision** (Long-term objective)
>
> *Lions conserved and managed sustainably for their aesthetic, cultural and ecological value, and the socio-economic development of Zimbabwe.*
>
> **4.2 Goal** (Immediate objective or purpose)

[1] Zimbabwe Parks and Wildlife Management Authority (PWMA), Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe (*Action Plan*).
[2] *Action Plan*, p. 6; PWMA, Conservation Status of the African Lion (*Panthera leo*) in Zimbabwe (Jan. 2015) (*Non-Detriment Finding*), p. 22.

To secure and where possible, restore as many viable lion populations as possible ... whilst mitigating their negative impact and enhancing the value for the benefit of people through sustainable use.[3]

The Action Plan identifies targets, outputs, and detailed activities to conserve the lion, and describes the roles and responsibilities of the stakeholders involved in lion management. Among the main targets are: to improve data collection and research; to increase community benefits; and to ensure licensed hunting is sustainable. These targets have been met.

Target	Achievement
To improve data collection and research	Current density and population estimates are available for ~70% of Zimbabwe's lion range[4] Long-standing research partnerships with Wild CRU (1999) and other scientists (2007) have been established[5]
To increase community benefits	Increased benefits-sharing has been the norm since the 2007 revision of the CAMPFIRE Revenue Sharing Guidelines requiring that 55% of fees are to be deposited in producer ward accounts, and 41% of the fees are directed to Rural District Councils for infrastructure building and projects[6]
To ensure licensed hunting is sustainable	In 2013/2014, Zimbabwe adopted or reconfirmed its best practices to ensure the sustainability of legal hunting[7]

These efforts show how the Action Plan is being successfully implemented and its targets achieved, and that Zimbabwe is properly managing its lion population and sustainable use-based hunting program.[8]

B. Zimbabwe's lion hunting program was updated in 2013 to enhance its sustainability.

Since July 2013, Zimbabwe's lion hunting regulations have been updated to ensure sustainability and the adoption of best practices, an "internal reform ... that is actively participated in and supported by all of the relevant stakeholders," including the Zimbabwe Parks and Wildlife Management Authority (PWMA), non-governmental organizations, professional hunters and safari operators, CAMPFIRE districts, and scientists and researchers.[9] These updates included the adoption of an age-based approach to lion hunting and the

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[3] *Action Plan*, p. 9.

[4] *Non-Detriment Finding*, p. 8-10; Dr. B. du Preez, Dr. R. Groom, O. Mufute, R. Mandisodza-Chikerema, Zimbabwe Lion Conservation Research Report 2016: Sport-Hunting and Lion (*Panthera leo*) Conservation in Zimbabwe (Jan. 31, 2016) (*Zimbabwe Lion Conservation Report 2016*), p. 5-7.

[5] Dr. B. du Preez, Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016) (*BVC Report*), p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 4, 13, 21. The team of researchers at Bubye Valley Conservancy is large and impressive, and includes an orphaned rhino manager. *See* www.bubyevalleyconservancy.com/team.

[6] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[7] L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (ZPHGA Letter) (Jan. 20, 2016), p. 1.

[8] Some management units have their own plans. For example, in 2011 Savé Valley Conservancy commissioned a lion management plan "to provide members with a science-based plan to help them ethically and sustainably manage their lion population," and which "specifically advocates the use of hunting as a conservation management tool. It demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals." Dr. R. Groom, Hunting in Zimbabwe's Savé Valley Conservancy (Jan. 27, 2013) (*SVC Report*), p. 4.

[9] *Zimbabwe Lion Conservation Report 2016*, p. 5.

imposition of penalties for harvest of lions younger than five;[10] revision of the annual quotas and use of an adaptive quota-setting approach based on results of the lion aging approach; the removal of female lions from hunting quotas; and the termination of fixed quotas.[11]

These updates are being effectively implemented. The lion aging is conducted by PWMA and overseen by the non-profit Panthera. Operators and PHs immediately adopted the age-based approach. One year after its adoption, harvest of underage lion represented only 20% of total offtakes.[12] This approach is allowing male lions to mature and increasing the numbers of older males.[13] Zimbabwe's sport-hunting program for lion is sustainable, and the benefits outweigh the limited offtake.

C. **Using the best-available information Zimbabwe's Scientific Authority concluded that hunting is not detrimental to the survival of the lion.**

Zimbabwe's lion hunting is permitted subject to a Non-Detriment Finding made in January 2015.[14] In this finding, PWMA, the CITES scientific authority, concluded:

> The species contributes positively to the livelihoods of local communities through sport hunting. Hunting also contributes to the conservation of lions through financial benefits that are ploughed back into conservation and that local communities use for rural development programmes. Trophy hunting of the lion is undertaken through a strict scientific based quota setting process with an objective of ensuring that utilization and any form of harvesting is sustainable.
>
> The African lion population is increasing in most areas. Research and monitoring of the species is being done collaboratively with external researchers and there is a lot of baseline information and publications. Zimbabwe has a lion management plan and strategy that is being implemented and reviewed on a regular basis. Rigorous monitoring of trophy hunting through adaptive management principles is carried out in Zimbabwe and non-detrimental findings are conducted for all exports. *In conclusion, harvesting and any other forms of off take are not detrimental to the survival of the African lion in Zimbabwe.*[15]

PWMA based its finding on current estimates from primary lion range areas, reflecting a lion population of at least 2,346.[16] But that did not even include updated estimates from Bubye Valley Conservancy (BVC) and Savé Valley Conservancy (SVC), which increase the 2016 estimate to approximately 2,600 lions.[17] Both

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[10] PWMA, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014).

[11] *Zimbabwe Lion Conservation Report 2016*, p. 24; ZPHGA Letter, p. 1-3. Other steps taken include the creation of an Ethics Committee, currently charged with updating the Code of Conduct and "best practices" manual for Zimbabwe's operators and professional hunters. Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016) (*The Role of Hunting in Conservation and Livelihood Resilience*), p. 8, 16.

[12] ZPHGA Letter, p 4; *see also* L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion *Panthera Leo* (Jan. 25, 2016) (*Pro Safaris Report*), p. 2.

[13] *E.g., Pro Safaris Report*, p. 2.

[14] *Non-Detriment Finding*, p. 1.

[15] *Id.* at 1 (added emphasis).

[16] *Id.* at 11.

[17] The current population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals [Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley

populations grew from reintroduced lion and have skyrocketed since the introductions.[18] Populations in Hwange and Gonarezhou National Parks have also increased since the late 2000s.[19] The 2015 IUCN *Red List* assessment for African lion acknowledges this growth. It inferred population declines in many parts of the lion's continental range, but *not* in Zimbabwe. Rather, the *Red List* pointed to an overall *increase* in sample lion populations in Zimbabwe.[20]

Based on this large population size, data from stakeholders (including hunting operators, who often track lion sightings in their areas),[21] and aging returns from the 2014 season, PWMA scientists set a 2015 quota of 85 lions.[22] This represents approximately 3.62% of the population, and it is well within the guideline of <5% for a sustainable offtake. This quota is carefully allocated based on the type of land use. On state-protected lands (i.e., the PWMA and Forestry Estates), a lower quota is allocated than on communal lands, as managed hunting is used to mitigate human-lion conflict in some communal areas.[23] Lion are extremely dense on private conservancies, and the quotas are allocated based on this density.[24]

However, because of the age-based limitation on lawful lion trophies, actual offtake is far below the quota. In 2015, only 39 lions were harvested representing ~46% of the quota and only 1.5% of a population of

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> Complex: 600], though the actual number would be larger if there were data available for the countries [*sic*] minor lion areas that are yet to be surveyed] (ZPWMA 2015).

Zimbabwe Lion Conservation Report 2016, p. 6.

[18] In BVC, 13 lions were reintroduced and four "broke in" in 1999. From those 17, the population has grown to ~280 in 2009, "when robust population surveys were initiated," to over 500 lions today. *BVC Report*, p. 3. In SVC, the lion was reintroduced, and that and other reintroductions have given the conservancy its strong wildlife base:

> Trophy hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhino now found there.

SVC Report, p. 2; *see also Zimbabwe Lion Conservation Report 2016*, p. 12-19.

[19] Lion populations can increase in abundance rapidly and can "achieve exponential growth rates." *Zimbabwe Lion Conservation Report 2016*, p. 8. Regulated, managed sport-hunting does not affect growth rates. *Id.* To the contrary, as the Non-Detriment finding suggests, hunting is not a population control method; however, the "positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-takes; neither of which generally jeopardise populations and also suggest that hunting could play a role in population recovery." *Id.*; *Non-Detriment Finding*, p. 1.

[20] H. Bauer et al., Panthera Leo, The IUCN Red List of Threatened Species (2015), http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T15951A79929984.en ("Table 3 ... shows the estimated Lion population size in 1993 and 2014 for each of the 47 sample subpopulations ... It can be seen that most countries had a declining trend ... with only four countries (India, Namibia, South Africa and Zimbabwe) seeing a growth trend ... The sample Lion population in five countries (Botswana, India, Namibia, South Africa, Zimbabwe) grew by an estimated 12%, whereas the Lion population in the remaining African range countries declined by an estimated 61% ...").

[21] *E.g., Pro Safaris Report*, p. 1 (observed at least 68 lions in the Rifa SA as of August 2015: "Population estimates are done with daily game sighting reports by Professional Hunters and Game Scouts ... camera traps and spoor counts done during the season"; operator also monitors prey base including buffalo, kudu, eland, impala, zebra, hippo, etc. and keeps population counts based on sightings/tracking; in 2015 observed 1,829 impalas and 646 buffalo in area); Cliff Walker Safaris, Enhancement Report (2016) (*CWS Report*) (showing tracking of 360 lions over 14 hunts in three seasons, including 97 males).

[22] *Zimbabwe Lion Conservation Report 2016*, p. 9.

[23] *Id.* at 18.

[24] *E.g., id.* (density for BVC is ~0.187 lions/km^2) ("The success of the [BVC], in terms of both its hunted lion and non-hunted rhino populations, provides the incentive for other areas in the country to sustainably manage their wildlife resource...").

2,600 lions.[25] Because the offtake was lower, the precautionary 2016 quota has adaptively been set at 75 lions, representing only 2.9% of the population.[26]

Although the biological impact of the offtake is minute, its financial impact is not. The estimated value of selling the full lion quota is $6,800,000.[27] The value of daily fees for just the lion harvested is $2,800,000.[28] Assuming an average land management cost of $150 per km^2, sale of the lion quota can support 45,333 km^2 in habitat[29] – an area almost the PWMA Estate (~50,000 km^2) and about the size of Kenya's national parks and national reserves (44,702 km^2).[30]

Based on the effective implementation of Zimbabwe's carefully crafted aging approach, the science-based and sustainable quota, the limited offtake, and the "benefits that are ploughed back into conservation and that local communities use for rural development programmes," Zimbabwe's Scientific Authority properly concluded there is "no net harm" from the limited, regulated offtake, the net benefits of hunting greatly outweigh the limited offtake, and it is not detrimental to the species' survival. The critical role of regulated and sustainable hunting is evident in the fact that "Safari hunting demonstrably remains the single largest source of funding for wildlife-based land use and Community Based Natural Resource Management (CBNRM) in Zimbabwe – providing financial incentive to conserve."[31]

II. Zimbabwe's lion hunting and conservation program sufficiently address the three main threats to lion.

A. Sport-hunting in Zimbabwe extends the available protected lion range and incentivizes the use of communal and private land as habitat.

Protected areas in Zimbabwe cover more than 100,000 km^2 and include national parks, safari areas, private conservancies, and CAMPFIRE.[32] National parks cover about 27,000 km^2, but hunting areas exceed 76,000 km^2 (including approximately 19,000 km^2 in safari areas; ~7,000 in conservancies, and 48,000 in CAMPFIRE areas).[33] "Hunting remains by far the highest earner of revenue sustaining biodiversity conservation and wildlife-based land use in Zimbabwe – be it under communal, private or state tenure. Hunting revenues not only incentivise and pay for wildlife as a primary land-use option on private and communal land, but

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[25] *Id.* at 9.

[26] *Id.* In sum: Zimbabwe's quotas are based on scientific population density information, determined by experts and adaptively managed in accordance with the aging restrictions, and allocated by area according to density. The age-based approach and maximum quota conform to the best available scientific information and best practices as the FWS identified in the Final Rule.

[27] Assuming an average safari cost of $80,000 is low. *Zimbabwe Lion Conservation Report 2016*, p. 22; *CWS Report* (average cost of $107,000).

[28] *Id.*

[29] *Id.*

[30] PWMA, Website, www.zimparks.org/index.php/about-us/profile; IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[31] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 7.

[32] This does not include the sizable forest reserves, many of which allow licensed safari hunting. *See also The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 17-18.

[33] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014); IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

so too, in the face of ever mounting pressure for land, does it stave off political and social pressure to de-gazette protected areas (PA's) on state land."[34]

The Community Areas Management Program for Indigenous Resources (CAMPFIRE) program "is premised on the conservation of wildlife and other natural resources as a livelihood option for rural communities in marginal areas of Zimbabwe."[35] CAMPFIRE provides habitat and anti-poaching protection for wildlife, and generates revenues for poor rural communities.[36] It benefits wildlife and people both. Through CAMPFIRE the revenues from hunting help to increase local tolerance and decrease human-lion-livestock conflict.[37] But for the revenues generated from lion hunting, it is unlike CAMPFIRE communities would be willing to tolerate lion at the levels they do.[38]

As for private land, Conservation Force sent three previous reports describing the habitat supporting the large wildlife populations in BVC and SVC. "In fact, 3 of the last 10 IUCN Key 1 Populations of Black Rhino remaining in Africa are to be found on private hunting conservancies in Zimbabwe."[39] BVC and SVC (~6,800 km^2) depend entirely on revenue from sport hunting to fund their operations.[40]

Without sport-hunting, this habitat would likely return to cattle ranching, and large populations of wildlife would be lost. Likewise, without the incentives generated through hunting, much CAMPFIRE land would be lost as habitat. This is *not* conjecture. It is empirical fact, based on the limited and inconsistent demand for non-consumptive tourism in Zimbabwe.[41]

Both communal and private areas have tried and failed to attract sustainable photographic tourism, due to "a combination of intractable contributing factors – from the global recession and downturn in tourism to poor international perception and desirability of Zimbabwe as a tourist destination, compounded by a severely depressed local economy, decaying infrastructure and diminished road and air-travel access. The industry operates at well below 50% occupancy based on current beds available and there is not a single

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[34] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2.

[35] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[36] *Id.*; *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2, 17.

[37] *Id.* (As of 2014, "CAMPFIRE generates on average US$2 million in net income every year which is much lower than estimated potential earnings for the Program. Income generation is mostly through the lease of sport hunting rights to commercial safari operators, as well as sales of hides and ivory, tourism leases on communal land and other natural resources management activities. As an industry, safari hunting has proven to be robust both environmentally and economically and, although not unscathed, [has been] fairly resilient in the face of serious socio-political uncertainty ... Although human encroachment and poaching has affected some communal wildlife areas in recent years, the CAMPFIRE program at national level still protects an area of wild land in excess of 50,000km^2, roughly equivalent in extent to the Parks and Wildlife Estate (Table 1). There are over 200,000 households that actively participate in the Program in CAMPFIRE hunting areas. Revenue received by communities, though relatively small, is used to directly offset the costs of living with wildlife through employment of game scouts or resource monitors.").

[38] *Zimbabwe Lion Conservation Report 2016*, p. 14; *Non-Detriment Finding*, p. 6-7, 9.

