

International Bear News



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International Association for
Bear Research and Management (IBA)
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Himalayan brown bear footprints on the ground in Kazakhstan. Read more about these bears on page 16.

President's Column

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Back to the Future

IBA has embarked on a process to play a bigger role in the conservation and management of bears on the global scale. The goal is to provide more training and funding opportunities for our members to enhance science-based bear management and conservation all over the world. In our internal communication, we refer to this process as “IBA transition”. The basis for this transition was a membership survey in 2015, with the goal to evaluate the current state and status as well as provide ideas about future development and evolution of IBA. The results of this survey have been presented at the IBA Conference in Anchorage, Alaska, in 2016, however, as a reminder I present below some of the most important results of this survey.

We asked the question: “What should be IBA’s 3-5 most important goals for the next 10 years?” The 6 most important goals ($\geq 20\%$ support among respondents) were that IBA should provide more support for conservation oriented research and management projects (suggested by 46% of all respondents); IBA should provide more and better information and educational materials for the general public (31%); IBA should take a more proactive and stronger political role (31%); IBA should strive to increase its finances and grants program (24%); IBA should help improve the communication and cooperation amongst the membership (23%); and IBA should strive to increase student recruitment and involvement.

Respondents answered to the question “What are IBA’s greatest strengths or programs?” that the 6 most important strengths of IBA were the conferences (40%); the grants program (36%); Ursus and IBN (36%); IBA’s scientific expertise (26%); IBA’s organizational culture (25%); and IBA role in providing networking opportunities (25%).

Respondents were asked “What are 3 major challenges facing IBA in the next decade?”. The 4 major challenges facing IBA in the next decade as listed by the respondents were securing and improving of IBA’s financial situation (39%); ecological, conservation and management challenges to bears (34%); IBA’s role in terms of proactive leadership and authority in the conservation and management of bears (24%); an increase in membership (20%).

In summary, the most important suggestions (ranked according to support) were 1) that IBA should work on securing and improving its financial situation as an organization and for its grant program. 2) IBA should show more proactive authority and leadership in the science-based management and conservation of bears, i.e., respondents want IBA to be more visible and more active with helping governments, agencies, etc. with scientific questions pertaining bears and their management. 3) Conferences are seen as one of the most important strengths of IBA. 4) Respondents want IBA to help improve the communication and cooperation among the membership, researchers and managers. 5) IBA should improve its public information and education efforts, in short “Take the science to the people”.

Teamwork for transition

IBA Council has several ad hoc committees working on different and important aspects of the transition. Please note that these ad hoc committees should not be confused with other more permanent IBA committees; ad hoc committees work on a specific task and are dissolved after their work is finished. Here I would like to introduce two recently installed ad hoc committees, the Development Committee (DC) and the Communications Committee (CC). The DC is chaired by John Hechtel, and is working on preparing a sustainable medium- and long-term fundraising plan for IBA. The reality of the game is that additional money is needed for IBA to grow as an organization and to provide more and larger grants for science-based bear conservation and management, as well as more membership services. Importantly, this committee will also ensure that IBA grows at the right speed, not too fast but also not too slow, and it will provide important milestones and check points along this route.

The CC is chaired by Agnieszka (Aga) Sergiel and Alex Kopatz, and is responsible for breaking down the many things happening with the transition and pass on this information to IBA members. As a start, Aga and Alex have prepared a column in this issue of IBN (page 5). Regular information in eblasts, Facebook, as well as on the IBA website (www.bearbiology.org) will follow. Please do not hesitate to contact Aga or Alex, but also DT Jennapher or myself in case of any questions about the transition.

IBA's first full time employee and a new IBA Secretary

As part of the transition process, IBA recently completed the legal and financial requirement to hire our first employee for the position of Director of Transition (DT). The DT will work closely with Council and ad hoc committees and coordinate the transition process. Jennapher Teunissen van Manen was hired for this position and stepped down as IBA Secretary. Former IBA Council member and VP Eurasia Alex Kopatz has taken over as interim secretary for the remainder of 2019. Please contact Alex for all questions about the daily business of IBA.



Next IBA Conference

It is my great pleasure to announce that the next IBA Conference will be held in September 2020 in Kaspell, Montana. Make sure to check out the IBA website for updates as they become available for conference information.

IBA Member News

Transition News

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Dear IBA Members,

As you may have heard at a membership meeting during the last conference or read in recent IBN issues, IBA is changing as a result of feedback we received from the membership survey in 2015. In the survey responses, IBA members overwhelmingly expressed a desire for IBA to transition into a more effective and global player in promoting science-based management and conservation of bears. IBA Council used this feedback to develop a plan and has started a process to transition IBA towards this goal. To better introduce this process to you, we present answers to the most important questions below. Moreover, we will continue to keep you posted in future IBN issues as well as on our website!

Why does the IBA need to change, and why now?

The strategic membership survey provided IBA Council with valuable insights about how our membership (you) perceives us as an organization. Most notably, you have expressed a desire to explore how IBA can become a more effective organization in promoting science-based management and conservation of bears in all parts of the world. Building on your wishes, IBA Council worked with the management consultant company Oliver Wyman, who provided us with their service pro bono, to prepare a road map for IBA on how to provide more resources for our membership. As an organization, we want to better address your needs and concerns for science-based bear management and conservation in your part of the world. But why now? At the same time, the workload to maintain IBA's business has increased over the recent years to a point where it is difficult to manage on a voluntary basis. To alleviate this workload and to better prepare for the future, IBA Council applied for a foundational grant to hire a Director of Transition (DT) with the main responsibilities of (1) coordinating the transition with IBA Council and activities among committees working on different aspects of the future development of IBA; (2) managing electronic membership; and (3) working closely with Council and a future Executive Director to help coordinate the fundraising and logistics of the transition. We welcome our new employee DT Jennapher Teunissen van Manen. As Jennapher has moved to this new role, IBA Council voted in Alexander Kopatz to finish out the term as Secretary for Council.

What is changing in IBA?

The goal of the transition is to make IBA more efficient and effective for our members while increasing our capacity for providing grants to support bear research, conservation, and management around the world. This entails some changes to our organizational structure to be able to meet these new challenges. However, at the same time it is key to preserve what

IBA Member News

we all appreciate and love about IBA for our members. IBA will maintain its membership as a diverse professional society of wildlife managers, biologists, educators, and conservationist working with bears. The core of our organization will always be a Council elected by the IBA-membership (you). The essence of IBA, i.e., the close contact and communication between its members, the conferences, IBN and Ursus, will remain the same and continue to be what makes IBA unique. IBA plans to hire an Executive Director (ED), reporting to Council, who will run the day-to-day business of IBA as well as be the central figure responsible for fund raising. We will try to enhance the organizational structure of IBA from a volunteer-based organization to an organization where employees will carry out many of the tasks. This also includes changes to responsibilities and decision-making processes. An overview including more specifics and details of the future plans will be made available for you on the IBA website, with the opportunity for feedback and comments.

