



International Bear News

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

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© Bipan Chand

Courage and determination pay off in a ground-breaking study of Himalayan brown bears.
See the full story on page 17.

*IBA websites: www.bearbiology.org www.bearbiology.com
Ursus website: www.ursusjournal.com*

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Cover photo courtesy of Bipan Chand.: Himalayan brown bear foraging on *Rumex nepalensis* in Kugti Wildlife Sanctuary, India.

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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 ibanews@bearbiology.com are preferred; otherwise, mail or fax to the address above. IBA reserves the right to accept, reject, and edit submissions.

Deadline for the August 2009 issue is 5 July 2009

Thank you to everyone who contributed to this issue. Artwork is copyrighted – do not reproduce without permission.

Membership

Use the form on page 31 to order or renew memberships, make donations, and/or update member information.

From the President

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New Council Member

In the previous newsletter I announced the results of last fall's election. Once Mei-Hsiu Hwang and Andreas Zedrosser were installed as new Council members, Council decided to consider appointment of an additional member. Our Bylaws allow for appointment of up to 2 Council members to achieve better geographic or species representation. The composition of Council already was probably as international as it has been but we all agreed that Andean bears and South America needed to be represented. After considering a number of candidates, we appointed Ximena Velez-Liendo. Many of you know Ximena because she has been a very active IBA member and has contributed much time and effort on behalf of our student members. Ximena has researched Andean bears in Bolivia and has been a key collaborator among the many talented researchers and conservationists working in South America to protect and manage Andean bear populations. We are honored to have her on Council and look forward to tap her expertise.

Workshops

It probably was a sign of the current economic downturn. Because of low attendance the organizers of the Eastern Black Bear Workshop, which was to be held in April in Minnesota, decided to cancel the workshop. Wildlife agency personnel in many eastern states and Canadian provinces currently have travel restrictions because agency budgets are extremely

tight at this moment. Fortunately, the Western Black Bear Workshop will proceed as planned. Importantly, organizers of the Western Black Bear Workshop offered to provide space on their program for some 'spill-over' of status reports and papers from the Eastern Black Bear Workshop. The Western Black Bear Workshop will be held in Reno, Nevada during 18–21 May 2009. Our website provides detailed information on this workshop, online registration, etc.

This brings up a related issue. IBA Council decided a number of years ago that the schedule for the international conferences could go from a 3-year to an 18-month schedule. Overall, I believe this schedule has worked well and has provided important opportunities to host the conference where the impact would be timely and crucial to address bear conservation issues in the host region or country. We have certainly seen this for the recent conferences in Italy, Japan, and Mexico. For that same reason, I believe the upcoming conference in Georgia will also be of great value to bear conservation there. However, the downside of this has been that many members are not able to attend all conferences. Fortunately, one of our members suggested the possibility of conference webcasts through his agency. Obviously, this could be a very effective way to keep IBA members up to date on recent research and management so we are exploring this possibility. I'll keep you posted on our progress

Summary of Membership Survey Available

In this newsletter you will find a summary of the online membership survey we conducted last fall. We found a lot of positive news in the survey results but there is certainly room for improvement. Recruiting new members, particularly students, and enhancing our public image without compromising our science-based mission are clear priorities for IBA.

We need your help to reach these goals. As a Ph.D. student, I became a member in 1989 because my graduate advisor basically 'told me' that anyone working on bears should be a member. That was one of the best professional development decisions I made in my career. So here is my challenge to you: if you know a student who is working on a bear project or is interested in getting involved in bear research but is not yet a member, encourage them to become a member of IBA. Better yet, present them with a 'start-up package' in the form of a gift membership!

In the next couple of weeks, I will also establish a new committee that will focus on ways in which IBA can become recognizable among a broader audience worldwide. Bears solicit an almost universal positive response from humans and few other species groups are better flagships for conservation. With the tremendous expertise that exists among members of IBA and the Bear Specialist Group, surely we can broaden our public appeal and advance bear conservation. Of course, we need your help with this as well; please share your ideas with us.

Grants Program

I frequently receive questions about the structure of our grants program. There are several different components to our grants program so it can be a bit confusing. Donations to the grants program are administered through IBA's Bear Conservation Fund. There are several traditional donors to this fund, such as the John Sheldon Bevins Memorial Foundation and the Homer Bear Conservation Fund as well as a number of generous individuals who strongly believe in our mission. In recent years, zoos are making key donations to the Bear Conservation Fund as well. The donations to the Bear Conservation Fund are distributed to 3 primary grant programs: Research and Conservation Grants, Experience and Exchange Grants, and Travel Grants. The Research and Conservation Grants

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provide one of the best ways for IBA to accomplish its mission of science-based research and management so that program receives the vast majority of available funds. Experience and Exchange Grants are designed to support bear conservation in critical areas by linking organizations and individuals from different portions of the world. We already have great success stories from this relatively

new program and hope to expand this in the future. Finally, funds for Travel Grants are provided to conference organizers to support travel to our international conferences for key individuals who otherwise would not be able to attend.

Over the years, our grants program has grown substantially in terms of the number of grants and amount of money awarded. Because our grants

program is fully dependent on donations, we were concerned that we may not be able to sustain this trend with the current financial recession. I'm happy to report, however, that we will still be able to offer well over \$50,000 in grant funds. Many thanks to those individuals, zoos, and foundations who made this possible. We will recognize the many donors elsewhere in this or the next newsletter. 🐾

Research and Conservation Grants Program

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A series of unavoidable circumstances has caused several delays in finishing our work on the 2008 - 2009 proposal review and selection process. These ranged from my over-filled e-mail box on the ISP's server to some donor preferences that were

only received recently. Several of the members of the committee had unexpectedly heavy work commitments that made it more difficult than usual to finish their work on schedule.

The generally poor financial situation also had some effect in that investment funds which provide the major part of the funds available for grants generally did not yield as well as in the past few years. In spite of these factors, we were able to offer a total of US\$52,430.

A most encouraging fact is that the quality of the proposals that we receive and the importance of the projects to which they relate improves each year. This means that our task of making decisions regarding the ranking and the distribution of a limited

resource of grant dollars becomes more difficult each year. However, that is a good situation insofar as the quality of the submissions is concerned.

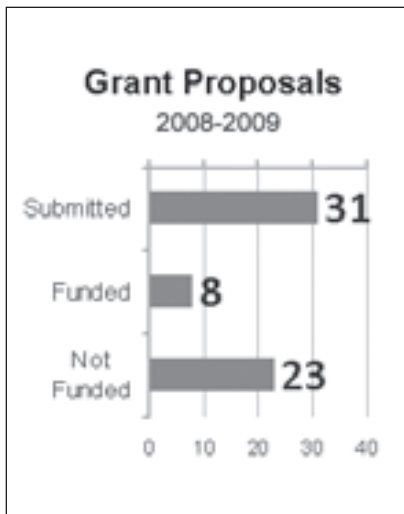
Due to the delays mentioned above, we have just made the final offers of grants. The information provided below relates to the offers we will make; if an applicant chooses not to accept the grant for some reason, the final awards are likely to reflect slightly different statistics.

A rough breakdown of the proposals received and probably funded this year is shown in Table 1.

So, as of this time, our situation is currently as follows (but subject to change).

Table 1. IBA Research and Conservation Grant Proposals 2008 - 2009

NO. OF PROPOSALS	REGION SPECIES	North America		South America		Europe, Scandinavia, western Russia		All Asia Combined	
		No. submitted	No. funded	No. submitted	No. funded	No. submitted	No. funded	No. submitted	No. funded
28	Single species	6	1	8	3	1		13	3
2	Multi-spp							2	1
1	Zoo (captive mgt.)			1				0	0
31	TOTAL	6	1	9	3	1	0	15	4



IMPORTANT NOTE: We expect some changes in the procedure for R & C Grants to be announced during the summer and fall as we attempt to improve the procedure. Watch for the announcement of changes in the *International Bear News* and on the IBA website. We are considering moving the deadline for the submission of proposals to an earlier date; however, we expect the final goal for grant offers to remain as mid-March due to the financial calendars of many donors.

We also will probably ask people submitting proposals to the IBA R & C Grants Program for the first time to attach a CV outlining the education and experience of the principal submitter.

There could be other changes as well. 🐾

IBA Membership Survey Summary

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Results of Membership Survey

In November 2008, IBA members received a request to participate in an online membership survey. The primary goal of the survey was to determine how well we are meeting the needs and expectations of our members and to find ways to improve our international and student representation. We closed the survey in January 2009 and by that time almost 100 members had participated. The survey focused on the membership fee structure, representation, public image, and our website, conferences, and newsletter. The following is a summary of the responses to the 2008/2009 IBA Membership Survey.

Membership and Fee Structure

The survey results indicate that IBA tends to have very loyal members: 73% of respondents have been a member for 4 or more years, and 39% have been a member for more than 10 years! About 18% of the respondents have been a member for 3 years or less, and only 3% became a member during the past year. Clearly, IBA could do more to recruit new, young members. Nine percent of the respondents indicated they currently were not a member (they received the survey because they were members recently).

A small proportion (15%) of the respondent indicated that they let their membership lapse for 1 time because it was "not affordable". Simple forgetting to pay was much more common. Our way to address this issue would be through online membership

renewal and one of the questions was related to that: 90% of the respondents indicated they would use online membership renewal if it were offered, whereas only 6% said they would not use online renewal. Of course, there may be some bias as our survey itself was administered online. Either way, it is clear that online membership renewal is a must for us.

Most importantly, 90% of respondents support the current fee structure, although a couple of members wrote that there should be a membership option without the journal *Ursus*. We do provide an option to decline receiving *Ursus* but do not anticipate a separate membership category for this. Overall, these survey results suggest that we do not need to tinker with the current fee structure.

Website

Regarding our website, 85% of the respondents want to see meeting and conference announcements (which we do provide), followed by 71% who want to be able to renew their membership, 66% would like to see discussion forums, 65% who would like to be able to purchase publications, and 49% would like more information on Council business. Although the latter category had the lowest response, this number still suggests solid interest in IBA Council decisions, which we find very encouraging.

Our website has been through a substantial transition over the past 1.5 years and we are still expanding the information. We will be adding online membership renewal soon, which should address an important member need. Additionally, we hope to make the website more interactive and provide more capabilities for information exchange.

Public Involvement and Image

A large numbers of respondents (63.4%) want IBA to be more publicly visible (e.g., press releases, magazine articles, position statements and letters). There were a number of written

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responses to this question with varying opinions on what IBA's role should be, but the consensus seemed to be that such visibility should be science-based and not turn into advocacy.

Newsletter - *International Bear News*

IBA members generally rated the newsletter as good to excellent, particularly with regard to overall content, research information, and readability. However, members would like to see more information in *International Bear News* on bear management and council business. Most respondents (45%) want to receive the newsletter via regular mail, whereas 36% would prefer online access only; 19% of the respondents were indifferent. So, we are not quite ready to stop printing the newsletter yet.

Voting

Participation in elections for council positions was good: 42% of the respondents always vote, 39% vote sometimes, and 20% indicated they never voted. Although we would like all members to participate in voting, these numbers are encouraging. Of

course, some bias may be present as respondents to the survey may also be more likely to vote. Regardless, 71% of the respondents indicated they would be more likely to vote if they could do so online and we are pursuing this option for future elections.

Conferences

The international conferences have been a key to IBA's success and the survey bears this out: 77% responders indicated they attend IBA conferences. This is a wonderful result and should be further stimulated, particularly because the conferences provide an ideal opportunity to acquire new members. Our strong belief is that no conference participant should leave an IBA conference without becoming a member!

In addition to high conference participation, 88.3% of the respondents liked how we now alternate the conference sites between Eurasia and the Americas. Together with the changes in the fee structure, this is another important indicator of the changes that Council implemented over the past decade.

Representation

According to the survey, IBA meets the needs of researchers, students, and managers. The responses of international members, educators, and conservationists ranged from IBA meeting their needs adequately to neutral responses. The group whose needs are met the least is the general public, which may be related to the responses we received on the questions regarding public involvement and IBA's public image. Most of the respondents had an academic position (33%), with agency bear managers (27%) and agency bear researchers (23%) following closely. Non-government organizations (22%) and private industry (8%) together represent a good portion of our membership. However, we would like the percentage of students (11%) to increase in the future as well as those involved in public relations (2.5%). Globally, the future of bears mostly depends on public acceptance. All our research and management improvements are crucial but are of low value if not adequately communicated to the public.

