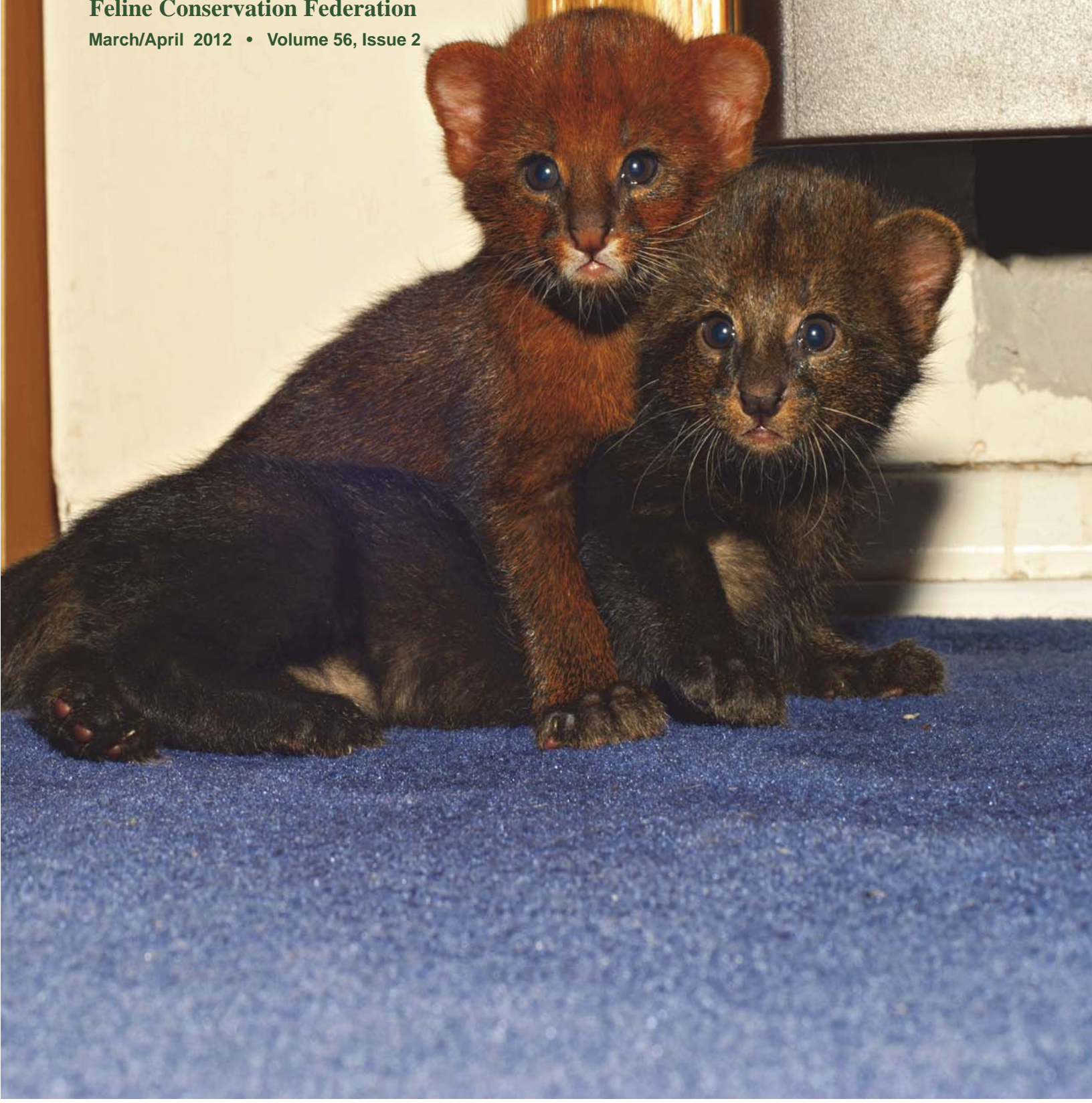




**Feline Conservation Federation**

March/April 2012 • Volume 56, Issue 2





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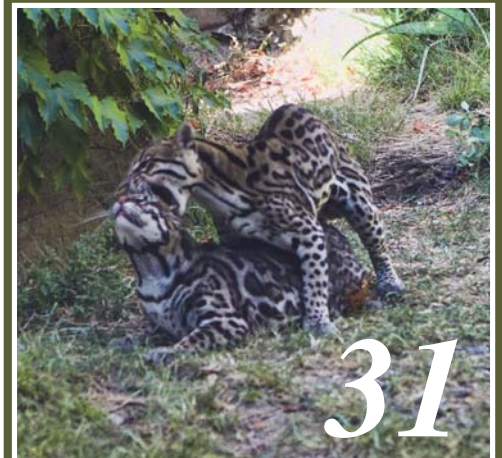
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## COVER PHOTO:

Please see details about these adorable jaguarundis on our back cover.





## TO SUBSCRIBE TO THE FCF JOURNAL AND JOIN THE FCF IN ITS CONSERVATION EFFORTS

A membership to the FCF entitles you to six issues of the *Journal*, the back-issue DVD, an invitation to FCF husbandry and wildlife education courses and annual convention, and participation in our online discussion group. The FCF works to improve captive feline husbandry and ensure that habitat is available. The FCF supports the conservation of exotic felines through captive and wild habitat protection, and it provides support for captive husbandry, breeding programs, and public education.

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The Feline Conservation Federation publishes the *Journal* bimonthly. The FCF is non-profit, (Federal ID#59-2048618) non-commercial, and international in membership, devoted to the welfare and conservation of exotic felines.

The *Journal* publishes articles on exotic feline conservation and husbandry, management, and regulatory and legislative issues affecting ownership for our members. The author's point of view does not necessarily represent the point of view of the organization. Reproduction of any material in the *Journal* may not be made without the written permission of the original copyright owners and/or copyright owner FCF.

Letters to the editor and guest editorials are also published.

Display advertisement space is available at the following prices: \$10 business card, \$25.00 quarter page, \$50.00 half page, and \$100 full-page ad.

Submission deadline for articles and advertisements is the 10th of even numbered months. Please submit all photos and articles to the Journal Managing Editor. High Resolution photos and articles may be emailed to [lynnkulver@hughes.net](mailto:lynnkulver@hughes.net), or send by postal service to 141 Polk 664, Mena, AR 71953.



Feline Conservation Federation



