

Program and Proceedings



3-8 October 2013

Clinton, New Jersey



TABLE OF CONTENTS



Conference Program	1-7
Welcome	1
Bear Care Group Mission Statement	1
Bear Care Group Board of Directors	2
Woodlands Wildlife Refuge	2
Thank You & Sponsors	3
Name Badges, Speakers & Poster Presenters	4
Poster Sessions, Silent Auction & Bear Book and Art Den	4
Hotel Map	5
Hike Information	6
Post Conference Trips (Bronx Zoo & Helping Hands-On Project)	6
Agenda	7-14
Lecture Abstracts (alphabetized by first author)	15-34
Poster Abstracts (alphabetized by first author)	35-45
Who We Are & What We Do Abstracts (alphabetized by organization)	46-53
Workshop Abstracts	54-67
Andean Bear Workshop	55
Bear Rescue, Rehabilitation and Release Workshop	56
Bear Sanctuaries Workshop	57
Bear Training: Focus on Learning and Problem Solving Workshop	58
Bear Trauma Resolution Workshop	59
Bear Veterinary Health and Welfare Workshop	60
Behavior-based Bear Husbandry Workshop	61
Brainstorming for Happier Bears - Enrichment Planning Workshop	62
Giant Panda Workshop	63
Polar Bear Workshop	64-66
Sloth Bear Workshop	64-66
Sun Bear Workshop	64-66
Temperate Bear [Asian & American Black Bear & Brown Bear] Workshop	64-66
Raising Neonate Bears Workshop	67
Delegate Contact Information	68-70



Welcome

Dear Bear Care Delegates,

The Bear Care Group and the Woodlands Wildlife Refuge are delighted to welcome you to beautiful, historic, and culturally rich New Jersey, USA. We partnered to organize this exciting event to focus on exploring the cognitive and physical needs of captive bears. You have travelled from all over the world including; the Netherlands, China, Vietnam, Hong Kong, Australia, Indonesia, Sweden, Denmark, Singapore, Canada, and right here in the U.S. just to share your knowledge and passion for bear care. Thank you for participating and for making this the fourth international bear husbandry conference that has sold out. Over the next few days you will enjoy the company of friends, thought provoking lectures, interactive workshops, a hike into New Jersey's black bear habitat, a visit to a wildlife rehabilitation facility, the chance to explore the beautiful and historic river town of Clinton, NJ, contests, a silent auction, and the Bear Book & Art Den. Get enriched, get involved.

Else Poulsen
President, Bear Care Group

Tracy Leaver
Founder, Woodlands Wildlife Refuge

Bear Care Mission Statement

The Bear Care Group creates and enhances communication, cooperation and education among international bear care professionals by organizing bear care programs, publications and resources focused on advancing and sharing information on bear behavior, husbandry, enrichment, training, veterinary care and other topics to further global bear welfare and conservation efforts.

Check out www.bearcaregroup.org for post conference wrap up and photos. Continue networking with colleagues at bearcare@yahoogroups.ca. Find us on Facebook at www.facebook.com/groups/16630879979 and on Twitter at twitter.com/bearcaregroup. Support the Bear Care Group by using GoodSearch.com for all of your internet searches!



Bear Care Board of Directors

info@bearcare.org

- Else Poulsen - President else.poulsen@bearcaregroup.org
- Jason Pratte - Vice President / Treasurer jason.pratte@bearcaregroup.org
- Wendy Chambers - Secretary wendy.chambers@bearcaregroup.org
- Mindy Babitz - Director mindy.babitz@bearcaregroup.org
- Heather Bacon - Director
- Valerie Hare - Director
- Angelika Langen - Director
- Lydia Lefebvre - Director / Website Manager lydia.lefebvre@bearcaregroup.org
- Gail Hedberg - Advisor
- Kurt Stoner - Advisor
- Lisa Stoner - Advisor

Woodlands Wildlife Refuge

Woodlands Wildlife Refuge is a 501(c)(3) charity established in 1986 dedicated to the care and release of orphaned and injured wildlife. Beginning with only two animals it now cares for more than 800 wild patients a year. Educating the public about wild animal habits and habitats is also a commitment that Woodlands Wildlife Refuge fulfills through its science based education programs. Woodlands Wildlife Refuge receives no state or federal funding. With only three staff members, Woodlands relies greatly on its volunteer and internship programs to maintain quality care and its successful release rate.





Many, Many Thanks

The Bear Care Group wishes to thank all of the wonderful volunteers and sponsors whose energetic support has culminated in ABC 2013. We are grateful to our guest speakers, poster presenters, and moderators for abundantly sharing their expertise and experience. Thank you to all of the participants, those who have travelled from far and wide to join us, and those who live in the neighborhood. And many thanks to the delegates for yet again enthusiastically donating to our silent auction ensuring its success. We appreciate all of those individuals and organizations who made donations for the delegate goody bags. And finally, we especially wish to thank our partners; Tracy Leaver, the staff and volunteers of the Woodlands Wildlife Refuge, and Kelcey Burgess for their tremendous New Jersey hospitality and generosity of spirit!

We want to give special recognition to our wonderful sponsors for their tremendous support of our work at the Bear Care Group. Please take a moment to look at the back cover of this ABC 2013 Program and Proceedings for a colorful mosaic of their logos.

Sponsors

Animals Asia Foundation	National Wildlife Rehabilitators Association
The Bateman Foundation	Natural Balance
Behavioral & Environmental Solutions	Northern Lights Wildlife Shelter
Bronx Zoo	Queens Zoo
Courtney Janney, Life's a Zoo	Shape of Enrichment
Haribo	Spectacled Bear Conservation - Peru
Hauser Bears	Starr
International Foundation for Animal Welfare	Surf Sweets
The Kerulos Center	Wildlife SOS
Kodiak Products	The Winton Foundation
Mazuri	Woodlands Wildlife Refuge



Name Badges

All delegates will be provided with a name badge upon registration. Please wear it; it is your pass to all sessions, functions and transportation. This will also help to introduce you to other delegates.

Speakers

All speakers are asked to bring their PowerPoint presentations on a flash drive to our IT Volunteers table at the Registration Area on Thursday, Oct 3 between 1-5 PM so your presentation can be downloaded onto the conference laptop.

Poster Presenters

All poster presenters are asked to bring their posters to the Registration Area Thursday, Oct 3 between 1-5 PM where you will be directed to the Poster Presentation Alcove. You will receive set up assistance.

Poster Sessions

The Poster Presentation Alcove will be open for the duration of the conference. The authors will be available to answer questions on Friday, Oct 4 from 4:40-5:40 PM. Delegates will vote for i/ Greatest Value To Resident Bear(s), ii/ Most Innovative Husbandry Concept, and iii/ Best Overall Visual Presentation and award winners will be announced on Saturday, Oct 5 between 8:10-9:30 PM.

Silent Auction

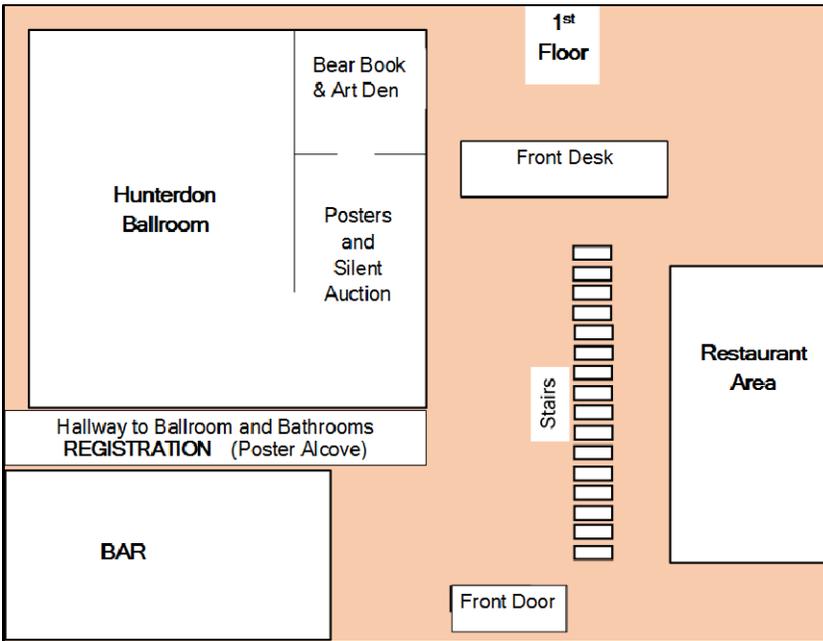
Please bring your Silent Auction donations to the Registration Area on Thursday, Oct 3 between 1-5 PM. The Silent Auction will be open for viewing on Friday, Oct 4 between 1-9 PM and on Saturday, Oct 5 between 8 AM - 1 PM and between 4 PM - 8 PM. The winners will be awarded on Saturday, Oct 5 between 8:10-9:30 PM.

Bear Book & Art Den

The Bear Book & Art Den will be open throughout the conference. Vendors are asked to bring their wares to the Registration Area on Thursday, Oct 3 between 1-5 PM. Each vendor will be directed to the Bear Book & Art Den Alcove. Your reserved table will be identified by signage. All vendors are asked to set up their display on Thursday, Oct 3 between 1-5 PM. The set-up must be concluded by 5:30 PM. Please leave visible signage on the table for delegates as to when you plan to be open for sales.



Holiday Inn Clinton

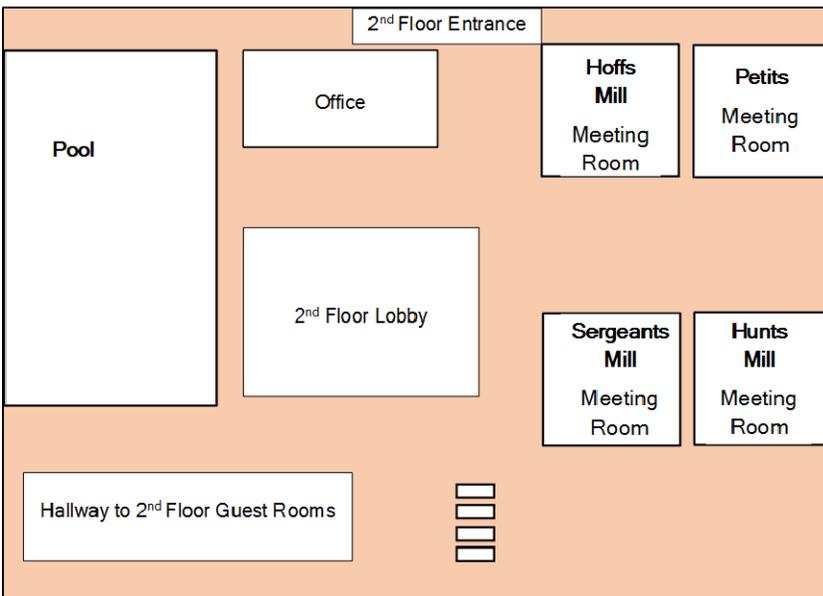


Conference lectures will take place in the Hunterdon Ballroom on the 1st floor.

Workshops will take place in the Meeting Rooms on the 2nd floor as well as in the Hunterdon Ballroom.

Breakfast will be in the hotel restaurant (Main Street Café).

Ice Breaker, coffee breaks, lunches & dinners at the hotel will be in the Hunterdon Ballroom.



Farewell Banquet will be outside the hotel restaurant at the barbeque pit. (Hunterdon Ballroom if weather is bad.)

Note that buses for field trips leave from the 2nd floor entrance.

Shuttle to Woodlands Wildlife on Tuesday, Oct 8 leaves from the 1st floor entrance.



Interpreted Hike into Bear Habitat

INSTRUCTIONS FOR HIKE/TOUR OF BEAR HABITAT IN WAYWAYANDA STATE PARK ON FRIDAY, OCTOBER 4:

The objective of this hike is to learn how wild American black bears use their habitat for daily and seasonal living by identifying day beds, food sources, information trees, scat, and other signs of bear living. It is not our intention to find or to disturb wild bears. If wild bears are encountered, stay in your group with those carrying Bear Spray, and follow your Guide's instructions.

On the Bus Tour/Hike;

1. There will be members in your group carrying Bear Spray. If you are trained in the use of Bear or Pepper Spray please make yourself known to the organizers at the onset of the trip.
2. If you are trained in First Aid, please make yourself known to the organizers at the onset of the trip.
3. ALWAYS follow your Guide's instructions and stay with your group!
4. Dress in layers. In general you will be comfortable with a T shirt, warm long sleeve shirt, fleece, water & wind proof shell, thin gloves, soft socks, and worn-in hiking boots.
5. Roll up unused clothes, store in your day pack.
6. Bring water, energy bars, fruit, tissue, small zip lock bag for garbage.
7. Bring chapstick, sunscreen, and sunglasses.

Bronx Zoo Day

The bus to Bronx Zoo will depart from the 2nd Floor Hotel Entrance on Monday, Oct 7 at 9 AM. Please start boarding at 8:30 AM. Bronx Zoo staff will provide enrichment and keeper chats at the Brown Bear Exhibit at 11:30 AM and the Polar Bear Exhibit at 1:30 PM. The bus back to the hotel will depart Bronx Zoo at 3 PM. Please be ready to board at 2:45 PM.

WWR Hands-On Project

The shuttle bus to Woodlands Wildlife Refuge will depart from the 1st Floor Hotel Entrance every 15 minutes on Tuesday, Oct 8 from 8:30-9:30 AM. Jobs to assist the refuge in their continued care of New Jersey's injured wildlife will be announced at the refuge. Lunch will be provided on-site. The shuttle bus back to the hotel will depart from Woodlands Wildlife Refuge every 15 minutes between 4:40-5:30 PM.

THURSDAY, OCTOBER 3, 2013

TIME	EVENT	LOCATION
1:00 - 8:00 PM	Registration Delegates are asked to bring: 1. Power Point Presentations on a device to be downloaded by IT, 2. Poster presentations, 3. Silent Auction donations, 4. Bear Book & Art Den merchandise.	Hunterdon Ballroom & Reception
6:00 PM	Ice Breaker Coffee/Tea & Dessert	Hunterdon Ballroom
7:00 PM	Opening Ceremonies ABC 2013 Welcome - Else Poulsen & Mindy Babitz Woodlands Wildlife Refuge Welcome - Tracy Leaver Understanding Bears, Theme - Jason Pratte Housekeeping - Else Poulsen	Hunterdon Ballroom
7:30 - 9:30 PM	Lecture Series I - Key Note Address Rehabilitation for Release	Hunterdon Ballroom
7:30 - 8:00 PM	John Beecham Survival, Den Selection, Nuisance Behavior and Reproduction in Orphaned Bears Released Back to the Wild	
8:00 - 8:30 PM	Angelika Langen Grizzly and Black Bear Rehabilitation in British Columbia, Canada	
8:30 - 9:00 PM	Tracy Leaver Challenges, Successes and Special Cases of Rehabilitating and Releasing Black Bears	
9:00 - 9:30 PM	Kelcey Burgess New Jersey and Black Bears - Perfect Together	

FRIDAY, OCTOBER 4, 2013

TIME	EVENT	LOCATION
7:00 AM	Registration	
6:00 - 7:30 AM	Continental Breakfast	Main Street Café hotel restaurant
7:00 - 7:30 AM	Delegates Pick Up Box Lunch	Hunterdon Ballroom
7:30 - 8:00 AM	Delegates Board Buses for Waywayanda State Park	
8:00 - 1:00 PM	Waywayanda State Park Field Trip	
1:00 PM	Return to Holiday Inn Hotel	Second Floor Hotel Entrance
1:00 - 2:00 PM	Break	
1:00 - 2:00 PM	Delegates can peruse: i/ Wild Bear People Silent Auction, ii/ Poster Presentations, iii/ Bear Book & Art Den.	Hunterdon Ballroom & Reception
2:00 - 4:40 PM	Lecture Series II - Mental and Physical Well Being	Hunterdon Ballroom
2:00 - 2:30 PM	Jill Robinson Ending Bear Bile Farming in China and Vietnam	
2:30 - 3:00 PM	Gay Bradshaw Trauma Effects of Capture, Captivity, and Captive Breeding on Bears	
3:00 - 3:30 PM	Charlie Russell Brown Bears Natural Habitat Should Include and Can Include Humans	
3:30 PM	Housekeeping - Else Poulsen	
3:30 - 4:00 PM	Coffee/Tea and Cookies	Hunterdon Ballroom & Reception
3:30 - 4:00 PM	Delegates can peruse: i/ Wild Bear People Silent Auction, ii/ Poster Presentations, iii/ Bear Book & Art Den.	Hunterdon Ballroom & Reception