What is going to happen during this year and what does that mean for you?

IBA committees are working on the organizational structure, strategic planning, finances, fund raising and communications, aiming to increase IBA's ability to execute its mission. By hiring dedicated staff, we will be able to increase the capacity of science-based programs in bear management, expand conservation impact worldwide, as well as to explore new and better ways to serve IBA's professional members and enhance opportunities for professional development. As a first step we have hired a DT, and an ED will follow later this year. We will also add legal, fund raising and communication advisers to our network. An important part of the future organizational structure will be a strategic plan on how IBA plans to distribute funding for management and conservation activities and projects on a global scale. Different parts of the world have different needs for bear conservation and management. A manager in North America dealing with bears in a suburban area has different needs and concerns compared to a manager in Asia trying to conserve a highly fragmented and endangered population. Common to both, is the need to exchange ideas and experiences with colleagues, to receive additional training, as well as opportunities to apply for funding to better understand or solve their specific management and conservation challenges. It is the goal of IBA to better address needs and concerns for science-based bear management and conservation in all parts of the world. Therefore, we are working on plans that address needs and concerns on a geographic basis, and access to increased funding opportunities for all IBA members.

You will be informed with regular updates about all the steps towards improved services for our membership and more efficient and effective science-based management and conservation of all bear species across the world.

You will probably have more questions or concerns about the transition. Please do not hesitate to contact Jennapher at jennapher.teunissenvanmanen@bearbiology.org. Also, follow IBA's website, Facebook and e-blasts to keep updated on the newest announcements.



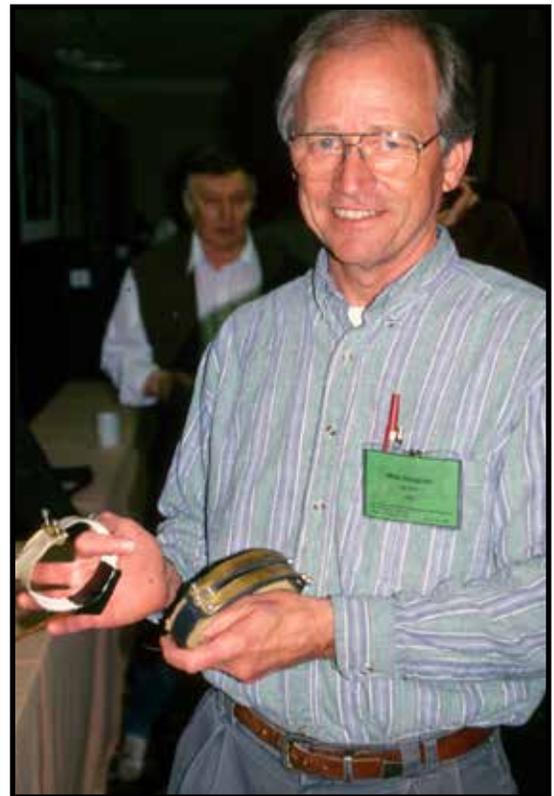
In Memoriam: Michael "Mike" Ray Vaughan

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Longtime IBA member Michael "Mike" Ray Vaughan, passed away peacefully on Dec. 26, 2018 at a hospice facility in Raleigh, NC due to complications from mesothelioma. He was 74.

A member of IBA since 1980-81, Mike was a professor emeritus at Virginia Tech and served as the assistant leader of the Virginia Cooperative Fisheries and Wildlife Research Unit, Department of Fisheries and Wildlife Sciences. During his 30 years at the coop unit, he contributed to more than 100 peer-reviewed scientific journal articles and book chapters, and mentored and advised 45 graduate students, which he stated was one of his most important accomplishments.

A native of Hampton, Virginia, Mike was a veteran of the Vietnam War, honorably serving in the U.S. Air Force from 1962-1966. After the war, Mike used the GI bill to receive his BS in wildlife from North Carolina State University (1971). He received his MS from Oregon State University (1974) studying mountain goat ecology in the Wallawa Mountains of Oregon under Dr. Charles Meslow. Mike's toughness and dedication to wildlife conservation was evident back then, as his field work required wilderness survival skills, winter camping, hiking up snow-covered mountain peaks, and sitting for hours in the snow observing mountain goats. Mike then earned his Ph.D under Dr. Lloyd Keith from the University of Wisconsin, Madison (1979), where he studied how food shortages impacted experimental snowshoe hare populations in Alberta, Canada. His *Journal of Wildlife Management* publication on this research earned



Djuro Huber

Mike Vaughan displaying expandable black bear cub radio transmitter collars he helped developed to determine cub survivorship and mortality factors. Photo taken during the 11th IBA Conference in Gatlinburg, TN in 1998.



(left) Mike and his wife, Lynn, with Dr. Toru Oi and Dr. Mei-Hsiu Hwang during a human-bear conflicts workshop in Kyoto, Japan in 2008, in which Mike was an invited keynote speaker (photo: Diana Doan-Crider). (center) Mike weighing a bear cub in winter 2001 as part of the Cooperative Alleghany Bear Study in western Virginia (photo: Colleen Olfenbuttel). (right) Mike was able to collect data on pre-natal cub development through the use of ultrasound technology on temporarily-held wild black bears at the Black Bear Research Center at Virginia Tech. (photo: Virginia Tech)

IBA Member News



Colleen Olfenbittel



Colleen Olfenbittel

(left) Mike's dedication to black bear research was passed on to his students, including the time he had Colleen immobilize one of the black bears at the Black Bear Research Center at Virginia Tech in between her morning master's seminar and early afternoon thesis defense in order to stick to the sampling schedule. (right) Mike with some of his graduate students from the Cooperative Alleghany Bear Study during summer 2001. From left to right, Rachal Gray, Andrew Bridges, Colleen Olfenbittel, Mike Vaughan, Deb O'Neill, Daniel Lee, and Sybille Klenzendorf.

The Wildlife Society's (TWS) Wildlife Publications Award in 1982.

In 1980, he was hired as an Assistant Leader of the coop unit and, in 1981, he initiated his first research project on American black bears (*Ursus americanus*) in Shenandoah National Park, Virginia, USA. Although Mike studied a variety of wildlife, including white-tailed deer, bighorn sheep, red wolves, clouded leopards, river cooters, and sea turtles, he was internationally known for his research on the American black bear, studying them, and other bear species, from 1981 until his retirement in 2010. Mike conducted bear research in Arizona, 3 wildlife refuges in North Carolina, 2 national forests and a national park in Virginia, and overseas in China and Europe.

In 1987, he established the Black Bear Research Center (BBRC) at Virginia Tech, where conflict female bears were kept in temporary captivity from late summer through the following spring, before being released back into the wild. The BBRC conducted ground-breaking research over more than 20 years into black bear hibernation, reproduction, physiology, cub fostering, and pre- and post-natal cub development. The quantity and uniqueness of the data collected at the BBRC has resulted in on-going data analysis and publications by Mike's colleagues, including this article's author.