## LETTER FROM THE PRESIDENT

I would like to welcome aboard the latest appointments to the FCF leadership. David Lewis was appointed to fill out the remainder of the vacant secretary term on the FCF Board of Directors. David is a CPA by profession in South Carolina, and though he doesn't have any cats, he supports the FCF's mission. David has also been hired to keep the FCF financial books and record keeping. This will help us immensely since the treasurer's position has become more work than should be asked of a volunteer. His financial expertise will help us maintain proper financial accountability.

Debi Willoughby has been appointed the Director of Education. Debi is a wildlife educator based in Massachusetts and has a bobcat and Geoffroy's cat. She is very dedicated and has already developed a new and improved Wildlife Educator's Course that she will be presenting for the first time at the Convention. She and her Youth Education Committee will again be putting on a seminar for kids on Saturday morning of the convention. They have also added new pages on the Youth Section of the FCF website. Be sure to check these out. This active group is also putting out a free electronic Youth Newsletter. Be sure to sign up for it on the FCF homepage, [www.felineconservation.org](http://www.felineconservation.org). Please pass along the word about the newsletter to teachers, educators, and other interested people. We must educate the youth, since they are the conservationists of the future. Debi and her group are doing a great job with this.

Jennifer Kasserman was appointed Membership Services Director. Jennifer

lives in Missouri, and has a serval and Canada lynx. She has been doing a good job keeping up with new memberships and is even taking on a new project. Jennifer will be contacting FCF member who are open to the public or offer services or goods for sale. She is hoping to work out discounts from these members that will be given to other FCF members. A listing of those facilities offering discounts will be put on the FCF website and in the *Journal* (i.e. free advertising). If you would like to participate, please contact Jennifer at [membershipservices@felineconservation.org](mailto:membershipservices@felineconservation.org).