TIME	EVENT				LOCATION
4:00 - 4:20 PM	Heather Bacon Neonatal Development in Mammalian Species - Considerations for Bear Handraising and Rehabilitation				Hunterdon Ballroom
4:20 - 4:40 PM	Nicola Field and Annemarie Weegenaar How Bears Rescued from Bile Farms Learn, Solve Problems and Respond to Their Environments Once They Arrive at Animals Asia's Sanctuaries				
4:40 - 5:40 PM	Book Sales and Signing				Hunterdon Ballroom & Reception
	Poster Presentations (Presenters please be at Poster)				
	Bear Book & Art Den (Vendors please be at Table)				
	Wild Bear People Silent Auction				
5:40 - 6:00 PM	Break				
6:00 - 7:00 PM	Dinner Banquet				Hunterdon Ballroom
7:00 - 8:00 PM	Lecture Series III - Sentient Bear Husbandry				Hunterdon Ballroom
7:00 - 7:20 PM	Else Poulsen The Language of Bears				
7:20 - 7:40 PM	Jason Pratte Xenoglossy. . . What Are They Really Hearing?				
7:40 - 8:00 PM	Val Hare Providing Opportunities for Bears to Think and Communicate				
8:00 - 9:00 PM	Workshop Session 1				
Behavior-based Bear Husbandry Workshop Mod: Else Poulsen	Bear Veterinary Health & Welfare Workshop Mod: Heather Bacon	Bear Sanctuaries Workshop Mod: Jill Robinson, Nic Field, Annemarie Weegenaar	Brainstorming for Happier Bears - Enrichment Planning Workshop Mod: Val Hare	Bear Training: Focus on Learning & Problem Solving Workshop Mod: Jason Pratte	
Hunterdon Ballroom	Hunterdon Ballroom	Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room	

Saturday, October 5, 2013

TIME	EVENT				LOCATION
6:00 - 8:00 AM	Continental Breakfast				Main Street Café hotel restaurant
7:00 AM	Delegates attending the SPECTACLED BEAR WORKSHOP at the Queens Zoo board van				Ground Floor Hotel Entrance
7:15 AM	Van Departs for Queens Zoo				
8:00 - 9:30 AM	Lecture Series IV - Conservation & Management				Hunterdon Ballroom
8:00 - 8:40 AM	Bill McShea Conserving the Bears of China				
8:40 - 9:10 AM	Gabriella Fredriksson Sun Bear Ecology, Threats, Awareness and Conservation Needs				
9:10 - 9:30 AM	Heather Bacon A Holistic Approach to the Management of Geriatric Ursidae				
9:30 - 10:30 AM	Workshop Session 2				
Behavior-based Bear Husbandry Workshop Mod: Else Poulsen	Bear Veterinary Health & Welfare Workshop Mod: Heather Bacon	Bear Sanctuaries Workshop Mod: Nicola Field, Annemarie Weegenaar	Sloth Bear Workshop Mod: Mindy Babitz	Sun Bear Workshop Mod: Gabriella Fredriksson	
Hunterdon Ballroom	Hunterdon Ballroom	Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room	
10:30 - 10:40 AM	Coffee/Tea and Cookies to go				Hunterdon Ballroom
10:30 - 11:30 AM	Workshop Session 3				
Bear Veterinary Health & Welfare Workshop Mod: Heather Bacon	Temperate Bear Workshop Mod: Christine Fenwick, Nicola Field, Annemarie Weegenaar	Bear Trauma Resolution Workshop Mod: Gay Bradshaw, Charlie Russell, Else Poulsen	Raising Neonates Workshop Mod: Angelika Langen, Tracy Leaver		
Hunterdon Ballroom	Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room		

TIME	EVENT	LOCATION
11:30 - 12:30 PM	Workshop Session 4	
	Temperate Bear Workshop Mod: Christine Fenwick, Nicola Field, Annemarie Weegenaar	Polar Bear Workshop Mod: Else Poulsen
	Petits Mill Room	Sergeants Mill Room
12:30 - 1:00 PM	Break	
12:30 - 1:00 PM	Delegates Arriving from Queens Zoo will be driven right to Woodlands Wildlife Refuge	Woodlands Wildlife Refuge
12:30 - 1:00 PM	Delegates Pick Up Box Lunch	Hunterdon Ballroom
12:30, 12:45, 1:15 PM	Delegates Take Shuttle Bus to Woodlands Wildlife Refuge	Second Floor Hotel Entrance
1:00 - 4:00 PM	Woodlands Wildlife Refuge Program and Tour	Woodlands Wildlife Refuge
4:00, 4:15, 4:30 PM	Delegates Take Shuttle Bus to Hotel	Woodlands Wildlife Refuge
5:00 - 7:00 PM	Delegates have dinner in Clinton - walk into town	
7:00 - 9:00 PM	Who We Are and What We Do	
	Mixer: Soda and Finger Foods	MC: Jason Pratte
7:10 - 7:20 PM	Bobbi Brink - Lions, Tigers and Bears	
7:20 - 7:30 PM	Sarah Clifford - Andean Bear Foundation	
7:30 - 7:40 PM	Shirley Curran - Five Sisters Zoo	
7:40 - 7:50 PM	Christine Miller - North Shore Black Bear Society	
7:50 - 8:00 PM	Tanya Smith - Turpentine Creek Wildlife Refuge	
8:00 - 8:10 PM	Jeff Traska - Wisconsin Black Bear Education Center	
8:10 - 8:20 PM	Lesley Winton - Winton Foundation for the Welfare of Bears	
8:10 - 9:30 PM	Poster Presentation Award Winners Announced Wild Bear People Silent Auction Winners Announced	

Sunday, October 6, 2013

TIME	EVENT				LOCATION
6:00 - 8:00 AM	Continental Breakfast				Main Street Café hotel restaurant
8:00 - 9:00 AM	Lecture Series IV (cont.) -Conservation and Management				Hunterdon Ballroom
8:00 - 8:20 AM	Kartick Satyanarayan Our Attempts at Social Calibration, Group Housing and Management of Sloth Bears in India				
8:20 - 8:40 AM	Geeta Seshamani Enclosure Utilization by Captive Sloth Bears at the Agra Bear Rescue Facility in India				
8:40 - 9:00 AM	David Morales Andean Bear Out-Reach in Latin America				
9:00 - 9:20 AM	Robyn Appleton Andean Bear Body Condition and the Effect of Seasonal Availability of Sapote Fruit in the Tropical Dry Forest of Lambayeque, Peru				
9:20 - 9:30 AM	Coffee/Tea and Cookies to go				Hunterdon Ballroom
9:30 - 10:30 AM	Workshop Session 5				
Behavior-based Bear Husbandry Workshop Mod: Else Poulsen	Bear Rescue, Rehabilitation and Release Workshop Mod: John Beecham, Angelika Langen, Tracy Leaver	Temperate Bear Workshop Mod: Christine Fenwick, Nicola Field, Annemarie Weegenaar	Brainstorming for Happier Bears - Enrichment Planning Workshop Mod: Val Hare	Bear Training: Focus on Learning & Problem Solving Workshop Mod: Jason Pratte	
Hunterdon Ballroom	Hunterdon Ballroom	Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room	

TIME	EVENT			LOCATION
10:30 - 11:30 AM	Workshop Session 6			
Bear Trauma Resolution Workshop Mod: Gay Bradshaw, Charlie Russell, Else Poulsen	Temperate Bear Workshop Mod: Christine Fenwick, Nicola Field, Annemarie Weegenaar	Brainstorming for Happier Bears - Enrichment Planning Workshop Mod: Val Hare	Giant Panda Workshop Mod: Jason Pratte	
Hunterdon Ballroom	Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room	
11:30 - 12:00 PM	Break			
12:00 - 1:00 PM	Lunch Banquet			Hunterdon Ballroom
1:00 - 2:00 PM	Poster Presentations			Hunterdon Ballroom & Reception
	Bear Book & Art Den			Hunterdon Ballroom
2:00 - 3:00 PM	Workshop Session 7			
Temperate Bear Workshop Mod: Christine Fenwick, Nicola Field, Annemarie Weegenaar	Bear Rescue, Rehabilitation and Release Workshop Mod: John Beecham, Angelika Langen, Tracy Leaver	Bear Training: Focus on Learning & Problem Solving Workshop Mod: Jason Pratte		
Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room		
3:00 - 4:00 PM	Workshop Session 8			
Behavior-based Bear Husbandry Workshop Mod: Else Poulsen	Bear Rescue, Rehabilitation and Release Workshop Mod: John Beecham, Angelika Langen, Tracy Leaver	TBA		
Petits Mill Room	Sergeants Mill Room	Hoffs Mill Room		
5:00 - 7:00 PM	Farewell Barbecue			Outdoor Barbecue Pit at Main Street Café Note: Will be in Hunterdon Ballroom if bad weather

Monday, October 7, 2013

Bronx Zoo Trip

TIME	EVENT	LOCATION
6:00 - 8:30 AM	Continental Breakfast	Main Street Café hotel restaurant
8:30 - 9:00 AM	Board Bus for Bronx Zoo	Second Floor Hotel Entrance
9:00 AM	Bus Departs for Bronx Zoo	
9:00 - 3:00 PM	Bronx Zoo	
11:30 AM	Brown Bear Enrichment and Keeper Chat	Brown Bear Exhibit
1:30 PM	Polar Bear Enrichment and Keeper Chat	Polar Bear Exhibit
2:45 - 3:00 PM	Meet Bus	TBA
5:00 PM	Return to Hotel	

Tuesday, October 8, 2013

Woodlands Wildlife Refuge - Helping Hands-On Project

TIME	EVENT	LOCATION
6:00 - 8:30 AM	Continental Breakfast	Main Street Café hotel restaurant
8:30 - 9:30 AM Every 15 minutes	Meet Hotel Shuttle for Woodlands Wildlife Refuge	Ground Floor Hotel Entrance
9:30 - 4:30 PM	Woodlands Wildlife Refuge	
4:30 - 5:30 PM Every 15 minutes	Meet Shuttle to Return to Hotel	Woodlands Wildlife Refuge Entrance



LECTURES

Alphabetized by first author



ANDEAN BEAR BODY CONDITION AND THE EFFECT OF SEASONAL AVAILABILITY OF SAPOTE FRUIT IN THE TROPICAL DRY FOREST OF LAMBAYEQUE, PERU

Robyn Appleton, Jessica Amanzo and Russ Van Horn

Knowledge of the natural history of Andean bears (*Tremarctos ornatus*) in the tropical dry forest of north-western Peru is scarce. Evidence suggests that the most important food resource for these bears is the sapote fruit (*Colicodendron scabridum*), available from approximately December to April. Our goal was to assess seasonal variation in body condition of individual Andean bears in the tropical dry forest in relation to the sapote fruiting period. We used more than 700 camera-trap detections of 19 individuals at 12 waterholes from 2008 to date. These images allowed us to assess body condition through external features. There is a positive correlation between body condition and the first month of the sapote fruiting season (December) in males ($R^2=0.511$), and the second to last month of the sapote fruiting season (March) for females without cubs ($R^2=0.678$), suggesting that there is a time delay in visible change in body condition for females without cubs. There is not a correlation ($R^2=0.442$) between body index of females with cubs and the fruiting season. It appears that sapote fruit located in the lowland areas yield enough nutrients to improve the overall condition of bears that are not lactating, however we have also noted from our telemetry data that females with cubs appear to avoid descending to the lowlands to feed on sapote. Once the fruiting season has finished, bears have limited foraging options, and because these foods are of lower dietary value, bear body condition decreases. Females with cubs appear to be the most nutritionally vulnerable individuals. Although sapote is considered Critically Endangered in Peru, human encroachment is reducing its distribution. Because the availability of sapote fruit may affect bear survival and reproductive success in the tropical dry forest, it is necessary to legally protect more areas of sapote near cliffs where the bears den and find refuge.

BIOGRAPHICAL NOTES

ROBYN APPLETON is the founder and research director of Spectacled Bear Conservation - Peru (SBC). Through scientific research, environmental education and community outreach SBC was established in 2007 to ensure the conservation of the spectacled (Andean) bear in the equatorial dry forest of northern Peru. Robyn holds a Master's degree from Simon Fraser University and is pursuing a PhD at the University of British Columbia. Since Robyn began her research in Peru in 2006, she and her team have conducted the first observational study, discovered the first active maternal den site, and fitted the first wild Peruvian spectacled bear with a GPS collar.

For details of projects and publications:

Address: SBC, P.O. Box 5209, Squamish, BC V8B 0C2, Canada

Email: robyn@sbc-peru.org

Website: www.sbc-peru.org



NEONATAL DEVELOPMENT IN MAMMALIAN SPECIES - CONSIDERATIONS FOR BEAR HANDRAISING AND REHABILITATION

Heather J. Bacon

Recent research focused on rodents, livestock and primates has demonstrated strong links between pre-partum and neonatal stress and subsequent cognitive development of the offspring later in life (Lou et al., 1994; Kofman, 2002). One study in neonatal elephants demonstrated that socially isolated calves exhibit less exploratory behavior and increased abnormal weaving behavior than calves raised with social contact (Kurt and Garai, 2001). Such research has implications for zoo and wildlife professionals, as mammalian developmental mechanisms are similar across different species. *“Adverse early experience, including prenatal maternal psychosocial stress, has the potential to negatively influence developmental processes through both physiological and behavioral mechanisms. This in turn may have adverse consequences for the mental and physical health, well-being and aging of the individual throughout the entire life-span”* (Wadhwa et al., 2001). When handraising neonatal mammals, including bears, the following issues need to be considered: 1) The resources available to meet the physiological and behavioral requirements of bear species; 2) The aims of the handraising or rehabilitation program; 3) Management of potential long term behavioral problems. It is important to remember that there are many cases of successful bear rehabilitation and release into the wild. But despite this, significant problems continue to arise in captive bears experiencing suboptimal environments as cubs. An understanding of the underlying mechanisms contributing to abnormal brain development may assist zoo and rehabilitation staff in improving the welfare of bears from traumatic or socially-deprived backgrounds.

BIOGRAPHICAL NOTES

HEATHER J. BACON, BSc (Hons), BVSc, CertZooMed MRCVS, is the Veterinary Welfare Education and Outreach manager at the University of Edinburgh’s Jeanne Marchig International Centre for Animal Welfare Education (JMICAWE), a position supported by the Animals Asia Foundation. She lectures on captive wildlife welfare issues, and has worked with the China Association of Zoo Gardens (CAZG), Shape of Enrichment and Animals Asia to improve zoo animal welfare in China. She has also worked with the European Commission to develop continuing education on captive wildlife welfare in Europe, and provides consultancy services to zoos and NGO’s on bear husbandry and welfare issues. Previously, she worked as the Veterinary Director at the Animals Asia Foundation, an NGO working to end the trade in bear bile across Asia. She is on the board of directors of the Bear Care Group.

For details of projects and publications:

Address: Jeanne Marchig International Centre for Animal Welfare Education, Royal (Dick) School of Veterinary Studies, University of Edinburgh, Edinburgh EH25 9RG, Scotland
Email: heather.bacon@ed.ac.uk



A HOLISTIC APPROACH TO THE MANAGEMENT OF GERIATRIC URSIDAE

Heather J. Bacon and Monica K. H. Bando

Bears in captivity may live in excess of 35 years. This is significantly longer than their wild lifespan of 20-25 years, and with this extended lifespan comes a variety of husbandry and medical considerations that must be addressed in order to meet the bear's welfare needs. Primary medical disorders include mobility, cardiac, renal, ocular and dental disease, as well as behavioral and mental health complications. These disorders result in increased veterinary care and the need for more intensive husbandry and management practices. Based on experiences with geriatric bears in Europe and Asia, and on current literature, this talk will aim to discuss the primary aspects of geriatric bear management.

BIOGRAPHICAL NOTES

HEATHER J. BACON, BSc (Hons), BVSc, CertZooMed MRCVS, is the Veterinary Welfare Education and Outreach manager at the University of Edinburgh's Jeanne Marchig International Centre for Animal Welfare Education (JMICAWE), a position supported by the Animals Asia Foundation. She lectures on captive wildlife welfare issues, and has worked with the China Association of Zoo Gardens (CAZG), Shape of Enrichment and Animals Asia to improve zoo animal welfare in China. She has also worked with the European Commission to develop continuing education on captive wildlife welfare in Europe, and provides consultancy services to zoos and NGO's on bear husbandry and welfare issues. She is a Director of Bear Care, (www.bearcaregroup.org) an international bear management organization which holds conferences to improve the care and management of captive bears around the world. Previously, she worked as the Veterinary Director at the Animals Asia Foundation, an NGO working to end the trade in bear bile across Asia. In addition to her veterinary degree, she holds a BSc (Hons) in Conservation Medicine and the Royal College of Veterinary Surgeon's Postgraduate Certificate in Zoological Medicine.

For details of projects and publications:

Address: Jeanne Marchig International Centre for Animal Welfare Education, Royal (Dick) School of Veterinary Studies, University of Edinburgh, Edinburgh EH25 9RG, Scotland
Email: heather.bacon@ed.ac.uk



SURVIVAL, DEN SELECTION, NUISANCE BEHAVIOR AND REPRODUCTION IN ORPHANED BEARS RELEASED BACK TO THE WILD

John Beecham

In many parts of the world bears have been eliminated from 50 - 75% of their historic range as a result of population insularization due to habitat fragmentation and excessive human caused mortality. Protecting habitat and reducing human caused mortality for bears are important conservation strategies, but the chances for long-term survival of small, isolated bear populations are diminished without proactive population management programs. For more than three decades, biologists and rehabilitators raised and released orphaned bear cubs into occupied bear habitat in an attempt to perfect methods for augmenting critically threatened bears populations. During this time frame, over 500 orphaned bear cubs were returned to the wild using a variety of release methods, ranging from fostering them to lactating female bears in winter dens to pen-raising the cubs and releasing them when they were considered self-sufficient and capable of surviving on their own. In this presentation, we will discuss survival, den selection, nuisance behavior and reproduction by three species of orphaned bears that were released back to the wild between 1991 and 2012. We will also present case histories describing the survival, denning activity, movements and reproduction of three species of released bears based on telemetry monitoring efforts in six countries.