[39] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[40] *SVC Report*, p. 5-6; *BVC Report*; M. Schwartz, National Geographic Cat Watch (Feb. 25, 2016) ("remember that the BVC used to be a cattle-ranching area, and if wildlife becomes unviable, then there is no reason not to convert it back to a cattle ranching area again"). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 2, 5, 7, 12.

[41] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 24; *SVC Report*, p. 2-3 ("Sport hunting and trophy hunting became the only economically viable land use options and have remained the only tangible source of income to the landowners of the SVC. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancelation of the confirmed bookings.").

working example of a community-owned non-hunting tourism venture catering to international clientele in the country."[42] Given Zimbabwe's poor economy it is difficult to see them trying again, as photo-tourists require greater infrastructure and accessibility than hunting tourists do.[43] Sport-hunting alone incentivizes the preservation of most habitat in Zimbabwe:[44] "In Zimbabwe, over 75% of all conservation land under private, community and state tenure is entirely dependent on safari hunting revenues..." (7.9 million ha).[45]

Hunting also incentivizes and pays for *improvements* in wildlife habitat. For example, BVC and SVC spend significant revenue on water provision. A smaller operator, Pro Safaris spends 6% of its gross turnover on "conservation," largely for "water points installation, pipeline maintenance, water pumping, and de-silting of water pans..."[46] Water holes are one of the ways safari operators routinely improve available habitat.[47]

Without hunting wildlife exists only in national parks. By providing, securing, and improving habitat, sport-hunting provides enhancement for the lion.

B. Sport-hunting in Zimbabwe provides significant anti-poaching support to protect the lion's prey base.

Hunting revenues underwrite much of the anti-poaching which allows the lion's prey base to flourish, and which thereby allows lion populations to grow. For example:

- In 2015 BVC spent $590,000 in funds generated exclusively from sport-hunting to employ scouts, purchase equipment, and cover anti-poaching.[48] BVC protects the world's third largest population of black rhino and incurs significant anti-poaching expenses to keep them secure from poachers.[49]
- On average, SVC spends $546,000 annually on anti-poaching, including a large expenditure for the protection of their black rhino population (approximately $200,000/year).[50] The funds are largely generated from sport-hunting and donations from clients.[51]
- The Dande Anti-Poaching Unit (DAPU) in the Zambezi Valley is among the most successful. They reduced elephant poaching in their concessions from 40 carcasses in 2010 to only three in 2015. DAPU supports 22 community scouts and 18 council scouts. In 2014, they picked up 2,375 snares,

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[42] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[43] *Id.* at 24 ("By comparison to [photo]-tourism, safari hunting operates on much higher income per tourist with much lower tourist throughflow and total bed-nights and requires far less capital outlay for accommodation and hospitality infrastructure. Not only are these extremely important considerations in the context of the poor socio-economic and political climate for investment and tourism in Zimbabwe ... Public health scares such as Ebola, terrorism, political unrest and social disturbances have had demonstrably serious impact on tourism traffic to different parts of Africa and is especially true of non-consumptive ecotourism which is far more sensitive to such deterrents than is trophy hunting ..."). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 8.

[44] Sport hunting incentivizes the preservation of an area larger than Kenya's national parks. CAMPFIRE areas alone represent almost 50,000 km^2, and Kenya's NPs are only ~47,000. *See* IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[45] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 11-12, 17-18.

[46] *Pro Safaris Report*, p. 3.

[47] *See, e.g., CWS Report*; *Zimbabwe Lion Conservation Report 2016*, p. 18.

[48] *Zimbabwe Lion Conservation Report 2016*, p. 20 (this amount does not include incentives and rewards donated for these purposes).

[49] *BVC Report*, p. 5.

[50] *Id.* at p. 5.

[51] *SVC Report*, p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 20.

convicted 19 meat poachers, retrieved 22 weapons, and paid over $9,000 in rewards.[52] This unit is wholly funded by hunting operator Charlton McCallum Safaris, and the contributions of its safari clients.[53] By protecting the lion's prey base, DAPU is significantly supporting lion conservation.

- Pro Safaris in the Rifa Safari Area contributes 39% of their gross revenue to PWMA, which supports wildlife management and monitoring as well as PWMA anti-poaching rangers.[54] They spend 6% of their gross to fund their own anti-poaching unit of ten scouts. Their team coordinate with PWMA rangers to police the 40-km international border with Zambia and an area covering ~506 km^2 (close to the size of Redwood National and State Parks in California combined). Ivory poaching is a threat, and funds generated from hunting help protect the elephant and other prey in the area.[55]
- In 2013-2014, the anti-poaching teams supported by Martin Pieters Safaris conducted 289 patrols, recovered 165+ snares (a total of 15,000+ since 2007), recovered five firearms and ammunition, recovered four pairs of tusks as well as poached fish and meat, and arrested 123 poachers.[56] This company spends more than $40,000/year on anti-poaching in their concessions.[57]
- Martin Pieters Safaris is also helping establish a communal conservancy in the Omay area that has two seven-man anti-poaching teams. They have been extensively trained in weapons, tactics, and offensive maneuvers with the operator's support. This unit has branched into Gokwe and other communal lands, and cooperates extensively with Police and community scouts. As of November, this unit arrested over 120 poachers and traffickers, many of whom were hardened, professional poachers whose removal significantly benefits the lion's prey base.[58]
- In March, a safari operator father and son lost their lives in a tragic accident as they were waiting to assist an anti-poaching patrol.[59] They dedicated their funds, their time, and ultimately their lives to protecting wildlife. The commitment of hunting operators cannot be questioned. Their efforts are obviously enhancement for the lion and other species.

These are but a few examples of the essential support safari operators provide to maintain and increase the lion's prey base, addressing this threat and enhancing the survival of the lion in the wild.

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[52] DAPU, Year-End 2015 Report (Oct./Nov. 2015), p. 9-20; DAPU, End-of-Year Report (Oct.-Dec. 2015).
[53] *Id.* at 3, 19.
[54] *Pro Safaris Report*, p. 3.
[55] *Id.*; *see also CWS Report.*
[56] Martin Pieters Safaris, Sustainable Use Benefiting Communities, Blog (Nov. 18, 2015); Martin Pieters Safaris, Lion Data (2016) (*M.P. Report*), p. 9.
[57] Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016).
[58] *Id.*
[59] The Zambezi Society, Factual Report on the Tragic Deaths of Two Wildlife Conservation Volunteers in Mana Pools National Park (Mar. 14, 2016), http://www.zamsoc.org/?p=2121; *see also* The Zambezi Society, Update Letter (Apr. 2016) (offering memorial to these operators; also describing the operations of MAPP, an anti-poaching unit run by another hunting operator), http://us10.campaign-archive1.com/?u=f4943277ce971cb1c9028d068&id=a10245916e&e=959ad7ac3f.

C. Sustainable use through sport-hunting is essential to reducing human-wildlife conflicts and the success of Zimbabwe's community based conservation program.

Sustainable use, largely through sport-hunting, is a pillar of CAMPFIRE.[60] This is due to the basic principle that co-existence of wildlife and people is improved, and people are more tolerant of the negative effects of wildlife, if wildlife has value.[61] For instance, lion "hunting contributes to the conservation of lions via the financial revenue generated [through CAMPFIRE], which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs."[62]

Consistent with CAMPFIRE revenue-sharing guidelines, hunting operators in communal areas pay a large percentage of revenues and fee income to the communities. For example, in the Dande area one operator pays well over 40% of gross sales to CAMPFIRE wards and councils. When payments to the government are included, the company retains less than half its income.[63] Like many others in Zimbabwe, the company believes "People MUST get FAIR value for their game, or all is lost," "make[s] sure that all hunting proceeds are correctly chanelled [sic] in to producer ward accounts," and operate with "[s]trong social responsibility i.e. we allocate $67,000 per annum to District and Ward projects and we ensure there is transparency."[64]

In the Omay area, Martin Pieters Safaris and its associates contribute over $200,000 annually "straight to the producer communities for community developmental projects."[65] In 2013-2014 the communities used these funds for a range of projects, including but not limited to:

- Building or repairing five teachers' houses, ten classrooms/blocks, and four administrative offices;
- Building or obtaining school supplies including two blackboards;
- Rehabilitating three water pipelines or boreholes;
- Constructing feeder roads;
- Obtaining or repairing heavy equipment including one tractor;
- Helping the community obtain construction materials, build toilets, and use funds for traditional ceremonies.[66]

These direct benefits increase tolerance, and thus increase numbers of wildlife, in an area of ~8,094 km^2.[67] "Communities receive direct benefit both financially and through various projects implemented by Martin Pieters Safaris such as clinics, schools, vehicles for anti-poaching and the employment of scouts."[68] These benefits arise in "a remote inhospitable concession that has no other land use model due to very erratic

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[60] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2015); CAMPFIRE Association, Website ("Vision: To see rural communities in Zimbabwe freed from the vagaries of poverty and enjoying the benefits of the sustainable use of their natural resources ..."); *see also M.P. Report*, p. 1; IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 4-7.

[61] *Zimbabwe Lion Conservation Report 2016*, p. 11; *see also* Chiefs, EU in Wildlife Talks, The Herald (Apr. 2, 2016), http://www.herald.co.zw/chiefs-eu-in-wildlife-talks/.

[62] *Id.*

[63] DAPU, Year End Report (2015).

[64] *Id.* at p. 3

[65] *M.P. Report*, p. 1-7; Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015).

[66] *Id.*

[67] *Id.*

[68] *Id.*

and low rainfalls, and abundance of mosquitos, tsetse flies and poor soils. The only benefit local people have, is to receive financial remuneration from hunting safari off take and employment."[69]

Outside of communal areas, hunting also generates benefits for rural Zimbabweans. Operators contribute to enhancing quality of life for those impacted by wildlife to incentivize tolerance and conservation. These contributions are made in cash, much-needed goods or services, and game meat.

For example, BVC's community assistance projects include drilling and equipping eight boreholes, building a clinic and staff houses with electrification and running water, contributing sport uniforms and transport for the youth soccer program, and more. According to the Conservancy's manager, "the identifiable costs of the clinic amount to just over $178,000 but there are many other hidden costs involved."[70]

Over and above these contributions, BVC has contributed 1,600 kg of meat each month since July 2011 to a trust administered by local chiefs to provide protein for school and community events and allow for the sale of excess meat to fund community projects.[71] Overall, BVC donates over *45 tons* of meat annually to local communities.[72]

Similarly, SVC supports nearby communities through cash, service, in-kind, and meat donations. In 2012, for example, the conservancies' contributions topped $100,000 and included provision of water, repair or construction of schools and clinics, payment of school fees, provision of computer equipment, and regular meat donations, among other things.[73] Game meat contributions are a key benefit for local people:

> [SVC] recently entered into a mutually dependent agreement with the Chiefs representing communities surrounding ... The agreement links the communities to the natural resource utilisation that occurs through the business operation of the conservancy and opens up opportunities for local indigenous populations to share in wealth creation... The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from lion hunting constitute a significant portion of inflow and thus an important part of the community benefits.[74]

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[69] *Id.* ("Every year several local villagers are killed or maimed by elephant, lion, buffalo, hippo and crocodile, they live in close proximity to these animals and only tolerate them because we as a hunting company give back to the community. It is very important for the protection of our wildlife in these remote areas that we continue to assist the RDC with anti-poaching continue to pay for the sustainable off take of a select quota, because if we do not, the locals will kill every animal, they will not tolerate wildlife disruptions to their families, be it through destruction of their crops on an annual basis, or the loss of their family members.").

[70] B. Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC and attached spreadsheet (Jan. 20, 2016).

[71] *Id.* Similarly, 1,000 kg of meat each (2,000 total) is donated to the Beit Bridge communities (since April 2014) and the Mwenezi communities (since Aug. 2013). *Id.*; *Zimbabwe Lion Conservation Report 2016*, p. 14-15; Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015) (*Fate of the African Lion Film*), http://theconservationimperative.com/?p=112 (game meat donations are a "direct spinoff" of the hunting program, and help build strong relationships with local chiefs. Any poachers found in the area are taken to the chiefs' courts and prosecuted there, and "asked to compensate for the value of the animals killed and the compensation goes back to the community kitty." This is a powerful community engagement system that benefits the wildlife directly.

[72] *Zimbabwe Lion Conservation Report 2016*, p. 12 (BVC's "meat donation is worth over US$100,000 per year, and the communities are free to decide how they use it.").

[73] *Id.*

[74] *SVC Report*, p. 5.

Hunting operators are also employers in a tough economy.[75] A small operator can employ 14-20 people; a medium operator can employ 14 staff, ten scouts, six trackers, and three professional hunters;[76] and a large operator like BVC can employ 350-400 staff and thereby support approximately 2,000 people.[77]

It should also be noted that hunting clients make substantial contributions to local communities. One lion hunter expects to contribute over $7,500 in gratuities during his safari, a "blue bag" donation, and perhaps an additional cash donation to a community or conservation purpose.[78] This is but one example—voluntary donations also help cover the anti-poaching expenses of DAPU, BVC, and SVC, among other things, and in turn this provides employment for local trackers and scouts.

The importance of these benefits cannot be overstated, because human-lion conflict is arguably the prime threat to lion in Zimbabwe.[79] This is one hunter of many, but put together these gifts provide considerable extra revenue for the poor and marginalized in a poor country, and sustain expensive anti-poaching efforts to protect endangered species. Added to the revenue/fee sharing and voluntary contributions from safari operators, hunting demonstrably benefits people, which in turn enhances the lion's survival.

III. Revenue from U.S. hunters is used for conservation and maintaining viable lion populations.

The revenue generated from U.S. clients contributes hugely to lion conservation and habitat protection in Zimbabwe.

BVC and SVC each rely *solely* on the income from hunting, especially lion hunting, to fund their operations. Their clientele is overwhelmingly American.[80] These conservancies represent ~6,400 km^2 of former cattle ranches that instead host large and sustainable rhino, antelope, cheetah, wild dog, and lion populations (among others).[81] The hunting of lion pays for the conservation of these other species, and the inability to sell lion hunts in their largest market puts the habitat, the prey base, the lion and all these other species at risk due to lack of funding. As BVC's anti-poaching manager explained in a video sent to the FWS:

> The BVC is about 3,000 square km ... It derives its whole income from hunting operations ... *Without the hunting there would be basically no reason for this area to exist or it would be a cattle area.* Having this large unit of land set aside for wildlife has meant that endangered species like black and white rhinoceros thrive here. We've got important populations of cheetah, wild dog as well, brown hyena, pangolins. So under the umbrella of hunting, this whole habitat is benefiting a whole variety of other species that are not consumptively hunted but they are benefiting from this wildlife area. Without hunting we would be very

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[75] Zimbabwe faces a 95% unemployment rate. CIA World Factbook, https://www.cia.gov/library/publications/the-world-factbook/geos/zi.html.

[76] *Pro Safaris Report*, p. 3 (19% of turnover goes to salaries and on average supports 165 people; because concession is not located near a community, operator donates game meat to PWMA rangers and scouts, to government for state functions, and to orphanage, for total of 6,137 kg annually ($12,250 and 2% of their gross income)).

[77] *CWS Report*; *Fate of the African Lion Film*.

[78] J. Hedgecock Statement (attached to import permit application); J. Hedgecock, pers. comm. (2015-2016).

[79] *Zimbabwe Lion Conservation Report 2016*, p. 11. Note that in a three-year period, seven people were killed.

[80] U.S. citizens represent over 90% of BVC and SVC's respective clientele. *Zimbabwe Lion Conservation Report 2016*, p. 23; *SVC Report*, p. 4.