Ron Young has resigned from the Accreditation Committee and the Professional Member Review Committee due to relocating his farm. We are accepting applications for both positions. Email [president@felineconservation.org](mailto:president@felineconservation.org) with your qualifications and which position you are interested in. The Accreditation Committee reviews applications and approves facilities applying for FCF Accreditation. You need to have an excellent understanding of all aspects of keeping wild felines, from housing to general husbandry. This includes both big cats

done online. You must be a professional member to be on the Professional Review Committee.

The professional member application process is now up and running. We have already begun approving professional members and we hope that you will become one, too. See the article in this issue that tells the qualifications and the procedure for you to become a professional.

This is an election year. Nominations begin May 1 and end August 10. Remember that there is a new requirement this year, that a person must be a professional to be nominated for a Board position. If you are considering running for office, get started now on getting your professional status. To be nominated, a member must be nominated by any two FCF members. Nominations are to be mailed or emailed to the secretary.

I'm hoping to see you all at the Convention in Cincinnati. Robert Bean and his committee are doing a great job making sure that it is going to be both informative and fun. See you there!

Kevin Chambers

### **FCF Board of Directors Appoints David Lewis as Secretary**

The Board of Directors has appointed David Lewis as secretary, filling the vacancy created when George DeLong stepped down in December.

David Lewis has previously served as the South Carolina State Jaycees Secretary/Treasurer, the Trinity United Methodist Men's Class President/Secretary, and as a board member of Band of Brothers Prison Ministry, a non-profit 501C (3) non-profit he started. Presently David serves as secretary for six for-profit corporations. David has been a Certified Public Accountant for 30 years, and has run his own practice for 25 years.

David owns horses and dog, but has no cats. He has been contributing to national organizations for animal rights and protections.

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## FROM THE EXECUTIVE DIRECTOR

By Lynn Culver

Spring has arrived early, and we all know what that means – little animal rights ban bills being born all over the country. And that takes those of us who are involved in feline husbandry away from our primary mission of service to the animals, to instead spend precious time educating legislators and the public to undo the propaganda being spouted by the fanatics, all in an effort to crush these hideous little AR creations.

Representative “Buck” McKeon has sponsored HB 4122, an amendment to the Captive Wildlife Safety Act, which removes the exemption for USDA-licensed persons to engage in interstate transport, and adds additional prohibitions, namely breeding, owning, or possessing the big cats. This bill would only exempt AZA zoos from the breeding ban and only exempt non-profit sanctuaries from the ban on possession. Current owners would have to register their large felines with the USDA and a new set of regulations for non-commercial owners would have to be created. The FCF has issued a press release opposing this act and has been contacted by the Associated Press for an interview. The FCF has also created a CAPWIZ alert and has written the House Agriculture Subcommittee on Wildlife, Fisheries and Oceans with our objection to this legislation. We ask that all FCF members to likewise.

The long awaited Ohio bill to regulate private possession of wildlife was finally introduced this month by Senator Troy Balderson. Some of the provisions in Senate bill 310 are: prohibit new exotic animal ownership, and impose on existing owners requirements for liability insurance, micro-chipping, expensive permit fees, allow only breeding to fill AZA zoo cages, prohibit declawing, put the local humane society in charge of inspection and enforcement, and set up a standing Dangerous and Restricted Animals Advisory Board. The FCF is responding and will be issuing a press release opposing the bill as well. The FCF is working to support Polly Ward of the Ohio Association of Animal Owners in the efforts to stop this bill. The national spotlight is shining on Ohio after the Zanesville Exotic Cat Massacre last October, and the Humane Society lobbyists are doing their best to keep the heat on legislators to impose draconian regulations that will prevent a future generation from ever owning exotics and drive many of the present owners and businesses to give up their animals.

