

FELID TAG TIMES

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

IN THIS ISSUE

Calendar	1
Felid TAG News	1
Other Felid News	2
Conservation Program Updates	
Puma PMP	3
Fishing Cat SSP	3
Meet a Member: John Davis	6
Steering Committee Members	6
Conservation Program Coordinators	6



February 2011

ASSOCIATION
OF ZOOS &
AQUARIUMS

Calendar

May 2-4, 2011

- Felid Husbandry Course, Omaha's Henry Doorly Zoo, Nebraska

May 3-4, 2011

- Felid TAG SSP/PMP meetings, Omaha's Henry Doorly Zoo, Nebraska

May 5-7, 2011

- Felid TAG Annual Conference, Omaha's Henry Doorly Zoo, Nebraska

Felid TAG News

Registration Open for 2011 Annual Conference

Register now for the Felid TAG Conference, to be hosted by Omaha's Henry Doorly Zoo. Join us as we celebrate the 20th Anniversary of the Felid TAG! The conference theme is Felid Research.



Download registration forms and get information on lodging from the Felid TAG website at www.felidtag.org.

Silent Auction Items Needed

In just a few months, we will be happily enjoying the Felid TAG meetings and Omaha's Henry Doorly Zoo, and BIDDING on auction items!! The annual Felid TAG auction helps raise money and awareness for conservation efforts of the Felid TAG. Be creative, be generous, be involved - bring or send an item or items to be included in the auction. Contact Kimberly Davidson at kdavidson@hoglezoo.org or 801-584-1703 with questions or comments.

Note a Newsletter Change

Traditionally, each quarterly issue of the Felid TAG Times has highlighted felids from a particular region of the world on a rotating basis. The fear is that the regional focus often prevents the submission of current and relevant updates on other felids. Since it can be difficult to solicit region-specific program updates for particular issues anyhow, future Felid TAG Times newsletters will be open to any and all conservation program updates rather than focused on felids of certain regions.

First Cheetah Cubs for Smithsonian Facility

On December 16, 2010, two singleton cheetah cubs were born to separate mothers at the Smithsonian Conservation Biology Institute (SCBI). These are the first cubs born at SCBI. To increase the likelihood of survival, both cubs are being raised by the elder mother, Zazi. Following a physical exam and vaccinations on January 27, both cubs appear to be healthy.



Photo: Lindsay Renick Mayer, Smithsonian's National Zoo

Felid TAG News (cont.)

Collaborative Efforts Result in Successful Cheetah Breeding

The Wilds is pleased to announce the first litters of cheetah cubs born at our Mid-sized Carnivore Conservation Center, which opened in 2007. With help from Cindy Cupps of the Columbus Zoo and Aquarium, who has 14 years experience working with cheetahs, and advice from fellow institutions White Oak and Fossil Rim, we were able to develop a successful routine for managing our breeding group of 5 females and 4 males. Two 5 year old sisters and a 6 year old female, all first-time breeders, produced litters in October and November, with 9 total (7.2) cubs surviving.



The first litter was neglected by the mom and had to be pulled and hand-reared. With more collaborative help from our partners at the Columbus Zoo, these animals all survived and are doing well. The smallest cub from the second litter was also pulled when regular den checks showed it was not thriving like its litter mates. It is now doing well, being raised with the first litter. The remaining five cubs from the two litters have now left the den and are venturing outside daily.

- Juston Wickham, Animal Management Specialist, TheWilds

Bobcat DERP Registry

Bobcats currently are classified as a DERP (display, education, or research program) species by the Felid TAG. We do not "manage" the population per se but they are included in the Felid RCP. Although we are not looking to start breeding bobcats, we would like to know more about the status of the current population (genetics, demographics) in AZA institutions.

Rebecca Stites at the Smithsonian National Zoo, (stitesr@si.edu) has volunteered to start compiling information on our current bobcat population as part of a bobcat registry. She will be gathering information from ISIS but also likely will be collecting specimen data from each AZA institution that currently maintains bobcats. Please provide Rebecca with the requested information when she contacts your institution. She is acting on behalf of the Felid TAG.

Announcing New Steering Committee Members

Congratulations to the three newest members of the Steering Committee.



Craig Saffoe is the Curator of Great Cats / Andean bears at the Smithsonian's National Zoo where he has worked for 17 years. Most of his work has focused on cheetah husbandry and conservation. He has recently taken on the husbandry and management of the Zoo's lion and Sumatran tiger collection. Craig also manages the Felid TAG web site.

Ann Konopik is the General Curator at Salisbury Zoo. Prior to accepting her current position two years ago, Ann has worked at Salisbury Zoo as a zookeeper and registrar since her graduation from Frostburg State University. Ann has served on the Ocelot SSP Steering Committee since 1992 and is coordinating the effort to re-establish a jaguarundi population in U.S. zoos.