Conclusion

In our previous work we identified the five primary challenges to increasing our membership globally: (1) financial, (2) language, (3) motivation/cultural, (4) lack of expertise, and (5) poor information. With the results of the membership survey, we now may be able to focus on ways to achieve those improvements:

1. Recruiting young members with an emphasis on students (conferences, online, *IBN*)
2. Informing and raising awareness of IBA among a larger public (increase membership, support, and funds)
3. Interactive web page – including prompt answers to questions from the general public.

Please help expand this list by providing additional suggestions! 📧



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Berries, Nuts n' Grubs

Food for Thoughts About Bears

A Quarterly Column by Diana Doan-Crider

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The goal of this column is to provide a sounding board for management tips, philosophies, and current happenings in the bear world that deserve some digesting. These are the topics that are generally not published in the scientific journals, but are more often heard around bear biologists' coffee tables. We'd be as happy as a biologist with a real job to entertain some of your ideas, or help answer any questions with the help of people who know a lot more than I do. Contact me at diana.crider@gmail.com with your input.

Note: My very good friends, Dr. John Murnane DVM (veterinarian for the Yellowstone Grizzly Bear Research Team), and Dr. Cecily Costello (bear researcher and Treasurer, IBA) contributed some of their expertise to this quarter's column. In future columns, we will be expounding related topics. Thanks John and Cecily!

Degenerative Processes of the Hippocampus in the Bear Biologist

For those of us who keep up with the latest scientific publications, we know that studies on aged rats indicate that nervous tissue, particularly in the hippocampus and cortex, is subject to various degenerative processes, including a decrease in the number and efficacy of synapses, neuronal loss, astrogliosis, and changes in extracellular matrix proteins (Vorisek et al. 2005). Well, that explains it. I

can't find my keys anymore, I forget to take the groceries out of the truck, and I find myself going to sleep when I read scientific articles (well, ok, I've always done that). Apparently, I am becoming an aged rat.

Coincidentally, I was talking to my friend, John Murnane, about bear capture and handling, and the need for bear biologists to consider bear safety as a priority. We were going over some of my capture data when I realized that I had been committing a repeat offense for the last 15 years. My bears' pulse rates were a tad bit higher than what is recommended, which led us to conclude that I had been under-dosing captured bears all along. When John questioned my rationale, I simply stated, "well, that's the way I was taught, and I never paid much attention to recent publications. I just never thought I needed to change anything." *I just never thought I needed to change anything ...* words of an aging rat. John chided me for my negligence, and then pointed out an excellent publication by Cattet et al. (2008), titled "An evaluation of long-term capture effects in Ursids: implications for wildlife welfare and research." I had heard of it, but not yet read it because it was sitting on my desk waiting to be used in my upcoming class lecture on – you guessed it – Animal Handling and Safety. There it was, plain and simple, "These findings challenge persons engaged in wildlife capture to examine their capture procedures and research results carefully." My whiskers began to curl.

How many times could an injury or mortality on an animal have been prevented if we had just taken a few

minutes to read up, change our protocol, spend extra time monitoring, or beef up on our equipment? Is exposing a bear to risk really worth an extra few minutes saved? Worse yet, how many incidences have taken place, only to be repeated because we didn't take the time to thoroughly investigate the problem and try to find a solution? Honestly, I have to admit that I am guilty of the age-old belief that "it's not if it will happen, it's when," in reference to a capture-related injury or mortality. While there's probably some truth to it, acknowledging that fact doesn't give us the excuse in forgoing all measures to prevent it. Even if better drugs are available than in the past, and they can now magically help animals "thermoregulate" whereas before they couldn't, we shouldn't get too comfortable. Somebody once told me that people in 4-wheel drives get stuck more often because they feel like they can drive into more places where they shouldn't. I would dare to say that maybe we need to go back to driving a 2-wheel drive when it comes to bears, lest we get stuck.

While some of us might be tempted to blame the natural and slow decay of our hippocampuses on our inability to change and adapt, there is evidence that suggests that even old rats improve under a simple regimen of vitamins and exercise. The resulting open-mindedness will certainly improve your efficacy as a bear biologist, and the overall safety and health of many bears. In other words, we have absolutely no excuse for failing to keep up with current research and improving our handling protocol. If you still don't think you can do it, then you might want to have a CAT

scan to see if you're not suffering from arteriosclerosis in the brain, otherwise known as "hard-headedness."

It's not our intent in this column to give you specific recipes for bear safety and handling, but more so to give you some cooking tips. We'll leave the details to the publications and workshops that are readily available to you. Here are some general recommendations to keep your whiskers finely tuned:

- Always be open to learning new skills, and keeping up with the latest developments and publications about drugs, capture techniques, and pre- and post-anesthetic treatment. Training workshops are becoming more readily available, and you'll always pick up something new;
- Familiarize yourself with bear physiology, and understand how they respond to different drugs, conditions, temperatures, etc., especially when you are working under extreme conditions;
- Monitor, monitor, monitor (see below). Avoid the bad habit of filling in the blanks for pulse rate, temperature, and respiration during the first 2 and last 5 minutes of capture. That might make your boss happy to see all the blanks filled in, but think about how mad he/she will be when you report a loss because you didn't catch an emergency on time.
- There is no such thing as a "wonder-drug." Always be prepared to deal with complications with any pharmaceutical, and under the most unexpected circumstances. Remember, you are not working in an anesthetic environment as is found when they test these drugs, so you will have a much higher probability of complications due to confounding variables (see dehydration section below).
- When something goes wrong with a capture, don't just blow it off as an accident that was bound to happen at sometime or another. Pur-

sue the issue until you understand exactly what went wrong, and how you can take measures to prevent it from happening again;

- Don't limit yourself to archaic methodology just because you work out of a pick-up truck. There's no reason you can't receive training to equip yourself with the most advanced technology. Even a cave-man can learn to apply an IV or use a respirator, but the key word here is "*learn*"; and
- Finally, please (for the rest of us and the bears) don't be presumptuous enough to assume that you can drive anywhere in a 4-wheel drive and won't get stuck, even if you've done it for ages. You can't, and eventually, you will.

We All Need a Cure for the Summertime Blues

The fish might be jumpin' and the cotton might be high, but along with summer comes a deadly killer – heat. For us folks working in desert environments, dehydration and heat exposure are prevalent concerns that we think about from habit. However, after talking at length to John about it, I realized that it's much more complicated than I thought, and can cause dangerous chain reactions in anesthesia and tranquilization processes. When it comes to getting the appropriate training, perfection is not the requirement. However, a serious commitment to understanding the physiology and inherent complications of anesthesia should be, especially when you're working in warmer seasons and climates. Here are some things to think about:

Pre-capture Precautions

- **Body temperature:** Remember that high temperatures aren't necessarily the culprit for overheating in an animal – direct exposure to sunlight can have a rapid effect on body temperature as well, even on a cool day.

- **Trap position:** Always set traps in shaded areas, and be sure to calculate where the sun will be even if you get to the trap site later than planned.
- **Trap design:** If possible, use traps that are ventilated and made with non-heat absorbing materials. Steel barrels painted with dark colored paint are death traps. In Mexico, I painted my traps with an insulation compound that is used to insulate homes, and it worked wonders in keeping the temperatures low inside the trap. To be safe, test the temperature inside your traps after they've been sitting in the sun for at least 2 hours – you might need to make some design changes. If you're using snares, this might eliminate the ventilation problem, but you might end up with more exposure to direct sunlight.
- **Transport:** When transporting bears, travel at night if daytime temperatures are high (and they don't have to be too high to cause damage – remember, bears in cages are often stressed as well). When we transported bears in Mexico, we often place large blocks of ice inside the trap. This served as an evaporative cooling device as the wind blew through the trap, but the bears also seemed to use them to cool down their skin.
- **Equipment:** Pack equipment that will help you deal with dehydration, such as ice packs and rubbing alcohol (or water), which can be applied to the bear's abdomen and thoracic area if overheating becomes a problem. IV equipment should now be standard in your equipment box, and can be used as a general procedure to prevent dehydration from ever setting in as soon as the bear is tranquilized.

Monitoring During Capture

- **Minimizing stress:** this vital in allowing the bear's body to respond effectively during the anesthetic

process – take all measures before doing anything else to ensure the bear’s safety. For example, make sure your dosage is sufficient to completely tranquilize the animal, cover the eyes (be sure to apply the correct eye ointment first), and minimize noise.

- **Monitoring priority:** While monitoring body temperature and pulse rate can become tedious and ritualistic, these two parameters can be lifesavers when detecting potential problems. Have someone on your crew who is responsible for keeping a constant eye on the bear’s condition throughout the capture and handling process because things can happen pretty fast during the time that you’re doing something else.
- **Work in shaded areas:** In extreme heat, always work a bear under the shade, and be sure it will still be shady several hours later – remember, the bear may be there for a while as it recuperates. Calculate the sun’s position for several hours afterwards.
- **Placement of body:** Placing the bear stomach-down will help to keep the thoracic area cool; you can even place ice packs under the bear as a general rule.
- **Check for signs of dehydration:** In this case, it’s important to know your baseline so you can tell when things are getting out of whack. Be up on your most recent literature, and talk to other field biologists and veterinarians working in the same area. Check on mucus membrane color and capillary refill – you should be able to note sufficient blood flow. Normal gums should be pink and damp but if gums are white and dry this indicates dehydration. Membranes should also be moist, and not dry. Also check for skin tenting above the eye – be sure the skin easily returns to the normal flat position in a few seconds.

Things Your Mother Didn’t Teach You About Dehydration

- The capability for lead team members to administer IV fluids should be a goal over time for every professional organization involved in wildlife anesthesia. This will require investment training and practice. In order to prevent dehydration from setting in, however, these skills are essential. Remember, dehydration is usually accompanied by regret.
- Never prolong anesthesia to administer fluids; however, you should be prepared and become proficient with the technique so that IV fluids can be administered efficiently while you still have plenty of time.
- For ordinary bodily maintenance, an animal loses approximately 10ml/Kg/hour. Imagine the level of fluid loss for a stressed bear that has spent hours in a trap. You can assume that a captured animal is already 3-4% dehydrated when you start out, or that the animal has been without water for about 24 hours.
- Assume that all captured animals are dehydrated, and replace 2-3% of body weight with fluids, if possible.
- Muscular contraction increases body heat up to 65 times, so displacement behavior augmented by stress will increase body heat. Keep this in mind if you use snares – bears may have more liberty to exert themselves.
- Take extra measures when it’s hot because increasing temperatures accelerate fluid loss.
- Remember that dehydration is often difficult to detect until an animal is well advanced into a crisis. Irreversible signs of shock start when an animal is 10-11% dehydrated – so monitor the animal very closely. Once you pass that point, it’s too late.
- Under normal circumstances, the body is able to rapidly compensate against dehydration by making ad-

justments through fluid retention, blood flow, and a variety of other mechanisms. Upon submitting the animal to anesthesia, however, some of those functions will be compromised. It’s safest to operate under the assumption that you are working under compromised conditions.

- Lactating females and cubs are especially vulnerable to dehydration.
- If body temperature begins to rise or the pulse rate increases (remember, check your publications to learn the acceptable ranges for different species), stop everything else and begin taking measures to reverse any negative reactions (IV’s, apply rubbing alcohol or water to the bear’s body, use a drug reversal in extreme cases).
- Many drugs compromise the renal function of animals, and because drugs like Telazol are largely excreted in the urine, effective dosages of the drug may vary because the animal can’t metabolize it efficiently. Dehydration can create a larger effective dose of anesthesia.
- If the drug dosage is too low and the heart rate is too fast, this leaves a very short window for blood to feed to the heart, and the heart will not fill. Compounded with dehydration, this can equal disaster in the form of heart arrhythmia’s or failure.