[81] *Zimbabwe Lion Conservation Report 2016*, p. 4.

> hard put to justify keeping this big expensive land in its current land use. The conservancy covers all its own anti-poaching costs. It is quite an expensive operation.[82]

Lion hunting generates an estimated 33.9% of BVC's annual gross revenue – one-third of the funds needed to keep: the conservancy open as prime habitat, the anti-poaching patrols on the ground, and the future of the lion, black rhino, wild dog, and other species secure.[83] This is undoubtedly enhancement.

Likewise, as SVC reports, a "ban on lion trophy imports into the US will effectively result in a collapse of the lion hunting industry in the Savé Valley Conservancy, where on average 90% of hunting clients are American (up to 98% for some properties) ... The loss of the [approx.] $375,000 annual revenue will be catastrophic for the conservancy, inevitably resulting in less investment in security and other conservation measures."[84]

In short, the revenue from U.S. hunters is critical because lion in conservancies eat hundreds of thousands of dollars in huntable prey per year. And if the lions do not generate revenue there will be no incentive to maintain their large populations.[85]

On a smaller scale, high-quality operators like Cliff Walker and Pro Safaris, which together police the Rifa Safari Area, could not exist but for U.S. clients. Mr. Walker maintains high hunting and conservation ethics and targets U.S. clients because they share these values.[86] Almost all (86%) of his clients are U.S. citizens paying an average of $107,500 each in fees, which are ploughed back into Rifa SA, salaries, anti-poaching, and PWMA anti-poaching.

Similarly, lions are a major contributor to Pro Safaris' conservation/operating budget, and U.S. citizens are the main source of Pro Safaris' clients (75% of their lion were harvested by U.S. citizens).[87] The operator estimates that its conservation funding would fall by 36% if lion hunting declined because of an import ban. "Rifa Safari area has a small quota on all species. Lion therefore is a major contributor to the conservation of Elephant and the habitat to all species ... the Loss of the US Hunters will have a major negative impact on the survival of the viability of this area as a wildlife area."[88]

U.S. hunters are huge contributors to Zimbabwe's conservation hunting program: they are the force that keeps Zimbabwe's hunters in business and keeps most habitat, anti-poaching, and CAMPFIRE benefits in place. Their presence enhances the survival of the lion, and their absence will do the opposite.

Conclusion

On the whole, the U.S. market represented "70.4% of the total Zimbabwean lion sport-hunting industry" between 2005 and 2015,[89] and that may even be higher. This means at least $7 out of every $10 directed

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[82] *Fate of the African Lion Film*; *see also Zimbabwe Lion Conservation Report 2016*, p. 20 ("saturation of lions in wildlife areas on both state and private land is positive for their future conservation security ... it is also critical to incidentally conserved endangered species, such as both species of rhino on private wildlife conservancies in Zimbabwe ..., which benefit from the same resources and protection incentivized and provided by the revenue generated from hunting").
[83] *Zimbabwe Lion Conservation Report 2016*, p. 22.
[84] *SVC Report*, p. 4.
[85] *BVC Report*, p. 5-6.
[86] *CWS Report*.
[87] *Pro Safaris Report*, p. 4.
[88] *Id.*
[89] *Zimbabwe Lion Conservation Report 2016*, p. 23.

to habitat protection comes from U.S. citizens. $7 of every $10 directed to anti-poaching comes from U.S. citizens (and that amount is likely higher given the voluntarily donations often made by U.S. clients). And $7 of every $10 contributed to communities to reduce human-lion conflict comes from U.S. clients. The contributions of U.S. clients are enhancing the survival of the lion in Zimbabwe far more than anyone else.

The Final Rule identified three primary threats to lion: loss of habitat, loss of prey base, and human-lion conflict. As shown here, in the enclosed, and in the previously submitted documents, U.S. citizens are the greatest contributors to efforts that reduce or remediate these threats. Sport-hunting in Zimbabwe, and lion hunting specifically, provides a reason to preserve thousands of kilometers of habitat for lion and prey species. It is the primary funder of the anti-poaching units that maintain or increase the lion's prey base. Hunting revenues provide the main funding for Zimbabwe's CBNRM program and the main contributor of other benefits to Zimbabwe's rural communities.

Because it substantially reduces the threats and contributes to the growth of Zimbabwe's lion population, Zimbabwe's well-managed sport-hunting program enhances the lion's survival. Accordingly, the enclosed permit applications, and those previously submitted, should be approved and permits issued.

We believe this information and the information already in the FWS' possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. We ask that you consider all that information in evaluating these permit applications. We will also continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,



John J. Jackson, III
Regina Lennox

Enclosures:

- Application submitted on behalf of Phillip Glass to import a sport-hunted lion trophy to be hunted in Nyaminyami CAMPFIRE Area, Zimbabwe
- Application submitted on behalf of Timothy Haley to import a sport-hunted lion trophy to be hunted in Rifa Safari Area, Zimbabwe
- Application submitted on behalf of Justin Hedgecock to import a sport-hunted lion trophy to be hunted in Matetsi Safari Area, Zimbabwe
- Application submitted on behalf of Eric Rau to import a sport-hunted lion trophy to be hunted in NW Matabeleland, Zimbabwe
- Application submitted on behalf of Cooper Ribman to import a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Enclosed and Submitted

ENHANCEMENT INFORMATION ON THE AFRICAN LION

ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC, attaching spreadsheet (Jan. 20, 2016)	1/26/16
5	L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (Jan. 20, 2016)	1/26/16
6	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16
7	Dr. Byron du Preez et al., Zimbabwe Lion Conservation Research Report 2016: Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 31, 2016)	2/1/16
8	Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015)	2/24/16
9	Martin Pieters Safaris, "Lion Data" (2016)	4/20/16
10	Michael Schwartz, Culling to Conserve: A Hard Truth for Lion Conservation, National Geographic Cat Watch (Feb. 25, 2016)	4/20/16
11	Zimbabwe Parks & Wildlife Management Authority, Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe	4/20/16
12	CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014)	4/20/16
13	CAMPFIRE Association, Update to Hunting in CAMPFIRE Areas (2015)	4/20/16
14	Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016)	4/20/16
15	L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion Panthera Leo (Jan. 25, 2016)	4/20/16
16	Cliff Walker Safaris, Enhancement Report (2016)	4/20/16
17	IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016)	4/20/16
18	DAPU, Year-End 2015 Report (Oct./Nov. 2015)	4/20/16
19	DAPU, End-of-Year Report (Oct.-Dec. 2015)	4/20/16
20	Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015)	4/20/16
21	Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016)	4/20/16
22	Nengasha Safaris, Letter re: Enhancement (2016)	4/20/16

LION ZIMBABWE ESA TROPHY

Permit Number: MA94870B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:
COOPER (b) (6) **RIBMAN**
(b) (6)
DALLAS, TX (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

RCVD APR 27 2016

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES (Appendix I of CITES and/or ESA) Threatened-listed lion

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1 a Last name	1 b First name	1 c Middle name or initial	1 d Suffix
Rau	Eric	(b) (6)	

2 Date of birth (mm/dd/yyyy)	3 Social Security No.	4 Occupation	5 Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	--

6 a. Telephone number	6 b Alternate telephone number	6 c Fax number	6 d E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1 a. Name of business, agency, Tribe, or institution	1 b. Doing business as (dba)

2 Tax identification no	3 Description of business, agency, Tribe, or institution

4 a Principal officer Last name	4 b Principal officer First name	4 c Principal officer Middle name/ initial	4 d Suffix

5 Principal officer title	6 Primary contact name

7 a Business telephone number	7 b Alternate telephone number	7 c Business fax number	7 d Business e-mail address

C. All applicants complete address information

1 a. Physical address (Street address, Apartment #, Suite #, or Room #, no P O Boxes)				
(b) (6)				
1 b City	**1 c State**	**1 d Zip code/Postal code**	**1 e County/Province**	**1 f Country**
Union	MD	(b) (6)	(b) (6)	US

2 a Mailing Address (include if different than physical address, include name of contact person if applicable)				
Same				
2 b City	**2 c State**	**2 d Zip code/Postal code**	**2 e County/Province**	**2 f Country**

D. All applicants MUST complete

1 Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE *in the amount of $100*, nonrefundable processing fee. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – *attach documentation of fee exempt status as outlined in instructions.* (50 CFR 13.11(d))

2 Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☒ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue 13US09807B/9 No ☐

3 Certification. I hereby (b) (6) certify that I have read and am familiar with the regulations contained in *Title 50, Part 13 of the Code of Federal Regulations* and the other *applicable parts in Subchapter B of Chapter I of Title 50*, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy) 03/10/2016

copie attac

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      P. l. melanochaita (African lion)

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      Zimbabwe
      Area: Deka Tail Safari
      Region: Matabeleland North
      City: Bulawayo

   b. Date wildlife is to be hunted:

      April 14 - May 2, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      All parts including skin, skull, teeth, and claws

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: Paul Bennie
Business Name: Nengasha Safaris
Address: 36A Townsend Rd
Address: Suburbs
City: Bulawayo
State/Province:
Country, Postal Code: Zimbabwe

See letter copy fr
Nengasha Safaris

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

Please see information already provided by Conservation Force, Pete Fick/Bubye Valley Conservancy, and Zimbabwe authorities.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [redacted] Date: 03/10/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2). Port of entry Houstc
TX; Broker: Well Worldwide Energy Logistics, Houston, TX 77073 (281)606-2400 llilley@well-usa.cc

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

As listed on pg 1

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

John J. Jackson, III or Regina Lennox of Conservation Force
504-837-1233, jjw-no2@att.net or regina.lennox@conservationforce.org

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

Nengasha Safaris

36 A TOWNSEND ROAD, SUBURBS, BULAWAYO, ZIMBABWE
TEL: +263 9 231329, EMAIL: nengasha@gatorzw.co.uk

Nengasha Safaris has a 10 year lease on the Deka Tail Safari Area and is presently at the beginning of year 6. The area has a 56km boundary with Hwange National Park.

When we started our lease, we established a full time Anti-Poaching team together with improved water supplies and generally good conservation policies. Wildlife numbers have increased considerably since the start of our lease.

The above is all funded from hunting revenue. We have a very conservative Quota allocation in the area – including 10 Buffalo bulls, 2 Leopard, 5 Elephant, and the 1 Lion.

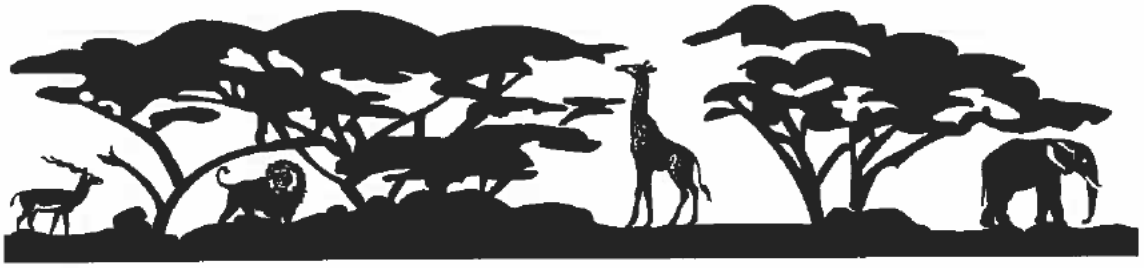
Therefore income from the Lion contributes considerably to conservation efforts in the area.

Data from each Lion shot including photos, skull measurements, and pre-molar teeth are submitted to National Parks and Wildlife Management Authority and the Panthera project.

Great care is taken to only harvest mature / old specimens. The trophy taken last year was aged between 10/11 years old.

I trust the above will assist you in considering this application in a positive light.

Paul Bennie
DIRECTOR



WELL WORLDWIDE ENERGY LOGISTICS, INC.

17401 Aldine Westfield Road
Houston, Texas 77073
281-606-2400 - phone
281-606-2435 - fax

DATE: 11/11/2015

ERIC (b) RAU
(b) (6)
Union, MO (b) (6)
email: (b) (6)

Notify Party:
WELL Worldwide Energy Logistics, Inc.
Houston, TX 77073
Attn: Lynette Lilley
281-606-2400
email: llilley@well-usa.com

Port of Entry: Houston, TX (IAH)

Taxidermist:
Conroe Taxidermy
11845 Clark Lane
Conroe, TX 77385
281-367-2745
email: info@conroetaxidermy.com

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

IMPORT PERMIT

Page 1 of 1

1. Original Permit/Certificate No.
13US099807B/9

2. Valid
08/30/2014

3. Importer (name and address, country)
[redacted]

4. Consignee (name and address, country)
OUTBOUND EXPORTERS
5 GRANTHAM ROAD
BULAWAYO, BELMONT
ZIMBABWE

5. Special Conditions
MUST COMPLY WITH ATTACHED GENERAL PERMIT CONDITIONS.
SPECIMEN MAY NOT BE SOLD OR TRANSFERRED FOR ANY FINANCIAL REMUNERATION.
U.S. THREATENED SPECIES (50 CFR 17.40(b))
MUST IMPORT THROUGH A DESIGNATED PORT LISTED IN CONDITION 10. PERMITTEE MAY ONLY IMPORT TWO LEOPARD TROPHIES PER CALENDAR YEAR.
EACH LEOPARD SKIN MUST HAVE SELF-LOCKING TAG ATTACHED TO IT WHICH INDICATES THE STATE OF EXPORT, THE NUMBER OF THE SPECIMEN IN RELATION TO THE ANNUAL QUOTA, AND THE CALENDAR YEAR TO WHICH THE QUOTA APPLIES. THE EXPORT PERMIT (OR RE-EXPORT CERTIFICATE) MUST CONTAIN THE TAGGING INFORMATION AS OUTLINED ABOVE.
TROPHY MUST HAVE BEEN TAKEN DURING 2013 HUNTING SEASON

5a. Purpose of Transaction
H

6. U.S. Management Authority
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
4401 N. FAIRFAX DRIVE
ROOM 212
ARLINGTON, VA 22203-3247

-May not be used for commercial purposes. For live animals, only valid if the transport conditions comply with the CITES Guidelines for Transport of Live Animals or in the case of air transport, with IATA Live Animals Regulations.

07/01/2013
Issuing Date

U.S. CITES Management Authority
United States Management Authority

AUTHORITY: Endangered Species Act of 1973 (16 USC 1531 et seq.)

7/8. Common Name and Scientific name (genus and species) of Animal or Plant	9. Description of Part or Derivative, including identifying marks or numbers (age/sex if live)	10. Appendix No. and Source	11. Quantity (including units)	12. Country of Origin
A. Common Name: LEOPARD Scientific Name: PANTHERA PARDUS	9. IMPORT PERSONAL SPORT HUNTED TROPHY (shipment may contain bones, claws, hide, skull, teeth, or any taxidermied part. DOES NOT include worked, manufactured, or handicraft items such as curios, jewelry, or other utilitarian items.)	10. I, W	11. 1	12. ZIMBABWE
B. Common Name: [redacted] Scientific Name: [redacted]	9. [redacted]	10. [redacted]	11. [redacted]	12. [redacted]
C. Common Name: [redacted] Scientific Name: [redacted]	9. [redacted]	10. [redacted]	11. [redacted]	12. [redacted]
D. Common Name: [redacted] Scientific Name: [redacted]	9. [redacted]	10. [redacted]	11. [redacted]	12. [redacted]
E. Common Name: [redacted] Scientific Name: [redacted]	9. [redacted]	10. [redacted]	11. [redacted]	12. [redacted]

431901

NOTICE OF REPRESENTATION

This is a notice to the U.S. Fish and Wildlife Service that I have appointed John J. Jackson, III and Regina Lennox of the non-profit firm Conservation Force as my attorneys and legal representatives for all matters concerning my application for a permit to import a threatened-listed African lion trophy.