Cheryl Morris holds a Ph.D in Animal Nutrition and is the Director of Comparative Nutrition at Omaha's Henry Doorly Zoo. She also oversees the zoo's training and enrichment programs. She serves as Nutrition Advisor for the Felid TAG and Small Carnivore TAG, and is also a member of AZA's Research and Technology Committee.

Other Felid News

ZooBorns Calls for Cat Photos

If you're not familiar with the adorable ZooBorns picture books that feature the cutest animal babies born at zoos and aquariums in the world, under what rock have you been hiding? The authors are currently seeking photo submissions for an upcoming AZA-endorsed Zooborns book focused on cats. This is a great opportunity to highlight the reproductive successes of our felid programs. To submit your cute kitten images go to:

www.zooborns.com/zooborns/zooborns-the-book.html.

Save African Cats By Going to the Movies

DisneyNature will contribute \$0.20 per ticket to the African Wildlife Foundation for the Amboseli Corridor project for everyone who sees the new movie, AFRICAN CATS, during its opening week (April 22-28).

Conservation Program Updates

Puma PMP

As predicted at the Louisville Mid-Year Felid TAG Meeting last spring, the captive population of pumas has needed some assistance in the way of incoming cats this year. This, despite the fact that we have had continued success in placing 100% of the fluctuating numbers of orphans coming in from the wild again in 2010. At this point almost 50% of the pumas in AZA institutions are orphans we have placed from the wild. In addition, several adult cats have been placed as a result of calls from USDA Vets and State Fish and Game agents looking for options to euthanasia for confiscated cougars.

But with attrition catching up to our senior cats and new exhibits coming on line, zoos have turned to other sources for their exhibit needs. In an attempt to assist these zoos and to keep known bloodlines and good genetics in our population, I have made the first breeding recommendation since the inception of the Puma Studbook over 15 years ago. In April, the Oregon Zoo was asked to allow their pair of cougars to breed. These cats were both orphan placements, healthy, young, and had never been on birth control. Recently, the Oregon Zoo has assisted the Puma Management Plan by holding and shipping several wild orphans to other facilities. Also, their facility and staffing was well suited to raising a cub for future placement. The result of a successful introduction was the female going into estrus and allowing breeding a week later.

On 19 Sept, 2010 the Dam, four year old Chinook, gave birth to a healthy single female cub named Palus. As the first puma cub born in an AZA facility in over 15 years, Palus is providing us with a wealth of information on weight gain and infant development in puma cubs. Previous information from the field was dated 1967 and similar information from the captive cat community was non-accessible. This data will prove valuable to institutions raising orphaned cubs within the AZA and to sanctuaries and rehab facilities who eventually send them to us for permanent placement.

The holidays are usually the busiest season for orphaned cougar cub calls, with hunters in the woods and drivers on the mountain passes incidentally killing mother cougars with cubs. This year the phone has only rung once. The result was placement of two cubs with Sedgewick County Zoo. Remember to let your local game agents know how to get in touch with your Puma Population Manager for orphan placement.



Fishing Cat SSP

Fishing Cat Transfer and Breeding Study

2010 may have been the year of the tiger, but 2011 is going to be the year of the fishing cat! One of the most charismatic small cats, the fishing cat (*Prionailurus viverrinus*), is found throughout Southeast Asia. The recent elevation of this species from "Vulnerable" to "Endangered" by the IUCN emphasizes the urgent need for successful management of the captive population. Currently, the SSP population contains 38 individuals with only 30 viable breeders. The challenges facing the fishing cats' breeding success in captivity include; limited genetic diversity, low founder numbers, and behavioral incompatibility among pairs. Specifically, there is a lack of knowledge pertaining to the framework of successful breeding introductions.



The Fishing Cat SSP recommended 11 new breeding pairs be formed this year. In order to accomplish this, there were nine transfers between institutions. The SSP's current recommendations include support for a comprehensive study monitoring the adrenocortical activity involved in the transfer of individuals between institutions, and potential effects on breeding success.

The study has three goals:

1. To determine the effects of institutional transfer and breeding introductions on progesterone, estrogen, and corticosteroid metabolites,
2. To characterize temperament in the fishing cat, and
3. To better understand breeding introduction techniques.

Very little is known about the fishing cat's sensitivity to environmental change. Individual sensitivity to transfers between institutions and breeding introductions may increase stress and drastically impact reproductive success. Prolonged stress is known to cause acyclicity in females, increase infant mortality due to neglect or infanticide, and lower testosterone levels in males. This study will utilize three different methods to analyze the effects on the fishing cats transferred or intended for pairing. Non-invasive fecal hormone analysis will be used to monitor adrenocortical activity and reproductive hormones. Behavioral data and breeding introduction methods will be analyzed to try to pinpoint approaches that may lead to reproductive success. Finally, a keeper-rated temperament assessment will be used to indicate differing temperaments between fishing cats, with the goal of pinpointing certain temperaments that may be more adaptive to transport or successful reproduction.

