

International Bear News



Quarterly Newsletter of the
International Association for
Bear Research and Management (IBA)
and the IUCN/SSC Bear Specialist Group

Spring 2014 Vol. 23 no.1



Taher Ghadirian



Asiatic black bear atop a date palm tree, southern Iran.
Read about strategic conservation planning for Asiatic black bears in Iran on page 8.

IBA website: www.bearbiology.org

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Editorial Policy

International Bear News welcomes articles about biology, conservation, and management of the world's eight bear species. Submissions of about 750 words are preferred, and photos, drawings, and charts are appreciated. Submissions to regional correspondents by email are preferred; otherwise, mail or fax to the address above. IBA reserves the right to accept, reject, and edit submissions.



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The use of the IBA logo at the end of an article indicates articles submitted via the IBA regional correspondents and the IBN editorial staff.



The use of the BSG logo at the end of an article indicates articles submitted via the Bear Specialist Group.

IBA President

President's Column

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It Takes a Multitude

I'm pleased and honored to be writing my first President's column in International Bear News (IBN). Since stepping into the shoes vacated by outgoing president Frank van Manen in January, every day has brought me new realizations of how many tasks it takes to make sure that every year IBA produces 2 issues of a peer-reviewed journal, 3 issues of the most functional and informative organizational newsletter I am aware of, that we award over \$70,000 in grants to advance science, management, conservation, and on-the-ground collaboration, and that in 2 of every 3 years, members have the opportunity to meet face to face with colleagues around the world. Frank and the previous Council deserve our thanks for maintaining a high standard in all of our activities and steering the ship in some new directions. It takes a multitude of people to make things happen. At IBA all of them, with the exception of the managing and technical editors of *Ursus*, are volunteers. The list of IBA members that currently serve on committees and Council numbers over 70. That number doesn't touch the dozens of people that help organize conferences or review manuscripts, maintaining the quality of *Ursus* and serving as valuable professional coaches to the authors they work with.



So, my first message to IBA members is that volunteering to take on a task for IBA is a guaranteed opportunity to get to know other IBA members and become an integral and important part of our organization. New members, especially, can sometimes feel "on the outside" at their first conferences. There is no quicker way to change that than to get involved in doing some task for IBA. Over the next few months, we will be finishing some projects and starting new ones. Watch future IBNs for mention of specific jobs that need doing. If you want to help but haven't got a particular job in mind, just get in touch with me or anyone else on Council. We will find a job that needs you. It is easy to identify the tasks that need doing, but the successful completion of each one depends entirely on who steps forward to take it on.

IBA Thessaloniki!

Speaking of volunteers, by all accounts, plans for the next IBA Conference, to be held in Thessaloniki, Greece on Oct 5-11, 2014, are coming together well. The call for Abstracts is out, the program committee is fleshing out the conference schedule and the Student Forum plans for student events and networking are progressing well. Plan early for your registration and lodging, as Thessaloniki is a popular tourist destination. If you want to organize a workshop or discussion or have a particular need for meeting space, now is the time to discuss them with conference organizers Alexandros Karamanlidis (akaramandalis@gmail.com) and Vicky Papadimitriou (Vicky.p@symvoli.gr). For more information you can visit the conference website at www.iba-greece-2014.com.

NEW: "Manager's Corner" in IBN

One of the tasks that IBA took on a couple of years ago was to explore ways to be of more direct benefit to the large number of agency bear managers in North America and elsewhere that deal with managing populations, habitats, and bear-human interactions every day, implementing the recommendations of scientists on the ground. A new Management Committee was appointed in 2012, chaired by Rich Beausoleil. One of the committee's recommendations – a new section in IBN called the "Managers Corner" – appears for the first time in this issue. The section will become a regular feature of IBN, geared to providing tools for managers and updates on management issues, techniques, and practical ways to apply research findings to management. Check it out on page 24.

What Works

Perhaps it is a common symptom of advancing age or perhaps it is my particular reaction to the increasing compression I see in the years I have yet to live, but whichever, I find that I have less and less patience for discussions of issues if there is no

commitment evident to finding solutions. Thus I think that if asked, I would say that what I want to focus on during my term as IBA president is what works – what works for IBA members and what works in conservation, research, and management.

IBA's conferences, newsletter, journal, and grants programs have worked for our members for many years in fundamental and satisfying ways. But to keep them working has required ongoing re-evaluation and adjustment. In the last 30 years, the nature of scientific publishing and the requirements for career advancement have changed. Modes of communication with colleagues and the potential for collaboration are vastly transformed. IBA Council under Frank's leadership increased e-access to IBA products, improved our networking, and many other things. We will continue to be challenged, however, to define the most useful niche for *Ursus*, to expand the capacity and utility of our website, to explore ways to tweak the structure of conferences to make even better use of these opportunities to meet face-to-face, to increase our scientific input on bears at the regional, national, and international levels, and to foster development of on-the-ground solutions to day-to-day management and conservation problems.

This is why I was pleased to see how effective the new layout of the last IBN was. This issue's addition of the Manager's Corner is another effort to increase the benefit of IBA to members. Focus on solutions is why I proposed a session for the Thessaloniki conference entitled "What works: Innovative solutions in bear management, conservation, and biology" which will focus attention on successes with broad applicability. It's why I would like to locate some new sources of funding for the Bear Conservation Fund specifically earmarked for grants that implement and measure the efficacy of new approaches to bear management and conservation. As members of IBA, we all have information and insights to offer. Please join me in this endeavor.



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Bear Specialist Group "Evolves"

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In 1859 Charles Darwin published his first edition of "On the Origin of Species by Means of Natural Selection." That edition quickly sold out, and Darwin subsequently published five more editions, each with revisions that were based on feedback from readers, some new discoveries, and his further thinking about the concepts that he posed.

Most interestingly (for bear biologists), a single comment about an American black bear (a species that Darwin never encountered in the wild) that appeared in the first edition prompted much ridicule and was changed in later editions:

In North America the black bear was seen by Hearne swimming for hours with widely open mouth, thus catching, like a whale, insects in the water. Even in so extreme a case as this, if the supply of insects were constant, and if better adapted competitors did not already exist in the country, I can see no difficulty in a race of bears being rendered, by natural selection, more and more aquatic in their structure and habits, with larger and larger mouths, till a creature was produced as monstrous as a whale. [[https://en.wikisource.org/wiki/On_the_Origin_of_Species_\(1859\)/Chapter_VI](https://en.wikisource.org/wiki/On_the_Origin_of_Species_(1859)/Chapter_VI)]

As an aside, Samuel Hearne, who described the black bears swimming and feasting on a multitude of floating insects, was the first European explorer, fur-trader and naturalist to travel extensively in north-central Canada (present day Nunavut and Northwest Territories). His observations of the natural history of black bears during the early 1770s (published posthumously in 1795) preceded the first scientific description of this species by Pallas in 1780. Hearne is also credited for first referring to brown bears as "grizzled".

We begin this column with this curious story because it makes an interesting (and memorable) point: everything evolves, even our thinking about how things evolve. We now know that whales did not evolve from bears, and also that Hearne's description of the feeding bears was quite unusual. More information and more minds have provided greater clarity about how nature works.

Conserving nature may be even more complex than trying to understand it. The science of bear biology has advanced tremendously, and each year a number of exciting new discoveries are made. But, as the Bear Specialist Group sadly came to recognize while synthesizing information for the upcoming 2015 IUCN Redlisting (see IBN Fall 2013, pp. 6-8), we are still grappling with the fundamental issues of how to conserve bears and how to know whether we are successfully doing so.

The redlisting process was a bit of a wakeup call for us. It has become apparent that we know less than we should about the status of bears around the world, about the actual drivers of population trends, and about what it takes to reverse population declines. It has also become apparent that, in an all-volunteer organization like the BSG, not everyone can devote as much time as needed to really tackle these complex issues on a global scale. Through consultations with our most active members, we decided to institute a "new edition" of the BSG.

The basic organization of the BSG has remained unchanged since the "Expert Team" (ET) structure was devised in 2003. BSG membership turns over at 4-year intervals, although most individual memberships are renewed. Presently we have 12 ETs, each led by a chair or co-chairs. Together these ET chairs composed what we called the Coordinating Committee (CC), a loose guiding body of the BSG.

Recently we decided to institute a slightly different arrangement in order to increase our effectiveness as a volunteer conservation body. This approach, which we are trying on an experimental basis (we'll see whether it survives natural selection) is to retain the ETs, but dissolve the CC and incorporate a smaller BSG "Steering Committee". We chose the name Steering Committee to describe this group of BSG leaders because the IUCN Species Survival Commission is also guided by a Steering Committee, and above that, the SSC Chair. Hence, the organization of the BSG will be analogous to that of the SSC. The SSC is comprised of Specialist Groups, akin to our ETs. Like the SSC Steering Committee, the BSG Steering Committee will contain some ET chairs as well as some BSG members who are not currently ET chairs.

The main roles of the BSG Steering Committee will be to:

1. Assist or take on specific BSG organizational responsibilities or projects.
2. Directly assist ETs in their activities.
3. Assist BSG co-chairs in decision-making.

Initial pressing tasks of the Steering Committee will be to assist in finalizing the new red-listing accounts and framing the topic for BSG presentations at the next IBA/BSG conference in Greece. Another near-future task is to revise our website.

BSG chairs selected Steering Committee members. We sought a diversity of expertise: geographically, by species, and by interests. We chose people that we thought could bolster the effectiveness of the BSG and its impact on bear conservation, through their proven commitment, leadership, and good ideas. We also purposefully included some members who are currently in leadership roles in the IBA to foster continued interchange between these organizations. We limited the total membership to 10.

Present Steering Committee members are as follows (alphabetically):

1. Diana Crider
2. Gabriella Fredriksson
3. Isaac Goldstein
4. Djuro Huber
5. Bruce McLellan
6. Michael Proctor
7. Lorraine Scotson
8. Ron Swaisgood
9. Jon Swenson
10. Dajun Wang

More members may be added if the need arises and as jobs become better defined.

Postscript: Darwin was criticized for his "bear-to-whale tale" not because it couldn't happen, but because, without intermediate forms as evidence, it represented too large of an evolutionary leap. Evolution, of course, creeps along very slowly and without any particular goal or direction. Conversely, effective conservation requires well-defined goals and clear direction, and we need to be able to make bear-to-whale leaps, when necessary, to aid in the "struggle for existence".