The FCF chose Ohio as the location for its 2012 Convention last summer, because we have always enjoyed the camaraderie of Cathryn Hilker and the Cincinnati Zoo’s cat ambassador trainers, plus the abundance of plant and animal life on display at the zoo. Our own board director, Pat “the Cat” Callahan, is the head cat

keeper at the zoo, known for its great diversity of feline species. The FCF will once again offer our Basic Feline Husbandry Course and an all-new Wildlife Conservation Educators Class on June 6, the Wednesday prior to Convention. These FCF courses are the first of their kind, offering real knowledge and education to those wanting to learn how to provide captive husbandry needs for cats and to use them in wildlife educational programs for the pub-

lic. Teaching and educating is the way our feline community can help improve feline welfare and public safety and appreciation for our natural environment. It is the FCF, not the animal rights fanatics, that makes a difference in the lives of captive felines. The convention follows on Thursday and runs to Saturday. A full day at the zoo is planned. Cincinnati Zoo Director Thane Maynard will join us for lunch and later that afternoon for ice cream, and to speak to us at the Cheetah Encounter area. On Saturday, we are very fortunate to have two special guest speakers. Neville Buck, from the Port Lympne Zoo in Kent, United Kingdom, is flying in to share 25 years of rare feline captive husbandry experience. Dr. Jan Janecka will be joining us as well. Jan returns from Mongolia earlier that week, but has made arrangements to be part of the FCF Convention. Jan is studying feline species DNA, and FCF members hold the largest combined collection of wild felines in the U.S. It is a match made in heaven.

The Radisson Hotel has agreed to extend the block of FCF rooms to May 26, so be sure to call and reserve your room and fill out the enclosed registration form in this *Journal*. See you there!



**Hollywood animal trainer Charlie Sammut gave FCF Registered Feline Handlers a lesson in lion training at the 2009 Convention. This year, Registered Handlers will be privy to “Ask the Experts,” presented by Cincinnati Cat ambassador trainers. Topics covered include how to rear, train, and problem solve behaviors. To take this continuing education seminar, register your handling experience before Convention.**

## DONATIONS

The FCF Board of Directors thanks the following individuals who have made donations to FCF projects since the last published *Journal*. These generous donations provide additional funding for special projects such as creating educational materials for members and legislators, helping support feline conservation, and improving captive feline welfare.

We appreciate each donation, no matter the amount, recognizing that it is the many small gifts that, when combined, add up and make a difference in the effectiveness of the FCF. We encourage everyone to follow this example and donate funds for projects that interest you.

### Rare Species Fund:

Tabas Family Foundation

### General Fund:

Carl Bolon

The FCF appreciates your generosity and continued support.



## OKLAHOMA SENATE BILL 1799

By Kurt Beckelman

December 7, 2011, Lynn Culver and I met with my state senator, Kim David, to talk about her sponsoring a Responsible Exotic Cat Ownership bill. We discussed the need for regulations in the state that permit Oklahoma residents to own exotic felines. We explained about the many bills that have already been introduced by HSUS that were essentially ban bills and the efforts we have to go to each year to have them killed (The bills, not the HSUS people, though that might work, too – just kidding, you know).

Sen. David agreed to sponsor a bill, understanding that we need some protection against animal rights groups. We gave her a packet that included an FCF Journal, the “An InCATvenient Truth” DVD, and a study done by Dr. Leslie Lisdell, which showed accidents caused by dogs, horses, and cattle in comparison to those caused by exotic cats. Fortunately we met with Senator David at that time, because legislation must be introduced even before the session begins and the deadline for introduction was just a week away.

Senator David introduced a blank bill entitled “Responsible Exotic Cat Ownership Act” and planned to add the bill language by the January deadline. This is how SB 1799, a bill requiring state permits for private owners who are not USDA-licensed, was written. Two other pieces of legislation were introduced into Oklahoma this year; one bill would have prohibited any breeding of any wild feline, and the other bill prohibited the exhibition of any endangered species. HSUS was definitely at work in Oklahoma.

On Feb. 7th, Dr. Lisdell, Leah and Bobby Afill, Melissa Meadows, and I met at the State Capitol to talk to the senators about SB 1799, urging them to vote for the bill. We met with about 17 senators in person, also giving them a packet like the one we gave Sen. David. Others who were in conference or committee meetings were left the packet with their legislative offices and we gave notice that we wished them to consider the bill and vote in favor. While we were at the Capitol, we also met with some state representatives about the two HSUS-sponsored bills. Bill Meadows had also contacted

Representative Joe Dorman, who has been helpful to the FCF in years past, as well as some other state representatives, about the HSUS bills to reinforce FCF opposition to these bills.