“Just Say No” Isn’t Enough Anymore

Here, we’ll briefly cover a topic that makes all of us nervous: drug monitoring. Sad to say that “Happy Days” is just a TV show, and in real life we simply have to be very careful when dealing with the narcotics and other pharmaceuticals that we use in bear capture and handling. Furthermore, if we don’t, we can get into really big trouble. Just because it hasn’t happened to you, take it from the biologists that have been broad-sided by some drug-related calamity that could not have been predicted by Nostrada-

mus himself ... it CAN happen, and it CAN happen to you. Here are some very critical and highly recommended tips for covering your hind end every way humanly possible when it comes to managing the drugs we use in bear research:

- Be sure that the use of any Drug Enforcement Agency (DEA) regulated pharmaceutical is properly permitted to you and your staff, and that permits are kept current.
- We recommend that the team be accountable to a higher committee (university or agency related), that can conduct semi-regular inventories and evaluations. Being accountable to someone else can motivate you to pay closer attention.
- Do not allow anyone on your team to be in possession of these drugs unless they have 1) gained your trust as a responsible person, 2) received the proper training and acquired enough experience, and 3) do not demonstrate any erratic behavior that would make you stop and think "ok, that was kind of weird." Honestly, hind sight is 20/20, and you'd be surprised as to how many hints we can overlook. Character flaws are tolerable in every day life, but when it comes to controlled substances, you need to set a higher standard for your team members – there's simply too much at risk.
- Keep all drugs locked up at all times, and in a container that can not be lifted or carried off. If you're carrying vials in your drug kit, count and replace them at night, and store them until the next time you need them.
- Number ALL vials with a Sharpie Marker, and use these numbers to track exact use of every drop of the controlled substance in question. Record exact measurements on your capture sheets and for which bear it was used; keep a running inventory on a spreadsheet.
- Keep all empty vials in storage for the life of the project. You might

need to produce them during an audit. DEA audits are not common, but if they do happen, you'll think that the Internal Revenue Service looks like cotton candy on a stick.

Being cautious, learning new things and being open to change will give you a long, healthy life as a bear biologist. What is my suggestion? Don't let your hippocampus turn into an old piece of cheese; be sure to feed and exercise your brain! Well, that's it for now. Again, send me your suggestions, comments, and tips!

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Media Messes and Successes

A few cautionary remarks for bear biologists

Tom S. Smith, PhD

Bear stories are always of great interest to the public. Whenever there is a bear attack, property destruction, a management action, change in management guidelines, a new study, or some other bear-related event, biologists are often consulted for additional insights, personal comments, or for fact-checking. Talking to the media should, and usually does, improve the quality and information content of

their stories, but there are some risks. What can begin innocently enough as a brief telephone interview can erupt into a full-blown controversy when carelessly chosen words appear in newspaper articles intended to attract attention. So how does one avoid the pitfalls of the media? Over the years I've fallen into a number of them and offer some advice here that may help you be a bit wiser.

Newspaper Interviews

I was once interviewed by the Anchorage Daily News regarding bear deterrent methods I had found successful. The article was important in that it presented a variety of non-lethal deterrents Alaskans could use to deal with bears. The Associated Press picked up the story and it appeared across the nation in many papers. But then some odd emails and phone calls begin to arrive with people asking "Do you really believe that tasers will deter a charging grizzly?" I'd never tested tasers on bears nor even suggested that someone do. Unfortunately, an unscrupulous copy editor had added that to the list of things I had tested. I couldn't believe someone would do that.

I suggest you take a moment to ask yourself the following questions before you respond to a phone call or email inquiry:

1. What are the facts regarding the situation?
2. Is there a possibility for controversy?
3. What am I willing to discuss, *and not discuss*, regarding this particular issue? In other words what are the boundaries outside which you will not go?

Let's say you've answered the above questions and are ready to talk to the media. Keep in mind the following facts as you engage in the interview:

1. Reporters sometimes want, and seek, controversial input – that sells papers. If you've already

drawn up boundaries you'll avoid this pitfall.

2. Reporters don't care about you, your reputation, your work, or the repercussions of something in print you may have said. It's not that they're bad people... it's that they craft news articles and aren't interested in building a friendship with you based on trust.
3. Reporters will 'trash' you if you supply them with verbal ammunition: a thoughtless quote or comment will absolutely appear in print if it gives the article the 'edginess' they seek. It's not personal for them, but it may become very personal for you if you are not careful.

Some agencies require you to obtain clearance before speaking to the media... be sure not to skip this important step or you may be in for some one-on-one time with your supervisor. Finally, most agencies have experienced media personnel who more often than not should be made aware of potential controversies before you become a part of it.

You stand the greatest chances of being misquoted, misunderstood, or of simply saying the wrong thing in on-the-spot telephone interviews. In the opening example there was nothing I could have done to avoid a miscellaneous editor sticking nonsense into the article. This example serves, however, to underscore the fact that you do risk being misquoted, or even having your words changed, when you consent to an interview. In spite of problems such as this, I do interviews because I want the best message to go out. However, sometimes the message gets muddled and there is simply nothing you can do about it.

Television Interviews

I published research in The Wildlife Society Bulletin showing that bear spray, when applied to objects, attracted Alaskan brown bears. Once the media caught hold of this a flurry of phone calls and TV interviews

ensued. To my dismay, my first on-screen interview was ended by the reporter concluding "And so you see, bear spray does not stop an attacking bear"! I couldn't believe my ears... I'd never said that nor even believed that. Oddly, many in the media made that strange leap of logic. Rather than explaining what the research meant, I was quickly ensnarled in damage control.

TV interview requests often arise when bear attacks, completion of a major study or a controversial situation occurs. Much of what is suggested above with regard to newspaper interviews applies here, but I'll add a few additional points unique to on-camera interviews that may help you avoid problems.

1. Insist on knowing the questions they will ask on-camera. Some reporters will hedge on this, but tell them this is so you can have a well-thought out response, rather than coming across as uncertain.
2. If controversy is involved (e.g., a liberal change in Fish and Game's harvest regulation on bears) be clear that you are not at all interested in commenting on the matter if you really don't want to be on record as taking sides.
3. You can ask before the interview for the option of withdrawing a comment should something come across incorrectly during the interview. Since we all misspeak at times it's not unreasonable to ask that you have a fair representation of your opinions.

In the opening example I shared how I'd not thought carefully enough about the potential impact of my bear spray research before talking with the media, and that many misunderstandings arose because of it. Had I distributed my findings among peers before talking with the media, I believe one of them would have cautioned me and I could have avoided misunderstandings that still persist 12 years later.

Film Productions

I was asked by the Discovery Channel to assist on a film script regarding proper conduct in bear country. I edited portions of the script but never saw it in its entirety. I was asked to sit in a couple scenes and explain what was going on as bears destroyed a tent, an auto with food inside, and fed on moose – all occurring in a game park with penned bears. When I viewed a rough cut of the film I was shocked: the film's title was "Feeding Frenzy" an alarmist, misleading title for the content I'd been involved in. Furthermore, the film never disclosed the setting, making it appear as wild bears had been treated to a variety of illegal, if not unethical, tests; worse some fairly meaningless scenes had been added. And there I sat in the middle. My written protests to the producers went unheeded....

You may be asked to participate in a documentary or informational film on some aspect of bear ecology. The potential for having a huge impact is there – films reach millions of people whereas journal articles perhaps only hundreds. But unlike an intensively researched and peer-reviewed journal article where tight quality controls exist, in the film world anything can happen because the biologist's control over content may be very small...especially if you don't insist on having more. Consider this counsel before agreeing to appear on film:

1. Infotainment, the odd amalgamation of entertainment with informational messages, is big business and things aren't going to change anytime soon. Therefore, bear films have theatrical elements that most biologists find annoying, distracting and counter-productive. Ask to see the entire script so that you can determine whether you want to be a part of it or not.
2. Counsel with the producers and impress upon them that although there are many ways to pitch bear

Opinion

conservation and safety messages, it is crucial that certain boundaries not be crossed.

3. Do not sign the release waiver forms until film content is acceptable. That's your final hold out and you need to be firm on this one or you may end up in a production that you would rather not be.

I'll admit to several mistakes in this instance. First, I should have been

clear with the producers that certain boundaries would not be breached by the filmmakers. Secondly, I should have been insistent that my expert-input guide the content. Once I viewed the draft film I detailed of number of problems but they went unheeded. Fortunately, the filmmakers have since added a clear disclaimer at the beginning of the film that explains that the bears involved were captive. Lastly, useless segments should have been removed and I should have insisted on

it. Some discussion up front before signing on could have avoided these problems.

Over the years I've appeared in a number of bear conservation/safety film productions and most have been innocuous. Hopefully the messages in them have helped people think differently about bears. But I've been burned too. Perhaps heeding some of this advice will help you avoid the pitfalls that await the unwary. ■

Bear Specialist Group

BSG Membership Changes

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Co-chairs, Bear Specialist Group

At the IUCN's World Conservation Congress, held last fall in Barcelona, Spain, Simon Stuart was elected the new chair of the Species Survival Commission (SSC). Coincident with that, chairs and memberships of all IUCN/SSC Specialist Groups expired and were opened for change. Simon asked that we continue as co-chairs of the Bear Specialist Group (BSG), and instructed us to review our membership; membership in all specialist groups is by invitation from the chair(s). Those members who have been active in the BSG have been asked to continue for the next 4-year

term. We have also invited other new members to join. We now have members representing 54 of the 66 countries with resident populations of terrestrial bears (i.e., the 7 species under the purview of the BSG; Polar Bears are in a separate Specialist Group), and we continue to look for new members, especially in places that are not yet represented.

We have also made changes in the chairs of some Expert Teams (see complete list of all ET chairs and email contacts on accompanying page):

- Sloth Bear ET – New chairs of the Sloth Bear ET are **Drs. Naim Akhtar and Harendra Bargali**. Naim and Harendra both studied sloth bears for their PhDs at the Wildlife Institute of India, under Dr. N.P.S. Chauhan. Naim is now a Scientific Officer for the Central Zoo Authority in New Delhi, and Harendra is Deputy Director of the Corbett Foundation in Ramnagar, Uttarakhand. Naim and Harendra have published a number of important papers on sloth bear ecology and conflicts with people, and continue to be extensively involved in issues of sloth bear conservation in India.
- North Asian Brown Bear ET – **Larry Van Daele**, PhD, is a new co-chair of the North Asian Brown Bear ET, joining Dr. Tsutomu Mano who will continue his tenure as a co-chair. Larry is a wildlife biologist for the Alaska Department of Fish and Game. He has been studying brown bears on Kodiak Island since the early 1980s. Larry is also project leader for the Northern Forum brown bear workgroup (see: http://www.northernforum.org/servlet/content/brown_bear.html) where he has had the opportunity to work with representatives from north Asian countries on brown bear issues that are common to the northern region.
- Panda ET – **Ron Swaisgood**, PhD, has taken over as chair of the Panda ET. Ron is the Brown Chair/Director of Applied Animal Ecology of the San Diego Zoo's Institute for Conservation Research, where he oversees recovery programs for a host of species, including the giant panda. As co-head of the zoo's Giant Panda Conservation Unit, he has been involved in both *ex situ* and *in situ* research projects aimed at enhancing panda populations in captivity and the wild. Ron works closely with a number of Chinese colleagues, some of whom have be-

come new members of the Panda ET.

- **Human-Bear Conflicts ET** – It has become increasingly clear that for bear conservation efforts to be successful, they must address realized or potential conflicts between bears and people. As such, we decided to form a new expert team dealing specifically with this issue. We asked **John Beecham, PhD**, to chair the new Human-Bear Conflicts Expert Team, and select appropriate members (see accompanying article). John began his involvement with bears in 1972 as a research biologist for the Idaho Department of Fish and Game and worked in a research and management capacity for IDFG until he retired in 1999. During that period he served on IBA Council, and was IBA President (1980-83). After his retirement he worked for the Hornocker Wildlife Institute and Wildlife Conservation Society, initiating research efforts on bears, pumas and wolverines, and supervised a 3-year research project on human-bear conflicts in Yosemite National Park, California. Since 2002, John has worked as an independent consultant on human-bear conflict issues in Turkey and Romania. He has also been conducting studies of factors affecting the success of released orphaned cubs in the U.S., Canada, Russia and Romania. ■

Human-Bear Conflicts Expert Team Formed

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Conflicts between humans and bears occur across much of Europe, Asia, North America and the South American Andes. Such conflicts represent a growing problem in much of the world, stemming from increasing habitat fragmentation and loss combined with an ever expanding human population, forcing bears and people to live closer together. Human-bear conflicts can result in significant economic losses, human injuries and fatalities, and consequent retribution against bears.