In 1994, Mike initiated the Cooperative Alleghany Bear Study (CABS), a 10-year study encompassing 2 study areas in western Virginia that examined the ecology and demographics of a hunted black bear population. This study influenced bear management and research study design in Virginia and beyond. For example, population demographic data collected during CABS is still used as foundational data by multiple southeastern states to track growth trends of black bear populations. Over the course of the 10-year study, the team included 11 graduate students, more than 30 full time technicians and seasonal volunteers, state wildlife agency biologists, federal biologists, and Virginia Tech faculty members from 4 separate departments. Mike was the team leader and skillful at coordinating complicated project activities, as well as working with a diversity of people and recognizing the differing philosophies of agencies and organizations with a vested interest in black bears. Mike's ability to listen to everyone and balance differing perspectives earned respect and praise from his students, colleagues, state agencies, federal agencies, NGOs, and even cranky bear hunters.

His applied research informed bear management, improved capture and handling techniques, identified new monitoring methods, led to advancements in bear rehabilitation and cub fostering, and immensely expanded our understanding of bear ecology. As Karen Noyce stated "Mike's insatiable curiosity about how it all works spawned some of the earliest research into the physiological ecology of bears, encouraging a multi-dimensional and integrated approach to understanding populations and behavior."

Mike was dedicated to the mission of the IBA, where he served as vice-president from 1995-1997 and on the IBA Council from 1998-2007. Mike was editor of *Ursus*, served on the IBA Publications Committee, and was co-editor of the 11th International Association for Bear Research and Management Proceedings. He co-hosted both the 8th Eastern Black Bear Workshop in tandem with the 7th International Bear Association Conference in 1986. He was a regular attendee at the IBA annual conferences, often bringing a cadre of his students so that they could not only learn from and network with other bear researchers, but so that he could help develop the next generation of wildlife professionals.

During his career, Mike received numerous awards, including the TWS Virginia Chapter's Henry S. Mosby Professional Award in 1990, which is given to a professional who has demonstrated significant contributions to wildlife. He also received

IBA Membership News

the National Wildlife Federation Environmental Publication Award and the National Biological Service Performance Award.

Dr. Mike Pelton described Mike as a close friend and colleague, who was a persistent and passionate researcher, and had a sense of humor, love of the outdoors, and calm and positive manner. Karen Noyce described Mike as a trusted and kind colleague, and a ready friend to many and to her. His former students would describe Mike as an approachable and patient advisor, despite the many mistakes and mishaps we challenged him with. As a former student of Mike's, I agree with them all and am thankful he was my graduate advisor, mentor, and close friend.

Mike retired in 2010 and moved to Moncure, NC, where he built a farm house on his wife's family land. He and his wife, Lynn, joined his brother-in-law in the family business of pasture-raised cattle. His former students often joked that he worked longer and harder hours in retirement than during his wildlife career; he would just chuckle at the observation. He is survived by his wife, Lynn, son, two daughters, six grandchildren and his sister. A memorial is planned for summer 2019 in Blacksburg, VA. Please contact Colleen for information if you are interested in attending.



IBA Grants Program News

Bear Conservation Fund

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Thank you members, for another banner year in 2018 and a nice wrap up in process for 2019 for the Bear Conservation Fund.

Those of you who gave to IBA's Bear Conservation Fund, thank you! To those of you considering the Bear Conservation Fund for a legacy gift, thank you! Donations, however large or small, really add up quickly. More of you are giving and more of you are giving more. This is a wonderful sign. What goes around comes around in this case. Several studies of philanthropy, including work by sociologists Brent Simpson and Robb Willer (2015), have suggested that when you give to others, your generosity is likely to be rewarded by others in the future. And giving is contagious in that seeing others give makes an individual more likely to give (Carman 2003). So thank you members, for building that momentum.

There are 3 announcements.

1. Based on a deep need for something more than volunteer bookkeeping and administration, the IBA council has voted to allocate 17% of donations to general operations, starting March 2019.
2. Our funding cycle will be shorter in 2019 because we plan to shift the closing of the cycle to December 31st to make it easier for bookkeeping. This means that the distributions that will go out in 2020 will only have a 9 month accumulation period. If any of you are willing to dig deeper for bear conservation, 2019 is a good year to give a little more.
3. The IBA Council has created a Development Committee to be led by John Hechtel and includes me, Karen Noyce and Gordon Stenhouse. Other volunteers to the Bear Conservation Fund include Brian Scheik, Patti Sowka, Steffi Franke and Jason Rupp.

Lastly, I would like to say that I was able to speak with many of our established donors to the Bear Conservation Fund and I was touched by their stories of why they give. One couple gives as a way to honor their marriage because bears were the reason they met.

Thank you again, all of you who gave. And in closing, here is this fine reflection on the why of conserving bears from Wayne Lynch in his book "Bears: Monarchs of the Northern Wilderness" published in 1993:

"Bears keep me humble. They help me to keep the world in perspective and to understand where I fit on the spectrum of life. We need to preserve the wilderness and its monarchs for ourselves, and for the dreams of children. We should fight for these things as if our life depended on it, because it does."

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First translocation of females in the French Western Pyrenees: a new step in the long process of brown bear restoration in the Pyrenees Mountains

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Pyrenean brown bears are considered to be one of the most endangered brown bear populations across Europe (Boitani et al. 2015). At the beginning of 90s, this population was almost extinct with only 5-6 bears in the Western Pyrenees. Translocations of bears originating from Slovenia were conducted in 1996-1997, 2006 and 2016. But for political reasons, those bears were introduced only in the Central Pyrenees [9 bears in total, including 3 males and 6 females in the French side of the Pyrenees and 1 male in Spain (Catalonia)], although several translocation projects were also proposed in the Western Pyrenees over this period (see Figure 1).

Since the disappearance of the last female in 2004 (Camarra et al. 2011), the western core of the population has been virtually extinct with only 2 males remaining. Several scientific studies outlined the vulnerability of the Pyrenean brown bear population and the necessity to urgently translocate females into the western and central nuclei (Chapron et al. 2003, 2009).

From 2010-2016, a new public consultation phase was initiated by the French Government for the conservation of this highly endangered population within the framework of the Pyrenean Strategy of Valorisation of Biodiversity (PSVB). This consultation was driven by the PSVB Committee, which included all the main stakeholders involved in the preservation of brown bears in the Pyrenees (i.e., hunters, foresters, breeders and farmers, nature protection associations, tourist structures, elected representatives and public administrations).

In 2010, the French Government decided to introduce one female into the Western Pyrenees in 2011. But the project was eventually cancelled in May 2011, just few days before the operational phase of the translocation project that was being driven by the Slovenian Forest Service (SFS) and the French National Agency for Hunting and Wildlife (ONCFS). Not surprisingly, in 2013, new scientific expertise requested by the French Ministry in charge of Ecology concluded that urgent first introductions of females in the Western Pyrenees was needed in order to prevent the extinction of the Pyrenean brown bear population (Boitani et al. 2013). During the annual meeting of the PSVB Committee in July 2016, 50% of the participants voted in favour of bear translocations in the Western Pyrenees and 50% voted against.