The legislation that Representative David has introduced, SB 1799, divides felines into three classes based upon size and temperament. The act requires prior experience, has specific minimum cage standards, plus basic husbandry and veterinary requirements. The act exempts all federally-licensed facilities, since they are already regulated and inspected by the USDA.

At one point, Senator David asked me to meet with her and the Department of Wildlife about making some changes to the bill language. Specifically, they wanted to add liability insurance requirements, micro-chipping requirements, and increase the permit fee to \$250. I stood my ground, explaining that these changes would essentially make the bill no different from all the HSUS ban bills, forcing owners to subject their animals to dangerous and invasive medical procedures, as well as pay over-priced permit fees and outrageous insurance premiums, if they can even find a carrier. I explained that insurance is not a substitution for experience and good cages, fences, and husbandry standards. And, if an accident happens, owners are still of course liable. It should be their choice whether or not they want to pay for insurance. At this point, these suggested amendments have been successfully fought off.

SB 1799 passed through the Tourism and Wildlife Committee on February 28. Two amendments have been introduced since on February 29 and March 1. These amendments remove bobcats and cougars, specify that the bill only covers exotic species, change the agency in charge to the Department of Agriculture, and leave the native species with the Wildlife Department.

On March 12, the amended SB 1799 passed the Senate floor by a vote of 39 to five. It was referred to the House on March 13, and is co-authored by Representative Phil

Richardson. Representative Richardson is chair of the Appropriations and Budget Natural Resources and Regulatory Services Committee and member of the Agriculture, Wildlife, and Environment Committee.

While I am one person who does not like regulations, I have had to concede that, by actively influencing the kinds of regulations passed in my state, I can help keep the right to own exotic cats protected by a permit system. I would much prefer that everyone just act responsibly and keep the government out of our lives. I see what is happening in other states and what has been introduced into my state several times in the past few years, and I don't want to see a repeat of this legislation here in Oklahoma. Others and I want to get something passed so that we will be able to continue to have and keep the animals we have, and to be able to get more if we so desire.

This is the first time that the FCF Model for State Regulations has been written into legislation and been sponsored and voted on. These guidelines have been on the FCF website for more than a decade and are available to any member to use as an alternative to the HSUS ban laws. As far as I know, they were introduced in New York, in an effort to undo the private ownership ban that passed the year previous, but George Stowers did not succeed in getting the legislation a hearing and, even though it was reintroduced the following year, again nothing happened. It takes more than having a representative to sponsor a bill; it takes the constituent to watch it like a hawk to make sure it is not perverted by the animal rights groups.



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## BEHAVIORAL ENRICHMENT FOR CAPTIVE WILD FELINES

By Chris Tromborg

Professor of Psychology, University of California Davis, specializing in Biological Psychology, Animal Behavior, and Behavioral Enrichment

*This article is Part One in a series of two pieces exploring the importance of and various techniques used to implement behavioral enrichment into the lives of our captive exotic felines. Please see the second part of this series in our next issue of the FCF Journal, May/June 2012.*

### *What is Environmental Enrichment?*

Environmental enrichment is an approach for improving the environments of captive animals in ways that allow them to behave more like their free-living relatives. This is an especially important concept for managing the lives of captive wild felids. Free-living felines spend the majority of their time sleeping (conserving energy) or stalking and subduing prey (attempting to obtain energy). In the confining, unresponsive environments of captivity, many of these patterns of behavior are thwarted. The goal of environmental enrichment for captive wild felids is to provide them with environments that allow them to engage in modified forms of stalking, chasing, prey handling, and food consumption behaviors, while allowing them to exercise some control over their surroundings. Behavioral enrichment provides cats with environments that respond to their behavior and, to some extent, allows them to fully realize their felinity.

Behavioral enrichment is an important tool for those living with any captive feline. For example, it can control stress

responses. Scientists have long realized that among the most powerful stressors of captive animals are environments that are unresponsive, environments over which animals have no control. When animals perceive that they have some control over their surroundings (when their behavior "means something"), symptoms of stress, including stereotypical behaviors, frequently decline. Reduced stress responses are associated with more normal behavior and improved long-term health.