BIOGRAPHICAL NOTES

JOHN BEECHAM has been involved in bear research and management since 1972. He completed his Ph.D. (Population characteristics, denning, and growth patterns of black bears in Idaho) at the University of Montana in 1980. He is a past president of the International Association for Bear Research and Management (IBA) and has also served that organization as a Council member, associate editor, and newsletter editor. John has published numerous scientific papers on bear ecology and bear rehabilitation methods, and co-authored, with Jeff Rohlman, a book entitled *A Shadow in the Forest - Idaho's Black Bear* that was published by the University of Idaho Press in 1994. He was a co-author for the *Cougar Management Guidelines* that were published in 2005. John recently completed a series of white papers on Rehabilitation and Release Guidelines for Orphan Bear Cubs, a Conservation Assessment on Rocky Mountain bighorn sheep in US forest Service Region 2, and on Global Human-Bear Conflicts. He continues to work as a consultant on efforts to release orphan bears back to the wild in the U.S. and other countries, as well as conducting field work on brown bears in Greece and Turkey. In May 2007 he co-chaired an international workshop in Russia on rehabilitation and release of orphan bear cubs.

For details of projects and publications:

Email: john.beecham@gmail.com



TRAUMA EFFECTS OF CAPTURE, CAPTIVITY, AND CAPTIVE BREEDING ON BEARS

Gay Bradshaw

Wildlife capture and captivity are culturally normative practices in modern society. Yet observers intuitively recognize the profound ill health that animals in confinement suffer. Now that neuroscientists confirm that animals share with humans comparable capacities to think, feel, and experience consciousness, captive animal symptoms reveal as psychological trauma. Similar to humans, elephants, parrots, bears, and other wildlife are vulnerable to post-traumatic stress disorder (PTSD). Bears who experience trauma through human violence in the wild (e.g., translocation, darting, rubber bullets, hunting) or captivity (e.g., capture, confinement, experimentation, captive breeding) express symptoms historically absent in the species (e.g., hyper-aggression, stereotypy, self-mutilation, infanticide). Notably, however, as psychiatrists underscore, PTSD is a normal response to abnormal conditions: bears are forced to shape their minds and bodies to accommodate the violence to which they are subjected. Neuropsychology of trauma, assessment methods, and therapeutic approaches to promote recovery are discussed from this perspective.

BIOGRAPHICAL NOTES

G.A. BRADSHAW, Ph.D., Ph.D., is the founder and director of The Kerulos Center and author of *Elephants on the Edge: What Animals Teach Us About Humanity* (Yale University Press: 2009). Her discovery of Post-Traumatic Stress Disorder (PTSD) in free-living African elephants established the field of trans-species science and psychology. The work has been extended to the psychological effects of violence on other animals and initiative to transform conservation into movements of restorative justice and self-determination.

For details of projects and publications:

Address: The Kerulos Center, P.O. Box 1446, Jacksonville, OR 97530

Telephone: (541) 899-1070

Email: bradshaw@kerulos.org

Website: www.kerulos.org



NEW JERSEY AND BLACK BEARS - PERFECT TOGETHER

Kelcey Burguess

When people think of New Jersey they visualize a densely populated state with over eight million people calling its boundaries home. They visualize large industrial smoke stacks spewing out dark black smoke, cars honking, thousands of miles of intertwined interstate, angry people yelling and screaming, traffic jams and miles and miles of land converted to a concrete and asphalt jungle seemingly un-inhabitable for most people let alone any form of wildlife. What people don't expect to see is the vast amount and diversity of wildlife that has learned to adapt to these conditions and thrive. This ability to thrive in such an urban environment has come with many challenges. This presentation will focus on the research and management of black bears (*Ursus americanus*) in the Garden State for the last 34 years.

BIOGRAPHICAL NOTES

KELCEY BURGUESS began his career in the early 1990s working as a Black Bear Technician for the Pennsylvania Game Commission under the supervision of bear biologist Dr. Gary Alt. After receiving his Masters degree from East Stroudsburg University he took a position with the New Jersey Division of Fish and Wildlife as an Assistant Biologist for the Black Bear Project. In 2003 he took the position as the Black Bear Project Leader. The NJ Division of Fish and Wildlife and the Black Bear Program has won numerous awards for its public outreach initiatives, research and documentaries concerning black bears in New Jersey.

For details of projects and publications:

Address: New Jersey Division of Fish and Wildlife, 141 Van Syckels Road, Hampton, NJ 08827

Telephone: (908) 735-8793

Email: kelceyburguess@earthlink.net



HOW BEARS RESCUED FROM BILE FARMS LEARN, SOLVE PROBLEMS AND RESPOND TO THEIR ENVIRONMENT ONCE THEY ARRIVE AT ANIMALS ASIA'S SANCTUARIES

Nicola Field and Annemarie Weegenaar

Across Asia, up to 20,000 bears are cruelly farmed for their bile despite existing herbal and synthetic alternatives. Animals Asia is devoted to end the practice of bile farming and has rescued 400 bears in China and Vietnam since 1994. Bears rescued are mainly Asiatic black bears (*Ursus thibetanus*) ranging from 2 months to 30 years of age, but have also included brown bears (*Ursus arctos*) and sun bears (*Ursus malayanus*). Bears on bile farms are generally kept in very small cages, in a non-stimulating environment where they endure tremendous physical and psychological suffering. Many bears are also physically challenged - blind, or missing limbs, claws and teeth. When they arrive at our sanctuaries they have gone through a lot of trauma and it takes time for them to adjust to a new life. This presentation will examine how these broken bears learn to be bears and how they eventually adapt to their new environment. We explore what bears instinctively know versus learn from others and draw upon individual behavioral records, experience and anecdotal observations from staff at both sanctuaries. We will also discuss the extensive management programs, including environmental enrichment and training, which play an integral role in the recovery of these traumatized bears.

BIOGRAPHICAL NOTES

NICOLA FIELD is the Bear & Vet Team Director at Animals Asia's bear rescue centre, China. She heads the veterinary and bear team who take care of the bears, dogs, cats and macaques on site. Her main role is ensuring optimum care of all animals on site, as well as promoting the work of the organization. Nicola is part of the IUCN Captive Bear Specialist Group and has an MSc in Wildlife Biology & Conservation, as well as Animal Management qualifications. Nicola worked for nearly 10 years as a zoo keeper in the UK, taking care of a variety of species, including North American black bears. She has also worked as an animal-care assessor in the UK and a researcher on conservation projects in Uganda, Vietnam and Kenya.

ANNEMARIE WEEGENAAR is the Bear & Vet team Director at Animals Asia's bear rescue centre, Vietnam. She heads the veterinary and bear team who take care of the 107 rescued bears. Annemarie has worked for Animals Asia for seven years, both in China and Vietnam. She has a BS in Animal Management as well as experience working with bears at rescue facilities in Malaysia and Indonesia.

For details of projects and publications:

Address: Animals Asia Foundation, Head Office GPO 374, Hong Kong

Telephone: +852 2791 2225; Fax: +852 2791 2329

Email: aweegenaar@animalsasia.org; nfield@animalsasia.org



SUN BEAR ECOLOGY, THREATS, AWARENESS AND CONSERVATION NEEDS

Gabriella Fredriksson

The sun bear (*Helarctos malayanus*), smallest of the eight extant bear species, is distributed throughout Southeast Asia, including the large islands of Sumatra and Borneo. Research on sun bears in the wild has been limited and so far only a handful of studies have been carried out. Until recently, sun bears were listed as 'Data Deficient' by the IUCN Red list. Their status was changed to 'Vulnerable' in 2007, based on the large-scale reduction of their tropical rain forest habitat, high levels of poaching and trade, and their associated population decline. Awareness about sun bear conservation issues and active law enforcement is staggeringly low in most countries within their distribution range. As part of a long-term commitment to sun bears, I have been actively involved in various aspects of sun bear conservation and research since 1997. This started with research on wild sun bears, rehabilitation of several sun bear cubs confiscated from illegal wildlife trade, protection and management of their habitat in Kalimantan, developing methods on how to monitor trends of wild sun bear populations through sign transects, and the establishment of a sun bear education center. The Sun Bear Education Center houses several sun bears in a large natural enclosure, now visited by 70,000 local people annually. Despite these and other efforts to increase knowledge and awareness about sun bears, the challenges to ensure the future conservation of this species throughout their distribution range are complex. A comprehensive, collaborative approach is necessary focusing on protection of habitat, law enforcement against poaching and trade, as well as placing sun bears on the conservation agenda of governments and NGOs.

BIOGRAPHICAL NOTES

GABRIELLA FREDRIKSSON'S work over the last seventeen years has focused on conservation research, forest management, establishment of new protected areas, and conservation awareness in Indonesia. She recently finalized her PhD on sun bear ecology and conservation. Since 2003 she has been involved with the establishment of an environmental education centre, focusing on sun bears in East Kalimantan, Indonesia. She currently divides her time between Sumatra, where she works on the establishment of a new protected area for the southernmost population of Sumatran orangutans, and Kalimantan, to further her work on forest management and the sun bear education centre. Gabriella is co-chair of the Sun Bear Expert Team, IUCN/SSC Bear Specialist Group.

For details of projects and publications:

Address: PanEco-YEL-SOCP, Jl. K.H. Wahid Hasyim No 51/74, Medan 20154, North Sumatra, Indonesia

Telephone: +62-813-97822007; Fax: +62-61-4514749

Email: gabriella.fredriksson@gmail.com

Website: www.beruangmadu.org



PROVIDING OPPORTUNITIES FOR BEARS TO THINK AND COMMUNICATE

Valerie J. Hare

The understanding that bears have evolved to exist within complex environments containing an array of stimuli that are rife with behavioral opportunities compels us to strive to provide appropriate stimuli and behavioral opportunities in their captive environments. In keeping with this conference theme, the focus of the enrichment strategies in this presentation will be to encourage cognitive and communicative behaviors. Bears are excellent observers and problem solvers, and thus are likely to investigate virtually any Cognitive Enrichment strategy provided – from exploring novel objects to solving complex problems. In addition to vocalizations and body posturing, all species of bears communicate via physical and olfactory messages. Therefore, Social, Sensory, and Physical Habitat Enrichment strategies that promote these signposting behaviors may be extremely important to captive bears. Examples of enrichment specifically targeting bears' cognitive and communicative behaviors will be discussed.

BIOGRAPHICAL NOTES

VALERIE HARE co-founded The Shape of Enrichment, Inc. in 1991 and has been a principal ever since. In 2000, Valerie presented an enrichment mini-course at the Brazilian Zoo Congress in Belo Horizonte, Brazil. With the help of its current instructors, that mini-course has evolved into The Shape of Enrichment Workshop, which is designed to assist interested animal caretakers in creating enrichment plans for the animals in their care. Shape workshops have now been held in 20 countries: Brazil, Bulgaria, Cambodia, Canada, Chile, China, Georgia, Hong Kong, Hungary, Indonesia, Ireland, Philippines, Romania, Singapore, South Africa, Sweden, Uganda, United Kingdom, United States, and Vietnam. Valerie is currently the Chief Financial Officer and Workshop Coordinator for The Shape of Enrichment, Inc. Valerie has worked as a Research Animal Care Supervisor (Massachusetts General Hospital), Zoo Keeper (San Diego Wild Animal Park), Behavioral Research Technician (San Diego Zoo), and Enrichment Consultant. As an enrichment consultant she has worked with giant pandas, polar, brown, spectacled, and sun bears. Valerie holds a Bachelor of Science Degree in Biology with a Zoology emphasis from San Diego State University and an Associate Degree as a Veterinary Technician from State University of New York. She has served on the International Conference on Environmental Enrichment Committee since 1997 and has been a director on the founding Board of Directors for the Bear Care Group since 2007.

For details of projects and publications:

Address: The Shape of Enrichment, Inc., 7909 Caledonia Dr., San Jose, CA 95135

Email: shape@enrichment.org

Website: www.enrichment.org



GRIZZLY AND BLACK BEAR REHABILITATION IN BRITISH COLUMBIA, CANADA

Angelika Langen

Bears fascinate and frighten people in almost equal amounts. With humans encroaching into remaining bear territories at an alarming rate through ranching, farming, mining, or other activities that bring humans into the wilderness, human-bear conflict is a common occurrence and often results in the death of bears. Since 1990, the Northern Lights Wildlife Society has attempted to offset the human impact in the still relatively remote areas of British Columbia, Canada, by rehabilitating orphaned black bears (*Ursus americanus*) and grizzly bears (*Ursus arctos horribilis*). While rehabilitation of bears in remote areas may sound easy, there are actually many challenges, similar to rehabilitation in more populated regions. This presentation will discuss the reasons why rehabilitating bears is important and how it can be a meaningful management tool in today's wildlife management strategies. We will also discuss the myths that stand in the way of rehabilitating bears and the challenges rehabilitators face in successfully releasing bears.

BIOGRAPHICAL NOTES

ANGELIKA LANGEN began her career as a zookeeper apprentice in Zoo Cologne in 1987. After completing her apprenticeship she then worked as a zookeeper in Zoo Cologne and Zoo Augsburg. In 1982 she immigrated to Canada and in 1990 she and her husband Peter, a zoo carnivore expert, founded the Northern Lights Wildlife Society in Smithers, BC, Canada. The aim of the Society is to offer injured and/or orphaned mammals a safe haven to grow and heal before being returned to the wild. Birds are also accepted, but are generally transferred to other shelters. Over the years the location of the shelter led to the organization's growth in bear and ungulate rehabilitation. Angelika specializes in the care of the very young and/or injured bears and has spent countless hours caring for them.

For details of projects and publications:

Address: Northern Lights Wildlife Society, 17366 Telkwa High Rd, Smithers, BC
V0J 2N7, Canada

Telephone: (250) 847-5101

Email: info@wildlifeshelter.com

Website: www.wildlifeshelter.com



CHALLENGES, SUCCESSES AND SPECIAL CASES OF REHABILITATING AND RELEASING BLACK BEARS

Tracy Leaver

Despite more than 8.8 million people living in New Jersey, the 4th smallest state in the United States, black bears (*Ursus americanus*) are thriving and a rehabilitation and release program has proven successful. In collaboration with the New Jersey Division of Fish and Wildlife's Black Bear Team, more than 80 bears have been cared for resulting in over 70 releases. On-going research demonstrates the program's success with rehabilitated and released bears. This program and research have gained national and international interest due to its documented success and has been highlighted most recently by Dr. John Beecham, Tracy Leaver and Kelcey Burguess at the 2012 International Bear Association Conference, the 2013 National Wildlife Rehabilitator's Association Symposium, and the 2013 Eastern Black Bear Workshop. It is hoped that sharing this research, with its unique challenges and interesting case studies, will increase acceptance of this practice and inspire others to rehabilitate and release other species of bears.

BIOGRAPHICAL NOTES

TRACY LEAVER has been involved with wildlife rehabilitation since 1986 and is founder and Executive Director of Woodlands Wildlife Refuge, Inc. Tracy is also founder and current President of the New Jersey Association of Wildlife Rehabilitators. She has served as Chair of the Minimum Standards Committee for the National Wildlife Rehabilitator's Association and was recently appointed by the New Jersey Department of Environmental Protection to the Wildlife Rehabilitator's Advisory Committee. In 1995, Tracy created and implemented the first black bear rehabilitation and release program in New Jersey. She has also presented various education programs including Woodlands' Black Bear Rehabilitation, Release and Research Program throughout the U.S. and Canada and for New York State Wildlife Rehabilitation Council, Wildlife Center of Virginia, National Wildlife Rehabilitator's Association, Advancing Bear Care and the Eastern Black Bear Workshop. As a nonprofit charity, Woodlands Wildlife Refuge works with all mammal and reptile species native to New Jersey.

For details of projects and publications:

Address: Woodlands Wildlife Refuge, Inc., PO Box 5046, Clinton, NJ 08809

Telephone: (908) 730-8300 ext. 5

Email: wildlife@eclipse.net

Website: www.woodlandswildlife.org



CONSERVING THE BEARS OF CHINA

Bill McShea

There are four species of bears in China including the rare giant panda (*Ailuropoda melanoleuca*). Both Asiatic black bears (*Ursus thibetanus*) and giant pandas overlap in distribution in the Sichuan Province of south-central China. While giant pandas have received international attention and conservation effort, Asiatic black bears continue to be hunted both for wildlife products and in response to their damage to crops. I will report on efforts to monitor and assess Asiatic black bear populations across a landscape that is focused on giant panda conservation. We have completed a survey of black bear populations across the province, recorded and discussed human-bear conflicts with local villagers, and monitored corticosteroid levels for wild, captive and bile farm bears. In addition I will report on our current efforts to understand giant panda use of corridors between reserves and how these corridors can be improved both for giant pandas and other large mammals.