Cephas · Wikimedia Commons

Darwin was criticized for commenting that swimming black bears scooping up masses of floating insects (mainly dead mayflies) in northern Canada might have evolved into whales.



Research and Conservation Grants News

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The new deadline is great for the Research & Conservation grants information in that there is time for proposals to be received for the current review to be summarized and shared with the committee and other reviewers. Also, we often complete the distribution of grants just after the old spring deadline. Under the new calendar the grant information will be submitted to the editors well before the deadline for the summer issue.

In December I received roughly two-thirds of the number of proposals that we have received each of the past few years. The total in this review is 19; the distribution across project species and geography is summarized in the table. The total financial request is \$124,141.

Research & Conservation Grant Proposals 2013 - 2014		Number of proposals received
Species		
	American black bear	6
	Andean bear	1
	Asiatic black bear	2
	Brown bear	4
	Giant panda	0
	Polar bear	2
	Sloth bear	2
	Sun bear	0
	Multi-spp: Brown & American black	1
	Multi-spp: Asiatic Black & Sun	1
GeoRegion		
	North America	12
	South America	1
	Eastern Asia	1
	Southern Asia	4
	South-East Asia	1

More than usual: American black bear, North America. Fewer than usual: Asian and South American bears and locations. A quick review has suggested that there is a higher proportion of strong proposals than is often true.



Strategic Conservation Planning for Asiatic Black Bears in Iran Based on IUCN Guidelines

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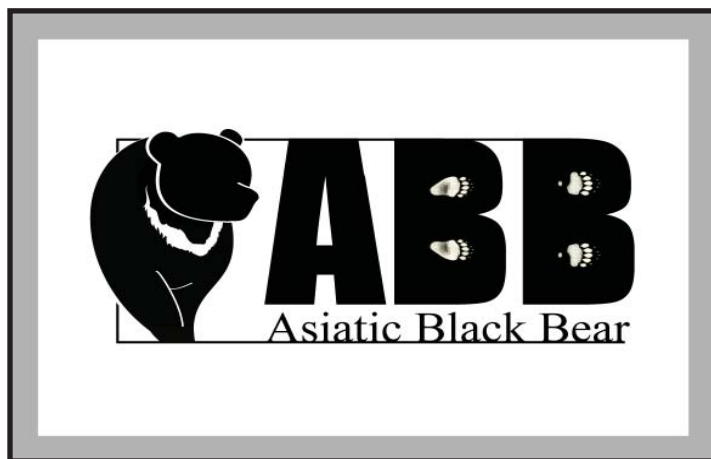
Hormozgan Provincial office of Department of Environment

Maysam Ghasemi

Wildlife expert

Hormozgan Provincial office of Department of Environment

After four years of field work and widespread studies, the Asiatic Black Bear project in Hormozgan province in southern Iran has developed a strategic plan for conservation of the species, based on IUCN guidelines. Hormozgan province in southern Iran is the westernmost global distribution of the Asiatic Black Bear (ABB). The ABB is listed globally as "Vulnerable" on the IUCN Red List. The subspecies of ABB in Iran, called the Baluchistan black bear (*Ursus thibetanus gedrosianus*), occurs only in Iran and Pakistan, and has previously been classified as "Critically Endangered". Considered as an "Endangered species" by Iran Department of Environment, the ABB in Iran is one of the rarest mammal species in the country and in urgent need for conservation action. The Asiatic Black Bear project, which we describe in this report, aims to take effective steps toward ABB conservation.



Logo of the Asiatic Black Bear Project in southern Iran.

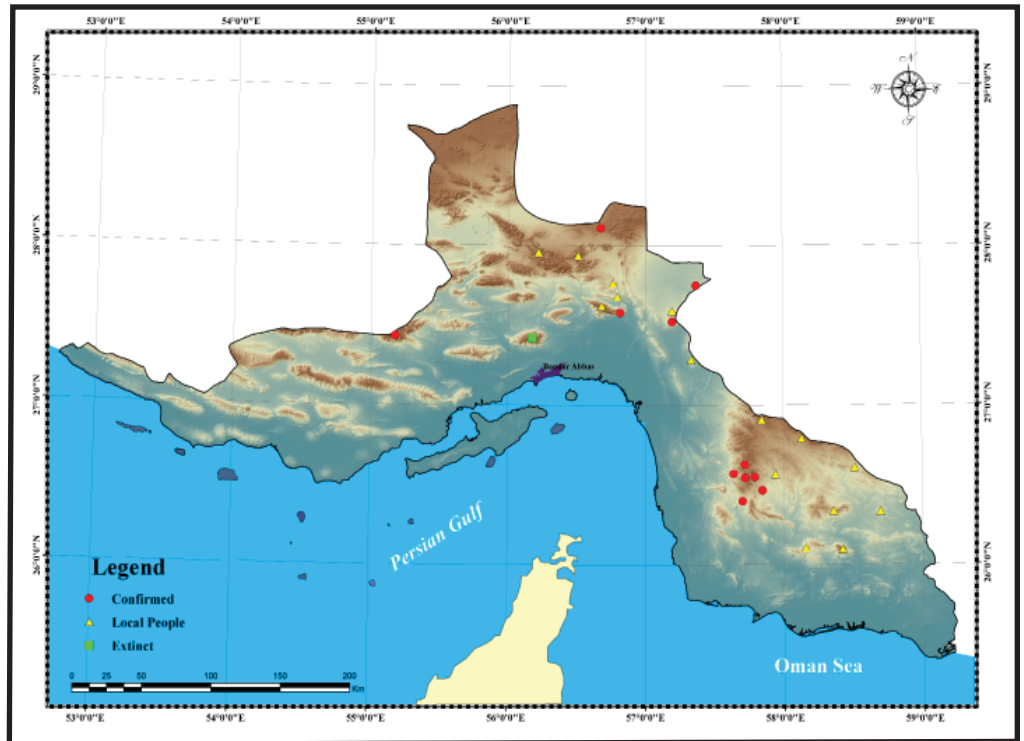
History of the Project

The ABB is the symbol of nature and environment in Hormozgan province, but except for a photograph taken in 1985, no real information existed about this species in Hormozgan until 2009, when our project began. During 2009-2012 (first phase) we conducted an extensive field survey across almost all of the bear's habitats to assess the species' status. We captured several videos and pictures of ABB by camera traps that revealed a wider geographic distribution than previously known, and expanded the westernmost global distribution of this species (see Ghadirian et al., 2012). Videos and photos also showed behavioral activities such as breeding and denning. Also, through interviews with

local communities we gathered information on human-bear conflict (HBC). Through this research, the project team was able to map the distribution of the species, identify high conflict areas, and better understand food habits and threats. The next steps included education and participation of local people, and preparation of a long term plan for the future.

Based on outcomes of the first phase of the project, two counties (Rudan and Bashagard) were identified as priority target areas with good bear populations but with high conflicts between humans and bears. Bashagard in particular has other notable characteristics which led the team to choose it as a pilot site for further actions, notably its vast unfragmented habitats full of caves and rich vegetation. Bashagard is also one of the most deprived areas for people in Iran. Poor living conditions of local people, combined with the importance of the area for ABB conservation, make for a challenging situation.

In the second phase, the project team started an extensive review of the social, cultural and economic characteristics of the local people in order to most effectively work with them towards improved bear conservation. For this we employed



Distributional information for Asiatic black bears in Hormozgan Province, southern Iran.



Hassan Pishvaei

Participatory research with Bashagard local people.



Alireza Farhadzadeh

Local children of Bashagard region are eager to learn about black bears.

Conservation

Participatory Rural Assessment (PRA) techniques. We also reviewed government actions and plans for the area that might adversely impact bears, such as road development.

We believe that local people have a crucial role in bear conservation; indeed, the destiny of ABB is truly in their hands. Thus, we employed the slogan - "Asiatic Black Bear conservation in Bashagard region through participation of local people". We used three approaches: field research, participatory activities, and education. Field research included population monitoring, food habits, home range determination, and HBC assessment. Participatory activities included understanding the social structures and livelihoods of the local people, and provision of additional incomes for them, such as handicrafts and developing microcredit foundations. These activities all used PRA techniques. Finally, educational activities were directed at raising awareness of the local people.

Now in the fourth year of the project, we have good knowledge of the ecological, social, and economic situation of local people, and an understanding of their interactions with bears, so we felt ready to develop a 10-year strategic plan for bear conservation. We modeled our planning process on the IUCN's recommended "Strategic Planning for Species Conservation" (IUCN/SSC 2008). It took us 9 months to finish the first version of the plan.

The Strategic Planning Process

The strategic planning for conservation of the ABB in Hormozgan Province includes: a vision, a goal, a problem tree, 6 objectives, 18 objective targets, 48 actions and a timetable with 5 years of direct actions and 5 years of observation and indirect actions.

