

Arizona Jaguar and Ocelot Conservation Outreach Project

Intra-Agency Agreement Number:

G13AC00222

Final Report

Submitted to:

Marit Alanen

U.S. Fish and Wildlife Service

Arizona Ecological Services Office - Tucson

July 1, 2015

Co-Principal Investigators:

Melanie Culver^{1,2} and H. Randy Gimblett²

Prepared By:

Pinau Merlin³ and Lisa Haynes^{2,4}

U.S. Geological Survey, Arizona Cooperative Fish and Wildlife Research Unit¹

University of Arizona, School of Natural Resources and the Environment²

Independent Contractor³

University of Arizona's Wild Cat Center⁴

Cite as:

Merlin P, Haynes L, Gimblett HR, Culver M. 2015. Arizona Jaguar and Ocelot Conservation Outreach Project. Final Report to the U.S. Fish and Wildlife Service under Intra-Agency Agreement Number: G13AC00222. 6 pp.

Project Overview

On June 1, 2013, the U.S. Geological Survey signed an intra-agency agreement (G13AC00222) with the U.S. Fish and Wildlife Service (USFWS) to develop and implement a citizen science program for jaguar monitoring, develop and conduct education and outreach on jaguar conservation, and write grants for jaguar conservation. This report summarizes the activities and results of the outreach portion of this agreement. The ability to increase community awareness regarding jaguars and ocelots can be facilitated through a learned appreciation for these felids. Conducting a program of outreach for the general public has the ability to convey knowledge, facilitate a degree of learning, and bring awareness about the species' biology and issues of importance surrounding jaguar and ocelot conservation. This can lay the foundation of increasing the knowledge and awareness of the general public, which may benefit the conservation of ocelots and jaguars.

The major component of the outreach program consisted of an informative presentation on jaguars and ocelots, which was developed and presented to various audiences as a part of this agreement. The purpose of the presentation was to provide accurate information to the general public about jaguars and ocelots and their conservation importance, focusing primarily within the areas of southern Arizona and southwestern New Mexico in which the University of Arizona's (UA) Jaguar Survey and Monitoring Project was being conducted, but also disseminating this information to a wider audience through presentations at zoos, museums, and other organizations throughout the U.S.

Goal and Objectives

The goal of the outreach program was to increase community awareness of and participation in jaguar conservation.

The objectives of the outreach program were to use presentations to the public as a means of promoting awareness and support of jaguars and ocelots to a wide audience of the general public, voters, and potential monetary contributors to future jaguar and ocelot conservation and monitoring work.

Methods

Presentations

In order to accomplish this objective, Pinau Merlin, Independent Contractor with the UA's School of Natural Resources and Environment, interviewed most members of the UA's Jaguar Survey and Monitoring team, and spent time in the field with various members to gain as much familiarity with the project and background information as possible. She also interviewed people in other agencies (such as Tim Snow at the Arizona Game and Fish Department; Hilary Swarts at Laguna Atascosa National Wildlife Refuge; Harley Shaw, mountain lion biologist; James Sanderson, cat biologist; etc.) who are experts or are working in the field of spotted cat research.

Pinau designed, created (including obtaining photos and permissions), and presented a Microsoft PowerPoint program, *Secrets of the Spotted Cats*, about the natural history, ecology, and

conservation of jaguars and ocelots of the Southwest. Pinau created an additional Microsoft PowerPoint program at the request of USFWS: titled *Arizona's Four Cats*, a presentation designed specifically for U.S. Customs and Border Protection to provide information about jaguars, ocelots, mountain lions, and bobcats to Border Patrol agents. In addition, Pinau designed an evaluation form for public feedback after the programs, which she used to modify the presentation, as needed.

To locate audiences for the *Secrets of the Spotted Cats* presentation, Pinau emailed, called or queried a diversity of conservation organizations, zoos, docent groups and nature festivals in southern Arizona. After several presentations, enthusiastic word of mouth comments by attendees resulted in additional requests for programs by other groups.

Media

Pinau was available to assist with media support regarding Arizona jaguars or jaguars in the Southwest. In addition, Pinau wrote the text for both the jaguar and ocelot pages for the UA's Wild Cat Center website, which is in production.