Conservation

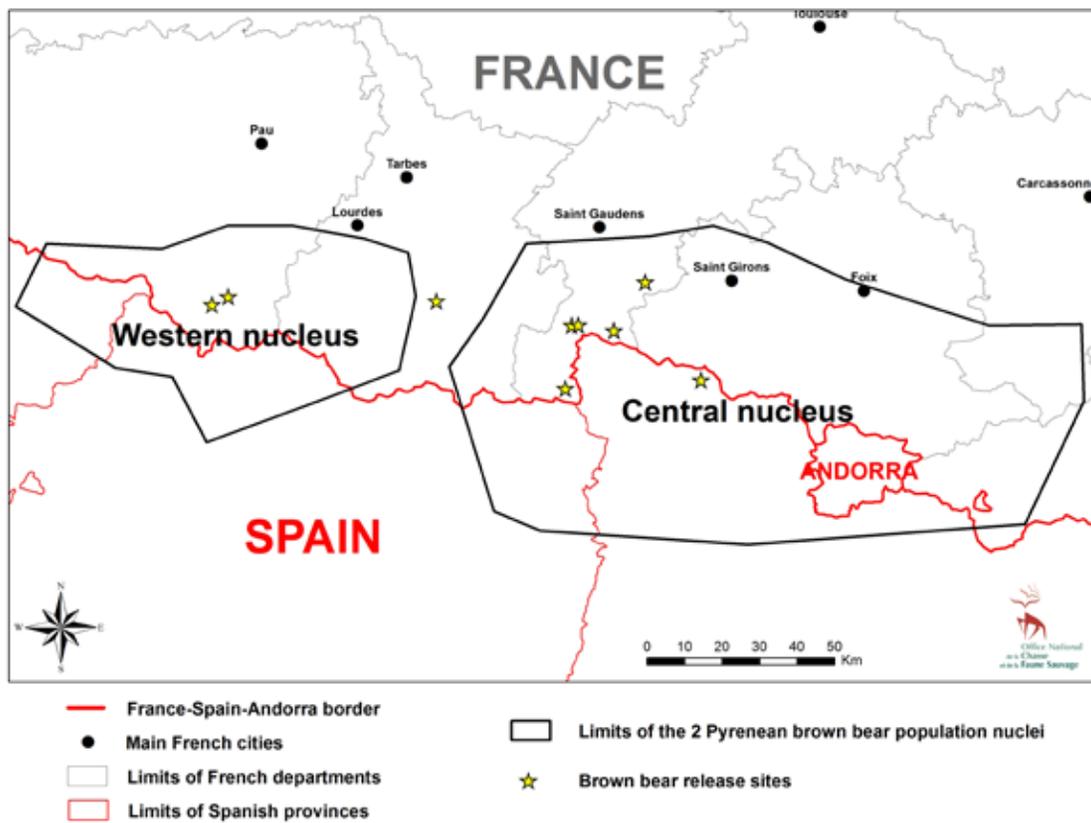


Figure 1. Translocations of bears originating from Slovenia were conducted in 1996-1997, 2006 and 2016.

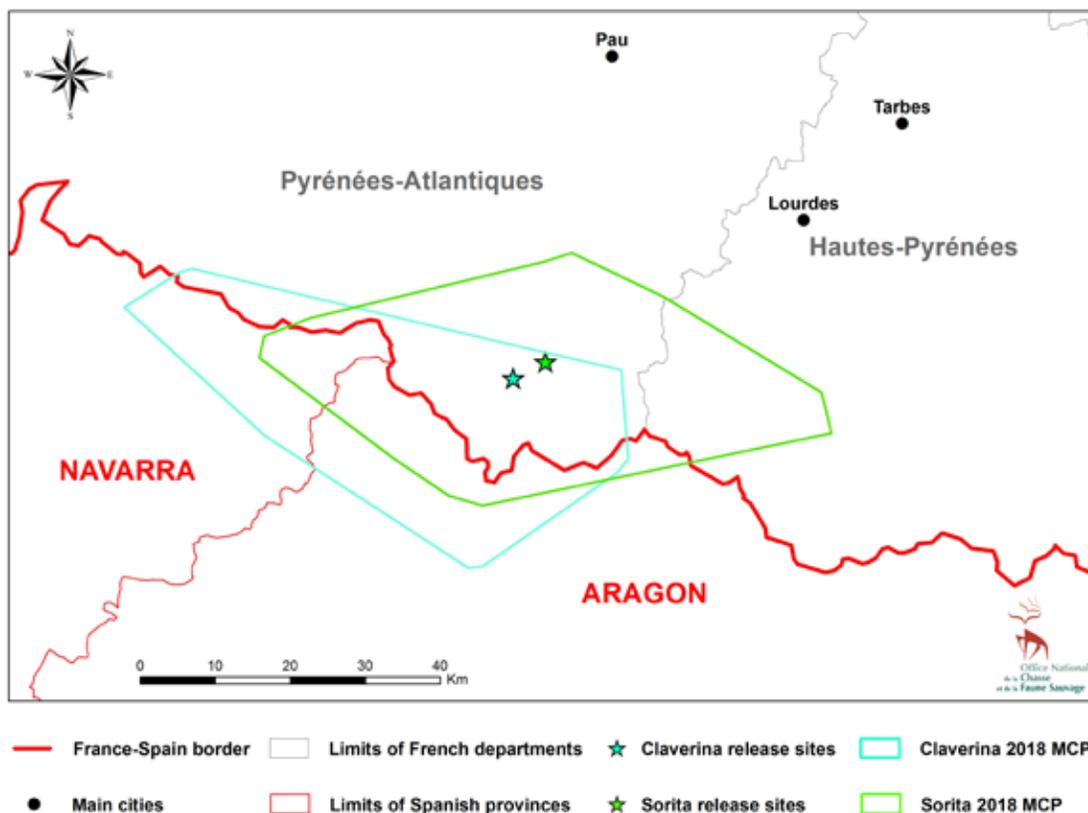


Figure 2. Home ranges of two females, Claverina and Sorita between release and 14th December.

In March 2018, the French Government eventually approved the introduction of 2 brown bear females in the Western Pyrenees. Two adult females were thus successfully translocated from Slovenia to the French side of the Western Pyrenees by ONCFS in collaboration with SFS on the 4th and 5th of October 2018.