This authority is inclusive and extends to all applications and filings, whether administrative or judicial, including but not limited to any request for reconsideration, appeal, and litigation.

I also request that these attorneys, through the address for Conservation Force below, be copied with all correspondence, acknowledgements, notices and decisions concerning my application to import my lion trophy at the following address:

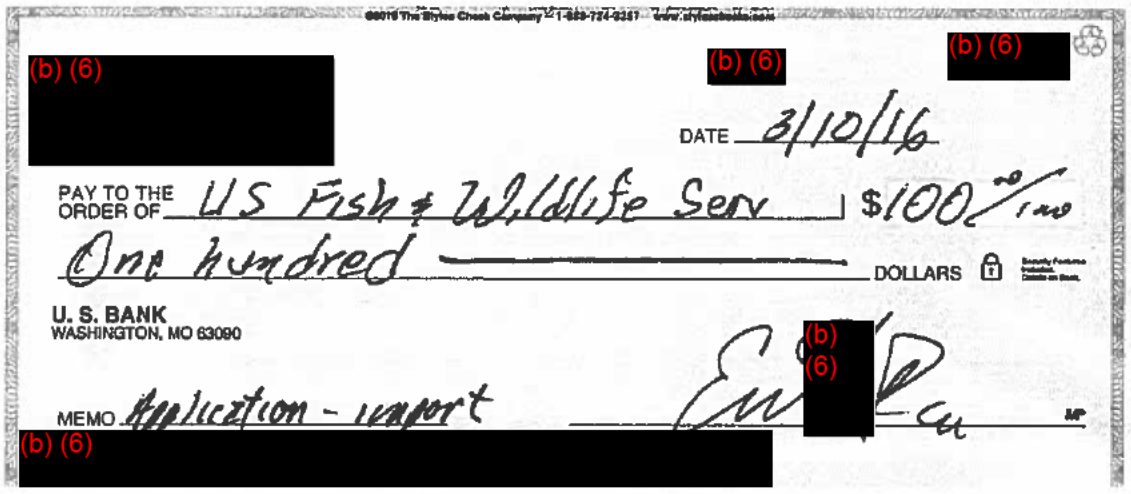
John J. Jackson, III
Regina Lennox
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, Louisiana 70001 USA
T: (504) 837-1233
F: (504) 837-1145
E: jjw-no2@att.net
E: regina.lennox@conservationforce.org

Signed: (b) (6)

Name: Eric (b) (6) Rau

Date: 03/10/2016

RCVD APR 27 2016



(b) (6)

(b) (6)

(b) (6)

DATE 3/10/16

PAY TO THE ORDER OF US Fish & Wildlife Serv $100.00

One hundred DOLLARS

U. S. BANK
WASHINGTON, MO 63090

MEMO Application - import

(b) (6)

(b) (6)

RCVD APR 27 2016

CONSERVATION FORCE
A FORCE FOR WILDLIFE CONSERVATION

† BARON BERTRAND DES CLERS, PH.D.
† JAMES G[illegible], PH.D.
† BART O'GARA, PH.D.

Mr. Timothy Van Norman
Chief, Branch of Permits
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

BOARD OF DIRECTORS:

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GERHARD DAMM
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SHANE MAHONEY
DALE TOWEILL, PH.D.

April 20, 2016

Dear Chief Van Norman:

Enclosed please find five applications for permits to import the sport-hunted trophies of African lion (*P. l. melanochaita*) from Zimbabwe. In evaluating these applications, please consider the enclosed information and the information previously submitted by Conservation Force, Bubye Valley Conservancy, Zimbabwe's Parks and Wildlife Management Authority, and others. An index of documents submitted by Conservation Force is enclosed with this letter.

This information demonstrates that Zimbabwe's hunting program enhances the survival of the lion in the wild for three main reasons: (1) the hunting program is well-managed scientifically-based, and sustainable; (2) Zimbabwe's lion management addresses the three primary threats to lion (e.g., loss of habitat and prey base, and human-lion conflict); and (3) U.S. hunter revenues are ploughed back into lion conservation and provide critical incentives for landholders to manage lion at high densities.

I. Zimbabwe's conservation hunting program is well-managed, sustainable, and science-based.

A. The hunting program is governed by an effectively and adaptively implemented "Conservation Strategy and Action Plan."

Lion in Zimbabwe are adaptively managed and hunted under the Conservation Strategy and Action Plan (Action Plan).[1] The Action Plan is the result of a participatory workshop involving lion scientists, NGOs, industry representatives, and other stakeholders.[2] Both the Action Plan's "Vision (Long-term objective)" and "Goal (Immediate objective or purpose)" incorporate the sustainable use of lion:

> **4.1 Vision** (Long-term objective)
>
> *Lions conserved and managed sustainably for their aesthetic, cultural and ecological value, and the socio-economic development of Zimbabwe.*
>
> **4.2 Goal** (Immediate objective or purpose)

[1] Zimbabwe Parks and Wildlife Management Authority (PWMA), Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe (*Action Plan*).
[2] *Action Plan*, p. 6; PWMA, Conservation Status of the African Lion (*Panthera leo*) in Zimbabwe (Jan. 2015) (*Non-Detriment Finding*), p. 22.

To secure and where possible, restore as many viable lion populations as possible ... whilst mitigating their negative impact and enhancing the value for the benefit of people through sustainable use.[3]

The Action Plan identifies targets, outputs, and detailed activities to conserve the lion, and describes the roles and responsibilities of the stakeholders involved in lion management. Among the main targets are: to improve data collection and research; to increase community benefits; and to ensure licensed hunting is sustainable. These targets have been met.

Target	Achievement
To improve data collection and research	Current density and population estimates are available for ~70% of Zimbabwe's lion range[4] Long-standing research partnerships with Wild CRU (1999) and other scientists (2007) have been established[5]
To increase community benefits	Increased benefits-sharing has been the norm since the 2007 revision of the CAMPFIRE Revenue Sharing Guidelines requiring that 55% of fees are to be deposited in producer ward accounts, and 41% of the fees are directed to Rural District Councils for infrastructure building and projects[6]
To ensure licensed hunting is sustainable	In 2013/2014, Zimbabwe adopted or reconfirmed its best practices to ensure the sustainability of legal hunting[7]

These efforts show how the Action Plan is being successfully implemented and its targets achieved, and that Zimbabwe is properly managing its lion population and sustainable use-based hunting program.[8]

B. Zimbabwe's lion hunting program was updated in 2013 to enhance its sustainability.

Since July 2013, Zimbabwe's lion hunting regulations have been updated to ensure sustainability and the adoption of best practices, an "internal reform ... that is actively participated in and supported by all of the relevant stakeholders," including the Zimbabwe Parks and Wildlife Management Authority (PWMA), non-governmental organizations, professional hunters and safari operators, CAMPFIRE districts, and scientists and researchers.[9] These updates included the adoption of an age-based approach to lion hunting and the

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[3] *Action Plan*, p. 9.

[4] *Non-Detriment Finding*, p. 8-10; Dr. B. du Preez, Dr. R. Groom, O. Mufute, R. Mandisodza-Chikerema, Zimbabwe Lion Conservation Research Report 2016: Sport-Hunting and Lion (*Panthera leo*) Conservation in Zimbabwe (Jan. 31, 2016) (*Zimbabwe Lion Conservation Report 2016*), p. 5-7.

[5] Dr. B. du Preez, Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016) (*BVC Report*), p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 4, 13, 21. The team of researchers at Bubye Valley Conservancy is large and impressive, and includes an orphaned rhino manager. *See* www.bubyevalleyconservancy.com/team.

[6] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[7] L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (ZPHGA Letter) (Jan. 20, 2016), p. 1.

[8] Some management units have their own plans. For example, in 2011 Savé Valley Conservancy commissioned a lion management plan "to provide members with a science-based plan to help them ethically and sustainably manage their lion population," and which "specifically advocates the use of hunting as a conservation management tool. It demonstrates willingness by the conservancy to guide their lion management based on science and advice from professionals." Dr. R. Groom, Hunting in Zimbabwe's Savé Valley Conservancy (Jan. 27, 2013) (*SVC Report*), p. 4.

[9] *Zimbabwe Lion Conservation Report 2016*, p. 5.

imposition of penalties for harvest of lions younger than five;[10] revision of the annual quotas and use of an adaptive quota-setting approach based on results of the lion aging approach; the removal of female lions from hunting quotas; and the termination of fixed quotas.[11]

These updates are being effectively implemented. The lion aging is conducted by PWMA and overseen by the non-profit Panthera. Operators and PHs immediately adopted the age-based approach. One year after its adoption, harvest of underage lion represented only 20% of total offtakes.[12] This approach is allowing male lions to mature and increasing the numbers of older males.[13] Zimbabwe's sport-hunting program for lion is sustainable, and the benefits outweigh the limited offtake.

C. **Using the best-available information Zimbabwe's Scientific Authority concluded that hunting is not detrimental to the survival of the lion.**

Zimbabwe's lion hunting is permitted subject to a Non-Detriment Finding made in January 2015.[14] In this finding, PWMA, the CITES scientific authority, concluded:

> The species contributes positively to the livelihoods of local communities through sport hunting. Hunting also contributes to the conservation of lions through financial benefits that are ploughed back into conservation and that local communities use for rural development programmes. Trophy hunting of the lion is undertaken through a strict scientific based quota setting process with an objective of ensuring that utilization and any form of harvesting is sustainable.
>
> The African lion population is increasing in most areas. Research and monitoring of the species is being done collaboratively with external researchers and there is a lot of baseline information and publications. Zimbabwe has a lion management plan and strategy that is being implemented and reviewed on a regular basis. Rigorous monitoring of trophy hunting through adaptive management principles is carried out in Zimbabwe and non-detrimental findings are conducted for all exports. *In conclusion, harvesting and any other forms of off take are not detrimental to the survival of the African lion in Zimbabwe.*[15]

PWMA based its finding on current estimates from primary lion range areas, reflecting a lion population of at least 2,346.[16] But that did not even include updated estimates from Bubye Valley Conservancy (BVC) and Savé Valley Conservancy (SVC), which increase the 2016 estimate to approximately 2,600 lions.[17] Both

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[10] PWMA, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014).

[11] *Zimbabwe Lion Conservation Report 2016*, p. 24; ZPHGA Letter, p. 1-3. Other steps taken include the creation of an Ethics Committee, currently charged with updating the Code of Conduct and "best practices" manual for Zimbabwe's operators and professional hunters. Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016) (*The Role of Hunting in Conservation and Livelihood Resilience*), p. 8, 16.

[12] ZPHGA Letter, p 4; *see also* L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion *Panthera Leo* (Jan. 25, 2016) (*Pro Safaris Report*), p. 2.

[13] *E.g., Pro Safaris Report*, p. 2.

[14] *Non-Detriment Finding*, p. 1.

[15] *Id.* at 1 (added emphasis).

[16] *Id.* at 11.

[17] The current population estimate for Zimbabwe's major lion areas is approximately 2,600 individuals [Hwange-Matetsi Complex: 750, South Eastern Lowveld: 350, Gonarezhou National Park: 60, Malilangwe: 37, Savé Valley Conservancy: 284, Bubye Valley Conservancy: 500, Mid-Zambezi Valley

populations grew from reintroduced lion and have skyrocketed since the introductions.[18] Populations in Hwange and Gonarezhou National Parks have also increased since the late 2000s.[19] The 2015 IUCN *Red List* assessment for African lion acknowledges this growth. It inferred population declines in many parts of the lion's continental range, but *not* in Zimbabwe. Rather, the *Red List* pointed to an overall *increase* in sample lion populations in Zimbabwe.[20]

Based on this large population size, data from stakeholders (including hunting operators, who often track lion sightings in their areas),[21] and aging returns from the 2014 season, PWMA scientists set a 2015 quota of 85 lions.[22] This represents approximately 3.62% of the population, and it is well within the guideline of <5% for a sustainable offtake. This quota is carefully allocated based on the type of land use. On state-protected lands (i.e., the PWMA and Forestry Estates), a lower quota is allocated than on communal lands, as managed hunting is used to mitigate human-lion conflict in some communal areas.[23] Lion are extremely dense on private conservancies, and the quotas are allocated based on this density.[24]

However, because of the age-based limitation on lawful lion trophies, actual offtake is far below the quota. In 2015, only 39 lions were harvested representing ~46% of the quota and only 1.5% of a population of

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> Complex: 600], though the actual number would be larger if there were data available for the countries [*sic*] minor lion areas that are yet to be surveyed] (ZPWMA 2015).

Zimbabwe Lion Conservation Report 2016, p. 6.

[18] In BVC, 13 lions were reintroduced and four "broke in" in 1999. From those 17, the population has grown to ~280 in 2009, "when robust population surveys were initiated," to over 500 lions today. *BVC Report*, p. 3. In SVC, the lion was reintroduced, and that and other reintroductions have given the conservancy its strong wildlife base:

> Trophy hunting was essential for the successful transition of the conservancy from cattle to wildlife. During the early years, wildlife densities were low, resulting in poor potential for ecotourism, and hunting generated the income needed to erect the fence, re-stock game, and improve security, especially because of the significant numbers of black rhino now found there.

SVC Report, p. 2; *see also Zimbabwe Lion Conservation Report 2016*, p. 12-19.

[19] Lion populations can increase in abundance rapidly and can "achieve exponential growth rates." *Zimbabwe Lion Conservation Report 2016*, p. 8. Regulated, managed sport-hunting does not affect growth rates. *Id.* To the contrary, as the Non-Detriment finding suggests, hunting is not a population control method; however, the "positive aspects of sport-hunting as a conservation tool include a focus on males and a low percentage off-takes; neither of which generally jeopardise populations and also suggest that hunting could play a role in population recovery." *Id.*; *Non-Detriment Finding*, p. 1.

[20] H. Bauer et al., Panthera Leo, The IUCN Red List of Threatened Species (2015), http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T15951A79929984.en ("Table 3 ... shows the estimated Lion population size in 1993 and 2014 for each of the 47 sample subpopulations ... it can be seen that most countries had a declining trend ... with only four countries (India, Namibia, South Africa and Zimbabwe) seeing a growth trend ... The sample Lion population in five countries (Botswana, India, Namibia, South Africa, Zimbabwe) grew by an estimated 12%, whereas the Lion population in the remaining African range countries declined by an estimated 61% ...").

[21] *E.g.*, *Pro Safaris Report*, p. 1 (observed at least 68 lions in the Rifa SA as of August 2015: "Population estimates are done with daily game sighting reports by Professional Hunters and Game Scouts ... camera traps and spoor counts done during the season"; operator also monitors prey base including buffalo, kudu, eland, impala, zebra, hippo, etc. and keeps population counts based on sightings/tracking; in 2015 observed 1,829 impalas and 646 buffalo in area); Cliff Walker Safaris, Enhancement Report (2016) (*CWS Report*) (showing tracking of 360 lions over 14 hunts in three seasons, including 97 males).

[22] *Zimbabwe Lion Conservation Report 2016*, p. 9.

[23] *Id.* at 18.

[24] *E.g.*, *id.* (density for BVC is ~0.187 lions/km^2) ("The success of the [BVC], in terms of both its hunted lion and non-hunted rhino populations, provides the incentive for other areas in the country to sustainably manage their wildlife resource...").