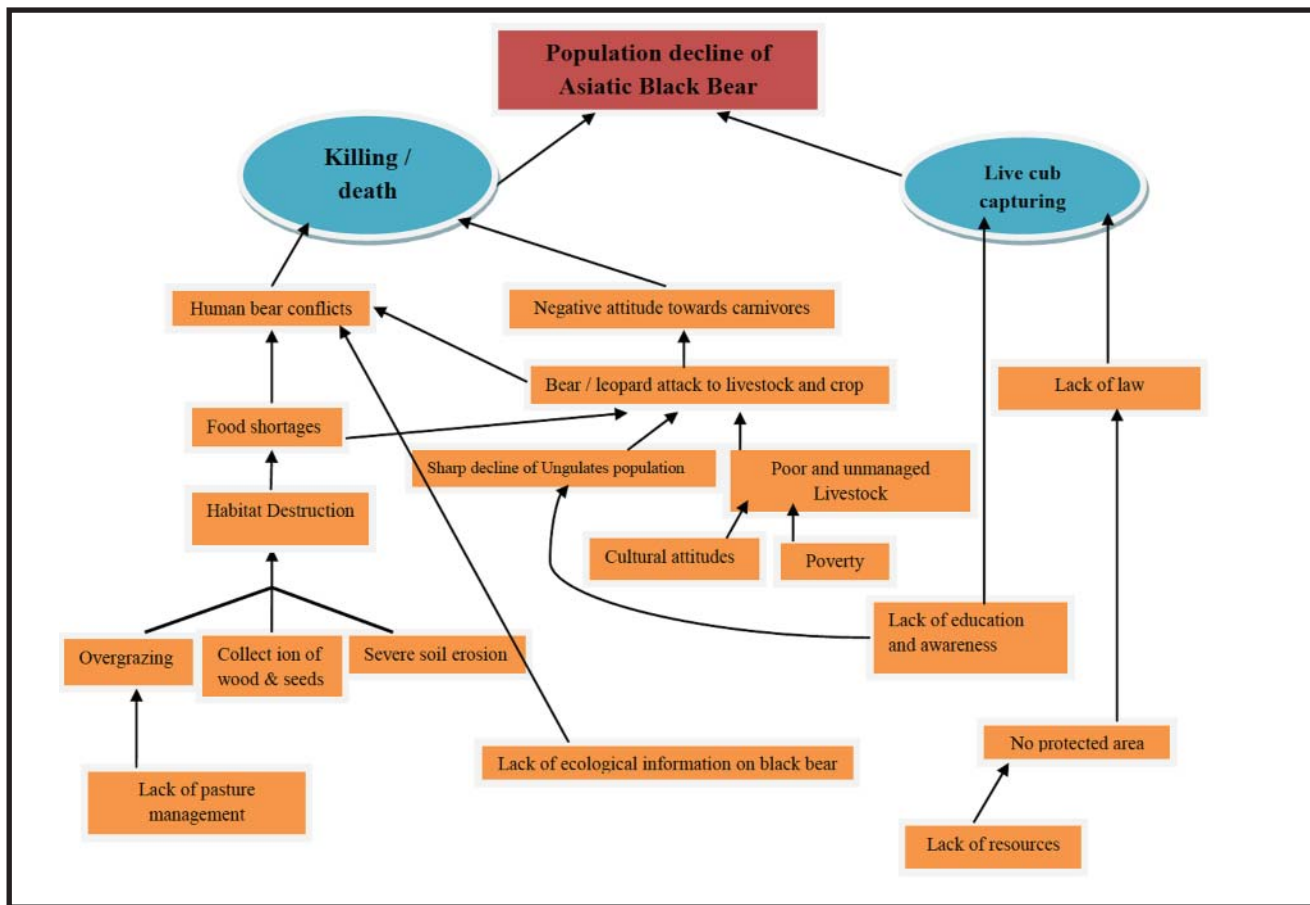
Vision: Conservation of the Asiatic Black bear and its habitats throughout its distribution range in Hormozgan province, emphasizing the role of ABB as an umbrella species in ecosystem conservation and sustainable use of ABB habitat that present and future indigenous communities depend on.

Goal: Conservation of the Asiatic Black Bear populations and habitats in Hormozgan province with research, education and active rural participatory approaches.

Problem tree: The problem tree identifies a host of factors that lead to killing of bears, or capturing of live cubs. These two factors are believed to be responsible for population declines.

Objectives: Objectives were extracted from the problem tree and directly relate to the vision and goal. IUCN guidelines note that objectives should be clear, realistic and understandable. Six objectives were identified, each addressing specific threats or shortcomings:

1. Lack of information on ABB ecology: Review and complete studies of Asiatic Black Bear ecology in Hormozgan province, in order to identify and manage the population and meta-population.
Objective targets: Conduct annual population monitoring in order to assess population trend, population size, seasonal diet, seed dispersal and germination of forest trees, radio telemetry, behavior and hibernation.
2. Habitat degradation : Conserve current ABB habitats against further damage (human and natural) and restore damaged habitats.
Objective targets: Reduction of livestock overgrazing in black bear habitat, regeneration of forest trees, prevention of soil erosion, sustainable use of natural resources.
3. Human-bear conflicts: Develop strategies to increase coexistence of bears and people.
Objective targets: Identify the causes of human-bears conflicts and identify management strategies to enhance coexistence and awareness, including community enforcement activities to reduce conflicts.
4. Negative attitudes towards carnivores: Reduce negative attitudes of local people towards carnivores and create mutual trust among local people and communities, organizations and associations that aim to protect natural resources.
Objective targets: Increase local peoples' awareness of the ecological roles of carnivores and role of carnivores in the economic prosperity of the region, development of participatory protected area in order to increase the population of herbivores and carnivores and reduce conflicts.
5. Lack of awareness and education: Increase public awareness and education about bears locally, regionally, and nationally.
Objective targets: Formulate educational programs to reach all segments of the community, using seminars, workshops and festivals in cities around the district and main provincial cities, and production of educational and awareness tools.
6. Lack of awareness and education: Increase participation and contribution of all stakeholders, particularly decision-makers at local, national, regional and national scale, for conservation of ABB and its habitats.
Objective targets: Increase informational awareness to all stakeholders about the plan, using media to enhance the protection of ABB.



The "Problem Tree" provides a visualization of the threats and their proximate and ultimate causes, informing the development of objectives. The two main threats for Asiatic Black Bears in Hormozgan Province, southern Iran, are shown as the direct killing of bears and the capture of live cubs.

Next Steps

The next steps of this project will be implementing the strategic plan according to the designated timetable. To do this will require a big effort by the project team.

Project Team, Partners and Colleagues

The organizations, NGOs and companies that are involved in Asiatic black bear project are: Hormozgan provincial office of Department of environment, IUCN/SSC Bear specialist group, Islamic Azad University, Dutch Zoo Conservation Fund, Amersfoort Zoo Wildlife Fund, Mohamed bin Zayed Species Conservation Fund, Hormozgan wildlife conservation fund, Plan for the Land Society, Expression of Creation Society, Hormozgan Cement Co., Iran land & Sea Co., The Rewilding Foundation (for wilderness with carnivores), Alertis (Fund for Bears and Nature Conservation) and Saeid Photography in Bandar Abbas.

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Status of The Brown Bear Population in The Central Alps - Trentino, Italy - at the end of 2013

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Male bear. Camera trap.

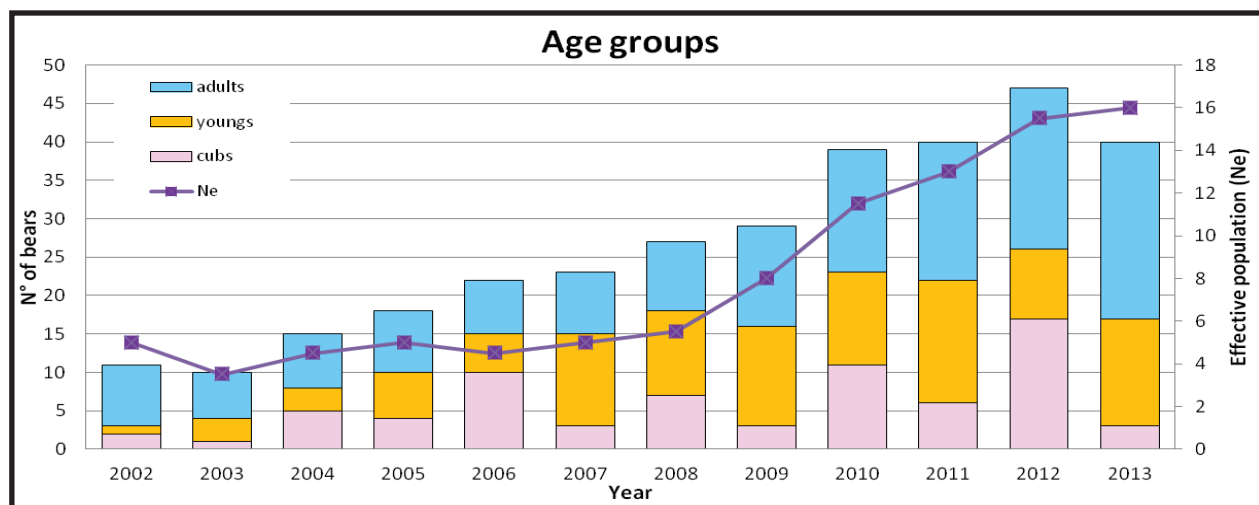
The monitoring season 2013 (12th year of successive genetic monitoring) on brown bears in Trentino-Italy pointed out that the growth of the population had a slowdown for the first time after the beginning of the project (13.8% average yearly growth rate in the period 2002-2013), with a minimum population presently estimated to be 40 (max 49) individuals with at least 2 litters recorded in 2013 (minimum population in 2012 was 43-48).

This is the main data reported on the "Bear Report 2013", now at its seventh edition, edited by the Forest and Wildlife Department of the Provincia Autonoma di Trento, with the cooperation of Adamello Brenta Natural Park and the Science Museum of Trento. The English version of report is available as a PDF on http://www.orso.provincia.tn.it/rapporto_orso_trentino/. The document provides an update on the status of the bear population, with data on monitoring, damage prevention and compensation, emergencies management, communication, personnel training, international networking and research carried out on this topic.

The minimum number of 40 bears consists of 18 males, 20 females and 2 undetermined. Twenty-three of these bears (58%) are adult, 14 are subadults (35%) and 3 are cubs (7%). The effective population ($N_e=16$), shows that only in the last three years there has been a strong increase in the number of bears capable of reproduction (graph below). The survival rates (referred to 12 years, 83 different bears and 355 bear-years) are the following: cubs 86.5%, subadults 88.9% and adults 92.1%.

Since 2002 there have been 36 litters confirmed: at least 77 cubs born (average 2.11 cubs/litter), of which 37 males, 30 females and 10 undetermined. Average number of litters per year has been 1.5 in 2002-2005, 3.0 in 2006-2009 and 4.5 in 2010-2012. Fertility rates: females aged <4 (n=15) 33%, females aged 4<8 (n=38) 53%, females >8 (n=9) 100%.

In 2013 for the second time the standardized monitoring with camera traps on rub trees has been carried out (on 20 selected trees). The main scope was to obtain quantitative and qualitative data on the use of rub trees by bears, in relation to the frequency and ways in which they are used by the different sexes and age groups and during different season. The monitoring lasted from April until November (3.631 camera days), checking cameras every three weeks. 4.962 videos (285 of bears) have been collected. Main data are available on the website mentioned above.