The two females, named Claverina and Sorita, were both 5 years old and weighed respectively 140 kg and 150 kg. They were both fitted with a GPS/Iridium collar with drop-off system (Vectronic Vertex Plus) scheduled to record 15 locations per day (1 location per hour between 7 p.m and 7 a.m and 1 location every 3 hours during daytime). Similarly, as in the case of other introduced bears in the Pyrenees (Quenette et al 2001), the 2 females moved a lot during the first few weeks after the release, especially in a west-east direction, as the main orientation of the Pyrenees. Claverina and Sorita moved up to 52 km and 40 km far away from their release site, respectively, and covered very similar distances (the sum of the Euclidian distances between successive locations from release time to the 14th of December is 539 km and 526 km, respectively). Den entrance was estimated to be on the 28th of December and on the 13rd of December 2018, respectively. The home range estimated between release up to 14th December using 100% MCP are similar for the two females (Claverina, MCP=1378 km²; Sorita, MCP=1483 km²) (see Figure 2).

Acknowledgments:

We thank all the technicians of the Slovenian capture team and of the French team. Special thanks also to the veterinaries T Cehovin, F. Ollivet-Courtois and G. Rigaux.

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Human-Bear Conflicts

Are reports of cub abandonment in Andean bears a result of increasing human encroachment?

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Human encroachment is posing increasingly prominent pressure on Andean bear populations in South America (Jorgensen & Sandoval 2005, Rodriguez et al. 2003). As Andean bear mothers are particularly choosy in selecting maternal dens, this places a huge burden on the species' reproductive behaviour (Castellanos et al. 2018). There are an increasing number of reports of Andean bear cub abandonment in recent years. Is this simply a fundamental life history strategy of the species, or could it be directly related to human encroachment and habitat loss?

Castellanos (2015) reported a female bear named "Delia" that nursed and raised a single bear cub in the paramo ecosystem of the Cayambe Coca National Park (CCNP). Using GPS telemetry systems, he reported that she regularly moved away from the maternal nest for up to 48 hours to feed whilst her cub was still weaning. Similar behavior was determined for "Paya", another female collared in January 2017. Paya was observed on different occasions in September 2017 feeding on her own, yet was seen again in December 2017 with a cub of 6-7 months indicating she had temporarily abandoned her cub in order to feed. Our observations support the idea that some mothers leave the nest for significant periods to feed, while others do not, as in the case of "Rebecca" who didn't leave the maternal den for the 12 weeks after birthing (Castellanos et al. 2018).

In the area of Oyacachi, Napo Province, Ecuador, Melchor Ascanta, co-author of this article, observed on two occasions between 2013 and 2015, two bears of less than 1 year of age, feeding alone until they were approximately 2 years old, after which they moved to other feeding sites. This indicates that they had been abandoned or had prematurely separated from their mother according to reports on the estimated separation age by Garcia-Rangel (2012) and Castellanos et al (2018).

On 4 November 2014, we captured and collared "Utzila", a young bear between 10-12 months old. Before entering the cage, the camera trap detected that he was alone. Upon examination, the animal showed signs of acute malnutrition. After deploying the radio-collar, "Utzila" returned to the capture site to finish consuming the decomposing bait, seemingly in desperation, as all previously captured bears have fled the capture site due to stress caused during capture and chemical immobilization. In July 2018, Nelson Pineida reported the finding of a dead bear cub in the "Mentala" sector of the PNCC. When examining the photograph, we observed that the individual was one of the previously identified yearlings that roam the region, and was extremely malnourished. Blanco et al. (2016), reported similar incidents of abandoned bear cubs (*Ursus arctos*) in Spain that were subsequently rescued and reintroduced.

In January 2016, the Wii Foundation captured video footage, in the Chingaza region of Colombia, of a female bear foraging with her 2 cubs whilst being followed by a subadult of larger body size than that of the twins. The subadult bear was possibly a lost or abandoned cub or even an adoption, as video evidence shows that the adult female accepted its company as it did not pose a threat to the smaller cubs. It has been suggested that abandoned panda bear cubs have been adopted, at least temporarily, by surrogate mothers (Pan et al. 2014), though to date we have no clear evidence of this occurring with Andean bears. The subadult bear could also potentially be offspring from a previous birth that is demonstrating natal philopatry. In this instance, the heightened level of tolerance by the female bear could be a strategy to increase her inclusive fitness through the sharing of denning sites, similar to that reported by Jackson et al. (2017) in



Delia's cub that was left alone for up to 48 hours whilst its mother was foraging.

Armando Castellanos

Human-Bear Conflicts

the Sigsipamba region of northern Ecuador. In that study, an Andean bear mother named "Josefa" was observed leaving her cubs for periods in excess of 24 hours in which time a cub from a previous litter would often accompany her younger siblings in the mother's absence.

In 2012, a 6-week old female bear cub, "Cosanga", named after the village where she was rescued, was found in the middle of the highway and brought to our nearby rehabilitation facility. Due to the cub's eyes not opening at the time of rescue, we hypothesized that she was being carried by her mother to a satellite den at the other side of the road when she was startled by a car, and on fleeing, the cub fell. Though we cannot be certain, it is very likely that the mother was waiting at the side of the road, and we now urge road users to leave any abandoned cubs at the roadside for a few hours in order to enable reconciliation of mother and cub.

The extent of solitary Andean bear cubs and yearlings that have been recently observed leads us to believe that Andean bear mothers are forced to leave the maternal nest for prolonged periods due to the decline in natural foodstuffs in the wild, and that cubs are also occasionally impelled to leave the maternal nest when left alone for long periods for reasons of fear, curiosity and hunger. Some are most certainly found by their mothers and taken back to the nest. Some are likely preyed upon, and others are "rescued" by humans that assume they were abandoned when, in reality, the best course of action may be to leave them for their mothers to find.

In other news, on 7 November 2017, an adult Andean bear was observed in the region of the Cotopaxi volcano refuge at an altitude of 4900 masl. This is a new record high for this species, superseding reports by Peyton (1980) and Rodriguez et. al (2003). Like Andean foxes (*Pseudolopex culpaeus*), this bear was perhaps searching for food that tourists discard.



Nelson Pineida

Dead bear cub evidently suffering from critical malnourishment found in PNCC.

Acknowledgments

Our thanks to the Ecuadorian National Institute of Biodiversity (INABIO), National Geographic Society, Zoo Conservation Outreach Group, Termas Papallacta and, Ecological Project International for supporting our project; to the technicians and park rangers of the Cotopaxi and Cayambe Coca National Parks and to the Pichincha Ministry of the Environment for providing us with research permits. Also to Denis Torres for his edition and accurate comments on this manuscript.