2,600 lions.[25] Because the offtake was lower, the precautionary 2016 quota has adaptively been set at 75 lions, representing only 2.9% of the population.[26]

Although the biological impact of the offtake is minute, its financial impact is not. The estimated value of selling the full lion quota is $6,800,000.[27] The value of daily fees for just the lion harvested is $2,800,000.[28] Assuming an average land management cost of $150 per km^2, sale of the lion quota can support 45,333 km^2 in habitat[29] – an area almost the PWMA Estate (~50,000 km^2) and about the size of Kenya's national parks and national reserves (44,702 km^2).[30]

Based on the effective implementation of Zimbabwe's carefully crafted aging approach, the science-based and sustainable quota, the limited offtake, and the "benefits that are ploughed back into conservation and that local communities use for rural development programmes," Zimbabwe's Scientific Authority properly concluded there is "no net harm" from the limited, regulated offtake, the net benefits of hunting greatly outweigh the limited offtake, and it is not detrimental to the species' survival. The critical role of regulated and sustainable hunting is evident in the fact that "Safari hunting demonstrably remains the single largest source of funding for wildlife-based land use and Community Based Natural Resource Management (CBNRM) in Zimbabwe – providing financial incentive to conserve."[31]

II. Zimbabwe's lion hunting and conservation program sufficiently address the three main threats to lion.

A. Sport-hunting in Zimbabwe extends the available protected lion range and incentivizes the use of communal and private land as habitat.

Protected areas in Zimbabwe cover more than 100,000 km^2 and include national parks, safari areas, private conservancies, and CAMPFIRE.[32] National parks cover about 27,000 km^2, but hunting areas exceed 76,000 km^2 (including approximately 19,000 km^2 in safari areas; ~7,000 in conservancies, and 48,000 in CAMPFIRE areas).[33] "Hunting remains by far the highest earner of revenue sustaining biodiversity conservation and wildlife-based land use in Zimbabwe – be it under communal, private or state tenure. Hunting revenues not only incentivise and pay for wildlife as a primary land-use option on private and communal land, but

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[25] *Id.* at 9.

[26] *Id.* In sum: Zimbabwe's quotas are based on scientific population density information, determined by experts and adaptively managed in accordance with the aging restrictions, and allocated by area according to density. The age-based approach and maximum quota conform to the best available scientific information and best practices as the FWS identified in the Final Rule.

[27] Assuming an average safari cost of $80,000 is low. *Zimbabwe Lion Conservation Report 2016*, p. 22; *CWS Report* (average cost of $107,000).

[28] *Id.*

[29] *Id.*

[30] PWMA, Website, www.zimparks.org/index.php/about-us/profile; IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[31] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 7.

[32] This does not include the sizable forest reserves, many of which allow licensed safari hunting. *See also The Role of Hunting in Conservation and Livelihood Resilience*, p. 1, 17-18.

[33] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014); IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

so too, in the face of ever mounting pressure for land, does it stave off political and social pressure to de-gazette protected areas (PA's) on state land."[34]

The Community Areas Management Program for Indigenous Resources (CAMPFIRE) program "is premised on the conservation of wildlife and other natural resources as a livelihood option for rural communities in marginal areas of Zimbabwe."[35] CAMPFIRE provides habitat and anti-poaching protection for wildlife, and generates revenues for poor rural communities.[36] It benefits wildlife and people both. Through CAMPFIRE the revenues from hunting help to increase local tolerance and decrease human-lion-livestock conflict.[37] But for the revenues generated from lion hunting, it is unlike CAMPFIRE communities would be willing to tolerate lion at the levels they do.[38]

As for private land, Conservation Force sent three previous reports describing the habitat supporting the large wildlife populations in BVC and SVC. "In fact, 3 of the last 10 IUCN Key 1 Populations of Black Rhino remaining in Africa are to be found on private hunting conservancies in Zimbabwe."[39] BVC and SVC (~6,800 km^2) depend entirely on revenue from sport hunting to fund their operations.[40]

Without sport-hunting, this habitat would likely return to cattle ranching, and large populations of wildlife would be lost. Likewise, without the incentives generated through hunting, much CAMPFIRE land would be lost as habitat. This is *not* conjecture. It is empirical fact, based on the limited and inconsistent demand for non-consumptive tourism in Zimbabwe.[41]

Both communal and private areas have tried and failed to attract sustainable photographic tourism, due to "a combination of intractable contributing factors – from the global recession and downturn in tourism to poor international perception and desirability of Zimbabwe as a tourist destination, compounded by a severely depressed local economy, decaying infrastructure and diminished road and air-travel access. The industry operates at well below 50% occupancy based on current beds available and there is not a single

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[34] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2.

[35] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014).

[36] *Id.*; *The Role of Hunting in Conservation and Livelihood Resilience*, p. 2, 17.

[37] *Id.* (As of 2014, "CAMPFIRE generates on average US$2 million in net income every year which is much lower than estimated potential earnings for the Program. Income generation is mostly through the lease of sport hunting rights to commercial safari operators, as well as sales of hides and ivory, tourism leases on communal land and other natural resources management activities. As an industry, safari hunting has proven to be robust both environmentally and economically and, although not unscathed, [has been] fairly resilient in the face of serious socio-political uncertainty ... Although human encroachment and poaching has affected some communal wildlife areas in recent years, the CAMPFIRE program at national level still protects an area of wild land in excess of 50,000km^2, roughly equivalent in extent to the Parks and Wildlife Estate (Table 1). There are over 200,000 households that actively participate in the Program in CAMPFIRE hunting areas. Revenue received by communities, though relatively small, is used to directly offset the costs of living with wildlife through employment of game scouts or resource monitors.").

[38] *Zimbabwe Lion Conservation Report 2016*, p. 14; *Non-Detriment Finding*, p. 6-7, 9.

[39] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[40] *SVC Report*, p. 5-6; *BVC Report*; M. Schwartz, National Geographic Cat Watch (Feb. 25, 2016) ("remember that the BVC used to be a cattle-ranching area, and if wildlife becomes unviable, then there is no reason not to convert it back to a cattle ranching area again"). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 2, 5, 7, 12.

[41] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 24; *SVC Report*, p. 2-3 ("Sport hunting and trophy hunting became the only economically viable land use options and have remained the only tangible source of income to the landowners of the SVC. In the case of the Senuko Lodge, for example, the land reform program resulted in a 98% cancelation of the confirmed bookings.").

working example of a community-owned non-hunting tourism venture catering to international clientele in the country."[42] Given Zimbabwe's poor economy it is difficult to see them trying again, as photo-tourists require greater infrastructure and accessibility than hunting tourists do.[43] Sport-hunting alone incentivizes the preservation of most habitat in Zimbabwe:[44] "In Zimbabwe, over 75% of all conservation land under private, community and state tenure is entirely dependent on safari hunting revenues..." (7.9 million ha).[45]

Hunting also incentivizes and pays for *improvements* in wildlife habitat. For example, BVC and SVC spend significant revenue on water provision. A smaller operator, Pro Safaris spends 6% of its gross turnover on "conservation," largely for "water points installation, pipeline maintenance, water pumping, and de-silting of water pans..."[46] Water holes are one of the ways safari operators routinely improve available habitat.[47]

Without hunting wildlife exists only in national parks. By providing, securing, and improving habitat, sport-hunting provides enhancement for the lion.

B. Sport-hunting in Zimbabwe provides significant anti-poaching support to protect the lion's prey base.

Hunting revenues underwrite much of the anti-poaching which allows the lion's prey base to flourish, and which thereby allows lion populations to grow. For example:

- In 2015 BVC spent $590,000 in funds generated exclusively from sport-hunting to employ scouts, purchase equipment, and cover anti-poaching.[48] BVC protects the world's third largest population of black rhino and incurs significant anti-poaching expenses to keep them secure from poachers.[49]
- On average, SVC spends $546,000 annually on anti-poaching, including a large expenditure for the protection of their black rhino population (approximately $200,000/year).[50] The funds are largely generated from sport-hunting and donations from clients.[51]
- The Dande Anti-Poaching Unit (DAPU) in the Zambezi Valley is among the most successful. They reduced elephant poaching in their concessions from 40 carcasses in 2010 to only three in 2015. DAPU supports 22 community scouts and 18 council scouts. In 2014, they picked up 2,375 snares,

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[42] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 3.

[43] *Id.* at 24 ("By comparison to [photo]-tourism, safari hunting operates on much higher income per tourist with much lower tourist throughflow and total bed-nights and requires far less capital outlay for accommodation and hospitality infrastructure. Not only are these extremely important considerations in the context of the poor socio-economic and political climate for investment and tourism in Zimbabwe ... Public health scares such as Ebola, terrorism, political unrest and social disturbances have had demonstrably serious impact on tourism traffic to different parts of Africa and is especially true of non-consumptive ecotourism which is far more sensitive to such deterrents than is trophy hunting ..."). *See also* IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 8.

[44] Sport hunting incentivizes the preservation of an area larger than Kenya's national parks. CAMPFIRE areas alone represent almost 50,000 km^2, and Kenya's NPs are only ~47,000. *See* IUCN/UN, 2014 United Nations List of Protected Areas, http://blog.protectedplanet.net/post/102481051829/2014-united-nations-list-of-protected-areas.

[45] *The Role of Hunting in Conservation and Livelihood Resilience*, p. 11-12, 17-18.

[46] *Pro Safaris Report*, p. 3.

[47] *See, e.g., CWS Report*; *Zimbabwe Lion Conservation Report 2016*, p. 18.

[48] *Zimbabwe Lion Conservation Report 2016*, p. 20 (this amount does not include incentives and rewards donated for these purposes).

[49] *BVC Report*, p. 5.

[50] *Id.* at p. 5.

[51] *SVC Report*, p. 5-6; *Zimbabwe Lion Conservation Report 2016*, p. 20.

convicted 19 meat poachers, retrieved 22 weapons, and paid over $9,000 in rewards.[52] This unit is wholly funded by hunting operator Charlton McCallum Safaris, and the contributions of its safari clients.[53] By protecting the lion's prey base, DAPU is significantly supporting lion conservation.

- Pro Safaris in the Rifa Safari Area contributes 39% of their gross revenue to PWMA, which supports wildlife management and monitoring as well as PWMA anti-poaching rangers.[54] They spend 6% of their gross to fund their own anti-poaching unit of ten scouts. Their team coordinate with PWMA rangers to police the 40-km international border with Zambia and an area covering ~506 km^2 (close to the size of Redwood National and State Parks in California combined). Ivory poaching is a threat, and funds generated from hunting help protect the elephant and other prey in the area.[55]
- In 2013-2014, the anti-poaching teams supported by Martin Pieters Safaris conducted 289 patrols, recovered 165+ snares (a total of 15,000+ since 2007), recovered five firearms and ammunition, recovered four pairs of tusks as well as poached fish and meat, and arrested 123 poachers.[56] This company spends more than $40,000/year on anti-poaching in their concessions.[57]
- Martin Pieters Safaris is also helping establish a communal conservancy in the Omay area that has two seven-man anti-poaching teams. They have been extensively trained in weapons, tactics, and offensive maneuvers with the operator's support. This unit has branched into Gokwe and other communal lands, and cooperates extensively with Police and community scouts. As of November, this unit arrested over 120 poachers and traffickers, many of whom were hardened, professional poachers whose removal significantly benefits the lion's prey base.[58]
- In March, a safari operator father and son lost their lives in a tragic accident as they were waiting to assist an anti-poaching patrol.[59] They dedicated their funds, their time, and ultimately their lives to protecting wildlife. The commitment of hunting operators cannot be questioned. Their efforts are obviously enhancement for the lion and other species.

These are but a few examples of the essential support safari operators provide to maintain and increase the lion's prey base, addressing this threat and enhancing the survival of the lion in the wild.

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[52] DAPU, Year-End 2015 Report (Oct./Nov. 2015), p. 9-20; DAPU, End-of-Year Report (Oct.-Dec. 2015).
[53] *Id.* at 3, 19.
[54] *Pro Safaris Report*, p. 3.
[55] *Id.*; *see also CWS Report.*
[56] Martin Pieters Safaris, Sustainable Use Benefiting Communities, Blog (Nov. 18, 2015); Martin Pieters Safaris, Lion Data (2016) (*M.P. Report*), p. 9.
[57] Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016).
[58] *Id.*
[59] The Zambezi Society, Factual Report on the Tragic Deaths of Two Wildlife Conservation Volunteers in Mana Pools National Park (Mar. 14, 2016), http://www.zamsoc.org/?p=2121; *see also* The Zambezi Society, Update Letter (Apr. 2016) (offering memorial to these operators; also describing the operations of MAPP, an anti-poaching unit run by another hunting operator), http://us10.campaign-archive1.com/?u=f4943277ce971cb1c9028d068&id=a10245916e&e=959ad7ac3f.

C. Sustainable use through sport-hunting is essential to reducing human-wildlife conflicts and the success of Zimbabwe's community based conservation program.

Sustainable use, largely through sport-hunting, is a pillar of CAMPFIRE.[60] This is due to the basic principle that co-existence of wildlife and people is improved, and people are more tolerant of the negative effects of wildlife, if wildlife has value.[61] For instance, lion "hunting contributes to the conservation of lions via the financial revenue generated [through CAMPFIRE], which is ploughed back into conservation of the resource and empowers local communities to invest in their own rural development programs."[62]

Consistent with CAMPFIRE revenue-sharing guidelines, hunting operators in communal areas pay a large percentage of revenues and fee income to the communities. For example, in the Dande area one operator pays well over 40% of gross sales to CAMPFIRE wards and councils. When payments to the government are included, the company retains less than half its income.[63] Like many others in Zimbabwe, the company believes "People MUST get FAIR value for their game, or all is lost," "make[s] sure that all hunting proceeds are correctly chanelled [sic] in to producer ward accounts," and operate with "[s]trong social responsibility i.e. we allocate $67,000 per annum to District and Ward projects and we ensure there is transparency."[64]

In the Omay area, Martin Pieters Safaris and its associates contribute over $200,000 annually "straight to the producer communities for community developmental projects."[65] In 2013-2014 the communities used these funds for a range of projects, including but not limited to:

- Building or repairing five teachers' houses, ten classrooms/blocks, and four administrative offices;
- Building or obtaining school supplies including two blackboards;
- Rehabilitating three water pipelines or boreholes;
- Constructing feeder roads;
- Obtaining or repairing heavy equipment including one tractor;
- Helping the community obtain construction materials, build toilets, and use funds for traditional ceremonies.[66]

These direct benefits increase tolerance, and thus increase numbers of wildlife, in an area of ~8,094 km^2.[67] "Communities receive direct benefit both financially and through various projects implemented by Martin Pieters Safaris such as clinics, schools, vehicles for anti-poaching and the employment of scouts."[68] These benefits arise in "a remote inhospitable concession that has no other land use model due to very erratic

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[60] CAMPFIRE Association, Hunting in CAMPFIRE Areas (2015); CAMPFIRE Association, Website ("Vision: To see rural communities in Zimbabwe freed from the vagaries of poverty and enjoying the benefits of the sustainable use of their natural resources ..."); *see also M.P. Report*, p. 1; IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016), p. 4-7.

[61] *Zimbabwe Lion Conservation Report 2016*, p. 11; *see also* Chiefs, EU in Wildlife Talks, The Herald (Apr. 2, 2016), http://www.herald.co.zw/chiefs-eu-in-wildlife-talks/.

[62] *Id.*

[63] DAPU, Year End Report (2015).

[64] *Id.* at p. 3

[65] *M.P. Report*, p. 1-7; Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015).