BIOGRAPHICAL NOTES

BILL MCSHEA, PhD, is a wildlife ecologist for the Smithsonian's Conservation Biology Institute at Front Royal, Virginia. He received his education at Bucknell University, University of New Hampshire, and State University of New York at Binghamton. He has worked at the Front Royal facility since 1986, including two years as part of a joint program with Wildlife Conservation Society. His dissertation research was in population biology of small mammals, but has since worked on deer, migratory birds, and carnivores. He has edited three volumes on wildlife management (deer, oak forests in North America, and dry forest in Asia), co-written a volume on deer ecology, and just finished editing a text on giant panda ecology. When not in Virginia, Bill has worked in Southeast Asia, Gabon, Brazil, and China. He has over 100 publications in ecological journals, including several on bears in China. Bill's current research focuses on the management of wildlife populations in forested ecosystems, including giant pandas and Asiatic black bears in China, rare deer and bovids in Southeast Asia, a large mammal survey along the Appalachian Trail, and invasive plant/animal interactions.

For details of projects and publications:

Address: Smithsonian Conservation Biology Institute (National Zoo), 1500 Remount Rd., Front Royal, VA 22630

Telephone: (540) 635-6563

Email: mcsheaw@si.edu



ANDEAN BEAR OUT-REACH IN LATIN AMERICA

David Morales

The Queens Zoo Andean bear (*Tremarctos ornatus*) program was initiated by the Wildlife Conservation Society's (WCS) Andean bear *in situ* / *ex situ* program in Ecuador in 2003. The Andean Bear Enrichment Project was developed by Isaac Goldstein, WCS conservation ecologist, Scott Silver, Director of the Queens Zoo, and David Morales, Zookeeper at the Queens Zoo. This was the first WCS enrichment project that enabled a zookeeper to be sent into the field to gain a better understanding of both wild and captive Andean bears. The knowledge acquired through this project aided in the development of the Queens Zoo's captive Andean bear program. The project also allowed zookeepers to enhance their professional skills, and it became the foundation for a zookeeper out-reach program in Latin America. In 2004, the first Andean bear workshop on enrichment and training took place at the Bararida Zoo in Venezuela. The success of this workshop expanded the keeper out-reach program to seven Latin American countries and numerous North American zoos. The program has advanced Latin American captive bear husbandry practices through the enrichment and training of Andean bears and a variety of other species, as well as educating local zookeepers and enhancing the animal care profession.

BIOGRAPHICAL NOTES

DAVID MORALES has been a WCS employee for 24 years and a keeper at the Queens Zoo for the last 19 years. He has specialized in enrichment and training programs for Andean bears and cougars. David's accomplishments in the training of cougars and bears include; i/ voluntary blood withdrawal, ii/ ultrasound examinations, iii/ hand injections, iv/ blood pressure readings, v/ rectal temperature readings, vi/ x-ray imaging, and vii/ basic husbandry behaviors. Enrichment projects include three WCS *in situ* / *ex situ* collaborations regarding Andean bear and cougar husbandry in Ecuador, Venezuela, and Yellowstone National Park. David has collaborated with over twenty zoos on the captive management of Andean bears. His work in Latin America has also expanded to a variety of other species including tapirs, jaguars, and African lions.

For details of projects & publications:

Address: WCS Queens Zoo, 53-51 111th street, Flushing, NY, 11368

Telephone: (718) 271-1500

Email: dmorales@wcs.org / dmoso@msn.com



THE LANGUAGE OF BEARS

Else Poulsen

Bears communicate information to others using verbal and non-verbal language that includes body language, olfactory and physical sign posting. Understanding the basic principles of bear communication is beneficial to the caregiver in accomplishing routine husbandry and medical procedures, and can improve captive bear welfare. A brief synopsis of current concepts of sentience, innate and learned language principles, anthropomorphism, and intelligence will be presented. The commonly observed communication behaviors of bears and their accepted meaning will be reviewed. Infrequently discussed, less understood, and occasionally controversial behaviors will be highlighted for consideration. Sound, photographic, and video depiction is used as evidence of behavior discussed wherever possible.

BIOGRAPHICAL NOTES

ELSE POULSEN began her career in the early 1980's working as a field biologist in Alberta's oil patch. When the bottom dropped out of the energy industry she became a zookeeper at the Calgary Zoo working with a wide variety of animal species, from toads to tigers. Over time Else specialized in captive bear behavior, husbandry, and management. She researched aberrant behaviors in captive bears and published her findings. She has worked at the Calgary and Detroit Zoos, as well as several other bear specialist facilities in Canada. As the founding consultant for Behavioral & Environmental Solutions she provides expertise in modernizing bear husbandry methods, enrichment programming, and enclosure design/redesign to zoos, sanctuaries, rehabilitation facilities, and animal welfare organizations around the world. Else has published in scientific and technical journals, the media, and various books including *Smiling Bears - A Zookeeper Explores the Behavior and Emotional Life of Bears* (2009). Her next book, *Bärle's Story - From Circus Act to Polar Bear*, will be released in 2014. Else is the president of the Bear Care Group.

For details of projects and publications:

Address: Behavioral & Environmental Solutions, 2, 126 Main Street West
Grimsby, Ontario L3M1R8, Canada
Telephone: (905) 309-1370
Email: embpoulsen@bearcaregroup.org



XENOGLLOSSY. . . WHAT ARE THEY REALLY HEARING?

Jason Pratte

When humans interact with bears, whether we are field biologists, zookeepers, rehabilitators or encounter them in any other capacity, we are ALWAYS teaching the animals something. Problems arise when what humans *think* they are passing onto the animals conflicts with resultant unexpected behaviors. Differences in perception of the environment between humans and bears will be discussed, along with how intentional messaging (such as operant conditioning) can go unexpectedly awry. Years of training experience, research and a solid grounding in behavior-based husbandry will contribute to helping people recognize what the animals may be inadvertently learning from us (and acting on!), in order to improve our two way bear communication and comprehension skills.

BIOGRAPHICAL NOTES

JASON PRATTE “Jay” has been an animal caregiver for over two decades, and has been privileged enough during this time to work with all eight extant bear species. His primary focus is training, both of animals as well as caregivers. Behavioral husbandry training of bears and carnivores has long been a specialty, focusing on complex medical behaviors. In the past several years Jay has been training animal keepers and caregivers around the world in operant conditioning techniques. One of these adventures was showcased on Animal Planet's "Growing Up Panda". Jay is on the American Association of Zookeepers (AAZK) National Behavioral Management Committee and also the AAZK Grants Committee. He holds a Master's degree in Zoo and Aquarium Leadership, and has published several peer-reviewed papers on developing training, public speaking and emergency response skills. Jay is a founding Board of Directors member for the Bear Care Group, and holds the vice president position. In addition he is also currently the acting treasurer.

For details of projects and publications:

Address: Omaha's Henry Doorly Zoo® and Aquarium, 3701 S 10th St., Omaha, NE 68107

Telephone: (404) 788-4788

Email: jayp@omahazoo.com



ENDING BEAR BILE FARMING IN CHINA AND VIETNAM

Jill Robinson

Thousands of endangered Asiatic black bears (*Ursus thibetanus*), together with brown bears (*Ursus arctos*) and sun bears (*Ursus malayanus*), are imprisoned in cages no bigger than their bodies on bile farms across Asia - sometimes for as long as 30 years. Many have been illegally caught from the wild. Mutilated and milked for their bile, they suffer from a variety of cruel and insanitary extraction methods - despite the availability of herbal and synthetic alternatives. To date, Animals Asia has rescued over 400 bears in China and Vietnam. They arrive in deplorable physical and psychological condition, having endured years of pain and malnutrition, as well as spatial and behavioural deprivation. Major surgery is required to remove their diseased gall bladders and address a catalogue of abuse and health concerns. This presentation summarizes two decades of strategy that covers welfare, politics, education, public health, conservation, Traditional Medicine, and basic ethics, and a campaign that sees increasing public and political support towards ending the industry once and for all.

BIOGRAPHICAL NOTES

JILL ROBINSON MBE, Dr. Med. Vet. H.C., has campaigned for animal welfare in Asia since 1985 and exposed the practice of bear bile farming in 1993. In 1998, she founded Animals Asia and built the organisation into a respected international NGO headquartered in Hong Kong with country offices in Australia, China, Germany, Italy, the UK, US and Vietnam. Today, with over 300 staff worldwide, and award-winning bear sanctuaries in China and Vietnam, Animals Asia focuses on ending bear bile farming, ending the cruel and illegal trade in dogs and cats for human consumption, and working to improve the respect and welfare of animals in zoos. Among other awards, Jill has an honorary doctorate from the University of Zurich, is an Asia World Animal Day Ambassador, Council Member of the World Federation of Chinese Medicine Societies Herbal Committee, BBC Wildlife Magazine Conservation Hero, and Member of the USA Society of Woman Geographers. In 1998, Jill was awarded an MBE by Queen Elizabeth, and in 2010 awarded "You Bring Charm to China" along with 12 prominent foreign people who have enriched life in China.

For details of projects and publications:

Address: Animals Asia Foundation, Head Office GPO 374, Hong Kong.

Telephone: Office: +852 2791 2225; Cell: +852 9095 8405

Email: jrobinson@animalsasia.org



BROWN BEARS NATURAL HABITAT SHOULD INCLUDE AND CAN INCLUDE HUMANS

Charlie Russell

There are immense problems that arise from our misunderstanding of the brown bear (*Ursus arctos*). A better understanding and acceptance of them being able to live closer to us on ranches and in National Parks would have the potential of creating huge amounts of additional habitat for these bears. The barrier between human and brown bear cohabitation has been established out of fear and mistrust. On occasion bears react to the violent treatment they receive from us initiating a counter aggressive response. The application of my work has not yet been realized but the discussion has begun. It is my belief that the current harsh management techniques used for brown bears creates dangerous bears. This presentation will describe a project in Kamchatka, Russia, working with brown bears and defining trust without abuse after identifying their difficulties. Additional experiences will be shared about the rescue of ten orphaned cubs from zoos and how they were reared to become independent in the wild.

BIOGRAPHICAL NOTES

CHARLES RUSSELL “Charlie” is the founding director of the Pacific Rim Grizzly Bear Coexistence Study and is on the faculty of the Kerulos Center. For the last 48 years Charlie has closely observed grizzly bears in Canada and Russia in their natural habitat. A former rancher and guide, Charlie is an author, photographer, and self-taught pilot. His experience as a rancher defined how grizzlies used and shared his land situated on the boundary of Waterton/Glacier International Park on Alberta/Montana border. Charlie developed husbandry systems that allowed his cattle and the bears to coexist. In 1992 and 1993 Charlie lived on Princess Royal Island to create a film about the Kermode bear with wildlife filmmakers Jeff and Sue Turner. His first book titled *Spirit Bear - Encounters with the White Bear of the Western Rainforest* chronicles those years spent living with the Kermode bear. Charlie is also the author of the book *Grizzly Heart - Living Without Fear Among the Brown Bears of Kamchatka* which chronicles his work with grizzlies.

For details of projects and publications:

Telephone: (403) 627-1898

Email: crussell@jrtwave.com

Website: www.charlierussellbears.com



OUR ATTEMPTS AT SOCIAL CALIBRATION, GROUP HOUSING AND MANAGEMENT OF SLOTH BEARS IN INDIA

Kartick Satyanarayan and Geeta Seshamani

The Agra Bear Rescue Facility (ABRF) run by Wildlife SOS in India, spread over 160 acres in Agra, Uttar Pradesh, currently houses close to 250 sloth bears (*Melursus ursinus*). This is one of two centers in the world run by Wildlife SOS where large numbers of sloth bears are housed together through social calibration. Wildlife SOS eradicated a 400 year brutal practice of 'dancing bears' by rescuing over 627 sloth bears held in illegal captivity by the Kalandars, a nomadic community. Theoretically, sloth bears are known to be solitary animals in the wild. However, there are instances of group feeding by sloth bears at feeding stations. Other species of bears like American black bears (*Ursus americanus*) and polar bears (*Ursus maritimus*) have also been observed feeding in groups at garbage dumps elsewhere in the world. A team of 88 staff including veterinarians, paravets, and animal keepers work together in the Agra Bear Rescue Facility to carefully carry out intricate social calibration in the sloth bears housed at the center in order to successfully group house these bears. This talk attempts to update the efforts being carried out by Wildlife SOS to maintain this group housing and the challenges that the team encounters in doing this.

BIOGRAPHICAL NOTES

KARTICK SATYANARAYAN is the co-founder of Wildlife SOS in India. He has led an effort to end the 'dancing bear' practice in India that had persisted for centuries. The success of this project is attributed to addressing the problem from many angles including protecting wild bears in their natural habitat, developing anti-poaching programs, creating vocational programs for local Kalander tribes and operating bear rescue centers. In addition to overseeing these programs, Kartick works tirelessly to train forest officials and prosecutors on how to fight wildlife crime and train village leaders on ways to prevent human bear conflict.

For details of projects and publications:

Address: Wildlife S.O.S - India, D-210, Defence Colony, New Delhi 110024, India

Telephone: +91 9810114563

Email: kartick@wildlifesos.org



ENCLOSURE UTILIZATION BY CAPTIVE SLOTH BEARS AT THE AGRA BEAR RESCUE FACILITY IN INDIA

GEETA SESHAMANI and RINESH RAMAN P.P

The rescued sloth bears (*Melursus ursinus*) at the Agra Bear Rescue Facility are currently housed in natural, informal, fairly large and unstructured forested enclosures that provide an environment rich in vegetation and insects, and allow ample foraging opportunities. Wildlife SOS is carrying out an ongoing study of enclosure utilization by sloth bears at the Agra Bear Rescue Facility with support from the Central Zoo Authority of India. The data being collected emphasizes the bears' varying degrees of enclosure space utilization for rest, play, social interactions and foraging. This information has implications for bear managers and animal keepers in terms of providing enrichment and the ideal enclosure space for this species. The study is also attempting to assess the relationship between enclosure utilization and its impact on specific bear behaviors such as abnormal repetitive behaviors or stereotypic behavior. This is an ongoing two year study that will reflect seasonal preferences and other factors that influence the bears' use of enclosure space.

BIOGRAPHICAL NOTES

GEETA SESHAMANI is the co-founder of Wildlife SOS in India as well as Friendicoes SECA (Society for the Eradication of Cruelty to Animals). She has been instrumental in solving the 'dancing bear' problem in India and currently has over 400 rescued bears in her care. One of the facilities she runs in Agra is the largest bear rescue center in the world with over 200 rescued bears. Along with caring for hundreds of rescued sloth bears, her organization also cares for several moon bears that have been rescued from human/bear conflict situations. Although providing quality medical care and enriching the lives of the captive bears is an important part of Geeta's work, she is also leading many conservation efforts to protect both sloth bears and moon bears in the wild.

For details of projects and publications:

Address: Wildlife S.O.S - India, D-210, Defence Colony, New Delhi 110024, India

Telephone: +91 9810000254

Email: Geeta@wildlifesos.org



POSTERS

Alphabetized by first author



FIVE SISTERS ZOO

Brian Curran, Shirley Curran and Angela Kyle

In 2012, the Five Sisters Zoo re-homed three female brown bears (*Ursus arctos spp.*) that had been rescued and were housed temporarily at a first response rescue shelter. The zoo designed and constructed a two acre natural habitat enclosure on a woodland site that features a three room holding building and a quarter acre holding pen. The habitat includes a pond, hilly terrain, grassland, natural food sources such as berries and vegetation growing in the enclosure, and privacy from conspecifics and the public. After more than twenty years in a travelling circus, these traumatized bears had to learn how to forage for food and how to interact with each other. They are fed seasonally appropriate diets which enabled them to hibernate for the first time in their lives. Enrichment programming includes boomer balls, tires, and a wooden jungle gym where food can be hidden, thus encouraging foraging behavior. All three bears exhibit aggressive, anti-social behavior often typical of traumatized bears. To aid in their recovery, each bear has a dedicated human friend who spends time socializing with the bear, developing a trusting positive relationship, and rewarding social behavior. We are establishing a written and photographic record of their behaviors and physical status throughout their recovery. To date we have observed evidence of natural behaviors such as making day beds, using information trees, nest building, hibernating, bathing, and reproductive cycling. As the bears' natural behaviors have increased, their stereotypic behaviors have decreased. Although stereotypies are still evident, the bears are showing positive signs of recovery and this trend continues.

BIOGRAPHICAL NOTES

BRIAN and SHIRLEY CURRAN established a Garden Centre in 1993 that soon became a rescue center for unwanted, abandoned or neglected animals. The facility became licensed as the Five Sisters Zoo in 2005 operating as a non-profit organization. The zoo's mission is to provide a safe sanctuary for rescued wildlife and to continue its involvement with the conservation of endangered species. A personal goal for the couple was to one day help the plight of captive bears. Their dream came true on March 29, 2012, when they gave three rescued circus bears a permanent home at the zoo.

ANGELA KYLE became involved with the Five Sisters Zoo as a volunteer in 2011 after learning about the fundraising appeal to rescue and rehome three ex-circus bears. She was instrumental in securing material contributions from a major construction company, thus saving the zoo thousands of pounds in the construction of the bear enclosure. She is a volunteer bear caregiver and participates in weekly behavior observations.