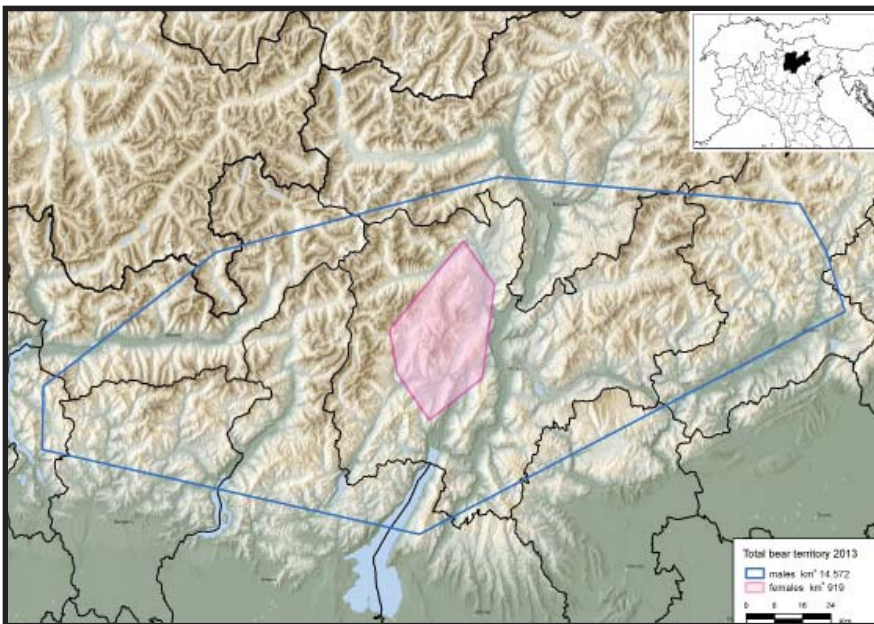




Bear habitat.



Sheep herd in mountains.



Male and female home range size in the Brenta and Paganaell-Gaza ranges, Italy.

On territory occupancy, the Brenta range, together with the Paganella-Gazza range are still the strongholds of the population. Females roamed in a relatively small area (919 km²) entirely encompassed into western Trentino (density is 3.9 bears/100km² in such area), while the territory occupied by males, considering dispersion movements of 2013, is 14.572 km² wide. Out of the 20 young males that dispersed since now (2005-2013) 6 died, 1 disappeared, 2 are missing just in the last year, 2 emigrated in the Dinaric population and 9 are still present (all of them came back into Trentino or bordering areas, so far).

149 damages have been recorded in 2013 in Trentino and 128,218.65 euro were compensated. In 2013 the emergency team was called into action 31 times, in most cases following reports of damage or the sighting of bears close to facilities

frequented by man or inhabited areas. 8 times the staff carried out aversive conditioning (with both rubber bullets and bear-dogs).

Finally in 2013 the bear called M11, recovered as an orphan cub in 2011, rehabilitated in the following 38 days and then released back in the wild, showed some behaviour which lead the authorities to the decision to remove him. Before the removal the bear suddenly disappeared in the spring. Another male, M2, 5 years old, has been shot by a poacher at the end of September. It is the first case of poaching on bears documented in Trentino in the last 40 years.



Male and female during the breeding season.



Illegal Trade

Sun Bear Snaring Highlights an Enforcement Bane in the Belum-Temengor Forest Complex, Malaysia

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The sun bear, found in forests throughout Malaysia, is targeted for use in traditional Chinese medicine and for consumption as wild meat; the latter has been increasingly reported in the country. TRAFFIC's research on the availability of bear bile products in the traditional Chinese medicine trade in 2010 ranked Malaysia as 4th in this trade (Foley et al. 2011). The sun bear is listed in Appendix I of CITES, which effectively means that all international commercial trade in sun bears or their parts and products is illegal.

In Peninsular Malaysia, the sun bear is accorded total protection under the Wildlife Conservation Act 2010, meaning that it cannot be hunted, kept or traded without a special permit issued by the Director-General of the Department of Wildlife and National Parks Peninsular Malaysia (DWNP). Anyone convicted of a crime relating to a sun bear (including those involving a female or juvenile animal, which carries a heavier penalty) is punishable by a fine of up to MYR 300,000 (USD 96,700) or prison term of up to 10 years, or both.

Despite this degree of protection, sun bears face tremendous pressures from illegal hunting and trade. This is evidenced by several recent cases of sun bears being snared in one of the largest forested landscapes in Peninsular Malaysia, the Belum-Temengor Forest Complex. This Complex, situated in northern Peninsular Malaysia, shares an international border with Thailand. It is one of Malaysia's most significant conservation areas, recognised worldwide for its richness in wildlife, including sun bears, elephants, gaur, serow, pangolin, hornbills and many more. This forest complex is also identified as one of the country's priority tiger conservation areas under the National Tiger Conservation Action Plan (Department of Wildlife and National Parks Peninsular Malaysia 2008). Approximately 40% (117,500 ha) of this 300,000 ha forest complex is legally gazetted as a State Park - a totally protected area. The remaining areas consist primarily of Forest Reserves, which serve both for protection (e.g. watershed and soil protection) and production (e.g. timber extraction). This includes the Gerik-Jeli Highway buffer area, a 124-km long stretch of road that bisects the Belum-Temengor Forest Complex that is used by poachers as the primary point of access into the forest.

Unfortunately, the vast biological richness has rendered this area a target for illegal hunters and traders. Snaring, a widespread threat to wildlife throughout tropical Asia, has left its mark here as well. In January 2014, a WWF-Malaysia researcher working in the area stumbled upon a sun bear carcass in a wire snare after checking a trail close to the Gerik-Jeli Highway, where several men on motorcycles had been seen emerging from the forest. The rotting sun bear carcass was found with



Snared sun bear that was eventually freed and released.



Sun bear carcass found with limb caught in a snare (left), its severed paw nearby (middle), and the active snare (right) in the Belum-Temengor Forest Complex, northern Malaysia. Photos: TRAFFIC/WWF-Malaysia.

a limb still caught in a snare and one of its paws severed nearby. Further exploration around the area revealed four more snares. This was reported to the authorities immediately for further investigation. Five days after this incident, the DWNP conducted a snare-sweeping operation in the area and found eight more snares of which six were set. All were removed by the DWNP.

Four weeks before, in December 2013, WWF researchers found a live sun bear with its forelimb caught in a snare just 250 m off the Gerik-Jeli Highway. Swift action by the DWNP led to the injured animal being treated and freed after a 2-hour long, 10-man operation. Bullet wounds were found on the bear, indicating that it had been targeted by poachers. Authorities are continuing their investigation into this case.

In a separate incident in the area in April 2013, a captive juvenile sun bear was confiscated by the DWNP. This animal was being kept illegally in a small wooden box by an indigenous community, claimed to be for tourism purposes. The rescued animal was sent to a wildlife rehabilitation centre, while the villagers in question were issued a warning. No charges were filed.

In August 2011, a WWF camera trap in the area captured the image of a sun bear without a forelimb. The animal is suspected of having lost the limb in a snare. WWF-Malaysia's researchers carrying out wildlife sign surveys in the area found 12 freshly-set snares over 3-week period.

In relation to these three sun bear snaring incidents, 27 snares have been found and removed over an 18-month period since August 2011. Snares are clearly a plague in the Belum-Temengor Forest Complex: in addition to sun bears, numerous other species have been found ensnared in this forest complex, including tigers, Asian golden cat, and various ungulates.

The Wildlife Conservation Act 2010 prohibits anyone from possessing or using snares. Anyone found in possession of a snare is presumed to be using it for the purposes of hunting and if convicted, is liable for a fine of up to MYR 100,000 (USD 32,260) or a prison term of up to 3 years, or both. Those caught placing or using a snare face a minimum fine of MYR 50,000 (USD 16,130) and a mandatory prison sentence of up to 2 years.

These discoveries highlight the need for more frequent patrols by law enforcement agencies to rid the forests of snares. Investigations need to be carried out so that legal action can be taken against those setting the snares. Support from the public is equally important to provide timely information about wildlife crime to enforcement agencies to help them eradicate illegal wildlife hunting, which is draining the rich wildlife from this area.

Alan Tham



A caged juvenile sun bear in the Belum-Temengor Forest Complex.

WWF-Malaysia



Three-legged sun bear caught on a WWF camera-trap, along with snares found in the area (inset).

Acknowledgements

TRAFFIC thanks WWF-Malaysia for supporting our work in the Belum-Temengor Forest Complex, and to the Department of Wildlife and National Parks for its continued efforts on wildlife law enforcement in the Forest Complex. We also express gratitude to Animals Asia Foundation and Hauser Bears Foundation for supporting TRAFFIC's work on bears in Southeast Asia. Chris R. Shepherd is thanked for useful comments on this update.

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Human Bear Conflicts

Results from awarded Experience and Exchange grants: After the trail of brown bear damages in the Ukrainian Carpathians

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"As you can see, in these places human and bears can coexist without problems" - this is what Dr. Maryna Shkvyrya, from the I.I. Schmalhausen Institute of Zoology in Kiev, told me last September 2013 during a field trip that we did together in the Ukrainian Carpathians thanks to the Experience & Exchange IBA grant program.

I have been working in a scientific project on brown bear damages to livestock and agriculture in Europe for the past two years. To perform this project I have built a European collaboration network with the aim of creating a European database on brown bear damages. One of the objectives of the project is to make a comparative study among the different European countries and regions in which the brown bear occurs. The data gathered come (in most cases) from the administrative files that are created when farmers claim damages, according to the compensation system procedures in each country. In the case of Ukraine there is no damage compensation system, therefore, the only existing data come from the field work done by our Ukrainian colleagues. Besides the huge effort they do, there seems to be a lack of precise information on bear damage occurrences in Ukraine. Therefore, I agreed with Maryna to travel to Uzhanski and Skolevski Beskydy National Nature Parks (NNP) in order to investigate the bear presence occurrence, and collect more data on bear damages through interviews to local people. During the interviews we asked the people to fill a questionnaire regarding different aspects of bear damages.

The Journey: Activities and Interesting Results

Maryna guided me through a two weeks trip in Uzhanski and Skole Beskydy National Nature Parks. Uzhanski NNP is located at the border with Slovakia and Poland, inside the Ukrainian province of Transcarpathia. Skole Beskydy NNP is about 50 km east from Uzhanski and is located in the Lviv province. The estimated bear population in Uzhanski is 10-12 and 26 in Skole. In Ukraine there is an estimated bear population of 400. The census are carried out by protected areas administrations where bears occur, and are not performed by biologists, therefore these numbers might be overestimated.