[66] *Id.*

[67] *Id.*

[68] *Id.*

and low rainfalls, and abundance of mosquitos, tsetse flies and poor soils. The only benefit local people have, is to receive financial remuneration from hunting safari off take and employment."[69]

Outside of communal areas, hunting also generates benefits for rural Zimbabweans. Operators contribute to enhancing quality of life for those impacted by wildlife to incentivize tolerance and conservation. These contributions are made in cash, much-needed goods or services, and game meat.

For example, BVC's community assistance projects include drilling and equipping eight boreholes, building a clinic and staff houses with electrification and running water, contributing sport uniforms and transport for the youth soccer program, and more. According to the Conservancy's manager, "the identifiable costs of the clinic amount to just over $178,000 but there are many other hidden costs involved."[70]

Over and above these contributions, BVC has contributed 1,600 kg of meat each month since July 2011 to a trust administered by local chiefs to provide protein for school and community events and allow for the sale of excess meat to fund community projects.[71] Overall, BVC donates over *45 tons* of meat annually to local communities.[72]

Similarly, SVC supports nearby communities through cash, service, in-kind, and meat donations. In 2012, for example, the conservancies' contributions topped $100,000 and included provision of water, repair or construction of schools and clinics, payment of school fees, provision of computer equipment, and regular meat donations, among other things.[73] Game meat contributions are a key benefit for local people:

> [SVC] recently entered into a mutually dependent agreement with the Chiefs representing communities surrounding ... The agreement links the communities to the natural resource utilisation that occurs through the business operation of the conservancy and opens up opportunities for local indigenous populations to share in wealth creation... The hunting tourism of the conservancy is currently the only form of income by which the surrounding communities can benefit. Revenues from lion hunting constitute a significant portion of inflow and thus an important part of the community benefits.[74]

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[69] *Id.* ("Every year several local villagers are killed or maimed by elephant, lion, buffalo, hippo and crocodile, they live in close proximity to these animals and only tolerate them because we as a hunting company give back to the community. It is very important for the protection of our wildlife in these remote areas that we continue to assist the RDC with anti-poaching continue to pay for the sustainable off take of a select quota, because if we do not, the locals will kill every animal, they will not tolerate wildlife disruptions to their families, be it through destruction of their crops on an annual basis, or the loss of their family members.").

[70] B. Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC and attached spreadsheet (Jan. 20, 2016).

[71] *Id.* Similarly, 1,000 kg of meat each (2,000 total) is donated to the Beit Bridge communities (since April 2014) and the Mwenezi communities (since Aug. 2013). *Id.*; *Zimbabwe Lion Conservation Report 2016*, p. 14-15; Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015) (*Fate of the African Lion Film*), http://theconservationimperative.com/?p=112 (game meat donations are a "direct spinoff" of the hunting program, and help build strong relationships with local chiefs. Any poachers found in the area are taken to the chiefs' courts and prosecuted there, and "asked to compensate for the value of the animals killed and the compensation goes back to the community kitty." This is a powerful community engagement system that benefits the wildlife directly.

[72] *Zimbabwe Lion Conservation Report 2016*, p. 12 (BVC's "meat donation is worth over US$100,000 per year, and the communities are free to decide how they use it.").

[73] *Id.*

[74] *SVC Report*, p. 5.

Hunting operators are also employers in a tough economy.[75] A small operator can employ 14-20 people; a medium operator can employ 14 staff, ten scouts, six trackers, and three professional hunters;[76] and a large operator like BVC can employ 350-400 staff and thereby support approximately 2,000 people.[77]

It should also be noted that hunting clients make substantial contributions to local communities. One lion hunter expects to contribute over $7,500 in gratuities during his safari, a "blue bag" donation, and perhaps an additional cash donation to a community or conservation purpose.[78] This is but one example—voluntary donations also help cover the anti-poaching expenses of DAPU, BVC, and SVC, among other things, and in turn this provides employment for local trackers and scouts.

The importance of these benefits cannot be overstated, because human-lion conflict is arguably the prime threat to lion in Zimbabwe.[79] This is one hunter of many, but put together these gifts provide considerable extra revenue for the poor and marginalized in a poor country, and sustain expensive anti-poaching efforts to protect endangered species. Added to the revenue/fee sharing and voluntary contributions from safari operators, hunting demonstrably benefits people, which in turn enhances the lion's survival.

III. Revenue from U.S. hunters is used for conservation and maintaining viable lion populations.

The revenue generated from U.S. clients contributes hugely to lion conservation and habitat protection in Zimbabwe.

BVC and SVC each rely *solely* on the income from hunting, especially lion hunting, to fund their operations. Their clientele is overwhelmingly American.[80] These conservancies represent ~6,400 km^2 of former cattle ranches that instead host large and sustainable rhino, antelope, cheetah, wild dog, and lion populations (among others).[81] The hunting of lion pays for the conservation of these other species, and the inability to sell lion hunts in their largest market puts the habitat, the prey base, the lion and all these other species at risk due to lack of funding. As BVC's anti-poaching manager explained in a video sent to the FWS:

> The BVC is about 3,000 square km ... It derives its whole income from hunting operations ... *Without the hunting there would be basically no reason for this area to exist or it would be a cattle area.* Having this large unit of land set aside for wildlife has meant that endangered species like black and white rhinoceros thrive here. We've got important populations of cheetah, wild dog as well, brown hyena, pangolins. So under the umbrella of hunting, this whole habitat is benefiting a whole variety of other species that are not consumptively hunted but they are benefiting from this wildlife area. Without hunting we would be very

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[75] Zimbabwe faces a 95% unemployment rate. CIA World Factbook, https://www.cia.gov/library/publications/the-world-factbook/geos/zi.html.

[76] *Pro Safaris Report*, p. 3 (19% of turnover goes to salaries and on average supports 165 people; because concession is not located near a community, operator donates game meat to PWMA rangers and scouts, to government for state functions, and to orphanage, for total of 6,137 kg annually ($12,250 and 2% of their gross income)).

[77] *CWS Report; Fate of the African Lion Film.*

[78] J. Hedgecock Statement (attached to import permit application); J. Hedgecock, pers. comm. (2015-2016).

[79] *Zimbabwe Lion Conservation Report 2016*, p. 11. Note that in a three-year period, seven people were killed.

[80] U.S. citizens represent over 90% of BVC and SVC's respective clientele. *Zimbabwe Lion Conservation Report 2016*, p. 23; *SVC Report*, p. 4.

[81] *Zimbabwe Lion Conservation Report 2016*, p. 4.

> hard put to justify keeping this big expensive land in its current land use. The conservancy covers all its own anti-poaching costs. It is quite an expensive operation.[82]

Lion hunting generates an estimated 33.9% of BVC's annual gross revenue – one-third of the funds needed to keep: the conservancy open as prime habitat, the anti-poaching patrols on the ground, and the future of the lion, black rhino, wild dog, and other species secure.[83] This is undoubtedly enhancement.

Likewise, as SVC reports, a "ban on lion trophy imports into the US will effectively result in a collapse of the lion hunting industry in the Savé Valley Conservancy, where on average 90% of hunting clients are American (up to 98% for some properties) ... The loss of the [approx.] $375,000 annual revenue will be catastrophic for the conservancy, inevitably resulting in less investment in security and other conservation measures."[84]

In short, the revenue from U.S. hunters is critical because lion in conservancies eat hundreds of thousands of dollars in huntable prey per year. And if the lions do not generate revenue there will be no incentive to maintain their large populations.[85]

On a smaller scale, high-quality operators like Cliff Walker and Pro Safaris, which together police the Rifa Safari Area, could not exist but for U.S. clients. Mr. Walker maintains high hunting and conservation ethics and targets U.S. clients because they share these values.[86] Almost all (86%) of his clients are U.S. citizens paying an average of $107,500 each in fees, which are ploughed back into Rifa SA, salaries, anti-poaching, and PWMA anti-poaching.

Similarly, lions are a major contributor to Pro Safaris' conservation/operating budget, and U.S. citizens are the main source of Pro Safaris' clients (75% of their lion were harvested by U.S. citizens).[87] The operator estimates that its conservation funding would fall by 36% if lion hunting declined because of an import ban. "Rifa Safari area has a small quota on all species. Lion therefore is a major contributor to the conservation of Elephant and the habitat to all species ... the Loss of the US Hunters will have a major negative impact on the survival of the viability of this area as a wildlife area."[88]

U.S. hunters are huge contributors to Zimbabwe's conservation hunting program: they are the force that keeps Zimbabwe's hunters in business and keeps most habitat, anti-poaching, and CAMPFIRE benefits in place. Their presence enhances the survival of the lion, and their absence will do the opposite.

Conclusion

On the whole, the U.S. market represented "70.4% of the total Zimbabwean lion sport-hunting industry" between 2005 and 2015,[89] and that may even be higher. This means at least $7 out of every $10 directed

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[82] *Fate of the African Lion Film*; *see also Zimbabwe Lion Conservation Report 2016*, p. 20 ("saturation of lions in wildlife areas on both state and private land is positive for their future conservation security ... it is also critical to incidentally conserved endangered species, such as both species of rhino on private wildlife conservancies in Zimbabwe ..., which benefit from the same resources and protection incentivized and provided by the revenue generated from hunting").
[83] *Zimbabwe Lion Conservation Report 2016*, p. 22.
[84] *SVC Report*, p. 4.
[85] *BVC Report*, p. 5-6.
[86] *CWS Report*.
[87] *Pro Safaris Report*, p. 4.
[88] *Id.*
[89] *Zimbabwe Lion Conservation Report 2016*, p. 23.

to habitat protection comes from U.S. citizens. $7 of every $10 directed to anti-poaching comes from U.S. citizens (and that amount is likely higher given the voluntarily donations often made by U.S. clients). And $7 of every $10 contributed to communities to reduce human-lion conflict comes from U.S. clients. The contributions of U.S. clients are enhancing the survival of the lion in Zimbabwe far more than anyone else.

The Final Rule identified three primary threats to lion: loss of habitat, loss of prey base, and human-lion conflict. As shown here, in the enclosed, and in the previously submitted documents, U.S. citizens are the greatest contributors to efforts that reduce or remediate these threats. Sport-hunting in Zimbabwe, and lion hunting specifically, provides a reason to preserve thousands of kilometers of habitat for lion and prey species. It is the primary funder of the anti-poaching units that maintain or increase the lion's prey base. Hunting revenues provide the main funding for Zimbabwe's CBNRM program and the main contributor of other benefits to Zimbabwe's rural communities.

Because it substantially reduces the threats and contributes to the growth of Zimbabwe's lion population, Zimbabwe's well-managed sport-hunting program enhances the lion's survival. Accordingly, the enclosed permit applications, and those previously submitted, should be approved and permits issued.

We believe this information and the information already in the FWS' possession satisfies the requirements of 50 C.F.R. § 17.40(r) for Zimbabwe. We ask that you consider all that information in evaluating these permit applications. We will also continue to submit information about the benefits generated by safari hunting as it becomes available.

Sincerely,



John J. Jackson, III
Regina Lennox

Enclosures:

- Application submitted on behalf of Phillip Glass to import a sport-hunted lion trophy to be hunted in Nyaminyami CAMPFIRE Area, Zimbabwe
- Application submitted on behalf of Timothy Haley to import a sport-hunted lion trophy to be hunted in Rifa Safari Area, Zimbabwe
- Application submitted on behalf of Justin Hedgecock to import a sport-hunted lion trophy to be hunted in Matetsi Safari Area, Zimbabwe
- Application submitted on behalf of Eric Rau to import a sport-hunted lion trophy to be hunted in NW Matabeleland, Zimbabwe
- Application submitted on behalf of Cooper Ribman to import a sport-hunted lion trophy to be hunted in Bubye Valley Conservancy, Zimbabwe
- Index of Documents Enclosed and Submitted

ENHANCEMENT INFORMATION ON THE AFRICAN LION

ZIMBABWE

No.	Title	Sent to FWS
1	Zimbabwe Parks & Wildlife Management Authority, Conservation Status of the African Lion (Panthera leo) in Zimbabwe (January 2015)	1/11/16
2	Zimbabwe Parks & Wildlife Management Authority, Age Restrictions on Lion Trophies and the Adaptive Management of Lion Quotas in Zimbabwe (2014)	1/11/16
3	Dr. Byron du Preez [Oxford], Bubye Valley Conservancy Lion Research Report (Jan. 12, 2016)	1/12/16
4	Blondie Leathem (Mazunga Safaris), Email re: Community Assistance Program in BVC, attaching spreadsheet (Jan. 20, 2016)	1/26/16
5	L. Muller, Chair, Zimbabwe Professional Hunters & Guides Association, Letter re: Lion Import Suspension (Jan. 20, 2016)	1/26/16
6	Dr. Rosemary Groom, Lion Hunting in Zimbabwe's Save Valley Conservancy (Jan. 27, 2013)	1/26/16
7	Dr. Byron du Preez et al., Zimbabwe Lion Conservation Research Report 2016: Sport Hunting and Lion (Panthera leo) Conservation in Zimbabwe (Jan. 31, 2016)	2/1/16
8	Conservation Imperative, The Fate of the African Lion: Bubye Valley Conservancy (Aug. 4, 2015)	2/24/16
9	Martin Pieters Safaris, "Lion Data" (2016)	4/20/16
10	Michael Schwartz, Culling to Conserve: A Hard Truth for Lion Conservation, National Geographic Cat Watch (Feb. 25, 2016)	4/20/16
11	Zimbabwe Parks & Wildlife Management Authority, Conservation Strategy and Action Plan for the Lion (*Panthera leo*) in Zimbabwe	4/20/16
12	CAMPFIRE Association, Hunting in CAMPFIRE Areas (2014)	4/20/16
13	CAMPFIRE Association, Update to Hunting in CAMPFIRE Areas (2015)	4/20/16
14	Dr. C. Masterson (Ed.), Position Statement: The Role of Hunting in Biodiversity Conservation and Livelihood Resilience in Zimbabwe, Ethics and Coordination Committee for Ethical and Substantial Safari Hunting in Zimbabwe (Apr. 12, 2016)	4/20/16
15	L. Muller, Rifa Safari Area/Pro Safaris Africa, Report on Lion Panthera Leo (Jan. 25, 2016)	4/20/16
16	Cliff Walker Safaris, Enhancement Report (2016)	4/20/16
17	IUCN, Briefing Paper: Informing Decisions on Trophy Hunting (2016)	4/20/16
18	DAPU, Year-End 2015 Report (Oct./Nov. 2015)	4/20/16
19	DAPU, End-of-Year Report (Oct.-Dec. 2015)	4/20/16
20	Martin Pieters Safaris, Sustainable Offtake Benefiting Communities, Blog (Nov. 18, 2015)	4/20/16
21	Martin Pieters Safaris, Anti-Poaching ... Fighting Back (African Conservancies Anti-Poaching 2015), Blog (Jan. 26, 2016)	4/20/16
22	Nengasha Safaris, Letter re: Enhancement (2016)	4/20/16

LION ZIMBABWE ESA TROPHY

Permit Number: MA94871B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

CHIEF, BRANCH OF PERMITS, DMA

Permittee:

ERIC (b) (6) **RAU**
(b) (6)
UNION, MO (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12.

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zimbabwe for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zimbabwe for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD MAY 27, 2016 LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
SCHMEITS	RONALD	(b) (6)	M

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	(b) (6)

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	(b) (6)	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
RATON	NEW MEXICO	(b) (6)		USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
RATON	NEW MEXICO	(b) (6)		USA

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes [X] If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: 09US218614/9 No [ ]

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy): 05-16-2016

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      LION

   b. Sex (if known).