The need for a Bear Specialist Group (BSG) Expert Team on human-bear conflicts has been apparent for some time. The impetus to finally create this team arose in late 2008 during a small human-bear conflict workshop in Istanbul, Turkey sponsored by the World Society for the Protection of Animals (WSPA).

The objective of the workshop was to create a short document that summarized the major management principles associated with human-bear conflicts. The intent was to distribute this document to decision-makers in governments who were struggling to find ways to reduce conflicts. The document, which is nearly finalized, will soon be posted on the IBA-BSG website. However, this is only a starting point: human-bear conflicts,



Bear-proof beehive platform built together with locals within the framework of the Human-Bear Conflict Project in Rize, Erzurum and Artvin provinces, Turkey, by the Turkish Nature Association and Turkish Ministry of Environment and Forestry, and sponsored by WSPA. Emre Can and Emin Nasuhoglu of Turkish Nature Association are setting up a camera trap on one pole of the platform.



Electric fence around an orchard – one of many set up by Emre Can and locals in Rize, Erzurum and Artvin provinces, Turkey, to demonstrate the effectiveness of this technique for protecting against bear damage. Funding was provided by WSPA

while easily categorized into textbook issues (e.g., garbage, crops, livestock, beekeeping, bark-stripping from trees, threats toward people, etc.) often require a more thoughtful, individualistic response that takes into account culture, traditional practices and beliefs, income, habitat, topography, species of bear, and other resident species. Hence, a team was created that will network with the other BSG species Expert Teams to provide advice

Bear Specialist Group

on specific conflict issues, especially those impacting bear conservation.

The new Expert Team is composed of bear experts and social scientists with a diversity of experiences on human-bear conflict issues in a variety of circumstances. We strove to include experts from all geographical regions where human-bear conflicts are prevalent, covering all species under the purview of the BSG (excluding giant pandas, because human-panda conflicts are, so far, minimal).

Membership in the Human-Bear Conflicts Expert Team (HBCET) differs notably from other Expert Teams in that it includes many North Americans. The BSG has no Expert Teams specifically dealing with North American bears because the conservation issues that exist are already aptly dealt with by a variety of governmental and non-governmental organizations (including the IBA), and so the BSG purposefully focuses efforts in other regions. However, as much of the expertise in human-bear conflicts is from North America, many of the members of the HBCET are North American, even though the principal issues that this team will deal with will be outside North America. Team membership will be dynamic – other experts will be invited to join as needed.

The HBCET has been tasked to provide advice and information to the other BSG Expert Teams, to decision-makers in governments, and to NGOs and other interested persons. Conflict situations are often very complex; each situation will require careful analysis and an interdisciplinary, science-based approach to effectively mitigate the conflicts in a way that will reduce the economic burden on affected people, take into account bear conservation and welfare, and create a positive framework for human-bear co-existence. The team will endeavor to identify successful management strategies that have been used for reducing various types of human-bear conflicts and create a list of “case studies” that can be instructive for

applications elsewhere. The new team will take a proactive approach to human-bear conflicts by identifying strategies and evaluating short- and long-term management options for reducing conflicts. Action proposals

crafted by this team will be circulated to other relevant BSG teams for comment and discussion.

The following are the members of the new Human-Bear Conflicts Expert Team:

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News from Greece Brown Bear Habitat Fragmentation in Greece: monitoring the effects of the construction of the “E65” highway

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Habitat fragmentation is a threat to the survival of large carnivores worldwide. In the case of Greece, this has been exemplified by the construction of the “Egnatia” highway, a road linking the western with the eastern part of the country, on brown bear habitat in the Pindos Mountains (Karamanlidis & Mertzanis 2003). After a long and strenuous legal battle with environmental organizations the Greek government was obliged to reassess the planned alignment of the highway and monitor the environmental impact of the construction. Since then however, and in order to cope with increasing traffic volumes in the future, a new highway that will link this time the southern part with the northern part of the country and connect to the “Egnatia” highway has been planned, thus increasing pressures on the already beleaguered habitat of brown bears in the region. As in the case of the “Egnatia” highway, the initial phase of monitoring the effects of the construction of the highway, which was completed in spring 2009, was entrusted to the experienced NGO ARCTUROS. Within the framework of this monitoring program the following actions were carried out:

- Satellite tracking of brown bears: the field team of ARCTUROS, led

by the experienced bear trapper Dr. John Beecham caught 5 bears in spring 2008. Two of the bears are still being monitored.

- Genetic monitoring of brown bears: The efforts carried out within this monitoring program in conjunction with the “Hellenic Bear Register” (Karamanlidis et al. 2008) identified more than 70 bears in the wider study area. This information will compose the baseline knowledge for the long-term protection of the species in the area.
- Systematic collection of indirect and direct bear evidence: Indirect and direct evidence of bear presence was collected throughout 2008 in order to study temporal and spatial occurrence and habitat use of brown bears in the study area.

The main aim of these actions was the assessment of the status of brown bear populations at the construction site, a preliminary evaluation of the proposed mitigation measures and the proposal for compensation measures for the more effective conservation and management of wildlife in the area. The results of this monitoring program in conjunction with the increasing numbers of fatal car accidents in the area in the past years, justify the pressure by ARCTUROS and other local NGOs towards the Greek government and the construction companies to improve the “environmental profile” of the “Egnatia” and “E65” highways.

Acknowledgments:

This monitoring program would not have been completed without the participation of numerous researchers of ARCTUROS; we thank them all. Our utmost gratitude is extended towards Dr. John Beecham (USA), Dr. Josip Kusac (Croatia) and Miguel de Gabriel Hernando (Spain) for their help during the trapping season. The help of Renee Prive and Dr. David Paetkau (Canada) and Prof. L. Paule

and Dr. M. Straka (Slovakia) was essential in completing the genetic aspects of this project.

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News from the Balkans SEE.ERA - net: strengthening brown bear conservation in the Balkans

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With distribution ranges spanning usually over hundreds over square kilometers, conservation of a large carnivore is rarely just a national issue; usually cooperation of several nations is required in order to effectively protect such a species. Acknowledging this fact, an initiative named the “BALKAN NET” was set up in the early 90’s aimed at bringing together almost twenty conservation bodies and institutions in the Balkans that shared continuous large carnivore populations. In the spirit of this influential predecessor a similar scheme, the “SEE.ERA - net” was initiated in 2008, with participants from most countries in the Balkans:



Figure 1: Participants of the final SEE.ERA – net workshop at Tara National Park in Serbia

- Transborder Wildlife Association, Albania
- Faculty of Forestry, University of Sarajevo – Bosnia and Herzegovina
- SEMPERVIVA, Bulgarian Biodiversity Preservation Society – Bulgaria
- Faculty of Veterinary Medicine, University of Zagreb – Croatia
- MOLIKA – Former Yugoslav Republic of Macedonia
- ARCTUROS – Greece
- MUSTELA, Wildlife Conservation Society – Serbia
- prepare a joint Action Plan for present and future common research and management activities that will promote the most effective conservation of endangered carnivores in the region.

Project activities included a kick-off meeting held at the Environmental Centre of ARCTUROS in Greece, field research and a final meeting in Tara National Park in Serbia. 🐾

The specific aims of the project were to:

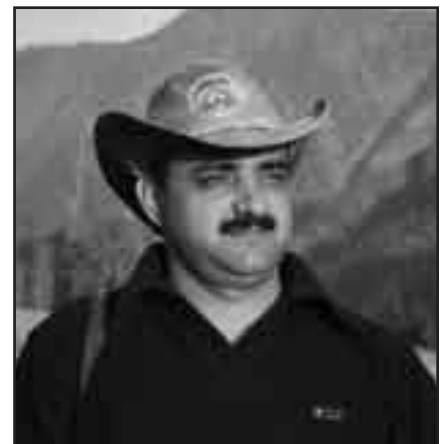
- build transborder partnership on a scientific and management level,
- improve capacity building in participating countries,
- facilitate transfer of present scientific knowledge,
- provide an updated overview of the current status of large carnivores, brown bears in particular, in SE Europe,
- establish and improve common research and management methods, and

First PhD in India on Ecology of Himalayan Brown Bear

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On 31 December 2008, Bipan Chand Rathore, a senior lecturer

in zoology in the Department of Zoology, Govt. P.G. College Chamba, Himachal Pradesh, successfully defended his Ph.D. thesis entitled “Ecology of brown bear (*Ursus arctos*) with special reference to assessment of Human-brown bear conflicts in Kugti Wildlife Sanctuary, Himachal Pradesh and mitigation strategies” at Wildlife Institute of India, Dehradun, Saursashtra University, Rajkot (Gujarat). Food habits, habitat use pattern and nomadic shepherds-brown bear conflicts of Himalayan brown bear have been studied in Kugti wildlife sanctuary during 2004-2006. We are really proud of Bipan Rathore for conducting research in rare and endangered species in rugged mountain terrain for the past 6 years and still continuing his research on conflicts issues in the Pir-Panjaj Himalayan range.



Bipan Chand



Himalayan brown bear with two cubs in Kugti Wildlife Sanctuary, India 🐾

The International Workshop on “The Mechanism of the Intrusion of Bears into Residential Areas”

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The international workshop on “The Mechanism of the Intrusion of Bears into Residential Areas,” was successfully conducted from November 22 to November 23, 2008, in Kyoto, Japan. This workshop promoted research activities in bear biology and the dynamics underlying recent bear intrusions in Japan. In 2004 and 2006, Japan experienced mass intrusions by Asiatic black bears into residential areas, resulting in a number of human injuries and fatalities (107 persons were injured and 2 were killed in 2004; 142 persons were injured and 3 were killed in 2006). Moreover, many bears were killed as nuisances (2021 individuals in 2004, and 4340 individuals in 2006). Both the public and the government needed information regarding the dynamics underlying



Bear sign

this phenomenon, and on methods for predicting such events in the future. Since 2004, the Forestry and Forest Products Research Institute (FF-



Japanese Team in the mountains

PRI), in cooperation with Hokkaido University, Gifu University, Ibaraki Nature Museum, and the Wildlife Management Office (Ltd.), has been engaged in research projects focused on this issue. Other universities and prefectures have also become involved in this research. The time came for us to summarize what we had achieved, and to consider the next step in our research.

Day 1 included presentations from scientific specialists, and Day 2 included a public symposium where approximately 128 people attended. We hosted 81 participants from 4 countries (US, Taiwan, Korea, and Japan), and 128 participants, total. The scientific workshop began with the plenary lectures by two American researchers: Dr. Diana Doan-Crider and Dr. Michael R. Vaughan. Diana outlined her recent work on the prediction of black bear behavior based on distribution maps of food production and digestible energy. Mike gave a comprehensive review on the influence of food on the physiology and behavior of the American black bear.

There were 3 sessions at the workshop. Session 1 included a discussion on the physiology and genetics of invasive bears by Ryosuke Kishimoto, where he described an extremely large number of nuisance kills between Au-

gust and November of 2006, and other incidental bears kills in the Nagano prefecture of central Japan. Using her work on stable isotope food analysis,

Rumiko Nakashita et al. suggested that the diet of bears became more diverse and that some alpine bear movements included the foothills of mountains in Nagano in 2006, which had not happened in previous years. Toru Oi et al. also use stable isotope analysis and suggested that invasive bears might not have consumed a substantial amount of acorns and nuts in Hiroshima, in 2004

and 2006. Atsushi Yamanaka et al. argued that nutritional condition of invasive bears were not always poor, and might not be a direct trigger for intrusion, based on the measurement of femur marrow fat, kidney fat index and abdominal subcutaneous fat. Toshio Tsubota suggested that bears during pre-hibernation period likely synthesized lipids from carbohydrates, and efficiently accumulate body fat,



Japanese Temple

based on the measurements of body fat mass using bioelectrical impedance analysis, fat accumulation in liver examined by ultrasonic views, and the measurement of leptin mRNA's. Naoki Ohnishi et al. showed that

bears dispersed long distances, and that kin related genetic structure was disrupted temporarily in the years of mass bear intrusions.

