

FELID TAG TIMES

A quarterly publication of the Felid Taxon Advisory Group of the Association of Zoos & Aquariums

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May 2010
Felids of Temperate Asia

ASSOCIATION
OF ZOOS &
AQUARIUMS

Calendar

July 28

- Snow Leopard SSP Meeting, Toronto Zoo

July 29 & 30

- Tiger SSP Meeting, Toronto Zoo

September

- Felid TAG Meeting, AZA Conference, Houston Zoo, Date & time TBD

Felid TAG News

Conference Wrap-up

Thanks to Louisville Zoo for hosting a productive Felid TAG Mid-year Meeting in April. Attendees received informative presentations on cat safety and husbandry and working groups focused on development of Animal Care Manuals for felids. The silent auction brought in \$3,481.00. Look for the proceedings to be published later this summer. Next year's meeting will take place at Omaha's Henry Doorly Zoo with a focus on research.



Photos: Shasta Bray



Ocelot Program Updates

- Ocelot SSP Coordinator, Ken Kaemmerer, moved to the Pittsburgh Zoo & PPG Aquarium in February and serves as the Curator of Mammals. His new contact information follows. Office phone is 412-365-2580 and email address is kkaemmerer@pittsburghzoo.org.
- The Ocelot Population Analysis and Breeding and Transfer Plan can now be accessed on the AZA web site or contact Ken Kaemmerer.
- An ocelot translocation meeting was held at the Gladys Porter Zoo on February 12. Team members are preparing on various fronts to be able to secure Mexican and US permits to translocate ocelots by early 2011.
- USFWS has now decided to officially publish the Ocelot Recovery Plan in the Federal Register this summer.

Felid Conservation Program Database

Looking for an *in situ* or *ex situ* felid conservation program to get involved in or just interested in learning about what your colleagues are doing? Columbus Zoo hosts a database of current programs at <http://apps.colszoo.org/felidtag>. Check it out!

Felid TAG News (cont.)

New Clouded Leopard SSP Coordinator

Bonnie Breitbeil is the new Clouded Leopard SSP Coordinator. Bonnie works at the Central Florida Zoo and can be reached at bonnieb@centralfloridazoo.org.

Clouded Leopards Arrive at Point Defiance Zoo

Two 9-month-old clouded leopards have arrived at the Point Defiance Zoo from Thailand. Chai Li, a female, and Nah Fun, a male, will be on public display beginning in April. A \$1 million "Cats of the Canopy" exhibit, funded by the Zoo Society, is expected to open in spring 2011. The lush, tree-filled area also will have space for two breeding pairs.



Photo: Karen Povey



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Meet a Member: Cathryn Hilker

Founder of the Cincinnati Zoo's nationally-renowned Cat Ambassador Program (CAP), Cathryn Hilker was honored with a Great Living Cincinnati award in February. For 30 years, she and her team have conducted public outreach with cheetahs and other cats.

Working for the Cincinnati Zoo for most of her adult years, Hilker knew that to have a lasting impact on the continued survival of the species, she had to support the work where the cheetah lived. The result was a partnership with the Cheetah Conservation Fund (CCF). Hilker helped establish a permanent home base for CCF in Namibia in 1995.

Meet Our Cats: Caro and Frankie

In January, two new bobcats came to Coyote Point Museum from National Bobcat Research and Rehabilitation Center in Texas. Caro survived a near-fatal bout with pneumonia as a kitten. Frankie suffers from a neurological disorder that causes him to have unusual motor movements. Both bobcats were sufficiently imprinted on humans or in sub-optimal physical shape that they could not be released into the wild. The new bobcats replace the Museum's long-time resident bobcat, Chemise, who passed away at the ripe age of 20 years old in September 2009.

Located in beautiful Coyote Point Recreation Area in San Mateo, California, the Museum provides visitors with opportunities to learn first-hand about the science behind the environment. The Museum offers interactive exhibits, hands-on science and art programs, and outdoor wildlife habitats with live, non-releasable animals native to California. For more information about Coyote Point Museum, go to www.coyoteptmuseum.org.



Photo: Megan Hankins

Conservation Program Updates

Pallas' Cat PMP

Currently, there are 22.25 (47) Pallas' cats in 19 institutions. There were no births and three deaths last year. Pallas' cats have the highest percentage of 30-day mortality of any small cat at 44.9%. In 2010, we have four potential litters.

While 10 embryo transfers have been performed to date, no pregnancies have been produced. The seasonality of Pallas' cat reproduction makes it difficult to control reproductive cycles in our cats.