      MALE

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:

      MOZAMBIQUE, PROVINCE OF TETE AND IN THE DISTRICT CHIFUNDE, HUNTING AREA CHIRIDZI CONCESSION.

   b. Date wildlife is to be hunted:

      07-04-2016 TO 07-22-2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

      LIFE SIZE MOUNT

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      "N/A"

   b. Date wildlife was hunted:

      "N/A"

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

"N/A"

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

"N/A"

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: GRAHAM HENRY CAWOOD
Business Name: NIASSALAND SAFARIS , NIASSALAND SAFARIS Lda.
Address: AVINADA 25 de JUNHO-BAIRRO FRANSISCO MANYANGA
Address:
City: CIDADE de TETE
State/Province: MOZAMBIQUE
Country, Postal Code:

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: "N/A" Date: _____

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [signature] Date: 05-16-2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

Application To USE DENVER

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

As PAGE 1

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email):

RONALD (b) (6) SCHMEITS

(b) (6)

12. **Disqualification Factor.** A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

2. a.
2. b.
4.

NIASSALAND SAFARIS
MOCAMBIQUE

Avinada 25 de Junho-Bairro Fransisco Manyanga, Cidade de Tete - Mocambique

NUIT: 40028674

Tel; 00258 826043817

NiassaLand Safaris Lda. Would like to confirm Safari hunt booked by Mr—Ronald (b) Schmeits Passport number (b) (6) . United States of America

Dates for Lion and Plains game Safari - 04 July to 22 July 2016. In the Province of Tete and in the District Chifunde. Hunting area Chiridzi Concession. Professional hunter Graham Cawood License N.O 02/16

Recommended Caliber 375 H&H Magnum

Please don't hesitate to contact NiassaLand Safaris need there be any other inquiry.

Cumprimentos

Graham Cawood

Owner and Professional hunter

00258 826043817

Tete- Mozambique *01/03/2016*

NIASSALAND SAFARIS
MOÇAMBIQUE

#2. a.

Mozambique – untrammeled Africa

Chiridzi Concession Tete - Mozambique

We are extremely pleased announce our hunting portfolio in Mozambique, a 800,000 acre hunting reserve, in the heart of big game country in the north western part of the country. Lying in the foothills of the Luangwa and Zambezi valleys, this area consists of Miombo forests interspersed with Mopani woodland and open grasslands which support a healthy family of big game species. These include the big boys – Lion, Elephant, Leopard and Buffalo as well as Roan, Sable, Kudu, Eland, Lichtenstein's Hartebeest, common Waterbuck, chobe Bushbuck, Impala, Reedbuck, common and red duiker, Bush pig, Warthog, Hippo, Crocodile and Hyena. Hunters must be willing to walk, terrain is tough and no easy hunting, this is proper hunting.

FORM 3-201A (1/97)

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

IMPORT PERMIT

1. Original Permit/Certificate No.
09US218614/9

2. Valid until
10/12/2010

3. Permittee (name and address, country)
RONALD (b) SCHMEITS
(b) (6) (6)
RATON, NM (b) (6)
U.S.A.

4. Consignee (name and address, country)
JOHAN CALITZ SAFARIS LDA
RUA NWAMITHIMBA #1008
MATOLA
MOZAMBIQUE

D. 2.
Used in 2010

5. Special Conditions
MUST COMPLY WITH ATTACHED GENERAL PERMIT CONDITIONS.
SPECIMEN MAT NOT BE SOLD OR TRANSFERRED FOR ANY FINANCIAL REMUNERATION
U.S. THREATENED SPECIES (50 CFR 17.40(i)).
MUST IMPORT THROUGH A DESIGNATED PORT LISTED IN CONDITION 10. PERMITTEE MAY ONLY IMPORT TWO LEOPARD TROPHIES PER CALENDAR YEAR.
EACH LEOPARD SKIN MUST HAVE SELF-LOCKING TAG ATTACHED TO IT WHICH INDICATES THE STATE OF EXPORT, THE NUMBER OF THE SPECIMEN IN RELATION TO THE ANNUAL QUOTA, AND THE CALENDAR YEAR TO WHICH THE QUOTA APPLIES. THE EXPORT PERMIT (OR RE-EXPORT CERTIFICATE) MUST CONTAIN THE TAGGING INFORMATION AS OUTLINED ABOVE.
TROPHY MUST HAVE BEEN TAKEN DURING 2009 HUNTING SEASON.

5a. Purpose of Transaction
H

5b. Security No.
229007

6. U.S. Management Authority
DIVISION OF MANAGEMENT AUTHORITY
U.S. FISH AND WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR
WASHINGTON, D.C. 20240
UNITED STATES OF AMERICA

U.S. CITES Management Authority

-May not be used for commercial purposes. -For live animals, only valid if the transport conditions comply with the CITES Guidelines for Transport of Live Animals or, in the case of air transport, with IATA Live Animals Regulations.

10/13/2009
Issuing Date

United States Management Authority

AUTHORITY: Endangered Species Act of 1973 (16 USC 1531 et. seq.)

7/8. Common Name and Scientific name (genus and species) of Animal or Plant	9. Description of Part or Derivative, including identifying marks or numbers (age/sex if live)	10. Appendix No. and Source
A. Common Name LEOPARD Scientific Name PANTHERA PARDUS	9. IMPORT PERSONAL SPORT HUNTED TROPHY (shipment may contain bones, claws, hide, skull, teeth, or any taxidermied part. DOES NOT include worked, manufactured, or handicraft items such as curios, jewelry, or other utilitarian items.)	10. 1 W 11. Quantity (including units) 1 NO 12. Country of Origin MOZAMBIQUE
B. Common Name Scientific Name	9.	10. 11. Quantity (including units) 12. Country of Origin
C. Common Name Scientific Name	9.	10. 11. Quantity (including units) 12. Country of Origin
D. Common Name Scientific Name	9.	10. 11. Quantity (including units) 12. Country of Origin
E. Common Name Scientific Name	9.	10. 11. Quantity (including units) 12. Country of Origin

Specimen(s) will not be used for primarily commercial purposes. The recipient has suitable facilities to house and care for the specimen(s).

229007

D. 2.
Used in 2010

PRT-09US218614/9

SPECIAL PERMIT CONDITIONS

for MOZAMBIQUE LEOPARD IMPORT

In addition to all other permit conditions applicable to the importation of this hunting trophy, the permittee must provide an original written report in his or her own words to the FWS wildlife inspector at the port of entry at the time the specimen is imported.

Your report is an important component in the U.S. Fish and Wildlife Service's efforts in the conservation of leopards in Mozambique. The report assists the Service in assuring that leopard sport-hunting programs in Mozambique are being managed in a way to insure the on-going survival of leopards and to document that the requirements under the U.S. Endangered Species Act are being met.

The report should include the following:

- the name and location of the concession area in which the permittee hunted (inclusion of a map would be beneficial)
- a description of the abundance (or lack) of wildlife, both prey species, predators, and bird life, within the hunting concession
- a description of wildlife management and development activities that the concessionaire has carried out in the past year that the permittee believes enhances leopard conservation, such as counts of leopards seen or anti-poach efforts.
- a description of any other activities or events that impact leopard population, such as expansion of agricultural practices or influx of human populations.

NOTE TO INSPECTOR: The report should be transmitted directly to the Division of Management Authority, 4401 N. Fairfax Dr., Room 212, Arlington, VA 22203, along with a copy of the CITES import and export (or re-export) documents.

Security Number

229006

10/13/2009
DATE

U.S. CITES
Management Authority

Chief, Branch of Permits
Division of Management Authority

229006

RCVD MAY 27 2016

[redacted]

[redacted]

DATE 5-16-2016

PAY TO THE ORDER OF U.S. Fish and Wildlife Service $ 100.00

One Hundred and no/00 DOLLARS

Heat Reactive Ink

INTERNATIONAL BANK

MEMO Permit

[redacted]

LOOK FOR FE[redacted] FEATURES INCLUDING [redacted] SQUARE AND HEAT-REACTIVE INK. DETAILS ON BACK

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD MAY 27 2016 LB

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
BRANT	ALEXIS	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)		(b) (6)	N/A

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	(b) (6)	—	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)
N/A	N/A

2. Tax identification no.	3. Description of business, agency, Tribe, or institution
N/A	N/A

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
N/A	N/A	N/A	

5. Principal officer title	6. Primary contact name
N/A	N/A

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address
N/A	N/A	N/A	N/A

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
MILLBROOK	NY	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
N/A

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
N/A	N/A	N/A	N/A	N/A

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☒ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: [redacted] Leopard 1984 No ☐

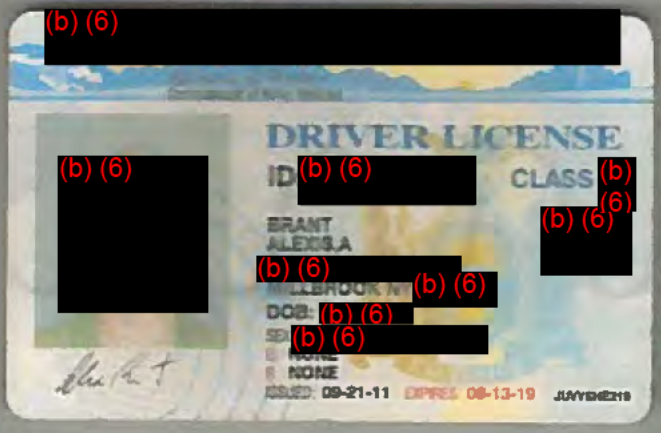
3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

[signature] 5/15/2016

Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page


We the People
Of the United States,
SIGNATURE OF BEARER / SIGNATURE DU TITULAIRE / FIRMA DEL TITULAR
PASSPORT
PASSEPORT
PASAPORTE
USA
UNITED STATES OF AMERICA
(b) (6)
USA
(b) (6)
BRANT
ALEXIS (b) (6)
UNITED STATES OF AMERICA
(b) (6)
(b) (6)
M
United States
Department of State
30 Jan 2014
29 Jan 2024
SEE PAGE 51
USA
(b) (6)


(b) (6)
DRIVER LICENSE
ID (b) (6)
CLASS (b) (6)
(b) (6)
BRANT
ALEXIS A
(b) (6)
(b) (6)
DOB: (b) (6)
(b) (6)
NONE
NONE
ISSUED: 09-21-11 EXPIRES: 08-13-19

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.

      Panthera leo melanochaita – Lion

   b. Sex (if known).

      Male

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild: Country: South Africa Venetia Nature Reserve Limpopo Province
      GPS: 22° 21' 12.2"S 29° 17' 26.3"E.
      Closest Town: Alldays or Mussina.

   b. Date wildlife is to be hunted:

      Sept 1 - 28 2016

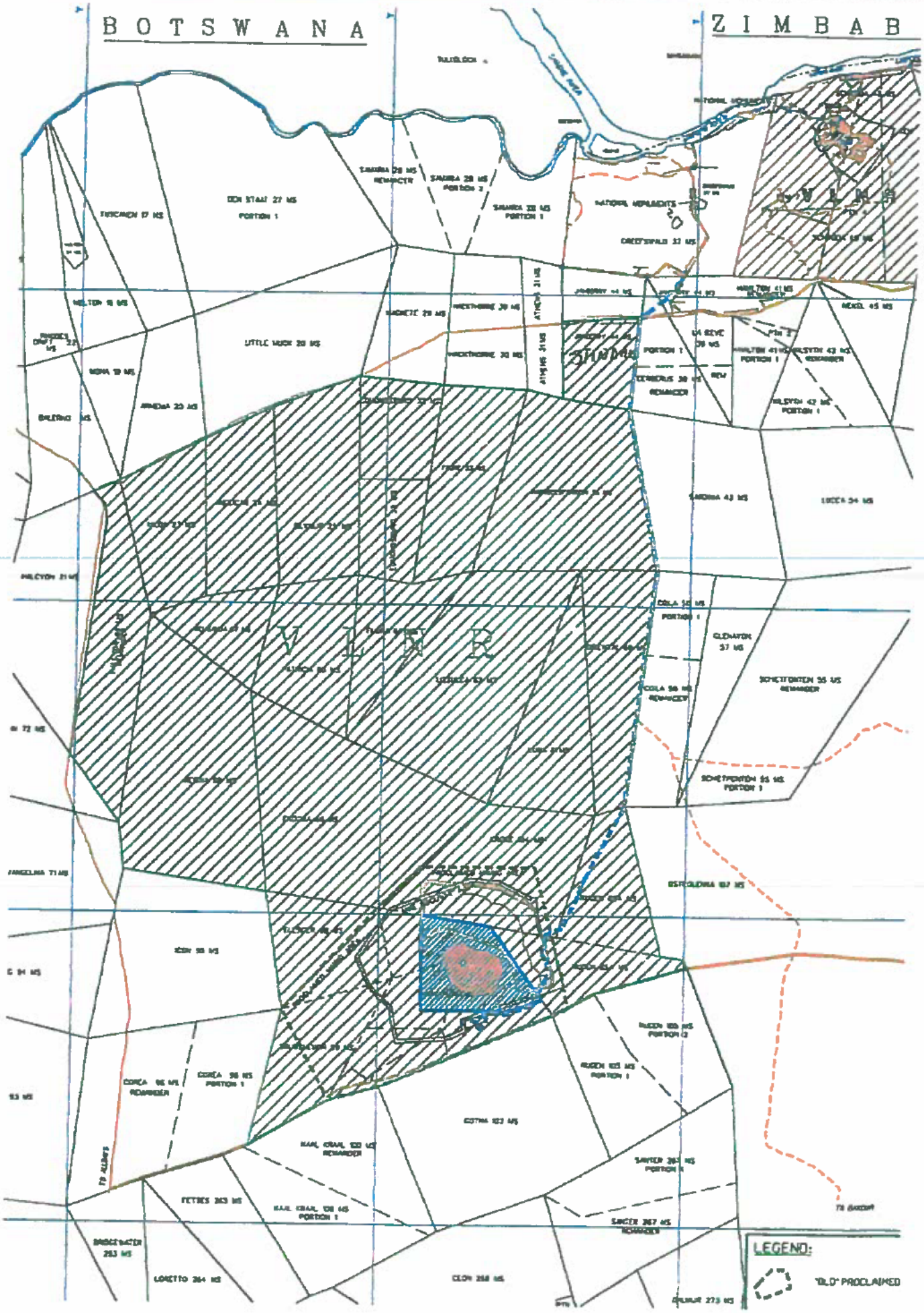
   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks). Skull, life-sized skin claws attached.

3. **IF THE ANIMAL IS DEAD,** please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

      N/A

   b. Date wildlife was hunted:

      N/A


BOTSWANA
ZIMBABWE
LEGEND:
"BLD" PROCLAIMED

5. Please be aware that the U.s. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

"The VLNR sustainably managed their lion population successfully over a period of 16 years. The business goal of the reserve is sustainable conservation at a break-even scenario (no profit).

Spending of trophy fees:

- Constant monitoring of the lion population via satellite telemetry collars fitted to preselected animals
- Facilitating lions from the outside to ensure genetic integrity and sustainability
- Practicing of a well-managed contraception program of preselected females as part of the management plan
- Regular introduction of prey species when lion impacts are noticeable.