For details of projects and publications:

Address: Five Sisters Zoo, Gavieside, West Calder, Edinburgh EH55 8PT, Scotland
Telephone: 01506 870000
Email: shirley@fivesisterszoo.co.uk
Website: www.fivesisterszoo.co.uk



KEEPER MANAGEMENT OF A SPECTACLED BEAR WITH PROGRESSIVE ALOPECIA

Lucy Edwards

Chester Zoo, UK, currently has one female spectacled bear (*Tremarctos ornatus*) named Franka, born on the 2nd of March, 1997. She first started to show symptoms of alopecia in 2010 (and possibly at an earlier date in a previous zoo) and it has continued to progress since then. There are a number of possible causes for this condition; e.g. atopy or allergy, stress, hormones, or an immune response to name a few, but there are currently no conclusive results explaining the cause. Treatment for this condition varies between institutions. At the Chester Zoo we have tried a number of different medical treatments including oral, topical and injectable. In order to administer these treatments, husbandry training began and was developed to suit the different treatments. Methods of monitoring and recording the condition as it progressed were also put into place in the form of alopecia scoring diagrams and photos. Finally, some changes in both this bear's management and her enclosure were made such as allergen control and separations from her male companion, Sangay, who was housed in the same enclosure at the time. This poster will describe the methods used to achieve these husbandry goals and how successful they are.

BIOGRAPHICAL NOTES

LUCY EDWARDS has worked as a zoo keeper for nine years managing a number of different species from small mammals and hoofstock to large carnivores and pinnipeds. She has always loved working with carnivores but bears were the animals she really wanted to get to know. After working at Banham Zoo, UK, for six years she moved to Chester Zoo, UK, where she currently holds the position of lead keeper on the Twilight team. The Twilight team includes the spectacled bears which are her true passion. Lucy enjoys training the bears and the challenges it brings, along with the endless enrichment opportunities that bears crave.

For details of projects and publications:

Address: Chester Zoo, Cedar House, Caughall Road, Upton by Chester, Chester CH2 1LH, UK
Email: l.edwards@chesterzoo.org



TRAINING A SPECTACLED BEAR TO OPEN MOUTH FOR INSPECTION

Lucy Edwards

In April 2012 the male spectacled bear (*Tremarctos ornatus*) Sangay (02.01.92 - 07.06.13) was given two general anesthetic procedures to examine and fix a broken canine tooth. Following these events the decision was made to train him for oral examination using positive reinforcement training. This poster is designed to look like a training log and uses visual aids to describe the methods used to train this behavior. The result of training this behavior was that the trainer was able to thoroughly inspect the inside of Sangay's mouth and brush his teeth daily, enabling early detection of any problems or sensitive areas.

BIOGRAPHICAL NOTES

LUCY EDWARDS has worked as a zoo keeper for nine years managing a number of different species from small mammals and hoofstock to large carnivores and pinnipeds. She has always loved working with carnivores but bears were the animals she really wanted to get to know. After working at Banham Zoo, UK, for six years she moved to Chester Zoo, UK, where she currently holds the position of lead keeper on the Twilight team. The Twilight team includes the spectacled bears which are her true passion. Lucy enjoys training the bears and the challenges it brings, along with the endless enrichment opportunities that bears crave.

For details of projects and publications:

Address: Chester Zoo, Cedar House, Caughall Road, Upton by Chester, Chester CH2 1LH, UK
Email: l.edwards@chesterzoo.org



WORKING WITH WHAT YOU HAVE - ACKNOWLEDGING THE CHALLENGES THAT COME WITH AN OLDER EXHIBIT

Kate Marino

The Bear Mountain exhibit at the Denver Zoo opened in 1918 and was among the most innovative and naturalistic exhibits in the country at the time. It was designed to replicate the bears' natural habitat and helped to connect guests to these amazing creatures without bars impeding their views. Bear Mountain was an incredible achievement in exhibit fabrication when it was opened, but now has been surpassed by newer exhibit designs. Limited space, lack of natural substrates and behavioral challenges are a few of the obstacles that have an impact on the care of our pair of brown bears (*Ursus arctos*). These obstacles propose challenges that staff must overcome on a daily basis. There are three major programs that keepers utilize when facing these challenges that go along with an old exhibit: training, enrichment and behavior research. Staff made modifications to the holding areas in order to establish a training program that has helped build a strong and trusting relationship between the bears and animal keepers. Keepers normally only have a small area in which to train, but these modifications now allow for new behaviors to be shaped and the maintenance of behaviors the bears already know. Developing a diverse enrichment program is a large contributing factor to overcoming the challenges caused by limited space. By using a variety of substrates, feeder toys and puzzles, browse, scents, novel food items and other natural enrichment, we are able to provide diversity to a non-stimulating environment. Conducting a behavior research study on our resident bears has helped us to better evaluate their mental and physical needs. Results from this study have shown us that our two bears are unique from each other and have different needs. Appreciating these differences has led to changes in the bears' husbandry routine which has helped us to create a better environment for both individuals. There are plans for a new exhibit for these bears, and others, in the future. The programs that we are establishing now provide us with valuable information that will help us build our future exhibit.

BIOGRAPHICAL NOTES

KATE MARINO is a carnivore keeper at the Denver Zoo. She has seven years of experience working with a variety of large mammals, but is an avid bear enthusiast, especially brown bears. She is currently the president of the Rocky Mountain chapter of AAZK.

For details of projects and publications:

Address: Denver Zoo, 2300 Steele St., Denver, CO 80205

Email: kmarino@denverzoo.org



TEAMWORK KEEPS BEARS WILD

Christine Miller

The North Shore of Vancouver, BC, consists of three municipalities, covers an area of 260 square kilometres and is home to approximately 170,000 people. The communities located on the North Shore are also home to an abundance of wildlife resulting in the potential for a significant number of encounters and conflicts with black bears (*Ursus americanus*). The majority of these conflicts result from improperly managed garbage and other attractants. The North Shore Black Bear Society believes that the most effective way to reduce and prevent human-bear conflict and the unnecessary deaths of bears (which sometimes results in cubs being orphaned) is to develop and nurture strong working relationships with other organizations, including local and provincial governments, the education system and enforcement agencies. In this way, consistent educational messages can be developed and maintained, and when education is not sufficient to bring about necessary change in human behavior, enforcement agencies can follow up with warnings and tickets. The main education component is covered by the North Shore Black Bear Society. Non-compliance to the local garbage bylaws and the BC Wildlife Act is addressed by the Society with the delivery of written information about the violation error and includes educational information about the management of all bear attractants. If the behavior of the resident does not change, the file is handed to the municipal bylaws office or BC Conservation Officer Service for further education and enforcement. In 2012, as many as 98% of the violations regarding garbage infractions were resolved using educational tactics alone. Other key partnerships included the North Shore Recycling Program and the North Shore Multicultural Society (as about 30% of our residents have a first language other than English).

BIOGRAPHICAL NOTES

CHRISTINE MILLER is the Executive Director of the North Shore Black Bear Society. She is a former public school teacher who began volunteering with the Society in 2005. Since that time, Christine has seen many opportunities for increased success in reducing human-bear encounters and unnecessary bear deaths by developing and nurturing working relationships with the municipal staff and Councils, other service groups in the communities and the BC Conservation Officer Service. As a result, successful coordinated efforts have developed and have proven to change the behavior of residents who were attracting bears and other wildlife into residential areas.

For details of projects and publications:

Address: NSBBS, 355 Queens Rd., North Vancouver, BC V7N 4N5, Canada

Telephone: (604)-317-4911

Email: nsbbs@telus.net

Website: northshorebears.com



IMPLEMENTATION OF A FEED AND FAST DIET TO PROMOTE NATURAL BEHAVIORS IN A CAPTIVE POLAR BEAR

Joanne Randinitis, Michelle Hanenburg, James Weinpress, Dawn Neptune, and Nancy Carpenter

Under the direction of Senior Veterinarian Nancy Carpenter and Behavioral Programs Manager Dawn Neptune, the staff at Utah's Hogle Zoo implemented a novel feed and fast diet for their female polar bear (*Ursus maritimus*) in an effort to emulate natural feeding habits and decrease stereotypic behaviors. What was previously a week's worth of diet was divided by the new number of feed days in a given week and spread out accordingly. Fast days were first scheduled once a week and then increased every two weeks until there were four fast days each week. Throughout a given week, fast days and feed days were randomly scheduled with no week containing four consecutive fast days. Fast day diets consisted of a maximum of one pound of beef fat offered to reinforce shifting and maintain trained behaviors. On feed days the quantity and assortment of foods offered varied, including fish, beef fat, beef, polar bear chow and produce. Staff tracked the polar bear's weight to make sure she was receiving the appropriate number of calories. Two training sessions and a minimum of three enrichment items were offered daily at various times to increase environmental complexity. An ethogram was developed, and data were collected using continuous sampling methods. Three months of data were compiled to determine the effect of this feeding strategy on activity, rest and environmental interactions.

BIOGRAPHICAL NOTES

JOANNE RANDINITIS is the primary bear keeper of the Rocky Shores exhibit at Utah's Hogle Zoo. She has worked with the bears at UHZ for the last eight years. Her bear experience includes black bears, grizzly bears, and a polar bear. She has also worked with invertebrates, pinnipeds, felids, raptors, small mammals, hoof stock, reptiles and amphibians. A lover of nature, she enjoys camping, hiking and biking as well as spending time with her fiancé and their three dogs and three cats in Salt Lake City.

For details of projects and publications:

Address: Utah's Hogle Zoo, 2600 East Sunnyside Ave, Salt Lake City, UT 84108

Telephone: (801) 584-1631 x564, (801) 455-6725

Email: jrandinitis@hoglezoo.org



CARING FOR NEONATAL GIANT PANDA TWINS AND THEIR MOTHER AT ZOO ATLANTA

Heather Baker Roberts and Jennifer Brink Elgart

Zoo Atlanta's giant panda (*Ailuropoda melanoleuca*), Lun, gave birth to two cubs on July 15, 2013. They were the first twin giant pandas to be born in the U.S. since 1987. This pregnancy was the result of an artificial insemination procedure performed on the 21st and 22nd of March, 2013. These cubs were Lun Lun's fourth and fifth cubs, having previously given birth to single cubs in 2006, 2008 and 2010. Zoo Atlanta staff were prepared for a possible twin birth, and after seeing that Lun could not care for both cubs simultaneously the second cub was pulled, as per protocol, and placed in an incubator only minutes after birth. Immediately, our animal management and veterinary staff followed prepared guidelines implemented by our Chinese colleague to do "cub swapping" with Lun. This system is based on one developed by our partner institution, the Chengdu Research Base of Giant Panda Breeding. In previous years Lun has cared for her cubs without human assistance. Therefore, the biggest challenge was to swap the cubs for the first time given that Lun was not accustomed to handing over her cub so soon after birth. This poster presentation will cover the preparation and husbandry involved in caring for Lun and the twins during their first few months.

BIOGRAPHICAL NOTES

HEATHER BAKER ROBERTS began working with Zoo Atlanta's pandas in 2003 as a research and animal keeper intern. She has been a primary giant panda keeper at Zoo Atlanta since 2006 after completing a B.S. in Psychology from Georgia State University and the University of Bristol (U.K.). During her career, Heather has traveled to Chengdu, China, accompanying Zoo Atlanta's first-born cub, Mei Lan, when he was relocated to the Chengdu Research Base of Giant Panda Breeding. In 2008 and 2010, Heather served as a nursery keeper for Lun Lun and her second and third cubs. She is currently working as a nursery keeper with Lun Lun and the twin cubs.

JENNIFER BRINK ELGART graduated from Cedarville University in 2004 with a major in Psychology with a biology emphasis. She has been employed at Zoo Atlanta since 2004, and has been a primary carnivore keeper since 2007. Jennifer was present in 2008 for the birth of Lun Lun's second cub, Xi Lan, and is currently a nursery keeper for Lun Lun and the twins.

For details of projects and publications:

Address: Zoo Atlanta, 800 Cherokee Ave. S.E., Atlanta, GA 30315

Phone: (404) 512-8211, (404) 783-5909

Email: hroberts@zooatlanta.org; jelgart@zooatlanta.org



RESCUING CAPTIVE BEARS AND PROVIDING THEM A LIFETIME HOME

Tanya Smith

Turpentine Creek Wildlife Refuge (TCWR) is a lifetime refuge for abused and abandoned animals focusing mainly on large carnivores. We work closely with other wildlife refuges in our effort to find homes for all of the animals for which we receive calls. We currently have over 130 big cats, 6 American black bears (*Ursus americanus*) and 1 grizzly bear (*Ursus arctos horribilis*); our ultimate goal is to house all of them in natural habitats. The American black bears are living in a natural habitat enclosure and we are currently building one for our grizzly bear, Bam Bam. The new enclosure will offer him a natural environment that includes a pool and an extensive environmental enrichment program. We will illustrate the difference in captive bear behavior from pre-rescue and post-rescue status.

BIOGRAPHICAL NOTES

TANYA SMITH, Co-founder and President of Turpentine Creek Wildlife Refuge (TCWR) and the Turpentine Creek Foundation, Inc., formed these non-profit organizations in 1992 when she purchased 459 acres of land with the goal of saving and providing lifetime homes for unwanted and neglected exotic cats. The TCWR's innovative college intern program has trained more than 350 biologists and zoologists now employed at zoos, sanctuaries and veterinary clinics around the world. With over 130 big cats, 7 bears, and other animals, the refuge is now one of the biggest large carnivore sanctuaries in America. Tanya serves on the Turpentine Creek Foundation, Inc. Board of Trustees, the Northwest Arkansas Tourism Association Board, and the Arvest Bank Board. She is a founding member of the Court of Cavaliers, and a member of the Eureka Springs Chamber of Commerce which she chaired in 2010. Tanya is also on the board of the Eureka Springs Rotary Club, and the Arkansas Hospitality Association. Tanya is married to Scott Smith, Vice President of the TCWR, and together they have raised five children.

For details of projects and publications:

Address: TCWR, 239 Turpentine Creek Lane, Eureka Springs, AR 72632

Telephone: (479) 253-5958

Email: tanya@turpentinecreek.org

Website: www.turpentinecreek.org



FREE CONTACT TRAINING TO REDUCE STRESS DURING A SLOTH BEAR CUB EXAM

Stacey Tabellario, Mindy Babitz, Tony Barthel, and Katharine Hope

Exams are regularly done in zoos to ensure the health of newborn animals, but these exams can cause stress for both mother and offspring. It is especially difficult to separate a sloth bear (*Melursus ursinus*) from her cubs since a female will carry cubs on her back for six to nine months after leaving the den (Joshi et al., 1999). Using a systematic training protocol, the animal care team at the National Zoo trained a voluntary separation of dam (“Hana”) and cub (“Hank”) that involved Hank walking away from Hana after separation and approaching staff on his own accord for tactile desensitization. We anticipated reduced stress for Hana if Hank walked away voluntarily as opposed to being handled by staff in front of her. We also anticipated reduced stress for Hank if he was used to tactile manipulation by staff in a free contact setting. After two and a half weeks of training, the animal care team conducted a stress free exam. Female and cub were easily separated and Hank voluntarily participated in his exam out of view of Hana who was also calmly engaged in a training session. There were no adverse behaviors resulting from the exam and both bears eagerly approached staff for interaction afterwards. Sloth bears are not a species that animal care staff typically works with in free-contact but when done safely with young animals, this type of training can be hugely beneficial for reducing stress for both mother and offspring during an exam.

BIOGRAPHICAL NOTES

STACEY TABELLARIO began her career as a wildlife filmmaker working for the Discovery Channel, the Jane Goodall Institute, and the Smithsonian Institution. She is currently an animal keeper at Smithsonian’s National Zoo where she works with a variety of Asian carnivores including sloth bears. Stacey chairs the zoo’s enrichment and training committee, and is particularly interested in adding choice and control back into the lives of animals in human care.

MINDY BABITZ, PhD, is a senior animal keeper working with sloth bears at Smithsonian’s National Zoo. She is on the board of directors of the Bear Care Group.

TONY BARTHEL is a curator at Smithsonian’s National Zoo. He oversees the management of a variety of animals including sloth bears.

KATHARINE HOPE, DVM, is an Associate Veterinarian at Smithsonian’s National Zoo. Attracted to all aspects of zoological and conservation medicine, she is especially interested in training and carnivore medicine.