Animal keepers have practiced behavioral enrichment in some form since the time of ancient Egypt, where cheetahs (coursing leopards) were maintained for chasing antelope and other prey. Ancient records suggest that these cats had to be socialized to work with their handlers and then regularly exercised to maintain their health and performance. In modern times, early approaches to enrichment in zoos were limited to those involving taming zoo animals to make them easier to handle during veterinary procedures and to become more docile subjects for public viewing.

With the emergence of modern zoos and the development of large populations of laboratory animals used in research, where thousands of animals were being housed in artificial environments, something had to be done to improve the conditions of captivity.

Modern zoos began to appear as early as the beginning of the 19th century. Most of these institutions functioned as venues for public recreation and entertainment. Typically, early

zoos collected as many different types of animals as they could procure (now termed "a stamp collection" approach). Often, only one specimen from each species was held at a particular zoo at a time, usually in small, crowded conditions. Environments were barren, stonewalled, iron-barred enclosures that featured absolutely no environmental complexity whatsoever. There was usually no opportunity for social interaction, especially for single animals. These animals often lived short, miserable lives. They frequently exhibited bizarre, often self-destructive stereotypic behaviors. Many species never bred in captivity. This was not a problem for over a century, since animals lost on exhibit could be replaced from wild populations, which were perceived to be inexhaustible.

The situation in research laboratories during the 19th century, and well into the 20th century, was no better. There was an economic imperative that as many animals be housed in as small, easily maintained, and inexpensive enclosures as possible. These small, barren, unresponsive environments had a profoundly negative impact on health and behavior. Mice, rats, cats, and monkeys housed under these conditions were often physically undersized, behaviorally unresponsive, and socially undeveloped. Behavioral stereotypes, such as pacing, weaving and bobbing, and self-mutilation were common, and many exhibited symptoms of clinical depression. Ultimately, their lack of development meant that many of the more socially complex species did not breed well in captivity. When they did, they were often inadequate parents, requiring the hand-rearing of their young. Something had to change: Environments had to be improved.

The first approaches to enrichment were simple. In zoos, animals were tamed to reduce the stress of handling. In laboratories, cage size was slightly increased. In both types of institutions, some animals were housed socially with conspecifics. Research on diets furnished many individual species with balanced, nutritious food,



**A pacing cat in a small cage typifies the substandard conditions zoo animals were subjected to in the days before enrichment was known to be so imperative for their behavioral and physical health. Photo from [www.epications.com](http://www.epications.com).**





**Laboratory cats during the 19th and 20th centuries were commonly found to exhibit poor development and signs of clinical depression. Photo from all-creatures.org.**

although no consideration was given to the manner in which animals procured their food, something that free-living animals devote much of their time to.

As laboratory animal science emerged and then progressed, it became obvious to a few animal technicians that some animals survived better, grew larger and faster, and developed more complex brains if technicians handled the infant animals on a regular basis. This suggested that what was missing in the life histories of captive animals was adequate interaction with the environment. If simple handling could impact even the structure of the brain, what else could be accomplished? Finally, what could be done for the thousands of captive felines living in zoos, who spent their captive lives sleeping and pacing their lives away in the prison-like confines of captivity? The modern concept of enrichment slowly emerged between 1973 and 1975, with the work of Dr. Hal Markowitz, who introduced behavioral enrichment through environmental engineering for animals in laboratories, zoos, and aquariums. This work was so important that it was published in the 1975 proceedings of the National Academy of Sciences.

#### *Free Living Felids*

Felines, captive or free, spend about two thirds of their time sleeping. This is done to conserve valuable energy; important considerations for cats, which have large muscles, large brains, are metabolically active, and require considerable energy. Consequently, when not sleeping, cats are searching their surroundings for

prey that will provide them with more energy. As you all know, and compared to many other species, cats are high-powered, streamlined, fuel-guzzling athletes. When they are active, they can engage in bouts of extremely complex behaviors as they interact with a constantly changing environment. Animal behaviorists and animal cognitivists now believe that the performance of behaviors associated with stalking and handling prey is necessary for physical health and important for psychological well-being in felines. One phenomenon that is not always adequately addressed is the role of stressors and stress responses in the lives of cats. The presence of short-term (acute) stressors is probably beneficial to cats since it maintains their alertness and responsiveness to potentially dangerous events. Long-term (chronic) stressors are dangerous since they promote constant anxiety, promote abnormal behavior such as the eating of newborns, and ultimately degrade the animal's immune and nervous systems.