Session 2 focused on the influence of food resource on bear behavior. First, Mei-hsiu Hwang et al. provided information about the relationship between acorn production and the behavior of Asiatic black bears in Taiwan. She showed that relative abundance of large mammals, including



Maiko

bears, increased with the increase of acorn availability in the forest where the oak trees was dominant, and that the bears were active for longer periods when acorns were abundant. Koji Yamazaki et al. illustrated that bears were more active in autumn than summer, and exhibited marked shifts in their home range during poor acorn production years. Chinatsu Kozakai et al. showed that the home-range sizes of most bears during a poor acorn autumn were larger than those in a moderate acorn autumn, and that den entry dates were earlier during poor acorn autumns. However, they found no significant difference between daily time budgets and activity patterns between the two years. Shinsuke Koike et al. discussed marked annual fluctuations in

nut and acorn production and their different utilization by bears; however, bears showed selection only on ripe fleshy fruits. Ami Nakajima et al. illustrated that gross energy production of acorns peaked later and lasted longer at higher elevations in their study area, which explained the observed home range shift of bears.

Session 3 focused on anthropogenic factors and the prevention of conflicts. Tsutomu Mano analyzed the trend of nuisance kills of brown bears in Hokkaido, and demonstrated that summer and early autumn kills have been increasing, which might indicate an increase in the number of bears that are becoming conditioned to agricultural crops. Late autumn kills fluctuated annually, which may reflect annual changes in acorn production. Ken Ishida argued that the changes of forest utilization by humans has heavily influenced the occurrence of conflict between humans and bears, and emphasized the need to develop a new conservation strategy that would include human security and public education. Takashi Masaki et al. presented a model where lower daily spring temperatures, higher daily summer temperatures, and autumn seed densities influenced autumn seed densities for subsequent years. This model could be used to predict variations in beechnut production (a major autumn food for bears), and mass invasions of bears.

At the end of the workshop we summarized the keys to future suc-



Vaughan and Crider at Workshop in Japan, 2009

cess as follows: 1) a comprehensive approach that includes physiology, genetics, behavior, and ecology; 2) long-term research involving the monitoring of ecosystem dynamics; and 3) the study of human dimensions with an emphasis on educating humans and modifying their behaviors in order to avoid conflicts with bears, thus promoting conservation of the latter.

During the public symposium, Toru Oi presented a lecture on ecological factors which explain the recent bear mass intrusions. Takashi Masaki provided information on the predictability of mass intrusions based on the prediction of forest crop abundance in autumn. Diana Doan-Crider told of recent similar incidences of bear intrusions into urban areas in Mexico, and the contributing factors. The discussion between the three experts and participants was heated but pleasant, which illustrated the high public concern.

Through the different sessions and presentations of the workshop, we have established a foundation from which our studies of bears in Japan can proceed. Working cooperatively, we will promote the further study of bears, particularly with regard to conservation and damage control.

Finally, we would like to express our appreciation and gratitude to the invited speakers: Dr. Michael Vaughan (Virginia Tech University), Dr. Diana Doan-Crider (Texas A & M University), Dr. Mei-Hsiu Hwang (Taiwan National Pingtung University of Science and Technology), Dr. Tsutomu Mano (Hokkaido Institute of Environmental Sciences), and Dr. Ken Ishida (the University of Tokyo), and to the chairpersons of the workshop session: Prof. Shingo Miura (Waseda University), Prof. Yin Wang (National Taiwan Normal University), Prof. Toshio Tsubota (Hokkaido University), and Dr. Yamazaki (Ibaraki Nature Museum), as well as to all the participants and supporters of this workshop. ■

Collaboration and Exchange with Japan – Good for Everyone

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In November of 2008, we were invited by Toru Oi and his collaborators to participate in the workshop “The Mechanism of the Intrusion of Bears into Residential Areas”. While the main objective was for exchange of knowledge and ideas, we have to admit that we partook of the vastly enriching and interesting culture of Japan. Lynn Vaughan accompanied Mike, mainly as a chaperone – we’re sure – to keep the rest of us in line.

We were pleasantly surprised by the level of collaboration taking place between Japanese bear researchers and managers, and learned more than we can convey with words – but we will try. The Japan Bear Network (see inset) sets a prime example of effective collaboration, and it is apparent that our Japanese peers are taking great strides to accomplish their goals. We felt privileged to share our own research interests and findings, and look forward to more collaboration in the future. A part of our visit included a public presentation, which was a most unusual, but educational and a fun experience. We (Diana, Mei, Mike and Lynn) were in a room filled with well-over a hundred Japanese speaking people, and none of us could understand a word being said. Mind you, Mei-hsiu, who is from Taiwan, does not speak Japanese, which was much to Diana’s dismay when she learned that Japanese is not the same as Chinese, and was counting on Mei to translate and help her get around the city.

While we did have translators for the public presentation, it was a comical flash-back to a John Belushi skit where we heard a mix of rapid-fire Japanese, chuckling and laughing, and the occasional mention of “Mike-san” or “Diana-san.” However, we were treated with the utmost honor, and sat confidently knowing that nobody was really making fun of us – we think. The workshops were all presented in English, which was very kind of our peers to do such a favor for the few of us. Nevertheless, they all handled the challenge with huge smiles and great presentations.

Japan is an amazingly beautiful and diverse country. From the low-lying coastlands to the high, sparsely populated mountains overlooking the Sea of Japan, we were surprised to see a different side of this country than what we have seen on TV and in books. We saw miles and miles of steep mountains, and undeveloped and diverse forests that included important bear foods such as oaks and beechnuts. In addition, it was nice to learn about the peoples that still reside in the high mountains, and of their interactions with a seemingly expanding and growing bear population.

It goes without saying that we also experienced an incredible menu, from every kind of noodle imaginable, sushi, home-cooked countryside stews, “Okonomiyaki” (a delicious cabbage pancake), sake, and plum wine, the best remedy for a cold (or even if you don’t have one). We all learned to use the Japanese subway (and no, everything is NOT written in English, as the American travel guides indicate). We were housed in a very nice hotel located in downtown Kyoto, which is a metropolitan experience in itself. We noticed that the streets and cities were spotless, nobody jay-walked (except for us), everyone was polite, and people didn’t have to lock up their bikes. Later, Mike and Lynn headed for Nara to tour the incredible temple and village, and hiked for hours.

Mei, Diana, and the wonderful Taiwanese Dr. Ying Wang were hustled

to the high mountains with a passle of fun-loving Japanese students, where they stayed in a traditional lodge alongside a beautiful creek. They slept on the floors, shared traditional bathrooms, and had the longest and best meal ever had on the planet. We all seemed to cope very well with the diverse and raw sea creatures that were served on our platters, which were decorated so nicely that it made you feel bad to eat them. We toured the beautiful temples of Kyoto, hiked to sacred temples in the mountains, and spent an incredible time soaking in the peacefulness of Japan’s gardens and natural landscapes. It was autumn, so the brightly colored Japanese maples were at their peak. We also saw traditional Maiko in the historic district of Kyoto, and learned about Japan’s oldest forms of music and dance. We shopped in downtown markets, the Japanese Dollar Store, and visited the largest vegetable and seafood markets imaginable.

Diana became obsessed with learning about the homeland of famous Japanese movie monster and her childhood hero, Gamera, but was disappointed to find out that he had been replaced by a younger and cartoon-like version. Nevertheless, she is grateful for Toru Oi’s endless perseverance in trying to find her a Gamera tee shirt. She also learned that “Godzilla” is really pronounced “Godjira,” which is something that any respectable Japanese monster movie buff should know.

In a nutshell, the level of respect and hospitality that we received goes beyond words. We would encourage any IBA’er to visit this great country, and become enlightened to what our Japanese counterparts have to offer. You will learn that their hospitality is beyond belief, their culture is incredibly rich, the friendships are sincerely immeasurable, and the research is very interesting. You will also learn that Japan has more in common with the rest of us than you think. We’re all ready to go back! 🐻

What is the Japan Bear Network?

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The Japan Bear Network (JBN), established in 1997, is a membership-based non-profit organization created with the objective of carrying out the activities, research, discussion and exchange of information necessary to promote the co-existence of people and bears in Japan. Membership is about 280 as of January 2009. At the starting point of the organization, most of our membership consisted of bear biologists. However, recently our membership has expanded to include a wide variety of fields such as folklorists, hunters, students, the general public, nature conservation groups, people involved in the mass media, literary professionals, and agency representatives. We all participate to share information about bears.

The JBN board is composed of a representative, a vice-representative, a secretary general, treasurers, auditors, chairs of committees representing local areas (9 blocks), a bear conservation committee, an advertisement committee, an international inter-exchange committee, a bear funding committee, a planning committee, a newsletter committee, and a student forum. The first and second representatives were Dr. Toshiki Aoi and Dr. Toshio Tsubota, respectively. The present officers are Dr. Koji Yamazaki (representative), Dr. Toru Oi (vice-representative), Dr. Yoshikazu Sato (secretary general), Mrs. Akiko Kameyama (treasurer), Dr. Tsutomu Mano (auditor) and Mr. Masaki Fujimura (auditor).

The main activities of the JBN are as follows: 1) coordination of an annual meeting, 2) coordination and sponsorship of academic meetings

such as symposia, workshops, and other educational gatherings, 3) projects for conducting activities, research, or studies requiring cooperation on a nation-wide level, 4) exchange of information and public appeals on issues of high urgency, 5) maintenance of the Japan Bear Network web site, 6) maintenance of a mailing list allowing for the exchange of opinions between members, and 7) publication of the JBN newsletter 3 times/year.

We had many accomplishments in recent years. In 2001, we held a public symposium entitled "Coexistence with Bears" in Karuizawa Town. We published a JBN monograph entitled "Living with Brown Bears in Hokkaido". We submitted an official comment to the Ministry of Environment on the development of an avoidance method of unintended-trapping of bears with wild boar snares, and also submitted an official comment to Hokkaido Government regarding the controlled killing of brown bears in the spring season. In 2002, we held a public event, table lectures and a workshop, entitled "Searching for a Way for Coexistence with Bears" at Tama Zoo in Tokyo Metropolitan Government. In 2003, we held a public forum entitled "Issues on Japanese Black Bear Management in Western Honshu Island" at Kyoto University. We developed public education materials on Japanese black bears and Ezo brown bears. In 2004, the representative and the secretary general of the JBN inspected sites where mass-appearance of Japanese bears around human-settlements occurred in autumn.

We also held a workshop regarding the Japanese black bear mass-appearances at Gifu University, and then held a public symposium on the issue in Kyoto City. We offered a grant to the Black Bear Research Group of Toyama, which was investigating the mass-appearances in Hokuriku district. In 2005, we held a workshop and a symposium regarding conservation issues for Asian bears in Sapporo City, and invited bear biologists from Mongolia, Indonesia, Malaysia,

Taiwan, Korea, Russia, and the USA. We also held a public forum for an endangered local population of Japanese black bears in Shikoku Island. In 2006, we hosted the 17th IBA International Conference in Karuizawa Town, and published an Asian bear status report "Understanding Asian bears to secure their future" with the cooperation of many Asian bear biologists. In 2006, mass-appearances of bears around human settlements occurred again, and over 4,000 bears were killed. Thus we submitted a petition to the Japanese hunting association and local governments to stop the Japanese black bear sport hunting that season.

We also held a workshop and a public symposium on bear mass-appearances at Tokyo University, and also published the proceedings for this workshop in 2007. We held a wildlife management workshop including Japanese black bears with the Sabae City Office. In 2008, we held a special symposium entitled "Bears in National Parks; How to Keep Peace with Bears in Protected Areas" at the Shiretoko National Park with Shiretoko Foundation. In 2008, we received a 3-year grant from the Japan Fund for Global Environment to develop a public education program on bears, and have already initiated these activities across the country. For more information, go to: <http://www.japanbear.org/eng/>, and download some of our English publications. ■



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News from Florida

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The Florida Fish and Wildlife Commission has a new Black Bear Management Program Coordinator. David Telesco assumed the Coordinator position after working for 5 years with the non-profit Black Bear Conservation Committee, based in Baton Rouge, Louisiana. David received his Bachelor of Science Degree from Virginia Tech, and Master of Science Degree from the University of Tennessee.