We visited different forestry districts within both National Parks to interview local people, install camera traps and look for bear sign. In Uzhanski NNP no bear sign was found besides anecdotal information from local people. In Skole Beskydy NNP we were "luckier". We found many abandoned apple trees that show sign of ursine activity (broken branches, bear hair and claw marks). However, unfortunately the camera that we installed was stolen. The last day in the field a ranger from Skole Beskydy NNP, Mykola Svystun, drove us to two different apiaries located in highly forested areas and barely protected that were damaged few years ago by bears. He also showed as a picture of a bear taken by his camera trap as well as a quite sophisticated prevention method to protect apiaries: a low wire connected mechanically to 3 shotguns aiming at the ground. According to his words, in 6 years it was activated just once, but effectively.

Among the 54 questionnaires that we collected just 42 were valid to analyze and only in 5 of them damages were registered. According to the results, from 2008 to 2013 there is an annual mean of 2.5 damages to agriculture and livestock. Cattle, sheep, beehives and fruit trees are targeted. Most of the



From left to right: Maryna Shkvyrya, Mikola Svystun, Carlos Bautista and Yegor Yakolev.

Human Bear Conflicts

questionnaires were gathered in Uzhanski NNP. Previous information shows that in the same provinces the annual mean damages from 2008-2011 was 2.75.

Most of the local people interviewed did not know about recent damages, however many of them remember bear damages from 15 to 30 years ago. This seems to be explained by 2 separate facts: first, that in the 90's there was a strong decrease of the population due to illegal hunting (Khojetskyy 2013) and second, that until 1991 there was a communist regime and the livestock and agriculture exploitations were collective and thus much bigger and less guarded.

According to Turjanin (1974) from 1948 to 1958 in the Transcarpathia region (where Uzhanski NNP is located) 1100 livestock were killed by bears. Nowadays people guard their own livestock (which regularly is little) in small barns close to their houses, and beehives and crops rarely are far from home. In 2003 bears became a fully protected species by being included into the Red Book. It is interesting to note that almost 60% of the interviewees still believe that bear is a species that can be hunted and that only 28% know that there is no damage compensation system.

Besides the fact that the situation seems to be apparently peaceful in relation to human-bear conflicts and that there is a big effort by our Ukrainian colleagues in order to collect data on bear damages, the real situation still remains unclear. Moreover many local people believe in legends such as "chupacabra", which makes less credible the information extracted from the interviews. Nevertheless, this preliminary investigation on the patterns of bear damages in Ukraine has established the beginning of a future cooperation between researchers in Ukraine and Poland regarding the conservation of this transboundary bear population.

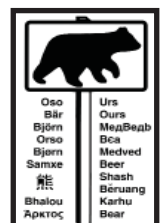
I encourage every biologist involved in the study of bears to apply for the Experience and Exchange IBA grant. Thanks again to the IBA and Maryna Shkvyyra for making this whole experience possible and special thanks to Igor Dikiy, Nelya Kowal and Yegor Yakovlev for helping throughout the entire journey.

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Mechanic artifact to prevent bear damages to apiaries, Skole Beskide NNP.



Human Bear Conflicts

A New Collaboration among US and Slovenian Bear Experts Begins from an IBA Experience and Exchange Grant

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With the help of an IBA Experience and Exchange Grant, we organized a new collaboration between US and Slovenian bear experts to share lessons, knowledge, and experiences to collectively improve our mutual understanding for reducing human-bear conflicts in North America and Europe. In the spring of 2013, Seth Wilson from People and Carnivores visited Slovenia and in the summer of 2013 Miha Krofel from University of Ljubljana (Slovenia) came to the United States. During the visits, bear experts, researchers, and managers from the two countries exchanged their knowledge and experiences regarding bear management, conservation, and research. The most important topics that we focused on were the use of non-lethal measures to prevent human-bear conflicts and how to work with people in the field to reduce conflicts. We found that there were many similarities among our two countries—namely that in rural, agricultural settings there are a variety of “attractants” like garbage, livestock, and beehives that are underlying many conflicts.



Visit to the livestock carcass composting facility in Blackfoot Valley, Montana, U.S.A. (left to right: Jamie Jonkel, Seth Wilson, Miha Krofel).



Seth at one of the conflict ‘hot-spots’ in Dinaric Mountains, Slovenia.



One of the several media reports on the US-Slovenian exchange of experiences from preventing human-bear conflicts.

We both gave several talks during our respective visits, including one by Miha Krofel at the IBA conference in Provo, and our visits generated considerable media attention. We purposely engaged the media to help share our experiences with a broader

public and hope that our respective work will help the bear management community try novel approaches when mitigating human-bear conflicts. News about the grant also informed the public about the generous support that the IBA is providing to bear experts throughout the world.

Important result of this exchange was the preparation of an application for a large international bear conservation project through EU LIFE+ Nature Project Program. This project, if accepted, will include further transfer of experiences and successful practices on resolving human-bear conflicts from North America to Europe and thus represent the continuation of the collaboration among US and Slovenian conservationists, researchers and managers that were started with the generous help of this IBA grant.



Are dogs “saviours” or are they contributing factors in black bear attacks on people?

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We have been reading with interest about owners who claim they have been saved by their dog during a black bear attack. Though that may have been true in some instances, was it possible that the presence of the dog(s) was the reason why some black bears attacked their owners in the first place?

Since 2010, primarily through Google News Alerts, we were able to find 92 reports of black bear attacks on humans across North America – 49 instances involved dog(s) (53%), 20 of 32 in 2013 alone (63%). Because media accounts of events can be incomplete, it would be difficult to accurately identify how many dogs were on leash vs. off leash. What the data does suggest is that in the vast majority of cases, it seemed as though the dog(s) had been running loose at the time of the attack and drew the bear to their owners. It also appears that many of the bears weren't focused on the dogs, but came right after the owner. In the three fatal attacks reported during the same period, one involved an individual who had let their dog out for a walk.

Additionally, a myth continues to be perpetuated in the media – that female black bear with offspring will attack people to protect their cubs. Herrero (1985, 2002) and Herrero and Higgins (1999, 2003) reported that female black bear, even with offspring, seldom attack people although they can be provoked into attacking if harassed by people or dogs. Of the 92 total attacks mentioned above, 23 involved a female with offspring (25%) – 21 instances involved a dog(s). The data suggests that these defensive attacks could have been triggered by the presence of the dog(s) (91%) rather than the presence of a person unaccompanied by a dog (9%). Of the 66 recorded fatal black bear attacks between 1900 and 2013, only 3 (5%) involved a female with young (Herrero et al. 2011).

Competition often develops between species with niche overlap. Wolves, foxes, coyotes, bobcats, mountain lions, eagles and other bears have been known to kill black bear cubs (Rogers 1983, LeCount 1987). We suggest that bears react to dogs as if they were threatening competitors, sometimes attacking or killing them. In the 49 incidences involving a dog(s), dogs were injured half the time and in 7 incidents, the bear killed the dog.

Dogs can act as an early warning indicator of a bear's presence. We think it is important that wildlife agencies urge residents who live in areas occupied by black bears to restrain their dog(s) when walking through their communities or on trails. This should reduce the potential of harassing a black bear or of being attacked by one. Also, owners should check their yards for the presence of a bear before letting their dogs out, and dogs should be fed indoors as food left outside may attract bears.

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Andean Bears in Two Peruvian Forests are Rarely Photographed with Meat

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Poaching is a key threat to the conservation of the Andean bear and it often occurs as retaliation for perceived predation of livestock (reviewed in Goldstein et al. 2006, García-Rangel 2012). Undoubtedly in some locations these bears do kill livestock (e.g. Payán 2004, Castellanos et al. 2011) and they will scavenge carrion (Figueroa 2013) but it is not known whether predation is a novel behavior, or how often Andean bears might feed on wild sources of meat.

Camera traps have been used to study the demography, ecology, and behavior of several bear species and resulting insights are now commonly reported in this newsletter, appearing in at least 5 articles in 2013 alone. Although there are other methods that are undoubtedly more appropriate for analyses of bear diets (e.g. Robbins et al. 2004, Thiemann 2008), and although scat dissection is still the most common method of studying the diet of Andean bears (e.g. Peyton 1980, Troya et al. 2004), camera traps occasionally raise interesting questions about bear foraging ecology (e.g. Van Horn and Swaisgood 2011, Hedges and Aziz 2013).

As part of broader work we used camera traps to collect data on Andean bears in two parts of Peru: on the eastern slope of the Andes in Southeastern Peru ('Cusco'; 13°24'S, 70°52'W) from 15 November 2009 – 6 December 2011, and in the seasonally dry tropical forest of Northwestern Peru ('Lambayeque'; 6°26'S, 79°33'W), from 11 June 2008 – 16 December 2013. According to the 2005 census, human density differs dramatically in these two areas: 1.41/ km² near the Cusco site versus 33/ km² near the Lambayeque site, creating a general difference in the human impact on these landscapes. The presence of domestic livestock also differs between sites. Horses and mules are only temporarily present on one part of the Cusco field site, whereas they are more common along the fringes of the Lambayeque field site, which is also grazed at low density by cattle and goats. Although the mammalian community differs between the sites, both have native small and large herbivores as well as large cats such as puma, presenting opportunities for scavenging if not predation.

At the Cusco site we set passive infrared camera traps (Reconyx RM45 and MC65) along animal trails and on ridges; at Lambayeque we set passive infrared camera traps (Cuddeback Excite, Reconyx RM45 and MC65, Bushnell TrophyCam HD) along animal trails and ridges, and also next to the few permanent waterholes in the area. We did not bait the cameras. We used the natural variation in markings of the bears to identify individuals and we classified detections of bears as independent if they were separated by at least 1 hour.

Although we had substantial sampling efforts at both field sites, and we detected ≥11 different adult bears at Cusco and ≥21 different adult and independent subadult bears at Lambayeque, we detected bears with meat on only 2 occasions, both at Lambayeque. The first observation was collected on 10 May 2011 by a camera near (~300m) a waterhole, when an adult female bear was seen carrying a carcass of an adult white-tailed deer (*Odocoileus virginianus*) that was primarily skin and bones. The second observation was collected on 18 January 2013 when an adult male bear was photographed by a camera set at a different waterhole, carrying a very young fawn white-tailed deer.