Check out these recent publications:

Ross, S., Harris, S. & Munkhtsog, B. (2010) Dietary composition, plasticity and prey selection of Pallas's cats. *Journal of Mammalogy*, in Press

Brown, M.A., Munkhtsog, B. Troyer, J.L., Ross, S., Sellers, R. Fine, A., Swanson, W.F., Roelke, M. & O'Brien, S.J. (2010) Feline immunodeficiency virus (FIV) in wild Pallas's cats. *Veterinary Immunology and Immunopathology*, 134, 90–95.

Ross, S. (2009) Providing an ecological basis for the conservation of the Pallas's cat (*Otocolobus manul*). PhD thesis, University of Bristol, UK.



Sand Cat SSP

The SSP population of sand cats is currently 13.16 (29) in 12 institutions. An international studbook published in July 2009 states the global captive population is 98.101.1 (200) in 45 institutions.

Opportunity to Import Founders

The North American sand cat population has an opportunity to import several founders for the SSP population from the Al Ain Wildlife Park & Resort in the United Arab Emirates in the summer/fall 2010. I am looking for a few institutions that would be interested in participating in this opportunity and be a part of the new breeding recommendations that will take place in August. I hope to import at least 4 sand cats and pair each of them with a sand cat from the existing NA population. The approximate cost of each import is \$1000. For ease of importation, the sand cats would be transported to a single institution and then shipped to their respective institution later this year. If you are interested, please e-mail sandcatssp@yahoo.com.

- Kara Akers, Sand Cat SSP Coordinator and International Studbook Keeper

Sand cat kittens produced by embryo transfer at the Al Ain Wildlife Park & Resort



Progress in Reproductive Sciences for Global Sand Cat Conservation

The sand cat (*Felis margarita*) is one of four small-sized cat species overseen by a Species Survival Plan (SSP) in AZA-accredited institutions. The Sand Cat SSP population consists of just 29 cats at 12 institutions and although carefully managed through selective breeding, the total number of animals remains too low to maintain a genetically healthy population over time. Expanding the SSP population to the target size of 75 cats would help to maintain genetic diversity and more SSP institutions are needed to achieve that goal (contact Kara Akers, SSP Coordinator, to obtain cats – some are available). Another solution to this management challenge involves linking together the various regional populations housed in zoos in North America, Europe and the Middle East to form a larger meta-population of 150-200 cats. Developing an effective global management program for sand cats will depend on establishing international collaborations between these diverse geopolitical regions as well as applying reproductive sciences to optimize sand cat propagation through natural breeding and assisted reproduction.

In ongoing research, Dr. Jason Herrick at the University of Illinois and Dr. Bill Swanson at the Cincinnati Zoo & Botanical Garden are collaborating with Farshid Mehrdadfar, Animal Collections Manager, and his colleagues at the Al Ain Wildlife Park and Resort (AWPR) in the United Arab Emirates to improve global genetic management of sand cats. The AWPR breeding facility currently houses 36 sand cats that are unrelated to the SSP population. As an alternative to shipping live cats between countries, collaborative studies are investigating the transport of frozen semen and embryos as a means of creating this genetic exchange. In September 2008, semen was collected and frozen from four male sand cats at the AWPR and 63 frozen semen straws were imported to the US. In October 2009, in vitro fertilization (IVF) procedures were conducted with sand cats at the AWPR to produce 50 embryos. Twenty-one of these embryos were transferred into four AWPR females, resulting in one pregnancy and the birth of two healthy female kittens – the first sand cats born following IVF and ET. The remaining embryos were frozen and imported to the US for subsequent transfer into sand cat females housed in US zoos. Future research will be exploring creation of gene flow from unrelated cats in US zoos to those at the AWPR and initiation of an in situ sand cat ecology project, including the collection and banking of semen from wild males.

Conservation Program Updates (cont.)

Amur Leopard SSP

In 2009, the Amur leopard PMP was changed to an SSP. Diana Weinhardt, Minnesota Zoo, continues as the Program Coordinator.

The current SSP population stands at 26.37 (63) individuals at 37 institutions, which includes three Canadian facilities. With 100% of the pedigree known, the population has a genetic diversity of 85%.

The program needs more animal spaces and animals are available now. Contact Diana if you're interested at Diana.Weinhardt@state.mn.us, 952-431-9372.

An account has been set up at the Minnesota Zoo to collect funds from zoos to support the conservation efforts of the Amur Leopard and Tiger Alliance (www.amur-leopard.org).