David follows in the footsteps of Stephanie Simek. After 8 years of service with the Commission, Stephanie has returned to graduate school to pursue her PhD under the direction of Dr. Jerry Belant at Mississippi State University (MSU). Stephanie's research will examine habitat use and spatial ecology of black bears in Mississippi. The project is a cooperative effort between MSU's Carnivore Ecology Lab and Mississippi Department of Wildlife, Fisheries and Parks. 🐾

News from the Southwest U.S.A. and Mexico

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Arizona

Ron Thompson, Arizona Game and Fish Department, reported that a conservation strategies report was recently completed for black bears that supports the use of genetic sampling to determine the minimum subpopulation sizes of bears within broad vegetative communities. The statewide bear population will be managed for a median age of 5 years or greater with no more than 5% of the estimated female segment harvested from any hunt unit 3 out of 5 years. Human-bear conflicts will be managed through an improved education program, improved waste management, and harvest strategies adjacent to urban areas that reduce conflict. Current bear research includes ongoing studies of the response of black bears to urban wild land interface vegetation treatments, intermountain connectivity between and within the sierra madrean sky island region, and trans-border movements between Sonora and Arizona.

Busted in Del Rio, Texas

In late February, a landowner from the state of Nuevo Leon, Mexico near Monterrey attempted to cross the International Port of Entry at Del Rio, Texas with several illegal bear parts. Thanks to the timely action of U.S. Customs Agriculture and Wildlife Agents, the well hidden bear parts were found in his vehicle. The parts included two canines, a toe with hair and claw of a cub, and a mountain lion claw. When questioned, the individual replied that he didn't know it was illegal, that the parts all came from bears and mountain lion on his land. The case is pending and has been turned over to the United States Fish and Wildlife Service. The black bear is listed as endangered in Mexico, and has received much publicity regarding their status. Hopefully, this case will serve to warn other individuals of the penalties of such actions. U.S. Customs at Del Rio Port of Entry are doing a great job seizing illegal wildlife, birds, and parts thereof. 🐾

Literature on the Andean Bear (*Tremarctos ornatus*) in Argentina

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In Northwest Argentina, a number of studies have been done on the Andean bear's (*Tremarctos ornatus*) presence (Brown and Rumiz 1985, Del Moral and Bracho 2005, Del Moral 2008), on the stories, myths and legends of the bear in Argentine culture (Vidal De Battini 1983, Lamedá and Del Moral 2008) and Andean bears in captivity (Saporiti 1949). Systematic studies on Andean bear fossils in South America (Soibelzon 2004) and the bear's ancestors have also been carried out.

These works are of great importance for the conservation of this species: the majority of them can be found in public and university libraries. Some works however can only be found by contacting the authors themselves. A database has thus been developed to collect, classify and organize existing information on the species in this country.

We visited libraries, reviewed web pages and contacted the authors of some of the unpublished papers. We also reviewed the "Red *Tremarctos*" library to access more references. This review was carried out from June to November 2008 and references from 1866 to 2008 were found, including 57 on the Andean bear in Argentina; copies of the works and documents were also retrieved.

We compiled this review in two documents: Lamedá, I. and F. Del Moral. 2008. *Bibliography of the Andean bear in Argentina. Juco project - Argentina*; and Lamedá, I. 2008. *Bibliography on stories, myths,*



tales and legends associated with the Andean bear (*Tremarctos ornatus*) in Argentina. Juco project - Argentina.

If you would like any of these documents, please contact the authors.

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The Effect of Spatial Structure and Poaching on the Persistence of Threatened Populations: the Andean Bear (*Tremarctos ornatus*) in Venezuela as a case study

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Worldwide, many large mammals are threatened by poaching and fragmentation. To understand poaching drivers and to predict population responses to fragmentation using experimental methods, one needs detailed information about vital rates, distribution, abundance and poaching intensity. However, this information is nearly impossible to obtain for elusive and rare species. We therefore used alternative methods based on regression models and simulation techniques to evaluate these threats for Andean bear (*Tremarctos ornatus*) populations in Venezuela. This allowed us to examine the effect of spatial and anthropic factors on population viability and dynamics using opportunistically-collected data accounting for inherent biases.

We compiled 287 presence reports (including 84 poaching incidents) to construct spatial poaching risk and potential habitat models. We then combined these models with published demographic and ecological data on the Andean bear to construct a spatially-explicit matrix population model. Finally, we evaluated the elasticity of extinction probability to changes in survival, fecundity and dispersion parameters. We found that poaching risk increased at lower altitudes, where all indicators of human disturbance increased (Figure 1a).

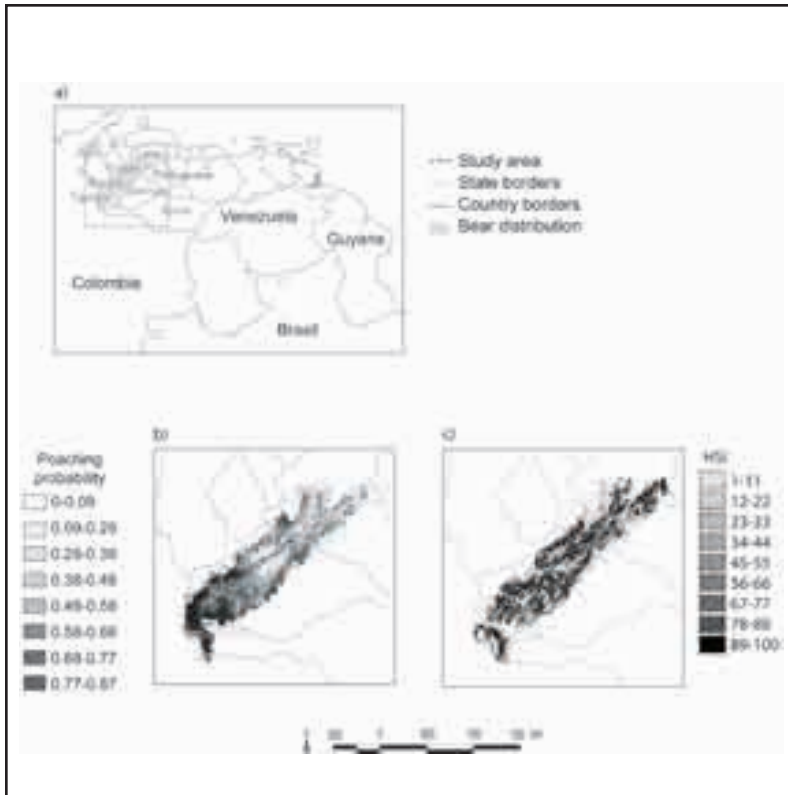


Figure 1: Distribution of Andean bear in the Cordillera de Mérida, Venezuela: (a) Political boundaries and bear distribution. (b) Predicted poaching risk to Andean bears in the Cordillera de Mérida. (c) Suitability habitat to Andean bears in the Cordillera de Mérida.

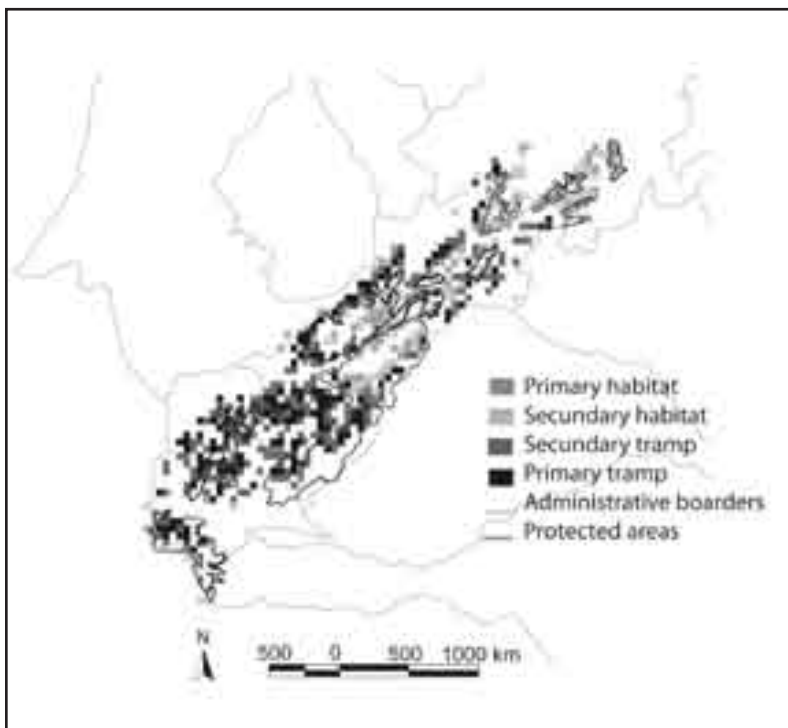


Figure 2: Ecological traps for Andean bear in the Cordillera de Mérida, Venezuela.

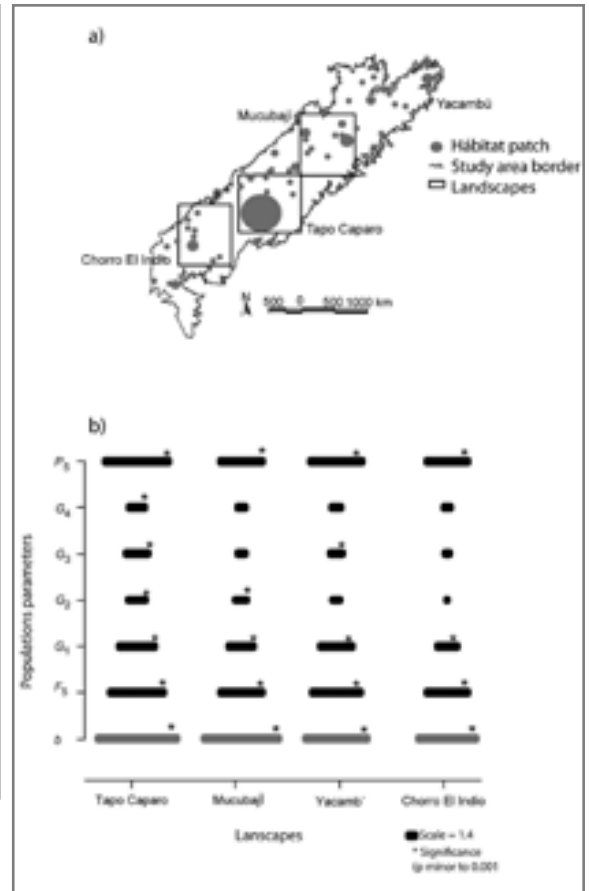


Figure 3: a) Landscapes analyzed in Cordillera de Mérida. Gray circles: Andean bear populations identified, the size is proportional to area. Landscape names refer to the most representative locality. b) Elasticity of extinction probability to changes in seven explanatory variables: b: dispersion distance. F5: adults' fecundity. Gi: transition probability of state i to $i + 1$. P5: adults' survival. The bars length is proportional to the absolute value of regression standardized coefficient. Black bars: negative; gray bars: Positive.

... continued from page 23

There was scant evidence that human-bear conflicts were a major direct trigger of poaching events. High quality habitat was associated with high elevations, abundant forest, and steep slopes (Figure 1b).

Because highest-risk areas differed from high quality habitat, we speculate that hunting has been driven by opportunistic encounters, rather than by purposeful searches in bear habitat. However, since 61% (or 11,733 km²) of high-quality bear habitat had a high poaching risk, there is still ample reason to be concerned about these areas acting as “ecological traps” (areas that attract bears but in which they are exposed to a high poaching risk; Figure 2). For example,

all four national parks at the southern range of the Cordillera de Mérida qualified as “traps”. Furthermore, we found evidence that high fragmentation in these areas might favor the existence of pseudo-sink populations, which have low abundance because they are too small to receive most

immigrants, and thus compromise population viability.