For details of projects and publications:

Address: P.O. Box 37012, MRC 5507, Animal Programs, Smithsonian National Zoological Park, Washington, DC 20013

Telephone: (202) 633-4381, (703) 517-6556

Email: tabellarios@si.edu



THE WINTON FOUNDATION FOR THE WELFARE OF BEARS

Lesley Winton

Launched on the memorable date of 10/10/10, The Winton Foundation for the Welfare of Bears helps provide funding for new and established projects around the world working to protect and care for bears. We are currently helping every species of bear by supporting over 25 projects and organizations around the world including the Idaho Black Bear Rehabilitation Center, Animals Asia, Northern Lights Wildlife Shelter, The Bear League, Get Bear Smart, Woodlands Wildlife Refuge and the Five Sisters Zoo, as well as many others. We assist with food and veterinary costs, enrichment and enclosure enhancement, and education. We buy treats and toys for rescued and traumatized bears to help them recover if they cannot be returned to the wild. We also assist with funding for such projects as habitat enrichment or the promotion of harmonious living between wild bears and humans. Through our educational materials and newsletters we help raise awareness of the threats facing bears and their habitats worldwide. We are driven and dedicated to giving bears a better life. We launched “Bears Matter Month” in 2013 to help showcase the organizations we support and the work they do. Our unique “Fostering Compassion” project helps children who, as a result of their own difficult upbringings, struggle with their emotions and have trouble showing compassion and empathy. Through this project we teach the children about bears, the environment, and caring for companion animals.

BIOGRAPHICAL NOTES

LESLEY WINTON originally worked as a Legal Accountant for 15 years. Throughout this time she volunteered for a variety of animal welfare organizations. She then became an employee for the World Society for the Protection of Animals (WSPA) and worked for seven years as their Regional Coordinator for Scotland. In 2010, Lesley fulfilled the lifelong ambition of setting up her own charity for bears called the Winton Foundation for the Welfare of Bears.

For details of projects and publications:

Address: The Winton Foundation for the Welfare of Bears, 54 West Windygoul Gardens,
Tranent, East Lothian EH33 2LA, Scotland
Email: lesley@wintonbearfoundation.org
Website: wintonbearfoundation.org



WHO WE ARE AND WHAT WE DO

Alphabetized by organization



ANDEAN BEAR FOUNDATION

Sarah Clifford

The Andean Bear Foundation is a 501(c)(3) non-profit registered in the USA and operating in Ecuador to help this endangered species. The Andean Bear Foundation's mission is to secure a future for the Andean bear (*Tremarctos ornatus*) and sustain the ecological integrity of its natural habitat in Ecuador. Through research, education, reintroduction of rescued bears, and science-based advocacy, we are frontline conservationists committed to working with local communities to help people and Andean bears live together without conflict. We have liberated 16 Andean bears to date, with 3 more awaiting a helicopter ride to freedom. Our research has provided new information on Andean bear needs and behavior, and we use our research results to select liberation sites, educate communities, inform authorities and lead conservation efforts. Our biologists led the development of Ecuador's National Strategy for the Conservation of the Andean Bear, maintain the national register of bear attacks on cattle and are frequently consulted by the Ministry of the Environment.

BIOGRAPHICAL NOTES

SARAH CLIFFORD accidentally fell into working in conservation and sustainable development after studying business and marketing. She fell in love with Bubu, an orphaned Andean bear, in 2010. Since there were no funds available to liberate him, she opened him an account on Facebook, became his secretary and started her crusade to make the world aware of Andean bears and to return Bubu to the wild. Bubu has now been a wild bear for about a year, but educating people about Andean bears has become an ongoing task. Sarah acts as the ABF's Director of Volunteer Operations & Publicity.

For details of projects and publications:

Address: The Andean Bear Foundation, 5393 N. Paseo de la Terraza, Tucson, AZ 85750

Telephone: +593 2 2433672, +593 9 90306573

Email: sarah@andeanbear.org

Website: www.andeanbear.org



FIVE SISTERS ZOO

Brian Curran, Shirley Curran and Angela Kyle

In June 2011, the Five Sisters Zoo became aware of the plight of three elderly ex-circus bears temporarily housed in an animal sanctuary in Belgium. Unless a permanent home was found for them, these bears were destined to be destroyed within a matter of months. The Zoo offered to provide a permanent home but first had to raise £80,000 to construct a woodland enclosure, and to arrange the transportation and official documents required to bring them to Scotland. An ideal area within the zoo grounds was identified, a public appeal was launched in August 2011, and a series of focused fundraising events followed. Local companies were also approached and numerous material donations and hours of labor were secured either free of charge or at cost. On the 29th of March, 2012, the bears arrived at their forever home and work began on their rehabilitation. Eighteen months later, all three bears are now foraging for food, building day beds, and hibernating for the first time. Stereotypical behaviors have lessened and patterns are being broken, and the bears' natural behaviors are continuing to emerge.

BIOGRAPHICAL NOTES

BRIAN and SHIRLEY CURRAN established a Garden Centre in 1993 that soon became a rescue center for unwanted, abandoned or neglected animals. The facility became licensed as the Five Sisters Zoo in 2005 operating as a non-profit organization. The zoo's mission is to provide a safe sanctuary for rescued wildlife and to continue its involvement with the conservation of endangered species. A personal goal for the couple was to one day help the plight of captive bears. Their dream came true on March 29, 2012, when they gave three rescued circus bears a permanent home at the zoo.

ANGELA KYLE became involved with the Five Sisters Zoo as a volunteer in 2011 after learning about the fundraising appeal to rescue and rehome three ex-circus bears. She was instrumental in securing material contributions from a major construction company, thus saving the zoo thousands of pounds in the construction of the bear enclosure. She is a volunteer bear caregiver and participates in weekly behavior observations.

For details of projects and publications:

Address: Five Sisters Zoo, Gavieside, West Calder, Edinburgh EH55 8PT, Scotland

Telephone: 01506 870000

Email: shirley@fivesisterszoo.co.uk

Website: www.fivesisterszoo.co.uk



LIONS, TIGERS & BEARS - THEY DESERVE BETTER!

Bobbi Brink

Lions, Tigers & Bears (LTB) is a federally and state licensed non-profit 501(c)(3) rescue facility, accredited by the Global Federation of Animal Sanctuaries and the Better Business Bureau. LTB is dedicated to providing a safe haven for unwanted and abused big cats, bears and other exotic animals. The number of some exotic species bred and born in captivity is greater than that in the wild. In many cases, exotic animals born in captivity must endure horrific neglect and abuse due to the immense responsibility in their upkeep. The exotic animal trade is a 17 billion dollar a year industry, second only to drugs and weapons. In many states a baby lion, tiger or bear can be bought just as easily as a pet dog or cat. Our goal is to provide a safe haven for animals rescued from these conditions and to educate the public about the growing population of abandoned and unwanted exotic animals and where they come from. LTB participates with other organizations and individuals to help promote legislation to ensure captive cats and other exotics receive responsible lifetime homes, prevent the breeding of captive big cats without special purpose and reduce the abuse that so many endure. We also arouse community interest and awareness by educating the public about the plight of all exotic animals, both captive and wild, and by providing information about how we can improve their lives.

BIOGRAPHICAL NOTES

BOBBI BRINK, founder and director of Lions, Tigers & Bears, began working with ranch animals and riding horses at eight years of age and was active in the 4-H Club throughout her school years. She began her personal involvement with exotic big cats in 1992 in Texas. What she thought would be an exciting job working with tigers, lions and other big cats, instead became a personal nightmare when she took a job with a breeder and exhibitor. After seeing the horrible abuses and neglect inflicted on captive exotics, Bobbi vowed to make a difference in the lives of these animals and to do everything in her power to end the cycle of indiscriminate breeding for profit.

For details of projects and publications:

Address: Lions, Tigers and Bears, 24402 Martin Way, Alpine, CA 91901

Telephone: (619) 659-8078

Email: bobbi@lionstigersandbears.org

Website: lionstigersandbears.org



THE NORTH SHORE BLACK BEAR SOCIETY

Christine Miller

In 1999, a number of concerned residents on the North Shore of Vancouver, BC, organized themselves with the intention of reducing and preventing unnecessary bear deaths in response to the killing of 39 black bears (*Ursus americanus*) considered by government officials to be habituated to human food sources. Plans developed to reduce the accessible sources of unnatural foods in the community - mainly garbage - and address the exaggerated fear of some residents while influencing bear management practices. Since 1999, the average number of bears killed per year was reduced to seven. The active education program of the North Shore Black Bear Society includes educational displays at many public events where we spoke with over 7000 people in 2012, and presentations to audiences of all ages, including many adult classes through the North Shore Multicultural Society each year. We also provide valuable bear attractant information to new residents by doing a mail-out to every address that is sold on the North Shore - and this has reached over 1300 homes thus far in 2013. The Society responds to reports from residents about attractants in the community, and we do night-time inspections looking for garbage at curbside on the night before garbage collection which is a bylaw infraction in two of our three municipalities. This allows us to provide attractant management information to residents who we might not meet at community events or black bear presentations. The approach to dealing with the issues surrounding bear attractants and bear management has evolved over the 14 years, and the North Shore Black Bear Society credits its current success to the pioneers of the program and to the teamwork that has been established more recently with other organizations, including local and provincial governments, the education system and enforcement agencies. This teamwork - which we believe helps to keep bears wild - is outlined on the poster that is on display at this conference.

BIOGRAPHICAL NOTES

CHRISTINE MILLER is the Executive Director of the North Shore Black Bear Society. Christine is a former public school teacher who began volunteering with the Society in 2005. Since that time, Christine has seen many opportunities for increased success in reducing human-bear encounters and unnecessary bear deaths by developing and nurturing working relationships with the municipal staff and Councils, other service groups in the communities and the BC Conservation Officer Service. As a result, very successful coordinated efforts have developed and have proven to change the behaviour of residents who were attracting bears and other wildlife into residential areas.

For details of projects and publications:

Address: NSBBS, 355 Queens Rd., North Vancouver, BC V7N 4N5, Canada

Telephone: (604) 317-4911

Email: nsbbs@telus.net

Website: northshorebears.com



TURPENTINE CREEK WILDLIFE REFUGE - RESCUING CAPTIVE BEARS AND PROVIDING THEM A LIFETIME HOME

Tanya Smith

Turpentine Creek Wildlife Refuge (TCWR) is a lifetime refuge for abused, abandoned, and neglected animals that mainly focuses on rescuing large carnivores, including tigers (*Panthera tigris*), lions (*Panthera leo*), leopards (*Panthera pardus*), and cougars (*Puma concolor*). This non-profit facility was co-founded by Tanya Smith in 1992 with a purchase of 459 acres of land near Eureka Springs in Arkansas. Recently the TCWR has added the rescue and rehabilitation of American black bears (*Ursus americanus*) and grizzly bears (*Ursus arctos horribilis*) to our mandate. We will illustrate the differences in captive bear behavior in their previous living conditions versus the new enclosures. The TCWR works to include natural habitat enclosures, environmental enrichment programming, and relationship building in their husbandry routines to help traumatized rescue animal recovery at the sanctuary. There is such a great need for quality space to rehome rescued animals. We are always looking to partner with other like-minded refuge facilities to share the responsibilities of the many calls we receive.

BIOGRAPHICAL NOTES

TANYA SMITH, Co-founder and President of Turpentine Creek Wildlife Refuge (TCWR) and the Turpentine Creek Foundation, Inc., formed these non-profit organizations in 1992 when she purchased 459 acres of land with the goal of saving and providing lifetime homes for unwanted and neglected exotic cats. The TCWR's innovative college internship program has trained more than 350 biologists and zoologists now employed at zoos, sanctuaries and veterinary clinics around the world. With over 130 big cats, 7 bears, and other animals, the refuge is now one of the biggest large carnivore sanctuaries in America. Tanya serves on the Turpentine Creek Foundation, Inc., Board of Trustees, the Northwest Arkansas Tourism Association Board, and the Arvest Bank Board. She is a founding member of the Court of Cavaliers, and a member of the Eureka Springs Chamber of Commerce which she chaired in 2010. Tanya is also on the board of the Eureka Springs Rotary Club, and the Arkansas Hospitality Association. Tanya is married to Scott Smith, Vice President of the TCWR, and together they have raised five children.

For details of projects and publications:

Address: TCWR, 239 Turpentine Creek Lane, Eureka Springs, AR 72632

Telephone: (479) 253-5958

Email: tanya@turpentinecreek.org

Website: www.turpentinecreek.org



THE WINTON FOUNDATION FOR THE WELFARE OF BEARS

Lesley Winton

The Winton Foundation for the Welfare of Bears was launched on the memorable date of 10/10/10. The primary work of the Foundation is twofold: i) to provide financial assistance to organizations and individuals that care for bears rescued from such atrocities as bile farming, baiting events, and cubs orphaned due to hunting, and ii) to help raise awareness about the threats facing bears worldwide. We are not linked to any one organization but partner with various groups to help improve bear welfare. The foundation currently supports approximately 25 projects worldwide and this number continues to increase. The Winton Foundation also runs a unique educational program, “Fostering Compassion”, in which we work with local foster children who, as a result of their own difficult upbringings, have trouble showing compassion and empathy. Through various animal related projects we help them deal with difficult emotions and learn compassion towards fellow creatures.

BIOGRAPHICAL NOTES

LESLEY WINTON originally worked as a Legal Accountant for 15 years. Throughout this time she volunteered for a variety of animal welfare organizations. She then became an employee for the World Society for the Protection of Animals (WSPA) and worked for seven years as their Regional Coordinator for Scotland. In 2010, Lesley fulfilled a lifelong ambition of setting up her own charity for bears, the Winton Foundation for the Welfare of Bears.

For details of projects and publications:

Address: The Winton Foundation for the Welfare of Bears, 54 West Windygoul Gardens,
Tranent, East Lothian EH33 2LA, Scotland

Email: lesley@wintonbearfoundation.org

Website: wintonbearfoundation.org



WISCONSIN BLACK BEAR EDUCATION CENTER - UNDERSTANDING THE NEEDS OF WILD ANIMALS AND BRINGING IT INTO A CAPTIVE ENVIRONMENT

Jeff Traska

Facilities face challenges when creating enclosures that meet the needs of the wildlife within, while providing opportunities for visitors to view them in a meaningful setting. We know that an animal will be happier and able to live a more normal life while still providing a good educational viewing opportunity for visitors in a more natural environment. Our facility is a successful example of what can be done when time, talent, creativity and animal knowledge are put to work. Wisconsin Black Bear Education Center capitalized on local natural resources and connections with those willing to help to build a great environment for our three resident black bears (*Ursus americanus*). Jeff used his in-depth knowledge of the animals' needs coupled with feedback from our visitors to refine our center. The Wisconsin Black Bear Education Center's enclosure has a complex natural interior with mature forest, scrub vegetation and substantial dead-fall. This natural enclosure provides the animals an opportunity to express a full range of natural behaviors. They have more opportunity to walk, climb, dig, swim and hibernate than most bears in captive environments. They can explore, forage, socialize, obtain privacy or engage in many other activities that unrestricted wild bears might do. The Wisconsin Black Bear Education Center's enclosure is a ten acre facility designed with the animals and their needs in mind in a very cost effective manner.

BIOGRAPHICAL NOTES

JEFF TRASKA, a lifelong outdoorsman and reformed sport hunter, founded the Wisconsin Black Bear Education Center. Jeff has been fascinated by bears since childhood and in the early 1980s, armed with state-of-the-art camera equipment, began his own personal study of black bears in the wild. He soon learned that bears are not the highly dangerous animals portrayed in so many sensational news stories, but instead are intelligent, gentle animals who play a critical role in the functioning ecosystems they inhabit.

For details of projects and publications:

Address: Wisconsin Black Bear Education Center, P.O. Box 921, Wausau, WI 54403
Telephone: (715) 573-7663
Email: traskaroot@yahoo.com
Website: wisconsinblackbears.com



WORKSHOPS

Alphabetized by workshop title



ANDEAN (SPECTACLED) BEAR WORKSHOP

David Morales and Robyn Appleton

The Andean Bear Workshop is hosted by the Queens Zoo. Pre-registered delegates will meet in the Holiday Inn lobby at 8:00 A.M., Saturday, October 5 to be transported to the Queens Zoo. Box lunches will be provided. This workshop can only accommodate up to 15 delegates; any vacancies will be filled on Friday, October 4. At the zoo, David Morales will give a presentation on the Queens Zoo captive management of Andean bears, and escort participants to the Andean bear enclosure for group discussions on enclosure design, husbandry, diet, enrichment programming, and operant conditioning. That afternoon, delegates will be dropped off at Woodlands Wildlife Refuge at 1:00 PM.

BIOGRAPHICAL NOTES

DAVID MORALES has been a Wildlife Conservation Society (WCS) employee for 24 years and a keeper at the Queens Zoo for the last 19 years. He has specialized in enrichment and training programs for Andean bears and cougars. David's accomplishments in the training of cougars and bears include; i/ voluntary blood withdrawal, ii/ ultrasound examinations, iii/ hand injections, iv/ blood pressure readings, v/ rectal temperature readings, vi/ x-ray imaging, and vii/ basic husbandry behaviors. Enrichment projects include three WCS *in situ* / *ex situ* collaborations regarding Andean bear and cougar husbandry in Ecuador, Venezuela, and Yellowstone National Park. David has collaborated with over twenty zoos on the captive management of Andean bears. His work in Latin America has also expanded to a variety of other species including tapirs, jaguars, and African lions.

ROBYN APPLETON is the founder and research director of Spectacled Bear Conservation - Peru (SBC). Through scientific research, environmental education and community outreach SBC was established in 2007 to ensure the conservation of the spectacled bear in the equatorial dry forest of northern Peru. Robyn holds a Master's degree from Simon Fraser University and is pursuing a PhD at the University of British Columbia. Since Robyn began her research in Peru in 2006, she and her team have conducted the first observational study, discovered the first active maternal den site, and fitted the first wild Peruvian spectacled bear with a GPS collar.