Snow Leopard SSP

The SSP population of snow leopards consists of 141 animals with a 95% genetic diversity. The Master Plan was updated in June 2009. Most females are in a breeding situation, but reproductive success has been low. A Master's student from Columbia University will be distributing surveys to IRs to examine factors affecting snow leopard reproductive success. Dr. Jason Herrick is working on assisted reproduction efforts as well.

The next Snow Leopard SSP Meeting will take place on July 28 at the Toronto Zoo. Steering Committee elections will be held to fill four positions.

Jay Tetzloff, Snow Leopard SSP Coordinator, has moved to Miller Park Zoo. His new contact information is: Email: jtetzloff@cityblm.org, Phone: 309-434-2825

Jay has been involved in the Snow Leopard Functional Genome Project (www.snowleopardgenome.org), which is an IMLS-funded effort to understand how the genetic make-up of an animal or population of animals impacts the health of that individual or population. The goal is to design a cohesive strategy for integrating methods of functional genomics into the captive breeding plans of snow leopards and other endangered species in order to enhance species diversity and robustness. A workshop was held in January to move the project forward. The project will require lots of samples from zoos and lists of phenotypic traits of their snow leopards, and requests have gone out to all IRs.



Camera trap photo of Amur leopard
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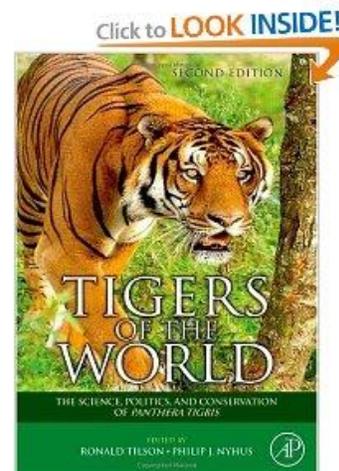
Tiger SSP

As of June 2009, the AZA tiger population of 371 individuals broke down into 114 generic tigers, 109 Amur tigers, 61 Sumatran tigers, and 50 Malayan tigers. The plan is to phase out the generic tiger population with a goal of reducing it by 60% in the next 10 years.

In 2009, a generic Tiger SSP was implemented and the master plan is accessible on the AZA web site. Program Coordinator, Tara Harris, requests all institutions holding generic tigers to designate an Institutional Representative. Her contact information follows. Tara Harris, Minnesota Zoological Garden, tara.harris@state.mn.us, (952) 431 9206.

Tiger SSP meetings will take place at the Toronto Zoo on July 29 and 30. For more information, contact Maria Franke at the Toledo Zoo.

Tigers of the World, Second Edition: The Science, Politics and Conservation of *Panthera tigris* was published (Academic Press) in January. The book was co-edited by our very own Tiger SSP Coordinator, Ron Tilson, and Philip Nyhus. Check it out on Amazon.com.



Other Felid News

Ocelots on Facebook

The Friends of Laguna Atascosa National Wildlife Refuge have created a Facebook page for the ocelot. It is called *Viva the Ocelot!* Become a fan!

Ocelots in Arizona

Ocelots have not been documented in Arizona since 1964 and historical records are very rare, but two recent events suggest that ocelots might be there. Remote cameras operated by Sky Island Alliance in Cochise County captured an image of an ocelot last November. In April, the Arizona Game and Fish Department collected a dead, intact carcass of a cat resembling an ocelot on the highway. FWS's national forensics laboratory will determine whether it is indeed an ocelot and testing can suggest whether it was wild or captive-raised.



Ocelot recently photographed in Cochise County, Arizona. Photo: Sky Island Alliance

Tiger Trouble Spots

2010 is the Year of the Tiger. World Wildlife Fund (WWF) is launching a campaign: *Tx2: Double or Nothing* to support tiger range states in their goal of doubling wild tiger numbers by the next Year of the Tiger in 2022. WWF has published an interactive map of the Top 10 Tiger Trouble Spots. To view the map and learn more about the campaign, go to www.worldwildlife.org/species/finder/tigers/year-of-tiger.html.



New Pentagon Effort Targets Illicit Wildlife Trade

During spring and summer of 2008, 350 illegally traded wildlife items were confiscated at just three U.S. bases in Afghanistan. Backed by \$50,000 from the Pentagon, a new campaign will soon teach U.S. soldiers heading to Iraq and Afghanistan to be wary when shopping for clothes, blankets, and other items that might be made from endangered species like the snow leopard and sand cat. (*Greenwire*, March 16, 2010)

Amur Leopard Birth Video

The Tallinn Zoo in Estonia is celebrating the birth of two rare Amur leopard cubs. The birth was filmed by infrared camera and can be viewed at www.scoop.co.nz/multimedia/tv/world/34800.html.