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Biological Research

Pilot study into the genetics and population ecology of the Himalayan brown bear (*Ursus arctos isabellinus*) in recreational zones of the Northern Tien Shan Mountains



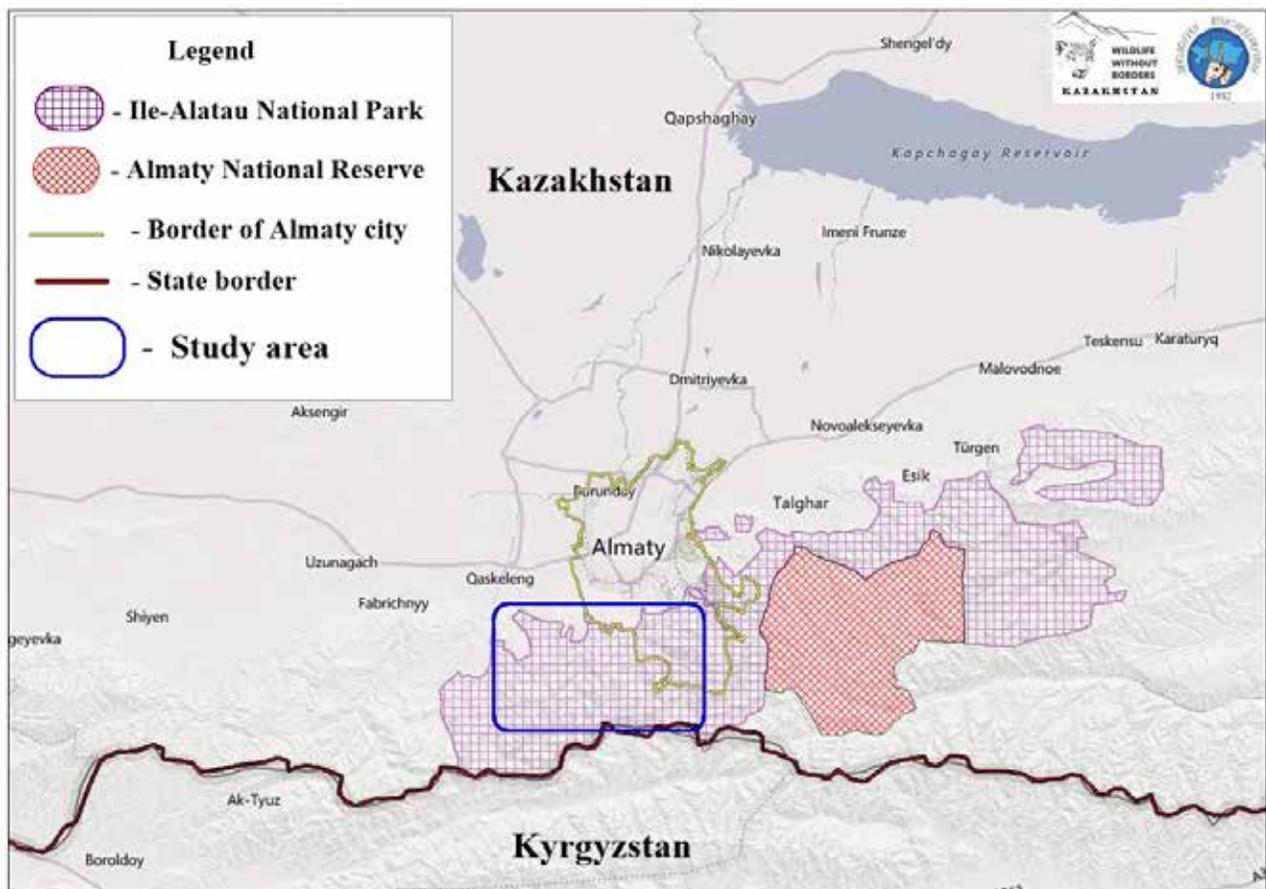
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As a result of strong anthropogenic development of the mountain ecosystems of the Northern Tien Shan Mountains, the issue of preserving biological diversity in the vicinity of the city of Almaty has recently become acute. The brown bear (*Ursus arctos isabellinus*) is an inhabitant of mountain forests of Central Asia, who plays an important role in the ecosystem: as a predator, as a consumer of a large number of invertebrate animals, and as a distributor of seeds of wild fruit plants (Zhiryakov 1980). Bears are also one of the most sensitive animal species to human intervention in nature's processes. In recent decades, as a result of anthropogenic impact, strong changes have taken place in close proximity to the city of Almaty in the basin of the Bolshaya Almatinka River and the surrounding areas. These regions include important habitats for the brown bear (known also as the Tien Shan brown bear), and for many other large mammals.



Our study area (approx. 15,000 ha) is located in the central part of the northern slope of the Zailiysky Alatau mountain range (Northern Tien Shan), in the valleys of the 3 gorges (Bolshaya Almatinka, Aksai and Kargalinka).

Biological Research

The goals of our project for 2018, covering the valleys of the Bolshaya Almatinka, Aksai and Kargalinka rivers, were to:

- identify potential brown bear habitats;
- establish the presence or absence of species;
- select monitoring sites for the installation of camera traps and collection of photo data;
- collect hair and scat for DNA extraction;
- monitor brown bear population in their summer and autumn sites;
- collect environmental data;
- monitor migrations of animals and analyze their distribution;
- analyze collected data and map bear distribution in the project area; and
- map human-bear conflict areas.

The research area (approx. 15,000 ha) is located in the central part of the northern slope of the Zailiysky Alatau mountain range (Northern Tien Shan), in the valleys of the 3 gorges - Bolshaya Almatinka, Aksai and Kargalinka. This initial stage of research being conducted in the basin of the Bolshaya Almatinka River, is to create a foundation for further study and conservation of brown bears and their ecosystem. Despite high levels of recreational activities and proximity to the city, several mammals listed in the Red Data Book of the Republic of Kazakhstan can still be found in the mountains, such as the snow leopard (*Panthera uncia*), the Turkestan lynx (*Lynx lynx isabellinus*), the brown bear, and the stone marten (*Martes foina*). The desire to preserve this unique corner of the wild world, which has suffered from human intervention for hundreds of years, is the main motivating factor in the implementation of this project.

As a result of pilot studies, the permanent presence of a brown bear in the recreational areas of the Northern Tien Shan was established. The main concentration of bears is the region occurs in hard-to-reach areas, with good fodder and protective conditions, where there are practically no traces of human activity. However, as camera-trap observations showed, individual animals regularly encounter humans and overlap in areas used for recreation, which could potentially lead to conflicts in the future.

As part of this project, for the first time in Kazakhstan, we established the genetic bank *Ursus arctos*; the level of genetic polymorphism of individuals representing the *U. arctos* population of the Northern Tien Shan has been analyzed on the basis of the collected material using inter-microsatellite markers.



(right, top) Bear footprints on the ground. (right, center) Collecting genetic material.