Popular articles

Pinau planned to write two to three magazine articles (contingent on the magazines accepting the queries) as another means of promoting awareness and support of jaguars and ocelots to the general public.

Results

Presentations

Pinau presented 18 PowerPoint programs (10 presentations were originally proposed) in 2014 to over 1,000 people representing a wide variety of user groups at a wide variety of events throughout southern Arizona (Table 1). Four of the presentations were requested by word-of-mouth. The programs focused on the natural history, ecology, and conservation issues of jaguars and ocelots in the Southwest. Audiences were very enthusiastic (the topic drew very large crowds) and concerned for the conservation issues of these spotted cats. Over 120 people either expressed interest in volunteering or asked to be included on a list for future events and updates. The feedback surveys indicated that most people were unfamiliar with the spotted cats before the program, but that they had learned a great deal from the presentation. A total of 670 evaluation forms were distributed to audience members, of which 323 were returned. Evaluations were overwhelmingly positive, although there were a small number of complaints about A/V system failures and the lack of a microphone at certain venues (Table 2).

Questions most often centered around border infrastructure issues, why the USFWS did not bring more jaguars/ocelots from Mexico to supplement the U.S. population, and how the public could help. The last few slides elucidated what the USFWS was doing for cat conservation and what private people could do, such as donating to cat conservation groups, creating conservation easements of their land, and maintaining open spaces and natural habitat. Many respondents wanted to volunteer in some capacity.

Although presentations of programs to large museums and conservation groups, such as the American Museum of Natural History, Smithsonian, National Wildlife Federation, Field Museum, and San Diego Museum of Natural History, were planned, these presentations were not pursued because the jaguar and ocelot website, which would have provided supplemental information, was unavailable. We anticipated that the website would be up and functioning for the museums to refer to for project legitimacy, as well as additional formal information about the scope of the project, research sponsors, and researchers, but this was not the case. Therefore, without the website to substantiate the project, these outreach avenues were not pursued. Additionally, we contacted the U.S. Customs and Border Protection to make the presentation of *Arizona's Four Cats* to their agents, and after several attempts with no response from them, we did not pursue this further.

It was also planned that Pinau would disseminate a poster about jaguars and ocelots at the public presentations and to natural history organizations. This poster, which focuses on all four cats in Arizona, is being created under the education portion of this intra-agency agreement and is still in production; therefore, it was not available for distribution.

Media

Pinau and Lisa Haynes took filmmaker Ellen Hannibal out to a “dummy” camera site for a nature documentary. Most of the day was spent leading the filmmakers out to a natural canyon setting, discussing the techniques involved with remote wildlife camera studies, and demonstrating how camera sites were chosen and how the cameras were set up and tested.

Pinau also wrote the text for both the jaguar and ocelot pages for the UA's Wild Cat Center website, which is envisioned as a site that will disseminate information about the natural history, ecology and conservation needs of both of these spotted cats.

All direct media requests regarding the UA's Jaguar Survey and Monitoring Project were directed to Melanie Culver (principal investigator) or Daniel Stolte (UA science writer).

Popular articles

Pinau wrote one blog entry about jaguars for Arizona Highways magazine, which was posted on June 9, 2014, at <https://arizonahighways.wordpress.com/2014/06/09/guest-blog-jaguars-and-ocelots-in-arizona/>. Other magazine articles that were proposed (two to three, contingent on the magazines accepting the queries) were not pursued for the same reason as described above under **Presentations** (the lack of a functioning website).

Discussion

The goal of the outreach program was to increase community awareness of, and participation in, jaguar conservation. The objectives of the outreach program were to use presentations to the public as a means of promoting awareness and support of jaguars and ocelots to a wide audience of the general public, voters, and potential monetary contributors to future jaguar and ocelot conservation and monitoring work. Conducting a program of outreach for the general public has the ability to convey knowledge, facilitate a degree of learning, and bring awareness about the species' biology and issues of importance surrounding jaguar and ocelot conservation.