Genes Linked to Spots and Stripes

"The leopard cannot change its spots, nor can the tiger change its stripes, but a new research report published in the January 2010 issue of the journal *Genetics* tells us something about how cats end up with their spots and stripes. It demonstrates for the first time that at least three different genes are involved in the emergence of stripes, spots, and other markings on domestic cats."

(*ScienceDaily*, January 14, 2010)

Toxoplasma in Iberian Lynx Habitat

Researchers from the University of Cordoba have determined that *Toxoplasma* is widespread in Iberian lynx habitat. While no Iberian lynx mortalities due to *Toxoplasma* have been reported, fatal infections have been found in bobcats. (*ScienceDaily*, April 6, 2010)

Seven Cats Sharing the Same Forest

Seven cat species were caught on camera during a two-year study (2007-2009) in a 354-square-mile area of the Jeypore-Dehing lowland rainforest in India—the highest diversity ever recorded in a single area. The species included leopard, clouded leopard, leopard cat, Asiatic golden cat, jungle cat, tiger, and marbled cat. (*National Geographic News*)



Auckland Zoo

Big Cat Grants

As part of National Geographic's Big Cats Initiative to halt the decline of lions, grants are available to fund lion research and conservation projects. Download a pre-application form at <http://animals.nationalgeographic.com/animals/big-cats-grant/> or contact them at bigcatsgrants@ngs.org.





Other Felid News (cont.)

Support Snow Leopard Trust Mongolia Relief Efforts

Mongolia is suffering from the harshest winter in three decades and herders have lost an estimated 4.5 million livestock. Snow Leopard Trust has established a relief fund to help the Mongolian people during this difficult time and relieve any pressure to hunt or poach wildlife for survival. If you would like to contribute to this effort, please earmark donations at www.snowleopard.org to "Snow Leopard Enterprises." If you have any questions please email info@snowleopard.org.

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Felid TAG Steering Committee Members

Alan Sironen	als@clevelandmetroparks.com
Bonnie Breitbeil	bonnieb@centralfloridazoo.org
Danny Morris	dannym@omahazoo.com
Don Goff	dgoff@beardsleyzoo.org
Dusty Lombardi	dusty.lombardi@columbuszoo.org
Gary Noble	gary.noble@disney.com
Hollie Colahan	hcolahan@houstonzoo.org
Karen Goodrowe	karen.goodrowe@pdza.org
Ken Kaemmerer	kkaemmerer@pittsburghzoo.org
Kim Davidson	Kdavidson@hoglezoo.org
Norah Fletchall	nfletchall@indyzoo.com
Ron Tilson	Rtilson@mail.mnzoo.state.mn.us
Steve Bircher	bircher@stlzoo.org
Tammy Sundquist	tsundquist@thepfxzoo.com
William Swanson	william.swanson@cincinnati-zoo.org

Conservation Program Coordinators

Ann M Konopik	akonopik@ci.salisbury.md.us	Jaguarundi Phase-in
Barb Palmer	BarbaraP@sfzoo.org	Caracal PMP
Bonnie Breitbeil	bonnieb@centralfloridazoo.org	Serval PMP
David Orndorff	dorndorff@mmzoo.org	Fishing cat SSP
Diana Weinhardt	diana.weinhardt@state.mn.us	Amur leopard SSP
Don Goff	dgoff@beardsleyzoo.org	Canada lynx PMP
Hollie Colahan	hcolahan@houstonzoo.org	Lion SSP
Jack Grisham	grisham@stlzoo.org	Cheetah SSP
Jay Tetzloff	jtetzloff@cityblm.org	Snow leopard SSP
Kara Akers	kakers@livingdesert.org	Sand cat SSP
Ken Kaemmerer	kkaemmerer@pittsburghzoo.org	Ocelot SSP
Martha Caron	marthacaron@zmee.net	Pallas' cat PMP
Michelle Schireman	pumacoug@aol.com	Puma PMP
Bonnie Breitbeil	bonnieb@centralfloridazoo.org	Clouded leopard SSP
Ron Tilson	Rtilson@mail.mnzoo.state.mn.us	Tiger SSP
Stacey Johnson	sjohnson@lvzoo.org	Jaguar SSP
Steve Wing	steven.wing@louisvilleky.gov	Black-footed cat SSP

Submissions

Felid TAG Times is edited by Shasta Bray, Felid TAG Education Co-Liaison. Please send comments, suggestions, and submissions to Shasta.bray@cincinnati-zoo.org. Submission deadline for the August 2010 newsletter is July 1.