Portion of fees for conservation:
100% of fees generated by trophy hunting are ploughed back into conservation (VLNR on a break-even scenario). A breakdown as follows:

- 75 % of fees go directly to lion sustainable lion conservation and management, as discussed above;
- 25% of fees go indirectly to conservation through fence erection and maintenance, regular fence and anti-poaching patrols, scout training activities, daily management activities, etc.
- Females become sexually mature at 2 years, but are only socially mature at 4 years. Females are normally only hunted at an age of 6+ years to ensure at least one litter.
- Females can breed up to 17 years of age, but the lifespan of a lioness in the wild (natural) normally only lasts 15-16 years.

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

N/A

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

N/A

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: Cecil Corringham
Business Name: Life form Taxidermy
Address: 7 Aluminum Road
Address: ——
City: White River
State/Province: Mpumalanga
Country, Postal Code: South Africa, 1240

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: N/A Date: N/A

7. **If you are the hunter applying to import your own trophy,** please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: [signature] Date: 5/15/2016

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

RCVD MAY 27 2016



LION SOUTH AFRICAN ESA TROPH

Permit Number: MA98397B-
Effective: 10/20/2016 Expires: 10/19/201

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

Mary Cogliano
FOR
CHIEF, BRANCH OF PERMITS, DMA

Permittee:
ALEXIS (b) BRANT
(b) (6)
MILL BROOK, NY (b) (6)
U.S.A.

Authority: Statutes and Regulations: 16 USC 1539(a); 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Conditions and Authorizations:

A. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law.

C. Valid for use by permittee named above.

D. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

E. Authorized to import the sport-hunted trophy of one African lion (*Panthera leo melanochaita*), taken in South Africa for the purpose of enhancement of the survival of the species.

F. Specimen may not be sold or transferred for any financial remuneration.

G. **Trophy must have been taken during the 2016 hunting season.**

H. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of South Africa for the 2016 season.

I. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

RCVD JUN 06 2016

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix
Cook	Andrew	(b) (6)	N/A

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)	(b) (6)	(b) (6)	N/A

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)	N/A	N/A	(b) (6)

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)		
2. Tax identification no.	3. Description of business, agency, Tribe, or institution		
4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix
5. Principal officer title	6. Primary contact name		
7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
Honeoye Falls	NY	(b) (6)	(b) (6)	USA

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
Same as above

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☐ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _____ No ☑

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Andrew Cook — Signature (**in blue ink**) of applicant/person responsible for permit (No photocopied or stamped signatures)

6/3/16 — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit**. If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   Panthera leo (African Lion)

   b. Sex (if known).
   To be male only

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild:
   Munyamadzi Luawata GMA, Muchinga Province, Mpika, ZAMBIA

   b. Date wildlife is to be hunted:
   Between June 22 and July 15, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).
   Full skin with claws; complete skull

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name:	Sylvia van Staden
Business Name:	van Staden Safaris (Z) Ltd.
Address:	244 Lukanga Road
Address:	Roma
City:	Lusaka
State/Province:	Central Province
Country, Postal Code:	Zambia

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Andrew Cook Date: 6/3/16

Be aware that there may be additional permitting or approval requirements by your local or state government, as well as required by other Federal agencies or foreign government to conduct your propose activity. While the Service will attempt to assist you, it is your responsibility to obtain such approval.

8. All international shipment(s) must be through a designated port. A list of designated ports (where an inspector is posted) is available from http://www.fws.gov/le/designated-ports.html. If you wish to use a port not listed, please contact the Office of Law Enforcement for a Designated Port Exemption Permit (form 3-200-2).

9. Name and address where you wish permit mailed, if different from page 1 (All permits will be mailed via the U.S. Postal Service, unless you identify an alternative means below):

10. If you wish the permit to be delivered by means other than USPS regular mail, provide an air bill, pre-paid envelope, or billing information. If you do not have a pre-paid envelope or air bill and wish to pay for a courier service with your credit card, please check the box below. Please DO NOT include credit card number or other information; you will be contacted for this information.

☐ If a permit is issued, please send it via a courier service to the address on page 1 or question 9. I understand that you will contact me for my credit card information once the application has been processed.

11. Who should we contact if we have questions about the application? (Include name, phone number, and email): Andrew Cook by email at (b) (6) or by phone at (b) (6) or Mark Audino, hunting consultant at Henley & Delamere Adventuring by email at maudino1@rochester.rr.com, or by phone at (585) 582-2926.

12. **Disqualification Factor**. A conviction, or entry of a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act disqualifies any such person from receiving or exercising the privileges of a permit, unless such disqualification has been expressly waived by the Service Director in response to a written petition. (50 CFR 13.21(c)) Have you or any of the owners of the business, if applying as a business, been convicted, or entered a plea of guilty or nolo contendere, forfeited collateral, or are currently under charges for any violations of the laws mentioned above?

☐ Yes ☑ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

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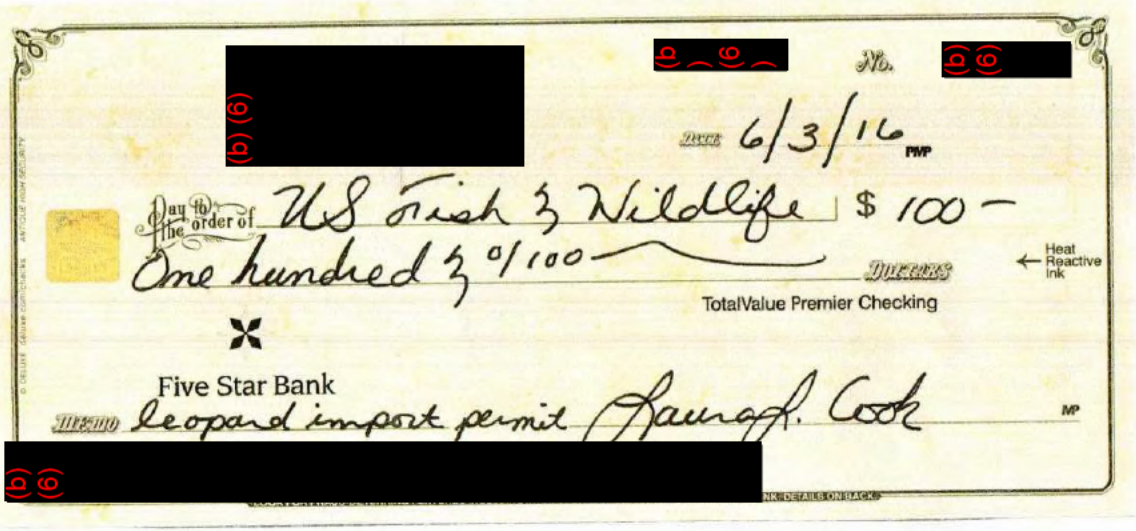

LION ZAMBIA ESA TROPHY

Permit Number: MA98730B-0
Effective: 10/19/2017 Expires: 10/18/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
DIVISION OF MANAGEMENT AUTHORITY
BRANCH OF PERMITS, MS: IA
5275 LEESBURG PIKE
FALLS CHURCH VA 22041-3803

Mary Cogliano
FOR
CHIEF, BRANCH OF PERMITS, DMA

Permittee:

ANDREW (b) (6) COOK
(b) (6)
HONEOYE FALLS, NY (b) (6)
U.S.A.

Authority: Statutes and Regulations: 50 CFR 17.40(r).

Location where authorized activity may be conducted:
IMPORT THROUGH ANY PORT LISTED IN 50 CFR 14.12

Reporting requirements: Not applicable

Authorizations and Conditions:

A. Authorized to import the sport-hunted trophy of one male African lion (*Panthera leo melanochaita*), taken in Zambia for the purpose of enhancement of the survival of the species.

B. Specimen may not be sold or transferred for any financial remuneration.

C. **Trophy must have been taken during the 2016 hunting season.**

D. Trophy must be accompanied by a valid trophy permit or hunting license issued by the government of Zambia for the 2016 season.

E. Trophy must be accompanied by a valid Convention on International Trade in Endangered Species (CITES) Appendix II export permit/re-export certificate, source code "W", issued by the Management Authority of the exporting/re-exporting country.

F. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

G. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law. **This permit can be photocopied.**

H. Valid for use by permittee named above.

I. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Conditions" (copy attached).

Department of the Interior
U.S. Fish and Wildlife Service

OMB No. 1018-0093
Expires 05/31/2017

Federal Fish and Wildlife Permit Application Form

RCVD JUN 16 2016

48

Return to: U.S. Fish and Wildlife Service
Division of Management Authority (DMA)
Branch of Permits, MS: IA
5275 Leesburg Pike
Falls Church, VA 22041-3803
1-800-358-2104 or 703-358-2104

Type of Activity:
IMPORT OF SPORT-HUNTED TROPHIES
(Appendix I of CITES and/or ESA)

Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details.
See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays.

A. Complete if applying as an individual

1.a. Last name	1.b. First name	1.c. Middle name/ initial	1.d. Suffix
BUNNEY	RAYMOND	(b) (6)	

2. Date of birth (mm/dd/yyyy)	3. Social Security No.	4. Occupation	5. Affiliation/ Doing business as (see instructions)
(b) (6)			

6.a. Telephone number	6.b. Alternate telephone number	6.c. Fax number	6.d. E-mail address
(b) (6)			

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution

1.a. Name of business, agency, Tribe, or institution	1.b. Doing business as (dba)

2. Tax identification no.	3. Description of business, agency, Tribe, or institution

4.a. Principal officer Last name	4.b. Principal officer First name	4.c. Principal officer Middle name/ initial	4.d. Suffix

5. Principal officer title	6. Primary contact name

7.a. Business telephone number	7.b. Alternate telephone number	7.c. Business fax number	7.d. Business e-mail address

C. All applicants complete address information

1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes)
(b) (6)

1.b. City	1.c. State	1.d. Zip code/Postal code:	1.e. County/Province	1.f. Country
MEAD	WA	(b) (6)		U.S.A.

2.a. Mailing Address (include if different than physical address; include name of contact person if applicable)
(b) (6)

2.b. City	2.c. State	2.d. Zip code/Postal code:	2.e. County/Province	2.f. Country
LIBERTY LAKE	WA	(b) (6)		U.S.A

D. All applicants MUST complete

1. Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE **in the amount of $100, nonrefundable processing fee**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. Do you currently have or have you ever had any Federal Fish and Wildlife permits?
Yes ☒ If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: Leopard Have no info No ☐

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in ***Title 50, Part 13 of the Code of Federal Regulations*** and the other ***applicable parts in subchapter B of Chapter I of Title 50***, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I u(b) (6) false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

Raymond Bunney — 05/09/2016

Signature (in blue ink) of applicant/ for permit (No photocopied or stamped signatures) — Date of signature (mm/dd/yyyy)

Please continue to next page

E. IMPORT OF SPORT-HUNTED TROPHIES *(Appendix I of CITES* and/or *ESA)*

Note 1: If you hold an import permit for trophy/trophies that you did not use, please **return the unused original permit.** If you are requesting reissuance of a permit because you have taken a trophy, but are unable to import it prior to the expiration of the permit, please use the renewal form (3-200-52; http://www.fws.gov/international/permits/by-form-number/index.html) and return your original permit with that form.

Note 2: Applications for species listed as endangered under the U.S. Endangered Species Act are published in the Federal Register for a 30-day public comment period. Please allow at least **90 days** for the application to be processed.

Note 3: USFWS has determined that a trophy consists of raw or tanned parts of a specimen taken by a hunter during sport hunt for personal use. It may include the bones, claws, hair, head, hide, hooves, horns, meat, skull, teeth, tusks, or any taxidermied part, including, but not limited to, a rug or taxidermied head, shoulder, or full mount. It does not include articles made from a trophy, such as worked, manufactured, or handicraft items for use as clothing, curios, ornamentation, jewelry, or other utilitarian items. If you wish to import such products, please contact the Division of Management Authority for the proper application form.

Note 4: Certain hunting trophies, including leopard, elephant, and rhinoceros hunting trophies, are subject to restrictions on their use after import into the United States. Please see 50 CFR 23.55 for more information or contact the Division of Management Authority.

Please provide the following information. Complete all questions on the application. Mark questions that are not applicable with "N/A". If needed, use a separate sheet of paper. On all attachments or separate sheets you are submitting; please indicate the application question number you are addressing. If applying for more than one trophy, be sure to answer questions 1-5 for each trophy addressed in this application. If importing trophies from more than one country, you must submit a separate application for each shipment in order to obtain separate import permits.

1. For each trophy to be imported, provide:
   a. Scientific name (genus, species, and, if applicable, subspecies) and common name.
   PANTHERA LEO MELANOCHAITA

   b. Sex (if known). MALE

2. **IF ANIMAL IS CURRENTLY LIVING IN THE WILD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife is to be taken from the wild: M'BARANGANDU HUNTING BLOCK IN SELOUS GAME RESERVE IN - TANZANIA EAST AFRICA

   b. Date wildlife is to be hunted: OCTOBER 21, 2016 THRU NOVEMBER 10, 2016

   c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks). LION - FULL SKIN + SKULL

3. **IF THE ANIMAL IS DEAD**, please enter the following:
   a. Country and PLACE (area, region, GIS coordinates, ranch AND nearest city) where wildlife was removed from the wild (provide a map if possible):

   b. Date wildlife was hunted:

c. Description of the trophy and parts you intend to import (e.g., skin, skull, shoulder mount, life size mount, claws, horn, tusks).

d. The current location of the trophy (address and country) [the U.S. import permit will identify this country as the country of export/re-export and must match with the export/re-export documents]:

4. Complete name and address of overseas person or business shipping the trophy to you. If you are applying to import a trophy directly from Namibia, you must provide the name and address of the professional hunter listed on your Namibian hunting permit [this name will also appear on your Namibian export permit and must match the U.S. import permit].

Name: MARK Sullivan
Business Name: NITRO EXPRESS SAFARIS
Address: PO Box 414
Address:
City: NORTH PORT
State/Province: ALABAMA
Country, Postal Code:
35476

5. Please be aware that the U.S. Fish and Wildlife Service must make a finding that your activities will enhance or benefit wild populations of the species involved. If you have any information that could support this finding (e.g., population status or trend data; how the funds from license/trophy fees will be spent; what portion of the hunting fee will support conservation), please submit such information on a separate page with your application.

CERTIFICATION STATEMENT (original signature must be provided for either 6 or 7 below)

6. **If you are a broker or taxidermist applying on behalf of a foreign national,** provide documentation to show you have a **Power of Attorney** to act on your client's behalf and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by my client and is being imported only for my client's personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that my client may only import two leopard trophies in one calendar year (if applicable). In addition, I have advised my client that raw ivory, once imported into the United States, cannot be re-exported.

Taxidermist/Broker's signature: _____ Date: _____

7. **If you are the hunter applying to import your own trophy**, please read and sign the following statement.

I acknowledge that the sport-hunted trophy/trophies to be imported has been/will be personally hunted by me and is being imported only for my personal use (i.e., **not for sale, transfer, donation, or exchange that is reasonably likely to result in economic use, gain, or benefit**). I understand that I may only import two leopard trophies in one calendar year (if applicable). In addition, I understand that raw ivory, once imported into the United States, cannot be re-exported.

Applicant's signature: Raymond (b) (6) Bussey Date: 5-9-2016

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☐ Yes ☒ No If you answered "Yes" provide: a) the individual's name, b) date of charge, c) charge(s), d) location of incident, e) court, and f) action taken for each violation.

RCVD JUN 16 2016

[redacted] (b) (6)

[redacted] (b) (6)

5-9-16
Date

Pay to the Order of U.S Fish And Wildlife Service $ 100.00

One Hundred & 00/100 Dollars

Washington Trust Bank
1-800-788-4578

For [redacted] (b) (6)

Boyd L Benny MP