These presentations effectively raised the level of public awareness about jaguars and ocelots in Arizona and raised concern for the conservation of these cats. Over 1,000 people attended the presentations and provided overwhelmingly positive feedback, including indicating an increased knowledge of issues surrounding jaguars and ocelots following each event. Based on this feedback, it is likely that these people shared what they had learned with friends and family, thus reaching even more people. Additionally, four of the presentations were requested by word-of-mouth, meaning word of the presentation was spread by attendees throughout the southern Arizona community. Over 120 people either expressed interest in volunteering or asked to be included on a list for future events and updates. Many of the questions asked after the programs (question and answer periods after the talks often exceeded a half hour, again indicating the level of public interest about these cats) often related to how individuals could help jaguars and ocelots. Websites provided in the final slides of the program provided ideas for public involvement and sources of further information.

Table 1. Schedule of Jaguar PowerPoint Programs presented in 2014.

Schedule of Jaguar Power Point Presentations 2014				Pinau Merlin
Date	Venue	Location	Time	Number of attendees
4-Jan	Green Valley Audubon	Green Valley, AZ	10:00 a.m.	127
18-Jan	Wings Over Willcox	Willcox, AZ	9:00 a.m.	20
13-Feb	Saguaro National Park	Tucson, AZ	2:00 p.m.	36
25-Feb	Cabeza Prieta Natural History Assoc	Ajo, AZ	7:00 p.m.	97
8-Mar	Tubac Presidio Nat Historic Site	Tubac, Az	2:00 p.m.	38
13-Mar	Reid Park Zoo	Tucson, AZ	12:00pm	30
29-Mar	Tohono Chul Park	Tucson, AZ	2:00 p.m.	44
12-Apr	Santa Rita Experimental Range	Green Valley, AZ	10:00 a.m.	70
7-May	Western National Parks Association	Tucson, AZ	12:00 p.m.	47
7-May	Western National Parks Association	Tucson, AZ	2:00 p.m.	31
15-May	Phoenix Zoo	Phoenix, AZ	5:30 p.m.	111
19-Jun	Sky Island Alliance	Tucson, AZ	7:00 p.m.	60
28-Jul	Desert Botanical Gardens	Phoenix, AZ	10:00 a.m.	75
31-Jul	Southwest Wings Birding Festival	Sierra Vista, Az	11:30 a.m.	39
15-Aug	Tucson Audubon Wildlife Festival	Tucson, AZ	10:00 a.m.	29
18-Sep	Sabino Canyon Naturalists	Tucson, AZ	1:00 p.m.	51
5-Nov	Academy Village	Tucson, AZ	3:30 p.m.	40
14-Dec	Agua Caliente Park	Tucson, AZ	2:00 p.m.	30
	Total			1,005

Table 2. Summary of survey responses received on program evaluations given to participants after each *Secrets of the Spotted Cats* presentation by Pinau Merlin. A total of 323 evaluation forms were returned from 670 that were distributed.

Survey Questions:	Responses in order of frequency:
Was the program well organized?	yes, extremely well organized, very well
Was the program informational?	yes, very much so, excellent
Was content clear and understandable?	yes, very easy to follow
Rate speaker's presentational style	excellent, 10+, relaxed, good pace, good, great, A+, engaging, wonderful, loves her subject, outstanding, too quiet, clear, charming and credible, articulate, friendly, fair
Rate speaker's level of expertise	excellent, quite high, 10, great, best, fabulous, outstanding, superior, good, expert, professional, 9, medium, 8
Rate content of program	excellent, exceptional, A+, very thorough, great, outstanding, 10/10, tops, amazing, important, very thorough
What did you enjoy most about the program?	photos, information, everything, speaker's enthusiasm, humor, narrative, cat sounds, breadth of info, insights, speaker's passion for cats, current research, speaker's love of cats, speaker
What if anything, did you not like?	nothing, n/a, loved it all, a/v issues, lack of microphones, sound too low, program too short
Overall how would you rate this program?	excellent, great, 5 stars, wow! very good, very informative, 10, important, 8, superb, good, near perfect, on scale 1-10 a 20
What did you learn?	too much to say, tracks, status of the cats, natural history, value of apex predators, so much!, diff between cats, IDing individuals
Additional comments	outstanding speaker, well done!, highly recommend program, couldn't have been better, thank you, more please, yeah cats!, more classes from this speaker

Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.