For details of projects and publications:

Address: WCS Queens Zoo, 53-51 111th street, Flushing, NY, 11368

Telephone: (718) 271-1500

Email: dmorales@wcs.org / dmoso@msn.com

Address: Spectacled Bear Conservation - Peru, P.O. Box 5209, Squamish, BC V8B 0C2, Canada

Email: robyn@sbc-peru.org

Website: www.sbc-peru.org



BEAR RESCUE, REHABILITATION AND RELEASE WORKSHOP

John Beecham, Angelika Langen and Tracy Leaver

The number of organizations that rescue, rehabilitate and release orphaned bear cubs around the world is increasing, and in many parts of the globe is viewed as a welfare effort as well as a means of bear conservation. This workshop provides a forum for the discussion of rescue strategies, husbandry protocols, and release criteria. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their question.

BIOGRAPHICAL NOTES

JOHN BEECHAM, Ph.D. has been involved in bear research and management since 1972. He is a past president of the International Association for Bear Research and Management and served as council member, associate editor, and newsletter editor. John has published numerous papers on bear ecology and rehabilitation methods, and co-authored a book entitled *A Shadow in the Forest - Idaho's Black Bear*. John recently completed a series of white papers on Rehabilitation and Release Guidelines for Orphan Bear Cubs and Global Human-Bear Conflicts. He works as a consultant on efforts to release orphan bears back to the wild, as well as conducting field work on brown bears in Greece and Turkey. In May, 2007, he co-chaired an international workshop in Russia on rehabilitation and release of orphan bear cubs.

ANGELIKA LANGEN began her career as a zookeeper apprentice in Zoo Cologne in 1987. She then worked as a zookeeper in Zoo Cologne and Zoo Augsburg. In 1982 she immigrated to Canada and in 1990 she and her husband Peter, a zoo carnivore expert, founded the Northern Lights Wildlife Society in Smithers, BC. The aim of the Society is to offer injured and/or orphaned mammals a safe haven to grow and heal before being returned to the wild. Over the years the location of the shelter led to the organization's growth in bear and ungulate rehabilitation. Angelika specializes in the care of very young and/or injured bears and has spent countless hours caring for them.

TRACY LEAVER has been involved with wildlife rehabilitation since 1986 and is founder and Executive Director of Woodlands Wildlife Refuge, Inc. Tracy is also founder and current President of the New Jersey Association of Wildlife Rehabilitators. She has served as Chair of the Minimum Standards Committee for the National Wildlife Rehabilitator's Association and was recently appointed by the New Jersey Department of Environmental Protection to the Wildlife Rehabilitator's Advisory Committee. In 1995, Tracy created and implemented the first black bear rehabilitation and release program in New Jersey. She has also presented wildlife rehabilitation education programs throughout the U.S. and Canada. As a nonprofit charity, Woodlands Wildlife Refuge works with all mammal and reptile species native to New Jersey.

For details of projects and publications:

Address: Northern Lights Wildlife Society, 17366 Telkwa High Rd., Smithers, BC V0J 2N7, Canada; Woodlands Wildlife Refuge, Inc., P.O. Box 5046, Clinton, NJ 08809

Email: john.beecham@gmail.com; info@wildlifeshelter.com; wildlife@eclipse.net



BEAR SANCTUARIES WORKSHOP

Jill Robinson, Nicola Field and Annemarie Weegenaar

The mission and operation parameters of bear sanctuaries differ from zoological gardens and bear rehabilitation facilities. What specifically distinguishes bear sanctuaries from other captive environments will be discussed in this workshop. Delegates are encouraged to participate in discussion by asking questions and raising current challenges. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their question.

BIOGRAPHICAL NOTES

JILL ROBINSON, MBE, Dr. Med. Vet. H.C., has campaigned for animal welfare in Asia since 1985 and exposed the practice of bear bile farming in 1993. In 1998, she founded Animals Asia and built the organization into a respected international NGO headquartered in Hong Kong. With over 300 staff worldwide and award-winning bear sanctuaries in China and Vietnam, Animals Asia focuses on ending bear bile farming and the cruel and illegal trade in dogs and cats for human consumption, while working to improve the welfare of animals in zoos. With an honorary doctorate from the University of Zurich, Jill is an Asia World Animal Day Ambassador, Council Member of the World Federation of Chinese Medicine Societies Herbal Committee, BBC Wildlife Magazine Conservation Hero, and Member of the USA Society of Woman Geographers. In 1998, Jill was awarded an MBE by Queen Elizabeth, and in 2010 the "You Bring Charm to China" along with 12 prominent foreign people who have enriched life in China.

NICOLA FIELD is the Bear & Vet Team Director at Animals Asia's bear rescue centre, China. She heads the veterinary and bear team who take care of over 200 rescued bears. Her main role is ensuring optimum care of the animals, as well as promoting the organization's work. Nicola is part of the IUCN Captive Bear Specialist Group, has an MSc in Wildlife Biology & Conservation, and Animal Management qualifications. Nicola worked for nearly 10 years as a zoo keeper taking care of a variety of species, including North American black bears. She has also worked as an animal-care assessor in the UK and a researcher on conservation projects in Uganda, Vietnam and Kenya.

ANNEMARIE WEEGENAAR is the Bear & Vet Team Director at Animals Asia's bear rescue centre, Vietnam. She heads the veterinary and bear team who take care of the 107 rescued bears. Annemarie has worked for Animals Asia for seven years, both in China and Vietnam. She has a BS in Animal Management as well as experience working with bears at rescue facilities in Malaysia and Indonesia.

For details of projects and publications:

Address: Animals Asia Foundation, Head Office GPO 374, Hong Kong

Telephone: +852 2791 2225

Email: jrobinson@animalsasia.org; nfield@animalsasia.org; aweegenaar@animalsasia.org



BEAR TRAINING: FOCUS ON LEARNING AND PROBLEM SOLVING WORKSHOP

Jason Pratte

Training basics, setting goals and program planning will be discussed with a focus on specific aspects of operant conditioning and what our bears are actually learning from our actions. Factors impacting training, such as selection of cues, use of the bridge, appropriate rewards, reinforcement schedules, and safety can be discussed in this workshop as questions arise. The moderator will facilitate discussion and resolution planning of real life problems raised by the workshop participants, based on managing bears through behavioral husbandry. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their question. Downloadable sample logs, cue lists, and relevant published papers will be available. Bring your devices.

BIOGRAPHICAL NOTES

JASON PRATTE “Jay” has been an animal caregiver for over two decades, and has been privileged enough during this time to work with all eight extant bear species. His primary focus is training, both of animals as well as caregivers. Behavioral husbandry training of bears and carnivores has long been a specialty, focusing on complex medical behaviors. In the past several years Jay has been training animal keepers and caregivers around the world in operant conditioning techniques. One of these adventures was showcased on Animal Planet's "Growing Up Panda". Jay is on the American Association of Zookeepers (AAZK) National Behavioral Management Committee and also the AAZK Grants Committee. He holds a Master's degree in Zoo and Aquarium Leadership, and has published several peer-reviewed papers on developing training, public speaking and emergency response skills. Jay is a founding Board of Directors member for the Bear Care Group, and holds the vice president position. In addition he is also currently the acting treasurer.

For details of projects and publications:

Address: Omaha's Henry Doorly Zoo® and Aquarium, 3701 S 10th St., Omaha, NE 68107

Telephone: (404) 788-4788

Email: jayp@omahazoo.com



BEAR TRAUMA RESOLUTION WORKSHOP

Gay Bradshaw and Charlie Russell

The psychological trauma suffered by bears in some captive situations often goes unrecognized and is ill-understood. The behavioral symptoms of trauma, its mitigation and resolution are discussed in this workshop through the use of examples presented by those in attendance. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their question.

BIOGRAPHICAL NOTES

G.A. BRADSHAW, Ph.D., Ph.D., is the founder and director of The Kerulos Center and author of *Elephants on the Edge: What Animals Teach Us About Humanity* (Yale University Press: 2009). Her discovery of Post-Traumatic Stress Disorder (PTSD) in free-living African elephants established the field of trans-species science and psychology. The work has been extended to the psychological effects of violence on other animals and initiative to transform conservation into movements of restorative justice and self-determination.

CHARLES RUSSELL “Charlie” is the founding director of the Pacific Rim Grizzly Bear Coexistence Study and is on the faculty of the Kerulos Center. For the last 48 years Charlie has closely observed grizzly bears in Canada and Russia in their natural habitat. A former rancher and guide, Charlie is an author, photographer, and self-taught pilot. His experience as a rancher defined how grizzlies used and shared his land situated on the boundary of Waterton/Glacier International Park on Alberta/Montana border. Charlie developed husbandry systems that allowed his cattle and the bears to coexist. In 1992 and 1993 Charlie lived on Princess Royal Island to create a film about the Kermode bear with wildlife filmmakers Jeff and Sue Turner. His first book titled *Spirit Bear - Encounters with the White Bear of the Western Rainforest* chronicles those years spent living with the Kermode bear. Charlie is also the author of the book *Grizzly Heart - Living Without Fear Among the Brown Bears of Kamchatka* which chronicles his work with grizzlies.

For details of projects and publications:

Address: The Kerulos Center, P.O. Box 1446, Jacksonville, OR 97530

Telephone: (541) 899-1070

Email: bradshaw@kerulos.org; crussell@jrtwave.com

Website: www.kerulos.org; www.charlierussellbears.com



BEAR VETERINARY HEALTH AND WELFARE WORKSHOP

Heather Bacon

Bears of all species are commonly held in captive collections around the world. Despite this, there is little existing literature on common medical problems or how best to manage their husbandry and environment to promote optimal health. A number of well documented medical phenomena such as alopecia, stereotypy, dental disease, ocular problems, heart disease and osteoarthritis exist in captive bears, and varying amounts of information are known about each. Participants at this workshop are encouraged to submit case studies for group discussion in advance of the workshop. Both veterinary and non-veterinary participants are welcome.

BIOGRAPHICAL NOTES

HEATHER J. BACON, BSc (Hons), BVSc, CertZooMed MRCVS, is the Veterinary Welfare Education and Outreach manager at the University of Edinburgh's Jeanne Marchig International Centre for Animal Welfare Education (JMICAWE), a position supported by the Animals Asia Foundation. She lectures on captive wildlife welfare issues, and has worked with the China Association of Zoo Gardens (CAZG), Shape of Enrichment and Animals Asia to improve zoo animal welfare in China. She has also worked with the European Commission to develop continuing education on captive wildlife welfare in Europe, and provides consultancy services to zoos and NGO's on bear husbandry and welfare issues. Previously, she worked as the Veterinary Director at the Animals Asia Foundation, an NGO working to end the trade in bear bile across Asia. In addition to her veterinary degree, she holds a BSc (Hons) in Conservation Medicine and the Royal College of Veterinary Surgeon's Postgraduate Certificate in Zoological Medicine. Heather is on the board of directors of the Bear Care Group.

For details of projects and publications:

Address: Jeanne Marchig International Centre for Animal Welfare Education, Royal (Dick) School of Veterinary Studies, University of Edinburgh, Edinburgh EH25 9RG, Scotland
Email: heather.bacon@ed.ac.uk



BEHAVIOR-BASED BEAR HUSBANDRY WORKSHOP

Else Poulsen

Bears living in wild environments express daily and seasonal routines as dictated by their genetic programming. Captive bears experience the same drives and will set up similar living routines when given the internal and external environment to do so. The ability to express species-specific behaviors reduces stressors inherent in captive living and promotes physical and mental health. The principles of behavior-based bear husbandry, identifying and offering life's components to bear species, will be discussed. Downloadable sample species-specific husbandry routines will be presented and provided. Bring your device. Delegates who wish to present a real life bear husbandry problem are to come prepared with photos and/or diagrams that help to illustrate the problem.

BIOGRAPHICAL NOTES

ELSE POULSEN began her career in the early 1980's working as a field biologist in Alberta's oil patch. When the bottom dropped out of the energy industry she became a zookeeper at the Calgary Zoo working with a wide variety of animal species, from toads to tigers. Over time Else specialized in captive bear behavior, husbandry, and management. She researched aberrant behaviors in captive bears and published her findings. She has worked at the Calgary and Detroit Zoos, as well as several other bear specialist facilities in Canada. As the founding consultant for Behavioral & Environmental Solutions she provides expertise in modernizing bear husbandry methods, enrichment programming, and enclosure design/redesign to zoos, sanctuaries, rehabilitation facilities, and animal welfare organizations around the world. Else has published in scientific and technical journals, the media, and various books including *Smiling Bears - A Zookeeper Explores the Behavior and Emotional Life of Bears* (2009). Her next book, *Bärle's Story - From Circus Act to Polar Bear*, will be released in 2014. Else is the president of the Bear Care Group.

For details of projects and publications:

Address: Behavioral & Environmental Solutions, 2, 126 Main Street West, Grimsby, Ontario L3M1R8, Canada

Telephone: (905)309-1370

Email: embpoulsen@bearcaregroup.org



BRAINSTORMING FOR HAPPIER BEARS - ENRICHMENT PLANNING WORKSHOP

Valerie J. Hare

The most successful enrichment plans are behavior-based, goal-oriented, holistic, and assessed. At the Shape of Enrichment, we have used these concepts for over 14 years, in a variety of situations around the world, and have found them to be an excellent mechanism to ensure effective and efficient enrichment planning. During this interactive workshop, we will use Shape's enrichment planning process to brainstorm strategies that address enrichment challenges presented by workshop participants. Special focus will be on cognitive, sensory, and social enrichment strategies to meet the theme of this year's conference. Do you have a bear who presents an enrichment challenge? Doesn't shift well? Is bored? Stereotypes? Is aggressive? Hides from visitors? Is overweight? If so, we'd love to hear about it - and we'll do our best to create an enrichment plan tailored to your bear!

BIOGRAPHICAL NOTES

VALERIE HARE co-founded The Shape of Enrichment, Inc. in 1991 and has been a principal ever since. In 2000, Valerie presented an enrichment mini-course at the Brazilian Zoo Congress in Belo Horizonte, Brazil. With the help of its current instructors, that mini-course has evolved into The Shape of Enrichment Workshop, which is designed to assist interested animal caretakers create enrichment plans for the animals in their care. Shape workshops have now been held in 20 countries: Brazil, Bulgaria, Cambodia, Canada, Chile, China, Georgia, Hong Kong, Hungary, Indonesia, Ireland, Philippines, Romania, Singapore, South Africa, Sweden, Uganda, United Kingdom, United States, and Vietnam. Valerie is currently the Chief Financial Officer and Workshop Coordinator for The Shape of Enrichment, Inc. Valerie has worked as a Research Animal Care Supervisor (Massachusetts General Hospital), Zoo Keeper (San Diego Wild Animal Park), Behavioral Research Technician (San Diego Zoo), and Enrichment Consultant. As an enrichment consultant she has worked with giant pandas, polar, brown, spectacled, and sun bears. Valerie holds a Bachelor of Science Degree in Biology with a Zoology emphasis from San Diego State University and an Associate Degree as a Veterinary Technician from State University of New York. She has served on the International Conference on Environmental Enrichment Committee since 1997 and has been a director on the founding Board of Directors for the Bear Care Group since 2007.

For details of projects and publications:

Address: The Shape of Enrichment, Inc., 7909 Caledonia Dr., San Jose, CA 95135

Email: shape@enrichment.org

Website: www.enrichment.org



GIANT PANDA WORKSHOP

Jason Pratte

Few facilities house these amazing bears outside of China, and several years of observations will be shared both on the husbandry of Pandas in American zoos and in Chinese facilities. The moderator will facilitate discussion and resolution planning of real life problems raised by the workshop participants, based on managing bears through behavioral husbandry. Topics that will be considered include natural history, feeding, bamboo management, training and enrichment programming that support research and reproductive procedures. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their question.

BIOGRAPHICAL NOTES

JASON PRATTE “Jay” has been an animal caregiver for over two decades, and has been privileged enough during this time to work with all eight extant bear species. His primary focus is training, both of animals as well as caregivers. Behavioral husbandry training of bears and carnivores has long been a specialty, focusing on complex medical behaviors. In the past several years Jay has been training animal keepers and caregivers around the world in operant conditioning techniques. One of these adventures was showcased on Animal Planet's "Growing Up Panda". Jay is on the American Association of Zookeepers AAZK National Behavioral Management Committee and also the AAZK Grants Committee. He holds a Master's degree in Zoo and Aquarium Leadership, and has published several peer-reviewed papers on developing training, public speaking and emergency response skills. Jay is a founding Board of Directors member for the Bear Care Group, and holds the vice president position. In addition he is also currently the acting treasurer.