The Smithsonian's National Zoological Park and Cincinnati Zoo & Botanical Garden are heading up the study involving 13 institutions and 21 fishing cats. I want to personally extend a huge thanks to all of the participating facilities as well as Dr. Bill Swanson, Pat Callahan, and Dave Orndorff for their support, assistance, and patience as this project has developed!

- Jilian Fazio, fazioj@si.edu
Smithsonian's National Zoological Park

Fishing cat ecology

Telemetry study:

Since the project was established in the Khao Sam Roi Yod site, we have captured 7 female and 10 male fishing cats using box traps and fitted them with VHF radio collars in order to study their movements over a primarily agricultural landscape in the Khao Sam Roi Yod area, Prachuap Kiri Khan province, Thailand. We've attempted to locate all individuals two times each day. Additionally, we collected locations more frequently during a two week period to better understand 24 hour activity patterns and use of daily resting habitat.

Our eventual sample size was reduced due to the number of collared fishing cats killed or that otherwise were not able to be located at some point after collaring. We thus used

data from 1 male and 4 females for which we recorded more than 800 locations for detailed movement analysis.

Home range estimates of the cats analyzed were 7.3 km² for the male and an average of 2.8 km² for the three females. The average home range overlap of the male over female home ranges was 7.28% and 2.94% among females.

It is likely that movements encountered in this study are strongly influenced by land use patterns and the distribution of sources of freshwater and daytime resting sites. We expect that our current analysis of these patterns will inform efforts to better conserve this population.



One of the collared fishing cats

Camera trap survey results:

We set up camera traps to study fishing cat distribution, movements, behavior, and for enumeration of individuals. In a total of 541 trap nights, we have been able to identify 31 individual fishing cats, including all of the individuals that have been captured for radio collaring. Camera trapping results show that both males and females use the same areas and occasionally use the same travel routes-often during the same night. Camera trap also revealed that both male and female fishing cats scent mark, as both sexes have been found to spray camera traps that were set up.

Thailand Fishing Cat Research and Conservation Project (cont.)

Habitat Status:

We recently conducted an aerial survey of habitats by using a 2-seater paramotor which gave us a better perspective of habitat quality. The purpose was also to identify new possible day-time refuges for fishing cats and for potential survey in the future.



Aerial photo of the current study site



Building a new chicken house

Outreach activity

Poaching issues and strategies:

To reduce poaching and retribution killing of fishing cats, we work with local residents and government officers. In mid-2010, with the support of the Kuiburi district chief, we established a district level Fishing Cat Conservation Committee. The district chief has been proactive in working against poaching and has issued formal warnings (and a threat of more serious action in the future) to individuals known to have killed fishing cats.

Conflict mitigation:



Locations of chicken houses

Fishing cats sometimes take chickens from local properties. Our goal is to provide support for local residents who have had problems with, or anticipate problems with fishing cats raiding their chickens. Starting in January 2010, we respond to all requests or reports of this type of problem by conducting camera trap surveillance of the area and providing materials and labor to reinforce chicken enclosures as part of our conflict mitigation strategy. Often these incidents are the result of raids by domestic dogs or cats but many people blame fishing cats anyway. To date, 15 chicken houses in five villages—Nongjok, Don Makham, Nongbua, Khao Daeng, and Koke-luk have been built or reinforced.

Feral and Domestic animal control:

With a lot of support from the Monitoring and Surveillance Center for Zoonotic Disease in Wildlife and Exotic Animals (MoZWE) several vets have helped us neuter dogs and cats that were either feral or pets within the community. So far we have castrated 17 domestic cats and 15 domestic dogs. Two feral dogs and 2 feral cats were also neutered.



Vets at work



Cueing up

Future Plans

We are planning to expand our survey into another site--in the main wetland area of Khao Sam Roi Yod National Park and Thailand's newest Ramsar Site. We have established a positive relationship with the community in this area and village leaders are enthusiastic and supportive of playing an active role in the conservation of fishing cats. The communities in this area have a sustainable resource use mentality that has evolved from protecting their primary livelihoods—fish and shrimp farming, rice cultivation. We plan to transfer approaches and lessons learned in working at the current site to this new area. We are hopeful that as these activities expand and more people understand the rarity and ecological significance of fishing cats, we will see long-term benefits for fishing cats in the region.

For more information, go to our website: www.fishingcatproject.info—Namfon Cutter

Meet a Member: John Davis

An avid, animal care professional, John Davis has more than 20 years experience in the zoo industry, but it's clear that warm and fuzzy is his area of expertise. Davis currently serves as the Curator of Mammals at Riverbanks Zoo and Garden and has held this position since 2004. A member of the Black-footed Cat SSP Steering Committee, Davis played a large role in reestablishing the rapidly declining black-footed cat population in North America. Since 1994, Riverbanks Zoo has produced 20 offspring, without which the likelihood of achieving self-sustainability in North America would have been lost. The majority of husbandry techniques and veterinary protocols used by institutions housing black-footed cats were developed based on the work done by Davis and other members of the animal management team at Riverbanks Zoo, for which the zoo was awarded the AZA Bean Award last year.



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Submissions

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