Bottom: (left) Installing of the wool trap and pouring an odorous bait (turpentine). (center) Set a camera trap opposite the wool trap. (right) Bear rubs on the wool trap Sakhnovka gorge May 1 2018. (All Photo Credits: Sanzhar Kantarbayev)

Biological Research

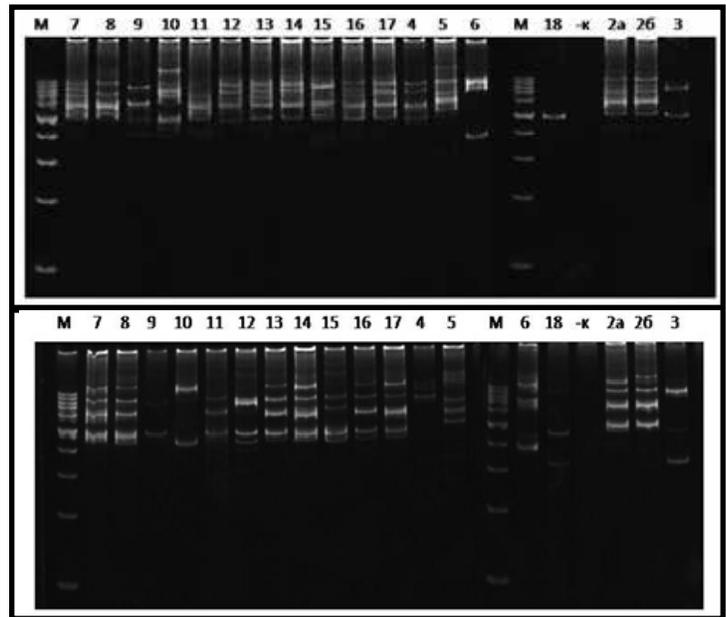
Based on ISSR analysis, 6 brown bears were genotyped for the Northern Tien Shan region. Collected bone remains (two skulls and tibia) belonged to 3 different individuals. The hair found in Sakhnovka in 2016 and in 2018 belonged to 2 different individuals. But based on the similarity of their patterns, we concluded that these 2 bears are related. In general, due to the small number of samples studied, it is difficult to speak about polymorphism in the population. However, given that of the 6 individuals studied, 3 had low polymorphic DNA patterns, it is possible to draw conclusions about the reduced level of polymorphism in our study population. Further studies will allow a more detailed assessment of the level of polymorphism in the population of brown bears of the northern Tien Shan, which can be used to create genetically-based programs for conservation that are important not only at the national level, but also at the regional level in order to preserve this unique rare species gene pool of Tien Shan brown bears.

Acknowledgments:

An IBA Research & Conservation Grant was awarded to the project in 2018. Funds from the grant were used to purchase field equipment and camera traps, as well as materials for genetic research. Funds for the purchase of products, fuel, rental of horses, etc. were sent to the destination and spent during the entire field season of 2018 (the total number of days in the field was 50 days). Our team thanks the IBA Research and Conservation Grants program for the opportunity to conduct pilot studies in Kazakhstan on genetics and population ecology of the brown bear.

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(top) : ISSR-amplification of *Ursus arctos* DNA using the primer UBC808: M - molecular marker (GeneRuler DNA Ladder Mix 50bp, Fermentas), "-k" -negative control.
 (bottom) ISSR-amplification of *Ursus arctos* DNA using primer UBC810: M - molecular marker (GeneRuler DNA Ladder Mix 50bp, Fermentas) "-k" -negative control.



Changes in Florida's Bear Research Team

Brian Scheick
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After 35 years of service, Walt McCown retired from the Florida Fish and Wildlife Conservation Commission's Bear Research Program this past December. Having worked throughout Florida on deer (*Odocoileus virginianus*), panthers (*Puma concolor coryi*) and black bears (*Ursus americanus floridanus*), plus assisting others with several additional species, Walt's deep experience will be impossible to replace. He had a deep passion for field work and was always willing to pass on his knowledge but also learn from the experiences of others. His calm demeanor helped him navigate the politics of working on 2 listed species (Florida panther and Florida black bear). During his long tenure, the wildlife profession made great technological advances and Walt adapted with the times. The Florida Fish and Wildlife Conservation Commission shifted from rough guesses of abundance to spatially explicit population modeling and subjective distribution maps drawn by biologists to objective distribution models. Citizens can now report non-conflict bear sightings to a website or cell phone and view a map of other sightings; genetic diversity has been measured; and demographic data have provided a growth estimate for the largest subpopulation. The bear abundance study that Walt conducted in 2014-15 sampled the largest area in the state (and at the time possibly the largest in the eastern U.S.). Walt also developed a method of approaching female bears in their ground nests to get litter size and collar cubs without immobilizing them. This is a tricky thing to do in Florida where denning bears are aware and vegetation is very dense.

Brian Scheick was promoted from his previous role as Bear Research Program Assistant Coordinator and Darcy Doran-Myers was hired in December to take over the assistant role. Don Hardeman, Jr. fills in the rest of the full-time research team. We are nearing the third year (of five) of a study to collect demographic data (adult female survival, litter size, and cub survival to one year) from bears in the Apalachicola subpopulation in the eastern panhandle. These data will then be used to create a population matrix model to measure the subpopulation's growth rate. Other current projects include bear response to human approach (an off-shoot of the above demographics project) and a statewide assessment of bear habitat quality. If you have any questions about any bear research in Florida, you can contact Brian at brian.scheick@myfwc.com.



Conference Reports

IV National Symposium on the Andean Bear: Interactions and Conservation, Bogotá, Columbia, December 3-7, 2018

Daniel Rodríguez¹ Shisley Adriana Reyes¹, Mayra Galindo^{1,2} Fidel Poveda³, Russ Van Horn⁴ & Nuria Selva⁵.

1. Fundación Wii

2. Fundación Uraku

3. Corporación Manaba

4. Institute for Conservation Research, San Diego Zoo Global

5. Institute of Nature Conservation Polish Academy of Sciences

Email: danielosito85@hotmail.com

Between 3 - 7 December 2018 the V Congreso Colombiano de Zoología (V Colombian Zoology Conference) and III Congreso Nacional de Mastozoología (III National Mammalogy Conference) took place in Bogotá, Colombia. Within these events, the Fundación Wii, the Fundación Parque Jaime Duque, and Endémica Studios organized the IV Simposio Oso Andino en Colombia: Interacciones y Conservación (IV Andean bear symposium in Colombia: interactions and conservation).

This symposium started with human beings and fauna have the same right to exist. Efforts are needed for this right to be respected, and to recognize their interactions as a complex product of forces that strengthen with increasing proximity between humans and fauna, sometimes negatively, but which can also benefit human-wildlife coexistence. Most current interactions of people with Andean bears (*Tremarctos ornatus*) are negative, with bears paying the costs of human activities. Nonetheless, how costs of negative interactions affect population trends of the Andean bear has not yet been assessed in Colombia.

The symposium consisted of 11 oral presentations and 4 keynote talks by invited international researchers. This gathering included people from institutions responsible for safeguarding Colombia's cultural and natural richness, relevant researchers, experts in planning of conservation management, civil society, and, to the degree possible, producers who have faced this human-bear tension, in order to establish lines of action and joint action approaches. Colombian governmental and non-governmental organizations have implemented environmental education and conservation incentives following negative interactions with Andean bears, but there are no specific guidelines for wildlife damage compensation, and extensive livestock farming makes these few measures insufficient.