For details of projects and publications:

Address: Omaha's Henry Doorly Zoo® and Aquarium, 3701 S 10th St., Omaha, NE 68107

Telephone: (404) 788-4788

Email: jayp@omahazoo.com



POLAR BEAR WORKSHOP

Else Poulsen

SLOTH BEAR WORKSHOP

Mindy Babitz

SUN BEAR WORKSHOP

Gabriella Fredriksson

TEMPERATE BEAR [ASIAN & AMERICAN BLACK BEAR AND BROWN BEAR] WORKSHOP

Christine Fenwick, Nicola Field and Annemarie Weegenaar

The objective of each of these workshops is to act as a group forum for problem sharing, discussion, and for proposing solutions. All topics relating to husbandry, enclosure design, veterinary issues, aberrant and/or species-specific behaviors (such as the winter denning of temperate bears and the 'walking hibernation' of polar bears who experience seasonality) will be discussed. Species' husbandry experts will be in attendance at each session to assist in problem solving. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their questions.

BIOGRAPHICAL NOTES

ELSE POULSEN began her career in the early 1980's working as a field biologist in Alberta's oil patch. When the bottom dropped out of the energy industry she became a zookeeper at the Calgary Zoo working with a wide variety of animal species, from toads to tigers. Over time Else specialized in captive bear behavior, husbandry, and management. She researched aberrant behaviors in captive bears and published her findings. She has worked at the Calgary and Detroit Zoos, as well as several other bear specialist facilities in Canada. As the founding consultant for Behavioral & Environmental Solutions she provides expertise in modernizing bear husbandry methods, enrichment programming, and enclosure design/redesign to zoos, sanctuaries, rehabilitation facilities, and animal welfare organizations around the world. Else has published in scientific and technical journals, the media, and various books including *Smiling Bears - A Zookeeper Explores the Behavior and Emotional Life of Bears* (2009). Her next book, *Bärle's Story - From Circus Act to Polar Bear*, will be released in 2014. Else is the president of the Bear Care Group.

For details of projects and publications:

Address: Behavioral & Environmental Solutions, 2, 126 Main Street West, Grimsby, Ontario L3M1R8, Canada

Telephone: (905) 309-1370

Email: embpoulsen@bearcaregroup.org



MINDY BABITZ is a senior animal keeper at the Smithsonian National Zoological Park where she has worked since 1998. She has worked with bears, big cats, primates, hoofstock, and a variety of small carnivores. Since the opening of Asia Trail, Mindy has been primarily responsible for a variety of Asian carnivores including sloth bears. She has worked with sloth bears since 2001 and is currently the National Zoo's institutional representative to the Sloth Bear SSP. Mindy has a background in animal behavior and cognition, completing a BA from the University of Virginia and a PhD from the University of St. Andrews in Psychology. She currently conducts research on stereotypical behavior in sloth bears and is primarily interested in improving husbandry and management of sloth bears in zoos. Mindy is on the board of directors of the Bear Care Group and co-chair of Advancing Bear Care 2013.

For details of projects and publications:

Address: P.O. Box 37012, MRC 5507, Animal Programs, Smithsonian National Zoological Park, Washington, DC 20013

Telephone: (202) 633-4381

Email: babitzm@si.edu; mindy.babitz@bearcaregroup.org

GABRIELLA FREDRIKSSON'S work over the last seventeen years has focused on conservation research, forest management, establishment of new protected areas, and conservation awareness in Indonesia. She recently finalized her PhD on sun bear ecology and conservation. Since 2003 she has been involved with the establishment of an environmental education centre, focusing on sun bears in East Kalimantan, Indonesia. She currently divides her time between Sumatra, where she works on the establishment of a new protected area for the southernmost population of Sumatran orangutans, and Kalimantan, to further her work on forest management and the sun bear education centre. Gabriella is co-chair of the Sun Bear Expert Team, IUCN/SSC Bear Specialist Group.

For details of projects and publications:

Address: PanEco-YEL-SOCP, Jl. K.H. Wahid Hasyim No 51/74, Medan 20154, North Sumatra, Indonesia

Telephone: +62-813-97822007; Fax: +62-61-4514749

Email: gabriella.fredriksson@gmail.com

Website: www.beruangmadu.org



CHRISTINE FENWICK has been a zoo keeper for eleven years working with black bears, brown bears, and other large mammals as well as volunteering at a variety of wildlife rehabilitation and rescue centers. She traveled to Ecuador to assist an Andean bear research project with radio tracking of bears and cutting trails for bear traps to capture bears for collaring. While in Ecuador she also volunteered with a community based animal rescue center to help build animal enclosures, and train the locals how to use sustainable techniques for care and feeding of their animals. She is currently a keeper at Woodland Park Zoo in Seattle, WA and has worked at the San Diego Zoo Safari Park in Escondido, CA; Fortress of the Bear in Sitka, AK; Wildlife Safari in Winston, OR; Yellowstone Bear World in Rexburg, ID; and Cat Tales Zoological Park and Training Center in Spokane, WA. She has a BS in Zoology from Washington State University, a professional certificate in zoo keeping from Cat Tales, and a MS in Environmental Policy and Management, Fish and Wildlife Management from American Military University in Arlington, WV. Her master's thesis focused on standardizing the regulation of American black bear rehabilitation in the United States.

For details of projects and publications:

Address: Woodland Park Zoo, 601 N. 59th St., Seattle, WA 98103
Email: Christine.fenwick@zoo.org

NICOLA FIELD is the Bear & Vet Team Director at Animals Asia's bear rescue centre, China. She heads the veterinary and bear team who take care of the bears, dogs, cats and macaques on site. Her main role is ensuring optimum care of all animals on site, as well as promoting the work of the organization. Nicola is part of the IUCN Captive Bear Specialist Group and has an MSc in Wildlife Biology & Conservation, as well as Animal Management qualifications. Nicola worked for nearly 10 years as a zoo keeper in the UK, taking care of a variety of species, including North American black bears. She has also worked as an animal-care assessor in the UK and a researcher on conservation projects in Uganda, Vietnam and Kenya.

ANNEMARIE WEEGENAAR is the Bear & Vet team Director at Animals Asia's bear rescue centre, Vietnam. She heads the veterinary and bear team who take care of the 107 rescued bears. Annemarie has worked for Animals Asia for seven years, both in China and Vietnam. She has a BS in Animal Management as well as experience working with bears at rescue facilities in Malaysia and Indonesia.

For details of projects and publications:

Address: Animals Asia Foundation, Hong Kong Head Office GPO 374, Hong Kong
Telephone: +852 2791 2225
Email: nfield@animalsasia.org; aweegenaar@animalsasia.org



RAISING NEONATE BEARS WORKSHOP

Angelika Langen and Tracy Leaver

The normal development and socialization of a hand-reared bear cub is dependent upon the quality and consistency of care received by well trained professionals. This session will provide a forum for delegates to discuss the important issues that arise when attempting to ensure a successful outcome when hand-rearing orphaned bear cubs. Delegates are asked to come prepared to present specific problems with photos and/or diagrams to illustrate their question.

BIOGRAPHICAL NOTES

ANGELIKA LANGEN began her career as a zookeeper apprentice in Zoo Cologne in 1987. She then worked as a zookeeper in Zoo Cologne and Zoo Augsburg. In 1982 she immigrated to Canada and in 1990 she and her husband Peter, a zoo carnivore expert, founded the Northern Lights Wildlife Society in Smithers, BC. The aim of the Society is to offer injured and/or orphaned mammals a safe haven to grow and heal before being returned to the wild. Over the years the location of the shelter led to the organization's growth in bear and ungulate rehabilitation. Angelika specializes in the care of very young and/or injured bears and has spent countless hours caring for them.

TRACY LEAVER has been involved with wildlife rehabilitation since 1986 and is founder and Executive Director of Woodlands Wildlife Refuge, Inc. Tracy is also founder and current President of the New Jersey Association of Wildlife Rehabilitators. She has served as Chair of the Minimum Standards Committee for the National Wildlife Rehabilitator's Association and was recently appointed by the New Jersey Department of Environmental Protection to the Wildlife Rehabilitator's Advisory Committee. In 1995, Tracy created and implemented the first black bear rehabilitation and release program in New Jersey. She has also presented wildlife rehabilitation education programs throughout the U.S. and Canada. As a nonprofit charity, Woodlands Wildlife Refuge works with all mammal and reptile species native to New Jersey.

For details of projects and publications:

Address: Northern Lights Wildlife Society, 17366 Telkwa High Rd, Smithers, BC, V0J2N7, Canada

Telephone: (250) 847-5101

Email: info@wildlifeshelter.com

Website: www.wildlifeshelter.com

Address: Woodlands Wildlife Refuge, Inc., P.O. Box 5046, Clinton, NJ, 08809

Telephone: (908) 730-8300 ext.5

Email: wildlife@eclipse.net

Website: www.woodlandswildlife.org

Contact Information



Abbott, Karen	Smithsonian National Zoo	abbottk@si.edu
Alarcon, Normando	El Paso Zoo	riosf@elpasotexas.gov
Albers, Eric	Akron Zoological Park	albers351@roadrunner.com
Allman-Van Zee, Ali	BEAR League	yourali747@gmail.com
Anderson, Laura	Woodlands Wildlife Refuge	capecc13@yahoo.com
Anderson, Nancy	Wildhaven Ranch	beariq@verizon.net
Andrews, Donna	Wildlife Adventure Group	letstalkbears@aol.com
Appleton, Robyn	Spectacled Bear Conservation – Peru	robyn@spectacledbearconservation.com
Babitz, Mindy	Smithsonian National Zoo	babitzm@si.edu
Bacon, Heather	University of Edinburgh	heather.bacon@ed.ac.uk
Beasty, Taryn	Bronx Zoo	tbeasty@wcs.org
Beecham, John	IFAW	john.beecham@gmail.com
Berglund-Karlsson, Tonny	Kolmården Zoo	alfred@skanesdjurpark.se
Biblin, Margo	Margo For Animals	margoforanimals@gmail.com
Boyle, Eileen	Five Sisters Zoo	eboyle56@yahoo.com
Bradshaw, Gay	Kerulos Center	bradshaw@kerulos.org
Brink, Bobbi	Lions, Tigers & Bears	bobbi@lionstigersandbears.org
Brown, Mo	Pittsburg Zoo	mbrown@pittsburgzoo.org
Burguess, Kelcey	NJ Division of Fish & Wildlife	kelceyburguess@earthlink.net
Bushcamp, Mariko	North Carolina Zoo	mariko.bushkamp@nczoo.org
Chambers Wendy	The Bear Care Group	wendy.chambers@bearcaregroup.org
Clifford, Sarah	Andean Bear Foundation	andeanbears@gmail.com
Conrad, Jennifer	Memphis Zoo	jenniferlconrad@yahoo.com
Convy, Jennifer	PAWS Wildlife Center	jconvy@paws.org
Curran, Shirley	Five Sisters Zoo	shirley@fivesisterszoo.co.uk
Donithan, Kelly	IFAW	kdonithan@ifaw.org
Edwards, Lucy	Chester Zoo	ledwards@chesterzoo.org
Elgart, Jennifer	Zoo Atlanta	jelgart@zooatlanta.org
Etkins, Lauren	Philadelphia Zoo	etkins.lauren@phillyzoo.org
Fenwick, Christine	Woodland Park Zoo	Christine.fenwick@zoo.org
Field, Nicola	Animals Asia Foundation	nfield@animalsasia.org
Fredriksson, Gabriella	KWPLH Sun Bear Education Centre	gabriella.fredriksson@gmail.com
Frink, John	Woodlands Wildlife Refuge	john@jfrink.com
Gates, Bethany	Dickerson Park Zoo	Tigerwhite01@yahoo.com
Gibson, Angela	Northwest Trek Wildlife Park	toebby80@hotmail.com
Gillmer, Melissa	Trailside Museums and Zoo	melissa.gillmer@parks.ny.gov
Grimley, Virginia	Oregon Zoo	virginia.grimley@oregonzoo.org
Hamilton, Rebecca	Andean Bear Foundation	andeanbears@gmail.com
Hare, Val	The Shape of Enrichment	shape@enrichment.org
Herrell, Sharon	North American Bear Center	sdhbear@email.com

Contact Information



Jackson, Rosemary	Kroschel Wildlife Center	livingoodinalaska@yahoo.com
Klemick, Elizabeth	Smithsonian National Zoo	beth.klemick@gmail.com
Kroell, Mette	Copenhagen Zoo	mkroell@email.dk
Kumar, Anand	Wildlife Reserves Singapore	anandk_80@hotmail.com
Kyle, Angela	Five Sisters Zoo	lmond.kyle@gmail.com
Lagana, Sabrina	Northern Lights Wildlife Society	miensa@aol.com
Laidlaw, Rob	Zoocheck	rob@zoocheck.com
Lance, Morgan	Animals Asia Foundation	mhlance@comcast.net
Langen, Angelika	Northern Lights Wildlife Shelter	info@wildlifeshelter.com
Leaver, Tracy	Woodlands Wildlife Refuge	wildlife@eclipse.net
Lefebvre, Lydia	Ontario SPCA Canada	lydia@bbn.ca
LeMay, Nancy	West Sound Wildlife	Dispatcher67@comcast.net
Lindskog, Alfred	Skåne Zoo	alfred@skanesdjurpark.se
Loeffler, Kati	IFAW	kloeffler@ifaw.org
Manky, Devin	Grouse Mountain Refuge	lprajitno@grousemountain.com
Marino, Kate	Denver Zoological Foundation	kmarino@denverzoo.org
Mazrimas-Ott, Christy	Brookfield Zoo	barekeeper@comcast.net
McDonald, Sue	Five Sisters Zoo	svcm55@hotmail.co.uk
McLean, Rebecca	Currumbin Wildlife Sanctuary	rebecca.mclean@hotmail.com
McMahon, Kate	Bronx Zoo	kcmcmahon@wcs.org
McRuer, Dave	Wildlife Center of Virginia	dmcruer@wildlifecenter.org
McShea, Bill	Smithsonian Conservation Biology Institute / National Zoo	McSheaW@si.edu
Medina, Michelle	Bronx Zoo	mmedina@wcs.org
Meredith, Emily	PAWS Wildlife Center	jconvy@paws.org
Milhorn, Victoria	Silver Springs Nature Park	ursusequus@gmail.com
Miller, Christine	North Shore Black Bear Society	nsbbs@telus.net
Morales, David	Queens Zoo	dmorales@wcs.org
Moulis, Lauren	Squam Lakes Natural Sci Center	Luckerbruckers93@yahoo.com
Mueller, Erica	Turtle Back Zoo	blueocean92082@optonline.net
Murray, Barb	Bears Matter	bearsmatter@gmail.com
Newkoop, Melissa	Knoxville Zoo	mnewkoop@knoxville-zoo.org
Papesh, Micki	Minnesota Wildlife Connection	searayrun@gmail.com
Peters, Sue	Denver Zoological Foundation	gardenergirl1002@yahoo.com
Pierpoint, Karen	Route 140 Veterinary Hospital	karenpierpoint@yahoo.com
Poulsen, Else	B&E Solutions	else.poulsen@bearcaregroup.org
Pratte, Jay	Omaha's Henry Doorly Zoo	jayp@omahazoo.com
Premela, Devi	Wildlife Reserves Singapore	anandk_80@hotmail.com
Price, Matt	San Diego Zoo	ksmith@sandiegozoo.org
Randinitis, JoAnne	Utah's Hogle Zoo	jrandinitis@hoglezoo.org
Robinson, Jill	Animals Asia Foundation	info@animalsasia.org
Rog, Joan	Cleveland Metroparks Zoo	joanerog@aol.com
Rowlands, Tim	Chester Zoo	k.kingsharp@chesterzoo.org

Contact Information



Russell, Charlie	Kerulos Center	crussell@jrtwave.com
Satta, John	Woodlands Wildlife Refuge	john.satta@gmail.com
Satyanarayan, Kartick	Wildlife SOS	info@wildlifesosusa.org
Sawyer, Emily	Northern Lights Wildlife Society	emilysawyer@hotmail.com
Schuettenhelm, Julie	Lions, Tigers & Bears	libertybear43@gmail.com
Seshamani, Geeta	Wildlife SOS	info@wildlifesosusa.org
Smith, Scott	Turpentine Creek Wildlife Refuge	scott@turpentinecreek.org
Smith, Tanya	Turpentine Creek Wildlife Refuge	tanya@turpentinecreek.org
Sodaro, Carol	Brookfield Zoo	carol.sodaro@czs.org
Sooter, Melissa	Fort Worth Zoo	mease182@yahoo.com
Tabellario, Stacey	Smithsonian National Zoo	tabellarios@si.edu
Thomas, Gaylene	San Diego Zoo	gthomas@sandiegozoo.org
Thon, Judith	North American Bear Center	judython@bear.org
Traska, Jeff	Wisconsin Black Bear Education Center	traskaroot@yahoo.com
Tucker, Lindsay	Turtle Back Zoo	purpleplatypus27@aol.com
Vanderwal, Laurie	Turpentine Creek Wildlife Refuge	laurie@turpentinecreek.org
Vela, Christine	Bronx Zoo	cvela@wcs.org
Yates, Ashely	Palm Beach Zoo	glovett@palmbeachzoo.org
Weegenaar, Annemarie	Animals Asia Foundation	aweegenaar@animalsasia.org
Winders, Delci	PeTA	DelciannaW@petaf.org
Winton Lesley	Winton Bear Foundation	lesley@wintonbearfoundation.org



THE BATEMAN FOUNDATION