These two observations confirm findings from elsewhere that Andean bears at least scavenge wild ungulates (Troya et al. 2004, Figueroa 2013), although we do not as yet know whether they prey on these ungulates. It has been suggested that it is usually male Andean bears which prey upon, or consume, livestock (Goldstein et al. 2006, Castellanos et al. 2011), but we now have evidence that female Andean bears will also carry, and presumably consume, wild carrion. Andean bears are thought to be primarily herbivorous but this perception is shaped by indirect sign surveys and scat analyses (Peyton 1980, Troya et al. 2004), which may be influenced by the undigested matter in feces and the time of year (e.g. Paisley 2001). Thus,



(left) An adult female Andean bear carries the carcass of an adult white-tailed deer, (right) an adult male Andean bear carries the carcass of a white-tailed deer fawn. Lambayeque, Peru. Photos: Spectacled Bear Conservation Society and San Diego Zoo Global.

we do not know the true nutritional importance of meat to Andean bears, nor how this might vary among individuals, locations, and seasons. Analyses of stable isotopes (e.g., Robbins et al. 2004), fatty acid signatures (Thiemann 2008), or even scat analysis coupled with non-invasive genetics (e.g., Viteri and Waits 2009) will undoubtedly aid in our improved understanding of Andean bear foraging ecology and reveal whether consumption of meat by Andean bears is truly rare, or just rarely observed.

Camera trapping effort and detections of bears in two forests in Peru.

Site	Forest type	Elevation (m)	# of camera stations	# of camera-trap days	# of detections of bears*	# of detections of bears with meat
Cusco	Humid montane and cloud forest	850–3700	86	20,360	59	0
Lambayeque	Seasonally dry tropical forest	400–1215	55	18,822	1,969	2

*The detection rates of bears at the two sites are not directly comparable because all of the Cusco sampling was along ridges or trails whereas only 27.5% of camera-trap days at Lambayeque were along ridges or trails, and the rest at waterholes that bears frequently visited.

Acknowledgements

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Biological Research

Himalayan Brown Bear in Uzbekistan's Gissar Nature Reserve

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Over the course of a short-term camera trap study in Uzbekistan's Gissar Nature Reserve, we obtained several photographs of the Himalayan brown bear (*Ursus arctos isabellinus* Horsfield, 1826).

The Himalayan brown bear, sometimes referred to as the Isabelline bear in Central Asia, is a relatively little-studied subspecies of the brown bear, characterized by a lighter coat (varying from brown to sandy), and characteristically white claws on the forepaws. Although identifying brown bear subspecies in Central Asia hasn't always been straightforward (Chestin et al. 1992), according to a recent paper, there are valid reasons for considering it a separate subspecies of *Ursus arctos* (Galbreath et al. 2013). It is protected by local laws, and is listed in the Red Data Book of Uzbekistan.

The Gissar Nature Reserve is a strict protected area situated on the border of Uzbekistan and Tajikistan, classified as IUCN Category Ia, and the largest reserve in Uzbekistan. It is protected by border guards, and tourism or recreational activities are prohibited. Visitors are allowed only for the purposes of carrying out research. The area is comprised of rocky mountains covered by sparse juniper forests and cut through with narrow riverbeds. The total area is approximately 810 km², with elevations ranging 1750 to 4349 m a.s.l. Bears are known to occupy the habitat from the river beds all the way up to the tree line, but are found predominantly in the juniper forests and alpine meadows, where the bulk of their food resources are.

Although these are the first camera trap images obtained from the Gissar range, by all accounts bears are very common here. Based on traditional sign surveys, bear population in the reserve is estimated at 108 individuals for 2013. The standardized sign surveys are conducted in the reserve every spring and fall.

Anecdotally, people from villages surrounding the reserve have hunted bears as a preventative measure, believing them to be dangerous to people, crops, and



Remote Camera Photo: © Y. Protas/Panthera/WWF Central Asia Program/Uzbek Biocontrol Agency/Gissar Nature Reserve.



Location of Gissar Nature Reserve, Uzbekistan.

livestock (B. Aromov, unpublished data). And in fact, there is at least one recent report of a human death caused by a bear (Aromov 2011). Depredation of domestic animals occurs every year (Dyakin 2007). In 2013, according to survey data, bears have taken 10 cattle, 2 colts, and 21 lambs and goats from the surrounding villagers (B. Aromov, unpublished data).

The camera trap study was conducted in November 2013, just at the start of denning period. One bear was photographed on November 15 on a trail along the riverbed of the Kizilsu river. The other bear was photographed at a higher elevation, but in the same river basin, on November 13th. Given that in 2011 denning was reported to start between November 19 and December 15 (Aromov 2011), it is possible that at the time of the study some bears were already hibernating, and even more individuals would have been photographed had the study been conducted at a more active time of year.

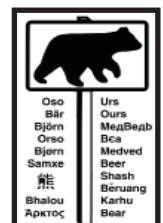
Multiple scats of different ages were found during the camera setting and takedown. A very recent scat contained wheat berries (presumably from the wheat we used to feed our horses) and domestic goat hairs, very likely belonging to a young goat we kept as a food source, which subsequently escaped. Another fresh scat contained juniper berries, which were a very abundant resource in the Kizilsu section of the reserve, as the vegetation is predominantly juniper forests.

Likewise, other indirect signs of bear activity were abundant throughout the study area. Broken trees are common- willows, wild apple, apricot, and almond trees show severe damage in the form of broken branches and trunks, presumably due to bears feeding. This is a very common occurrence, and in fact data from a 2011 survey states that over the course of the summer period, 357 willows, 57 junipers, 370 honeysuckle shrubs, 23 nut trees, and 84 fruit trees were broken by bears in the reserve (Aromov 2011). Over the course of standardized transect surveys in 2013, 4 unoccupied dens were found, as well as 74 sites where bears excavated for marmots (B. Aromov, unpublished data).

So much sign, livestock depredation, and the two pictures obtained from camera traps over a relatively brief study period, lead us to believe that in this area at least, the population density of *U. arctos isabellina* is fairly high. If our camera trap studies are able to continue, we hope that a clearer picture of the bear in Gissar will emerge.

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Management Corner

Manager's Corner

Rich Beausoleil, Chair
IBA Management Committee
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Hello and welcome to the Manager's Corner of the IBN. This brand new section was a collaborative creation between the IBA Management Committee and agency managers throughout North America. Two years ago, IBA recognized a need to better serve agency bear managers and created the Management Committee. In 2012-13, the committee created and distributed a survey to agency managers and biologists and received some very insightful ideas. We want to thank everyone that took the time to get involved and share those thoughts. These results led to the creation of several new products that we are partnering with IBA Council on, including this Manager's Corner section of IBN. In fact, 87% of survey respondents indicated support of this section. The incentive is to encourage communication between managers and to bridge the gap between research and management.

All IBA members will benefit from greater participation in IBA by practicing bear managers, whose collective years of experience in dealing with humans and bears across a wide spectrum of scenarios can provide valuable insights to others in designing and implementing effective management programs.

We already have several submissions from agency managers that will appear in upcoming issues of IBN. It is our hope these articles will encourage additional submissions as the section gets more established. If you are interested in submitting a short piece, please contact anyone from the Management Committee using the contact list below. As you may know, articles can be any length, up to 750 words, and pictures are encouraged. Short communications are very much encouraged and can include anything and everything; articles/updates on population estimation, harvest, conflict resolution, and other management-specific information to name a few.

So please enjoy this section and please send any interesting bear management activities are going on in your jurisdiction. This section belongs to all managers and agency personnel, it's our section. We are looking forward to working with all of you and look forward to hearing from you. Thanks.



Management Committee

2014 IBA Management Committee members, in alphabetical order.

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Agency Use of Karelian Bear Dogs for Human-Wildlife Conflict Resolution

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Since 2003, agency staff with Washington Department of Fish and Wildlife (WDFW) has been partnering with Karelian Bear Dogs (KBD's) for a variety of research, management, and enforcement applications. Our KBD program started with a desire to: (1) be more self-sufficient in black bear (*Ursus americanus*) and cougar (*Puma concolor*) research activities; (2) be more effective when responding to human-wildlife conflicts; and (3) employ aversive conditioning techniques with bears captured in human conflict situations. In addition to making us better at our jobs, we also wanted a more effective means of connecting with the public to bring attention to the message of conflict prevention, and the dogs have proven themselves as very capable ambassadors.

The success of the KBD's, and incredible public support, has resulted in expansion of the program in Washington; as of February 2014, 6 KBD's are partnering and working with biologists and wildlife officers statewide. The KBD's help staff with tracking and radiocollaring efforts for agency research projects, finding injured and orphaned wildlife, human-wildlife conflict resolution, education and public outreach, and finding remains of illegally taken wildlife. Some of the rarer, unexpected capabilities of the KBD's include finding a deceased hiker's remains when search and rescue teams were unable to, capturing a black bear involved in a rare attack on a human within 15 minutes of being on the scene and restoring calm to the local community, debunking an alleged cougar attack on a human when a KBD found a bloodied pit bull at a nearby residence; the owner later confessed the report was fabricated so the dog would not be euthanized, and on-leash hazing of bighorn sheep and moose away from roads and people.



Washington's KBD Team. From left are Officer Prater and Spencer, Officer Moszeter and Savu, Officer Jorg and Colter, Officer Richards and Mishka, Officer Jones and Indy, and Biologist Beausoleil and Cash. Upper right is Captain Hebner (retired), who supported the program wholeheartedly.



A graphic showing how interactions between agency staff, the KBD's, and the public results in an improved agency message regarding human-wildlife conflict.

Most commonly, KBD's are working with bears involved in human conflict. Sometimes, only hazing is needed, but when attractants are more prevalent, and captured bears are candidates for release, we utilize on-site releases as much as possible, coupled with aversive conditioning. Sometimes that literally means on-site in someone's backyard (as many conflicts occur right on the wildlife/urban interface), but also transporting the bear (many times <1 mile) to the closest forested area and conducting the release there. This benefits the individual bear by staying within its home range where it ultimately has the best chance at survival (e.g. known natural food source locations, not having to cross unfamiliar roads trying to return, and not being placed in an area occupied by unknown bears). The hope is, if captured early in this behavior and corrected, that the bear learns the danger zones within its own home range. Also, by not transporting and relocating long distances, staff can use that time more effectively to find attractants, explain why the conflict occurred, prevent a repeat performance, and educate the local community about prevention.