Keynote speaker Dr. Manuel Ruiz-García (Pontificia Universidad Javeriana in Bogotá), presented evidence that *Tremarctos ornatus* inhabited the Neotropics 700,000 years ago and developed into 2 Evolutionary Significant Units: the Northern Andes (Venezuela, Colombia, Ecuador, and Northern-central Peru) unit and the Central Andes (Peru and Bolivia) unit. It is not yet clear how well the global captive bear population represents the wild genetic diversity.

Dr. Russ Van Horn, (Institute for Conservation Research, San Diego Zoo Global), demonstrated some ways to use information from captive bears and camera traps to better understand the demography and ecology of wild Andean bears. Other information from zoos indicates that the reproductive potential of captive Andean bears is lower than that of some other captive bears, like the brown bear (*Ursus arctos*) or American black bear (*U. americanus*).

Dr. Nuria Selva (Institute of Nature Conservation, Polish Academy of Sciences, Krakow) showed how large carnivores'

populations have been recovering recently in Europe, and that there is not a common European policy about how to manage damages caused by large carnivores. Compensation and prevention measures are usually taken there, but large investments in compensation do not necessarily improve human-wildlife coexistence.

MS Robin Appleton (Spectacled Bear Conservation Society – Peru), shared her work from the tropical dry forest in NW Peru, which yielded demographic parameters very different from those of other populations of bears. This may be because of a small population size, poor maternal condition, and/or limited resources. It's crucial to further this approach for the viability of the Andean bear populations in Colombia.



Organizers and international guests visiting the Fundación Bioandina's Andean bear rescue center in Guasca, Cundinamarca, near Bogotá.

Conference Reports

Oral contributions by Colombian researchers discussed themes that are still not well known, such as the conditions necessary for the Andean bear to truly be an umbrella species. In addition, plans were presented for the use of the bear's distribution as a basis to establish additional conservation areas, which was an important input to landscape management for wildlife conservation. Héctor Restrepo, (Fundación Gaia), highlighted that the avocado agro-business, conducted by Chilean investors, threatens the connectivity of the Andean bear population in a sector of the Cordillera Occidental in southwestern Antioquia, and it may worsen human-bear coexistence. Results presented on captive bear feeding and etiology of deaths in captivity point to important knowledge gaps that remain.

Research in undeveloped areas also demonstrated our lack of knowledge on such basic information as the bear's presence and distribution in central (Boyacá), southern (Huila) and most northern (Cesar and Guajira) Colombia. In addition, it was made clear that human perceptions and attitudes on bears should be more critically understood to implement better environmental education and conservation alternatives. Regardless of other research, if the negative perception of local people is not modified, the bear's future is not very promising: neither good policies nor science will be enough to conserve this bear.

Good general public attendance at the symposium was important, but there were fewer attendees from environmental authorities (Regional Autonomous Corporations CAR) and conservation NGOs than expected. Nonetheless, we must continue to work for meetings and discussions that are more accessible to these interested parties and we must include the efforts made by the communities coexisting with bears. Although 3 decades have elapsed since the guidelines on ethology, ecology, population ecology, genetics and synecology were proposed to assess the status of Andean bear populations in Colombia, this status is still far from known.

Finally, the Colombian Society of Zoology, the organization directly responsible for this conference, awarded to Fundación Wii a gold medal: "Orden al Merito en la Trayectoria Institucional en la Investigación y Conservación del Patrimonio Natural de Colombia" (Order of Merit for Institutional Achievement in the Research and Conservation of Colombia's Natural Heritage). It was a very meaningful and important recognition and we are very grateful to all the members of the Society as well as to those who attended our symposium.



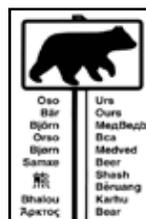
Presenters at the IV Symposium on Andean bear in Colombia: Interactions and conservation.



Celebrating Fundación Wii's Gold Medal for Merit in Institutional Achievement: Nuria Selva, Nicolás Reyes, Daniel Rodríguez, Mayra Galindo, Adriana Reyes and Russ Van Horn

Fundación Wii.

Fundación Wii.



Workshop Announcements

24th Eastern Black Bear Workshop April 22 – 25, 2019. Potosi, Missouri

The Missouri Department of Conservation is excited to host the 24th Eastern Black Bear Workshop 22–25 April, 2019 at the YMCA of the Ozarks Trout Lodge in Potosi, MO: <http://www.ymcaoftheozarks.org>.

The purpose of the Eastern Black Bear Workshop (EBBW) is to bring together state/provincial biologists, federal biologists, and university researchers with responsibilities for managing black bear (*Ursus americanus*) populations in the eastern USA and Canada to discuss issues important to the management, conservation, and perpetuation of those black bear populations. EBBWs are inherently different from general conferences. Whereas conferences have the purpose of sharing information through the presentation of research and management papers, EBBWs are designed not only to share information, but more specifically to discuss and find solutions to problems of managing bear populations at the regional level.

Visit www.easternblackbearworkshop.org for lodging, registration, agenda items, and poster submissions.

Contact: Laura Conlee: laura.conlee@mdc.mo.gov or 573-815-7900 ext. 2903.



Trail camera footage of Bear 1428 and her yearlings exiting their den on a warm March day in southern Missouri.

Missouri Department of Conservation

Conference Announcements

27th International Conference On Bear Research & Management September 21 – 25, 2020, Kalispell, Montana, United States

Theme: Conserving Bears in a Changing World

Hotel: Red Lion Hotel, Kalispell, Montana, United States

Airport: Glacier Park International Airport (FCA), Flathead Valley (17 miles to conference venue)

General Description of Area:

Kalispell is the county seat of Flathead Valley in the northwestern portion of Montana. The Flathead Valley has a population of 93,068. The name Kalispell is a Salish term meaning “flat land above the lake.” While the Flathead Valley is very flat the landscape surrounding valley is mountainous and wild. Kalispell is the gateway to beautiful Glacier National Park and the Flathead National Forest. The valley and surrounding mountains have numerous recreational opportunities including: hiking, biking, fishing, horseback riding, water sports, and huckleberry picking.

Contact Information: Lori Roberts, MTFWP, email: lroberts@mt.gov, phone: 406-751-4851

Sponsorship Information: To be send out by March 15th and on the website soon.



27th International
Conference On Bear
Research & Management

KALISPELL | MT

Truman Listserv and Facebook Page

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



Listserv Signup Instructions

- Visit: <https://www.bearbiology.org/membership/students/>
- Follow the links to request an invitation
- 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.

Facebook Signup Instructions

- Visit: <https://facebook.com/groups/IBA.Conference/>



Publications

Recent Bear Literature

Agnieszka Sergiel
Email: agnieszka.sergiel@bearbiology.org

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

- Summer Issue: 5 June: Agnieszka Sergiel: agnieszka.sergiel@bearbiology.org
- Fall Issue: 5 October: Marion Schneider: mfschneider@gmx.de
- Spring Issue: 5 February: Agnieszka Sergiel: agnieszka.sergiel@bearbiology.org

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

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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 approximately 500 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 Spring 2019 issue is 5 June 2019