We confirmed that adult survival was the variable that most influenced extinction probability in the Andean bear, as in most long-lived mammals. Particularly in landscapes with intermediate fragmentation, extinc-

tion probability declined significantly when adult survival increased. Finally, we found that further fieldwork is urgently needed focusing on bear dispersal, since extinction probability after two generations was greater than 50% when dispersal into small patches was high. ■

Captive Bears

Update on an Investigation into a Chronic Skin Disorder among Captive Andean Bears in North America

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Introduction

Some captive Andean bears (*Tremarctos ornatus*) in North

America suffer from a chronic skin condition with progressive hair loss. This also occurs in captive Andean bears in Europe (Lydia Kolter, personal communication) and in South America (Andrés Bracho, personal communication; personal observation). Given that this condition occurs in captive bears on separate continents housed in very different environments and enclosures, fed different diets, we believe it is unlikely that this condition results from a common allergic reaction or an infection. Therefore, the objectives of this investigation are to characterize this condition, identify the risk factors and consequences, and identify potential treatments or mitigation measures.

Methods

In May 2008 we began using an online survey to collect data on the North American captive Andean bears. Among other mammals, skin disorders and hair loss may result from “stress”, nutritional deficiencies, endocrinological disruption, or the action of parasites or pathogens. Because of the wide range of risk factors, we requested information on both husbandry and veterinary variables. Requests for participation were sent to husbandry and veterinary staff responsible for the care of Andean bears (40 males, 27 females) housed in North American zoos.

One pitfall of using a survey to collect data is that not everyone will respond. There may also be a greater response from institutions housing

affected bears. To counter these issues, we aim to obtain data for all of the female Andean bears in North America and an equal number of males, for a sample size of ~50 bears. We will attempt to increase the response rate by twice soliciting survey responses by email or by telephone contact. We will halt data collection after three targeted solicitations. In addition to gathering more husbandry and veterinary data on the North American bears, we seek information from elsewhere.

Once all data have been collected, we will construct logistic regression models to estimate variation in the probability of occurrence of chronic progressive hair loss. Because there may be many statistically significant models, we will use an information-theoretic approach (i.e., Akaike's Information Criterion, AIC) to select the most parsimonious explanatory model, while following recommended guidelines for interpreting and reporting these results. Results will be distributed to respondents, and submitted for publication in a peer-reviewed journal.

Results

Due to a technical problem with our online survey, our initial request for online data submission yielded too few veterinary data for analyses. However, we have collected husbandry data for 38.5% of the Andean bears in North America (17 males, 15 females), living at 17 zoos accredited by the AZA (Association of Zoos and

Captive Bears

Aquariums). All these bears were born in captivity. Although we have data on only a minority of the population, if we have already identified all affected bears the prevalence rate in North American zoos would be 7.5% (5 of 67 bears).

Six of the 31 bears (19.4%) for which we have husbandry data currently have chronic skin conditions. One case differs in several aspects from the others, so at present we believe this bear has a different condition. In the other 5 cases there is a progression of

symptoms over years. The affected areas of skin become hyperpigmented, and there is a greatly reduced density of hair follicles, eventually resulting in a permanent loss of hair in affected areas, which can cover up to ~30% of the torso and limbs.

Acknowledgements

We appreciate the information provided by staff at the following zoological institutions: Baton Rouge Zoo, Binghamton Zoo at Ross Park,

Cheyenne Mountain Zoo, Cleveland Metroparks Zoo, Houston Zoo, Oglebay's Good Zoo, Philadelphia Zoo, Phoenix Zoo, Racine Zoo, Reid Park Zoo, Rolling Hills Wildlife Adventure, Salisbury Zoological Park, San Francisco Zoological Gardens, Sedgwick County Zoo, St. Louis Zoo, and the Tulsa Zoo. We recognize that additional personnel attempted to provide information to us online but were unable to do so. We regret the loss of their time and effort. ■

Student Forum

Where are They Now?

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Muhammad Ali Nawaz

The November 2007 issue of the *International Bear News* included the first update on former bear students. If you know (or are) a former student who has a position in the conservation field, contact me. For this article I found Muhammad Ali Nawaz, who studied with Jon Swenson in Sweden. He is now the Country Director of the Snow Leopard Trust in Pakistan.

Ali was born and raised in the southern part of the Punjab province in Pakistan. He received his early education in that province and attended the Quaid-i-Azam University in Islamabad, where he received his M.Sc. Biology in 1997. While working as an environmental consultant, Ali provided volunteer support for a brown bear conservation project initiated by the Himalayan Wildlife Foundation. This project enhanced his interest in bears, so he started reading the scientific literature and

began managing collection of field data. At the 2002 IBA conference in Norway, he met and discussed his research interests with Jon Swenson. Winning a competitive Norwegian scholarship for students from developing countries allowed Ali to start his Ph.D. on "Ecology, genetics and conservation of Himalayan brown bears" at the Norwegian University of Life Sciences in 2004.

His project looked at conservation problems of a small population living at high elevations of the Himalaya.

He completed his Ph.D. in April 2008 and joined the International Snow Leopard Trust, an American-based non-government organization, as the Country Director for Pakistan. The large carnivores in Pakistan are the most threatened, not only due to a multitude of human impacts, but also due to the lack of capacity in the country for science-based management of these charismatic species. He hopes to enhance the knowledge base of the



ecology and conservation requirements of threatened large carnivores, promote a congenial environment for their conservation through community-based conservation programs, and help build capacity in the country for ecological research focusing on large carnivore conservation.

Currently he is managing research and conservation programs for the snow leopard in Pakistan, and he has also initiated field surveys for black and brown bears, Asiatic cheetahs, and genetic studies for both common and snow leopards.

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Truman's List Serve

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- 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. 🐻

Publications

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carnivores in Europe: from incident
to opportunity. *Conservation
Letters*. 🐻

Safety in Bear Country Society Update

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The Safety in Bear Country Society (SIBCS) is pleased to announce the release of a revised version of the program *Staying Safe in Bear Country*. Since the original release of *Staying Safe in Bear Country* in Spring 2001, we have received considerable praise

on the quality of the production and its safety messages. We originally made the program 58 minutes long so it could be sold to television and reach the widest audience possible. However, numerous people commented that the program length exceeded the attention span of some audiences, thereby minimizing the impact of the key safety messages and the range of people receiving those messages. In response, we worked with a professional writer to make the script more concise and focussed on the key safety messages. We then re-structured the existing images around the new script. The revised 30-minute version of *Staying Safe in Bear Country* presents the same safety information as the original, but in a more concise and understandable way.

There are three other programs in the SIBCS video series. *Working in Bear Country* is a 20-minute module to *Staying Safe in Bear Country* that provides more detailed information for people working in bear country. It is especially relevant to industry managers and supervisors responsible for the safety of workers. *Living in Bear Country* is a 20-minute program that provides practical advice on ways to minimize problems with bears in the places that people live. By living responsibly in bear country both individuals and communities can help prevent conflicts with bears; making things safer for themselves and bears. *Polar Bears: A Guide to Safety* is a 27-minute program that contains important information on how people can reduce their chance of encountering a polar bear and how to best respond if they do meet a bear. This program was a collaborative effort of the SIBCS with many people knowledgeable about staying safe in polar bear country, including Inuit elders and polar bear hunters, other northern residents, research scientists, wildlife managers, and bear viewing operators.

The SIBCS is a non-profit group dedicated to educating the public about safety around bears; all profits

from program sales go into future education efforts. SIBCS programs are available in DVD and VHS format from Distribution Access (Toll-free: 1-888-440-4640 or 1-866-999-5292; www.distributionaccess.com; sales@distributionaccess.com)

Introducing the Yale Large Carnivore Group

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Whether a student or professional, embarking on the study, research and management of carnivores - especially bears - is not easy. Finding the right school, funding, and an institutional home to pursue your research interests is challenging. Things are no easier for managers or established conservationists: carnivores are catalysts of emotions, both good and bad, and the science that we think can provide a foundation around which some common ground can be built is often not enough. We have to drop our telemetry antennas and tweezers and perhaps hop on a horse, yak or motorcycle and go talk to angry ranchers and communities, listen to those who live around them and try to understand why bears are shot, poisoned, eaten or taken as pets. We also need to listen to the positive stories that these people might have, a glimmer of hope that can kick-start a dialogue. Integrating existing scientific knowledge with the knowledge,

values, perspectives and world views of those who have to coexist with carnivores is perhaps a way to build some common ground.

It is in response to these concerns - the student trying to make sense of his passion for carnivores and looking for opportunities, and the professional trying to deal with conflicts, both on the ground and political - that we decided to give a name and focal point to a group of Yale University affiliates and cooperators: professors in ecology, wildlife management, policy sciences, anthropologists, lawyers, graduate students, scientists, and practitioners engaged in the conservation and study of carnivore species worldwide.

We are looking to use the Yale Large Carnivore Group as a platform to: stimulate more on the ground interdisciplinary work that integrates science with contextual knowledge; develop creative tools that can make conservation more effective; support and assist carnivore conservation in parts of the world where it is needed; and promote and facilitate exchanges by bringing to the United States and Europe students and researchers involved in carnivore research and conservation elsewhere. We hope to provide students and professionals with a range of intellectual resources to enhance their work, so that the wildlife biologist in need of a social science perspective, the student in need of project and study design, the on-the-ground practitioner in need of a better understanding of the policy process, all have someone to turn to for input.

Some of us are also members of relevant IUCN Specialist Groups or work with international conservation organizations: we seek to use those avenues to facilitate collaborations and policy outcomes, when relevant.

Last but not least, we are looking for collaborations, ideas and suggestions from you as we would like this initiative to benefit our collective efforts.... after all, seven of us are IBA members!

20th Eastern Black Bear Workshop

The Minnesota Department of Natural Resources, Wisconsin Department of Natural Resources, and the Manitoba Department of Conservation will host the 20th Eastern Black Bear Workshop.

DATES

26-29 April 2009

LOCATION

Ruttger's Sugar Lake Lodge
Grand Rapids, Minnesota, USA

REGISTRATION AND LODGING

Registration forms will soon be available at <http://www.bearbiology.com/iba/conf01/ebbw01.html>. Registration is US\$210 regular and US\$150 for students; registration fee covers light supper/hors d'oeuvres buffet the first night, all meals (including gratuities) on 27 and 28 April, workshop materials, breaks, guest speakers, and a copy of the proceedings.

Lodging is at Ruttger's Sugar Lake Lodge (www.ruttgersresorts.com/sugarlakelodge/), 15 miles from the town of Grand Rapids, Minnesota. The room rate is \$78.84/night/room, including taxes, for single or double occupancy. Rooms are available in the main lodge building or in townhouses located within 5-10 minutes walking distance. Those opting for townhouse accommodations can choose studio rooms or 2-bedroom suites that includes a central common room with kitchen facilities. The same rate applies per bedroom for all accommodation choices. For details and to reserve rooms, contact Ruttger's Sugar Lake Lodge at +1 800-450-4555 and tell them that you are attending the Eastern Black Bear Workshop.

TRAVEL

Grand Rapids is located in north-central Minnesota, approximately 180 miles north of Minneapolis/St Paul and 80 miles northwest of Duluth.

The nearest airports are Chisom/Hibbing Airport (1¼ hours by car), Duluth International Airport (2 hours) and Minneapolis-St Paul International Airport (3½ hours). Car rental is available at all 3 airports. We hope to provide limited shuttle service to and from Duluth, depending on arrival and departure times. Details will be posted on the website above.

THEME

New approaches to using harvest and research data to discern population trends and geographic patterns.

TENTATIVE SCHEDULE OF EVENTS

Sunday, 26 April

Afternoon/evening registration
Light dinner - hot and cold hors d'oeuvres buffet

Monday, 27 April

8:00 Opening remarks, Status Reports
10:00 Review of population reconstruction techniques, old and new
12:00 Lunch
1:00–2:30 Modeling approaches to population reconstruction;
2:30–4:00 Case study: what population reconstruction can and cannot tell us
4:00 Concurrent: Hands-on practice with population reconstruction, using sample data
Bear habitat field seminar – Northern mixed forests
6:00 Dinner
7:30 Poster session

Tuesday, 28 April

6:00 Early bird field session; bear habitat and early spring migrants
8:00 Concurrent: Selected oral presentations – mixed topics
Hands-on application of population reconstruction techniques to your own data.
10:30 Fuzzy logic and expert systems approach to population management
12:00 Lunch
1:00 Presentation and discussion of compiled meta-data: black bear

demographic parameters across eastern North America.