What we didn't expect about the KBD program, is the overwhelming public response and support of the program. Washington's citizens are very supportive of non-lethal solutions

Management Corner

for resolving human-wildlife conflict and the KBD's offer us that option. The KBD Program is 100% supported by private donations. The agency allows the use and the transport of KBD's, but the fund provides all the monetary support for care and field gear. Because of public interest, our KBD program has been featured on television countless times including all major news networks in Washington, Good Morning America, Nightline, Animal Planet's Dogs 101, and many more.

In closing there are some "lessons from the field" that should be shared. The KBD's are not like other tools we use in bear management, they are not equipment, cannot be "stored until needed" and the dogs cannot be transferred among staff. The socialization that occurs from birth at Wind River Bear Institute (the only facility we use and recommend), and throughout the dog's life, requires they not be used like a police K-9; people are partners and friends that are protected, and other dogs are not seen as foes. Also, not all biologists and officers should be considered candidates. It takes a huge commitment and handling skills; so an approach of putting tacks on a map where conflicts occur and blindly assigning a KBD would be a huge mistake. The commitment of being a KBD handler is enormous and requires a 24 hour, 7 days a week, 365 days a year commitment. If an agency is considering using KBD's, it is recommended that you talk with other KBD handlers, extensively. Also, establishing a 501c3 non-profit to stay away from agency budget fluctuations is recommended; as the dogs should never put in a situation of not being worked or their program being cut.



Finding non-lethal solutions to bear-human conflicts is the mission of the KBD program; our working motto is "helping people, helping wildlife".



Example of a bear release with KBD's and aversive conditioning. In the background are the folks that reported the conflict to WDFW; including them in the process helps with agency messaging.

Management Corner

RESPONDING TO HUMAN-BEAR CONFLICT: A Techniques Manual for Agency Biologists and Officers

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At the recent 22nd International Conference on Bear Research and Management in Provo, Utah we gave a presentation regarding the development of a new manual for agency personnel to utilize when responding to human-bear conflicts and distributed draft copies. In the manual, we tried summarizing what we have learned in over 6,000 responses and 1,500 bear captures. Building on Al LeCount's approach in 1986 to develop a manual specifically for agency staff, we invited input from as many other agency biologists and researchers as possible with the hopes of creating an interagency manual, devoid of policy, that we could all be contributing to and building upon. By working as a team, we can encourage professionalism and we may bring conflict response across jurisdictional lines more into alignment.

Beyond agency collaboration, some additional objectives of this manual include helping current & new wildlife professionals with the challenges involved in handling human-bear conflicts. How these situations are resolved is often left to the discretion of responding personnel, and the outcome can mean the difference between a peaceful & educational ending vs. serious animal/human injury, or a compromised agency message. Overall, we just felt like there was no need for folks to “re-create the wheel”, make the same mistakes, or compromise safety of animals & people in the learning process.

Table of Contents of the manual:

THE BASICS OF HUMAN-BEAR CONFLICT RESPONSE

- A note on use of the term “nuisance”
- Why do human-bear conflicts occur?
- Why do some bears become involved in human conflict?
- Considerations when responding to human-bear conflict
- Final phase of response - avoiding the repeat performance

BEAR BEHAVIOR AND AGENCY MESSAGING

- Some basics of bear behavior
- First responders: you’re the professional
- Examples of agency messages
- Sightings vs. encounter vs. attacks
- Giving advice to people on interactions

PUBLIC EDUCATION

CAPTURING AND IMMOBILIZING FREE – RANGING BEARS

- Physical vs. chemical restraint
- Considerations when using chemical restraint
- Basic field gear required for capture

TRAPPING AND FOOT-SNARING BEARS

- Culvert Traps
 - Advantages & disadvantages
 - Tips for setting culvert traps
 - Transporting bears in culverts
 - Culvert trap modifications
- Foot Hold Snares
- M-15 Bucket sets

TIPS & THOUGHTS ON RELEASING BEARS INVOLVED IN CONFLICT

KARELIAN BEAR DOGS AND THEIR USE IN CONFLICT MANAGEMENT

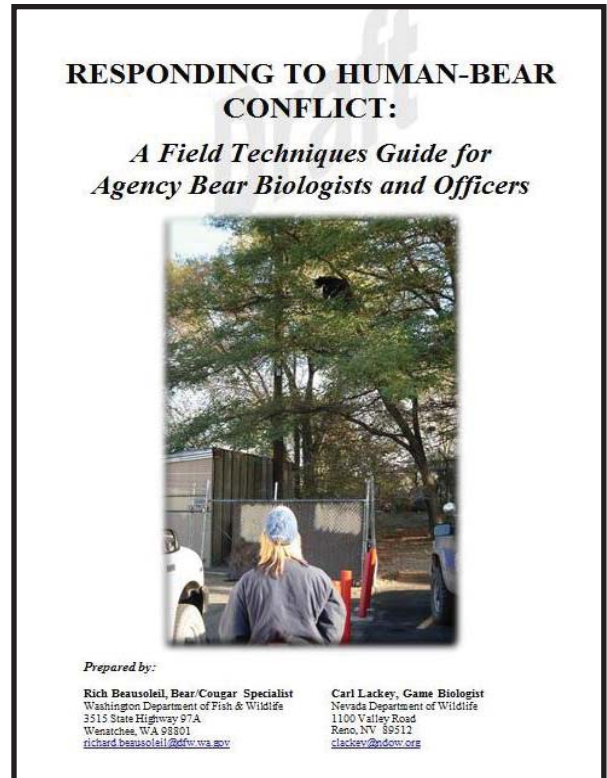
MEDIA RELATIONSHIPS

APPENDIX

- Bear behavior – assessing the level of risk
- Relocation – site selection & feasibility of success
- Field aging bears by tooth wear
- Weight estimation for black bears
- Measuring paws and paw measurements
- Comparison of bear paws and human hands/feet
- Investigation of livestock incidents & carnivore ID
- Vendor list

If you are interested in participating in helping shape this manual, please contact us using the emails listed above. We would like to thank some folks that have already responded to us since the IBA conference including Al LeCount from Arizona Game and Fish Department (retired), Steve Nadeau from Idaho Fish and Game, and Jerry Apker and Kevin Wright from Colorado Division of Wildlife. We intend to incorporate their input, as well as others, and have another draft available by early spring.

We will likely work with Council and post the manual on the IBA website for easier transmission and to always keep a “working copy” of the manual accessible. It’s likely the manual will be a living document for a long time as more and more expertise and techniques are incorporated. Thanks in advance.



Cover of the manual we are hoping to collaborate on with other agency managers and researchers.



Liberal Season Structure Leads to Increased West Virginia Bear Harvest

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The West Virginia Division of Natural Resources has combined biological data collection as well as state residents' opinions regarding black bear populations to set bear harvest objectives in their black bear management plan. A survey of West Virginia residents was conducted by Responsive Management in 2006, prior to the development of the first black bear management plan. At the same time, a long-term analysis of black bear demographic data was completed. These 2 sources of data were combined to form harvest objectives and a harvest strategy for West Virginia.

West Virginia allows both archery and firearms hunting for black bears in the fall only without the use of bait. Hunters are allowed to hunt bears with dogs in certain counties during certain seasons. Previous survey work revealed that hunters using dogs have the highest success rates followed by archery hunters and firearms hunters not using dogs. Hunting bears with dogs is a long-standing tradition in West Virginia with approximately 6,000 hunters participating. Therefore, in counties where hunting with dogs was feasible, it was chosen as the primary management method.

There are 55 counties in West Virginia and each county has a management objective. Currently, the entire state is open to an archery season that lasts approximately 11 weeks. In addition, the entire state is open to a December firearms hunting season that lasts 3-4 weeks. Hunting bears with dogs is allowed or could be allowed on a limited basis in all or parts of 28 counties. The archery and December firearms seasons (with or without dogs) are considered the traditional or most conservative seasons. Additional seasons are added for counties that are above the management objective specified in the black bear management plan.

In counties where hunting with dogs is allowed, the liberalization process includes; an early hunting season (currently late September-early October) with dogs, a limited number of permits during the buck-firearms season, an unlimited number of permits during the buck-firearms season, and a 2-bear bag limit. In counties where hunting with dogs is not allowed, the liberalization process includes; a limited number of permits during the buck-firearms season, an unlimited number of permits during the buck-firearms season, and a 2-bear bag limit.

When the first black bear management plan was implemented in 2008, hunting seasons were liberalized throughout the traditional bear range in West Virginia to slow population growth. From 2008-2012, early hunting seasons with dogs in counties where dog hunting is allowed and concurrent bear and deer hunting during the buck-firearms season in counties where hunting with dogs is not allowed were used to harvest additional bears. The 5-year average harvest from 2003-2007 was 1,627 bears. The 5-year average harvest from 2008-2012 was 2,213 bears, which included conservative seasons in 2009 while we waited for age data. A harvest record of 2,735 bears was set in 2012.

We hired Responsive Management to conduct another survey of West Virginia residents in 2012 prior to revision of the black bear management plan. Despite 4 years of more liberal bear harvests, many residents in the traditional bear range still wanted fewer bears. These data were used to modify harvest objectives to help balance the bear population with both hunters and residents desires.

West Virginia bear hunters experienced more hunting opportunities in 2013 than ever before. Twenty-four counties were open to a late September or early October hunting season with or without the use of dogs, 29 counties were open to concurrent bear and deer hunting during the buck-firearms season, hunters could harvest a second bear if 1 bear came from 1 of 8 counties and hunters in every county had an 11-week archery season and 3.5 week December firearms season. A record harvest was predicted due to the liberal season structure, but fell short due to the lowest oak mast index ever recorded in the state (42 years of mast survey data). The 2013 West Virginia bear harvest was 2,692.

Our current goal is to reduce bear populations in the bulk of the bear range in West Virginia. As counties reach their management objectives, our harvest strategy will become more conservative. In addition, we will conduct another survey of West Virginia residents when it is time to revise our black bear management plan.



Conference Announcements



Conference Grant Scheme

We are happy to announce this year's conference Grant Scheme providing financial assistance to selected participants for their travelling, lodging, registration in order to attend the Conference in Thessaloniki.

We would like to thank the *International Association for Bear Research and Management*, the *Bevins Memorial Foundation* and the *World Society for the Protection of Animals* for providing financial and logistic support in setting up this grant scheme.

The Grant Applications' procedure will run from June 1st to June 15th, 2014.

Detailed information on guidelines for how to apply: http://www.symvoli.gr/conference/iba2014/page/Grant_Scheme

New @ Conference Sessions

Session #3

Population Ecology Studies

Session Chair: Frank T. van Manen

A thorough understanding of vital rates, population size, density, or trend is a foremost information need to develop informed decisions for management and conservation of bear populations worldwide. Substantial advances have been in recent decades, both in terms of sampling (e.g. genetic sampling, camera surveys) and the analysis of population data (e.g. capture-mark-recapture, occupancy modeling, integrated population models). This session is intended to highlight such advances. Contributions are particularly encouraged regarding cost-effective techniques that can be applied to bear populations for which these data needs are critical but conservation resources are limited.

[previously announced]

What Works: Innovative Successes in Bear Conservation, Management, and Science

Session Chair: Karen Noyce

Population genetics and genomics in bear conservation

Session Chair: Ettore Randi

Further info on the Conference Sessions topics: http://www.symvoli.gr/conference/iba2014/page/themes_speakers

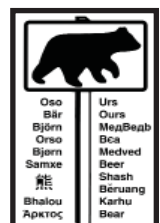
Note: If you have a particular interest in organizing and leading a session please do not hesitate to contact the Conference organizers!

New @ Conference Sponsors

Egnatia Odos S.A., the construction company of Egnatia Motorway: a road construction project of 670 kilometres length, based on the axon of roman Via Egnatia, crossing nowadays the Regions of Epirus, Macedonia and Thrace starting from the Igoumenitsa Port and ending to Kipi in Evros, bridging Northern Greece from Italy to Turkey.

Follow us @

- The official website of the conference: <http://www.iba-greece-2014.com/>
- Our event in Facebook!: <https://www.facebook.com/events/623441364382265/>
- Our regular e-newsletters! You can subscribe to our mailing list by emailing iba2014@symvoli.gr



IBA Member Forum

IBA Member Discussion Forum

Tabitha Graves
tabgra@yahoo.com

The new IBA Member Discussion Forum gives you, the members, an opportunity to discuss issues relevant to bear research and management, share new findings that may help other researchers and managers, and strengthen connections among bear biologists. To become a discussion forum member, you must be an IBA member. Discussions will be monitored and, if necessary, moderated by Tabitha Graves and John Hechtel.

Sign Up:

Ideally, you'll create an account with Google Groups (if you don't already have one) so that you can interact with any Google discussion group. Be sure to use the same email that you used to enroll. Contact Tabitha Graves (tabgra@yahoo.com) or John Hechtel (john.hechtel@gmail.com) with the email(s) under which you would like to be registered.

Email Only:

You don't have to create a Google account if you don't want to. Contact Tabitha Graves (tabgra@yahoo.com) or John Hechtel (john.hechtel@gmail.com) with the email(s) under which you would like to be registered.

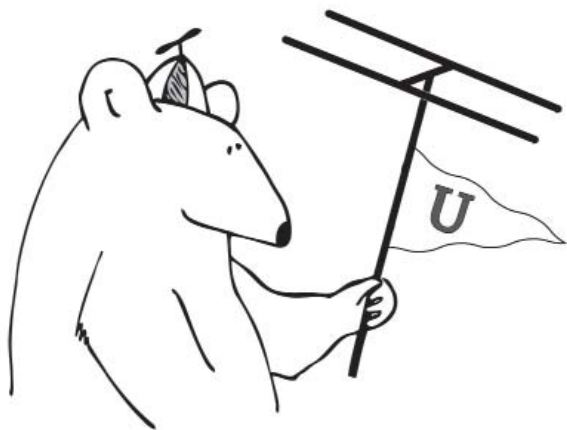
Once your enrolled and receive a confirmation message you will receive email messages sent to the group.



Student Forum

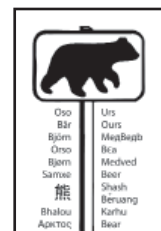
Truman's List Serve

- For students only
- Discussions pertaining to bear biology, management, or study design challenges
- Assistance with proposals and study design through IBA professionals
- Job searches, announcements, information regarding the IBA and student membership
- Planning for IBA student activities and meetings
- IBA membership is encouraged, but not required, for initial sign-up



Instructions

- Visit: www.bearbiology.com/iba/stu.html
- Follow the links to request an invitation
- Do NOT reply to list serve messages using your "reply" button. You must return to Truman to respond within the list serve or else other members will not receive your response.
- If you're a new member, please submit a paragraph about your project and include your contact information so we can all get to know you.



Recent Bear Literature

Agnieszka Sergiel
Email: a.sergiel@biol.uni.wroc.pl

I take this opportunity with the first issue of this year to thank Jennapher Teunissen van Manen for a great work! This is my first contribution. I was asked to take this task on together with Marion Schneider and Agnès Pelletier. I hope the new RBL team will be at least partly as efficient as Jennapher.

If you have an article recently published please email the citation for inclusion in the Recent Bear Literature. The deadlines for the next issues are:

- Summer Issue: 12 June: Agnès Pelletier: asg.pelletier@gmail.com
- Fall Issue: 5 October: Marion Schneider: MFSchneider@gmx.de

For easy access to articles, we are now including the DOI citation if available. To open articles from their DOI enter the DOI citation in the text box provided at the following website: <http://dx.doi.org>

- Andrews, N. L. P., and J. C. Ha. 2014. The Effects of Automated Scatter Feeders on Captive Grizzly Bear Activity Budgets. *Journal of Applied Animal Welfare Science*. Published online: 27 January 2014. [DOI:10.1080/10888705.2013.856767]. Corresponding author email: andren@uw.edu
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Publications

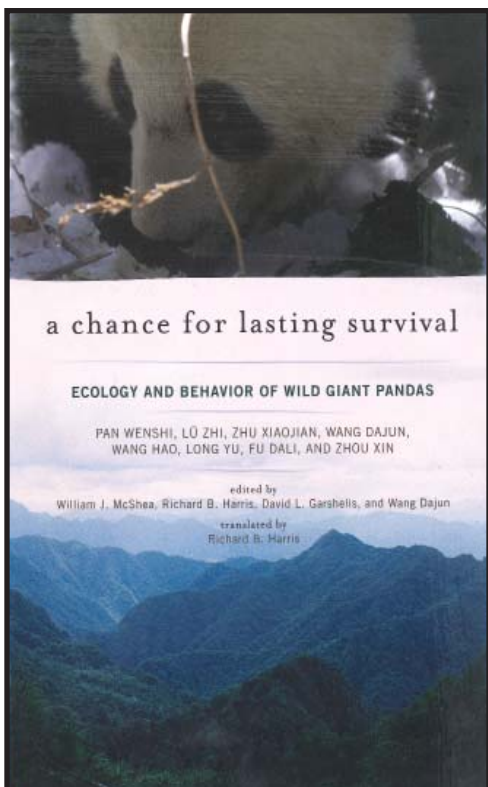
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Publications

Reviewer Needed for "New" Volume on Giant Pandas



From 1984 through 1995, a small group of researchers under the leadership of Pan Wenshi conducted the first major Chinese-led conservation project in China - at the time, giant pandas were considered to be in dire trouble, with massive bamboo die-offs, visibly starving wild pandas, and a captive population that struggled to reproduce, but Professor Pan insisted that pandas would do just fine if their habitat was allowed to recover from logging. Professor Pan's team of graduate students conducted a comprehensive study into the ecology and behavior of pandas in the Qinling Mountains of China's Shaanxi Province. They summarized their combined work in a 2001 volume that was published in Mandarin. While the work was accessible in China, it remained unavailable (and largely unknown) to most of the world. The Smithsonian Institution recently funded translation of the work into English (by Rich Harris) and individual chapters were edited by Bill McShea, Dave Garshelis, Rich Harris and Wang Dajun. Most of the original tables, figures and color plates have been retained. The book was just jointly published by Smithsonian Institution Press and Random House (*A Chance for Lasting Survival: Ecology and Behavior of Wild Giant Pandas* by Pan Wenshi et al. ISBN 978-1-935623-17-5, hardcover). The editors have added new chapters and condensed old chapters to focus on ecology and behavior issues relevant to today's giant panda conservation. They are seeking a reviewer who is knowledgeable on bear conservation issues to write a review for this newsletter. If interested please contact Bill McShea (mcsheaw@si.edu) for a copy of the volume.



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About the International Association for Bear Research and Management (IBA)

The International Association for Bear Research and Management (IBA) is a non-profit tax-exempt organization open to professional biologists, wildlife managers, and others dedicated to the conservation of all bear species. The organization has over 550 members from over 50 countries. It supports the scientific management of bears through research and distribution of information. The IBA sponsors international conferences on all aspects of bear biology, ecology, and management. The proceedings are published as peer-reviewed scientific papers in the journal *Ursus*.

IBA Mission Statement

Goal: The goal of the International Association for Bear Research and Management (IBA) is to promote the conservation and restoration of the world's bears through science-based research, management, and education.

Objectives: In support of this goal, IBA's objectives are to:

1. Promote and foster well-designed research of the highest professional standards.
2. Develop and promote sound stewardship of the world's bears through scientifically based population and habitat management.
3. Publish and distribute, through its conferences and publications, peer-reviewed scientific and technical information of high quality addressing broad issues of ecology, conservation, and management.
4. Encourage communication and collaboration across scientific disciplines and among bear researchers and managers through conferences, workshops, and newsletters.
5. Increase public awareness and understanding of bear ecology, conservation, and management by encouraging the translation of technical information into popular literature and other media, as well as through other educational forums.
6. Encourage the professional growth and development of our members.
7. Provide professional counsel and advice on issues of natural resource policy related to bear management and conservation.
8. Maintain the highest standards of professional ethics and scientific integrity.
9. Encourage full international participation in the IBA through the siting of conferences, active recruitment of international members and officers, and through financial support for international research, travel to meetings, memberships, and journal subscriptions.
10. Through its integrated relationship with the Bear Specialist Group of the World Conservation Union (IUCN)/Species Survival Commission, identify priorities in bear research and management and recruit project proposals to the IBA Grants Program that address these priorities.
11. Build an endowment and a future funding base to provide ongoing support for IBA core functions and for the IBA Grants Program.
12. Support innovative solutions to bear conservation dilemmas that involve local communities as well as national or regional governments and, to the extent possible, address their needs without compromising bear conservation, recognizing that conservation is most successful where human communities are stable and can see the benefits of conservation efforts.
13. Form partnerships with other institutions to achieve conservation goals, where partnerships could provide additional funding, knowledge of geographical areas, or expertise in scientific or non-scientific sectors.

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