4:00 Wrap-up discussion

4:30 Business meeting

6:00 Dinner

7:30 Evening program: selection of participants' best slides and stories

Wednesday, 29 April

8:00 Everyone departs for home or optional field trips.

DETAILS

Population reconstruction workshop

This workshop will review traditional population reconstruction methods and introduce newer modeling approaches to interpreting age-at-harvest data. We will use long-term data from the upper Midwest as a case study for examining the ability to detect population change using population reconstruction techniques. Those who wish to work with prepared data sets and/or with their own data should come prepared with laptops. Preparation details will be provided on the website.

Demographic Meta-data

Prior to the workshop, we will be compiling meta-data on demographic parameters of black bears across their eastern North American range. We are interested in all sources of research-derived information on parameters including age of first reproduction, litter size, cub sex ratio, cub mortality, and yearling mass. We will draw on published sources of data and ongoing studies that we are aware of, but if you have not been contacted and have information to contribute, please let us know.

POSTERS AND ORAL PRESENTATIONS

The poster session on Tuesday evening and limited paper session on Wednesday morning are open to anyone wishing to submit an abstract. Abstracts should be 250-500 words in length and can address any aspect of bear biology or management. Please submit abstracts to the conference

Events

organizers by 15 February, 2009, and indicate your preference for poster or oral presentation. Slots for oral presentations will be very limited, with priority given to completed research, development of new techniques, and/or findings of broad significance.

FIELD TRIPS

We will offer a limited number of formal field trip options following the workshop. One field trip will be to edge of the bear range in far north-western Minnesota and will require two days and an overnight stay. Field trips will entail additional fees and number of participants will be limited. In addition to formal field trips, there are also many opportunities to explore natural and cultural history of the area on your own. Details on field trip and travel options will be provided on the website.

QUESTIONS?

For further questions, visit www.bearbiology.com/iba/conf01/ebbw01.html or contact Karen Noyce (+1 218-327-4133, karen.noyce@dnr.state.mn.us) or Dave Garshelis (+1 218-327-4146, dave.garshelis@dnr.state.mn.us), Forest Wildlife Populations and Research Group, 1201 East Highway 2, Grand Rapids, MN 55744. 📧

2009 Asiatic Black Bear Symposium

LOCATION: Taipei, Taiwan

DATES: Nov 18-20, 2009 (tentative)

COORDINATORS: Taiwan Forestry Bureau, Endemic Species Research Institution, National Pingtung University of Science and Technology, National Taiwan Normal University, Yushan National Park, and Taipei Zoo

SCOPE: All ranges of Asiatic black bears

PROGRAM: Includes invited speakers, oral presentations, and poster

sessions. Topics will include (a) ecology and behavior, (b) physiology and ethology (captive management), (c) phylogeny and conservation, and (d) issues in conservation and management.

Workshops will include

- (1) development of a Conservation Action Plan for endangered or threatened bears, (
- 2) education program for conserving Asian bears,
- (3) reintroduction & rehabilitation (captive management of bears in genetics), and
- (4) long-term monitoring of bear populations.

Field trips will likely include the Endemic Species Research Institution & Field station (captive Asiatic black bear facility) and Yushan National Park.

FOR MORE INFORMATION

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Or Go to www.bearbiology.com 📧

Advancing Bear Care 2009 Conference

6-8 NOVEMBER 2009

The conference is being hosted by the San Francisco Zoo in California, USA. Presenters include John Beechum, former IBA President, and Robym Appleton, Desert Andean Bear researcher.

The conference's theme is "Creating and Enhancing communication, cooperation, and education among international bear care professionals."

More information is available at bearcaregroup.org, sfzoo.org, or gailh@sfzoo.org 📧

3rd International Bear – People Conflicts Workshop

15-17 NOVEMBER 2009

Preventing and managing bear-people conflicts is a major task for government agencies, municipalities, industry, homeowners, and others that live, recreate or work in bear country. Practical methods and strategies that are feasible and effective for resolving conflicts have been developed over the years from a variety of sources. Previous international bear conflict workshops at Yellowknife, Northwest Territories in 1988 and Canmore, Alberta in 1997 have provided a venue for sharing the successes and failures as these methods and strategies have been tested. Building on the success of those previous workshops, we are holding a third workshop in 15-17 November 2009, again in Canmore. The format will emphasize participation, with a few formal presentations to set the scene and focus follow-up discussions facilitated by experts in the topic. Participation in the discussions by attendees is not only encouraged but is crucial to the success of the workshop. There will be an open poster session for visual presentation of topics relevant to bear conflict management. In addition to updated experience with topics common to previous workshops, this workshop will include discussion of polar bear conflicts and community-based approaches to bear conflict management.

The conference has a website with registration, lodging and travel, contact details and preliminary agenda at: http://www.rdc.ab.ca/future_students/continuing_education/conferences_events/international_bear/index.html 📧

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- Standard Membership US\$50.00/year, US\$45.00/year for three or more years.
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 Institutional Membership US\$100.00/year, US\$250.00/three years. # Years _____ US\$ _____
 For those who cannot afford a Standard Membership, US\$25.00/year.
 Includes *International Bear News*. If needed, a free copy of *Ursus* may be requested. # Years _____ US\$ _____
 Please send *Ursus*. I have no access to it, need it & cannot afford Standard Membership.
 Donation (if possible!) included to help defray costs of sending *Ursus*. US\$ _____

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IBA Member Application, page 2

Please Complete Information on Both Sides of this Form!

Please check columns in which you have expertise and/or are willing to assist / advise IBA

		1. Expertise	2. Advise/Assist IBA			1. Expertise	2. Advise/Assist IBA
Accounting				Legal			
American Black Bear **	years			Legislative Process			
Asiatic Black Bear **	years			Life History			
Andean Bear **	years			Management			
Awards *				Member Concerns *			
Bear-Human Conflict				Media Relations			
Bears in Culture				Mentoring / Training *			
Behavior				Newsletter *			
Bylaws *				Nominations *			
Brown Bear **	years			Nuisance / Damage Management			
Conferences *				Nutrition			
Conservation *				Organizational Development			
Disease				Pathology			
Economic Development *				Physiology			
Education / Outreach *				Polar Bear **	years		
Enforcement				Policy *			
Ethics *				Population Dynamics			
Evolution				Quantitative Analysis			
Field Research				Sloth Bear **	years		
Financial Management				Strategic Planning *			
Food Habits				Sun Bear **	years		
Genetics				Toxicology			
Giant Panda **	years			Travel Grants *			
GIS				<i>Ursus</i> Journal *			
Grant Review *				Veterinary			
IBA History / Archive				Website *			
Habitat Evaluation				Wildlife Rehabilitation			
Husbandry / Zoo				Other - Specify			

** Please indicate number of years of experience with each species

* Indicates an IBA committee

Please check all academic degrees earned: BA/BS MA/MS PhD/DVM Other (list) _____

Please list major field of study _____

Please list all countries in which you have worked with bears _____

Please list languages in which you are fluent _____

What changes/improvements would you like to see in the IBA (newsletter, *Ursus*, conferences, etc.)? _____

How can IBA better serve its membership and/or help you? _____

Check here to include your name in the IBA membership directory

Thank you for completing the survey. Please tear out and mail or fax!

IBA Publications Order Form

<u>Ursus Journal & IBA Conference Proceedings *</u>			<u>Cost</u> (US\$)	<u>Quantity</u>	<u>Total</u>
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19th	2008	Ursus 19 (included with membership)	\$45.00	_____	_____
* 40% discount for 3 or more volumes, except Ursus 16 through 19				Less 40% discount	(-\$ _____)

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Western Black Bear Workshop Proceedings, USA

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Monographs of the IBA

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	by F. Craighead	(#1, 1977)	\$10.00	_____	_____
<i>The Status and Conservation of the Bears of the World</i>					
	by C. Servheen	(#2, 1989)	\$10.00	_____	_____
<i>Density-Dependent Population Regulation of Black, Brown and Polar Bears</i>					
	edited by M. Taylor	(#3, 1994)	\$10.00	_____	_____
<i>Population Viability for Grizzly Bears: A Critical Review</i>					
	by M. Boyce, B. Blanchard, R. Knight, C. Servheen	(#4, 2001)	\$10.00	_____	_____

Please fill out form legibly:

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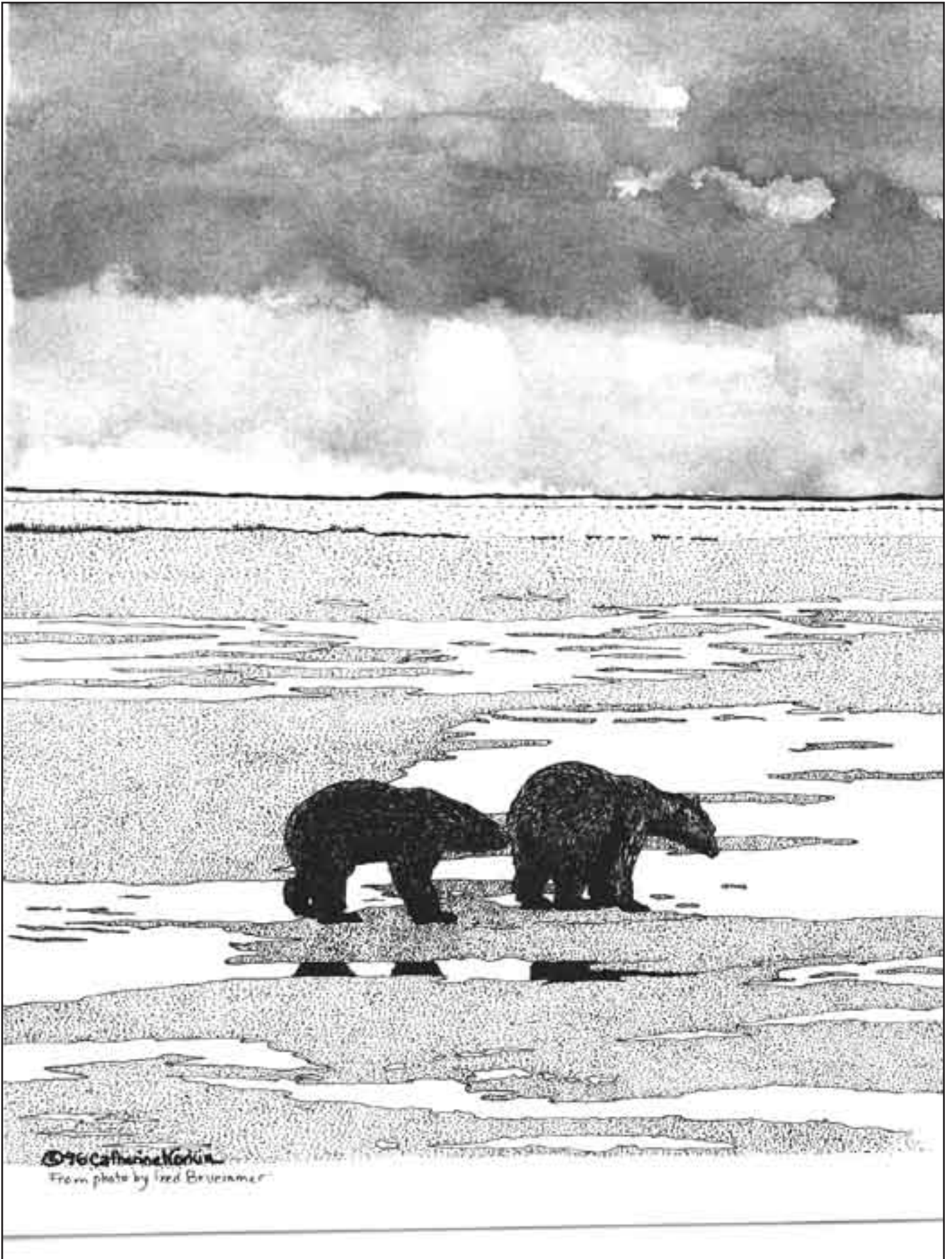
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About the International Association for Bear Research and Management (IBA)

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.

Deadline for the August 2009 issue is 5 July 2009

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