#### *Feline Cognition*

Felines belong to the order Carnivora and have the complex nervous systems and large brains required to stalk and capture animals that do not want to be caught. The feline brain's complex outer layer, the cortex, is well developed, especially the visual cortex. In fact, no other non-primate has a more primate-like visual cortex than does the domestic cat. Consequently, domestic kittens are the most frequently used animal subjects in research on mammalian visual development. Their complex cortexes allow cats to sense their surroundings, perceive them in useful ways, learn from experience, and store information in long-term memory. In general, all cats respond well to a type of learning called "classical or Pavlovian conditioning," where a stimulus, such as the sound of a clicker, is paired with an immediate food reward. Many small and medium sized cats are also adept at solving more complex problems. Leopards are noted for their complex

cognition, apparently always attempting to figure out how to escape or how to harass their handlers. The feline memory system is extremely effective at storing information about the location, appearance, and behavior of food sources. It is also extremely durable when storing information about extremely aversive experiences. Felines do not forget: Never spank a cat. The abilities of cats to recognize, learn, and remember make them good candidates for behavioral enrichment.

#### *Learning, Habituation, and Sensitization*

Learning is a hallmark of intelligent animals. The ability to learn demonstrates behavioral flexibility. Cats, especially young cats, are good learners. They learn especially well if the learning is ecologically relevant. That is, the learning context should resemble some situation that a free-living cat would experience. Cats learn most rapidly about food and the contexts surrounding obtaining food. They are also adept at learning to avoid certain provocative, dangerous environmental features.

As stated above, they are very responsive to Pavlovian conditioning. They respond well to reinforcement, but do not respond well to punishment. Handlers of large cats almost always employ "affection training" when working with animals such as lions or tigers.

Cats, as with other animals, attend most to novel, prominent, provocative stimuli. If a cat is repeatedly exposed to a stimulus or some feature in its surroundings, it will



**Food is frequently applied as behavioral enrichment for feline species, such as this spoonful being enjoyed by Tres Ocelot, who used to belong to Shirley Wagner. Photo by Kim Pernicka.**

gradually cease to respond, a process called habituation. Habituation is one reason why some training methods and enrichment procedures lose their effectiveness over time. Conversely, if a cat is exposed to a provocative stimulus or an arousing feature of their environment, they might become overreactive to that feature, a process called sensitization. Unfortunately, sometimes cats and other animals "generalize" from a startling feature to ones that only resemble the provocative one, causing them to react negatively to many features of their environments. Many instances of "jumpy" cats are caused by sensitization and generalization, where the animal becomes overreactive to things that only resemble startling or frightening stimuli. The ability of cats to learn lends itself well to many types of environmental enrichment.

One final comment: Although somewhat controversial, many believe that training itself is a form of enrichment. A tiger jumping through a ring of fire is certainly doing something more interesting and using more muscles and brains than one lying in the corner of a cage listening to and watching life go by.

#### *Feline Sensory Systems*

In order to get a cat to behave, information must somehow enter the animal's brain through its sensory systems. Felines have a marvelous array of sensory systems. While their fur-covered skin is relatively insensitive to touch stimuli, their pads, ears, nose, and perineum (ano-genital region) are sensitive to touch. Oddly, most cats are relatively tolerant of temperature extremes. This is interesting, since most of them are biological heat sinks. Their olfactory, auditory, and visual capabilities are legendary.

Olfaction is well-developed in felines. Their sense of smell is not as acute as that of bears or dogs, but it is certainly more acute than it is in humans. Felines, like all carnivores and many other mammals, also possess a secondary olfactory system. This system features receptors in the roofs of the animals' mouths for receiving chemical signals called pheromones, especially from other cats. Their responsiveness to scents can be exploited

for enrichment procedures.

The auditory system of felines is also highly developed. In general, the hearing range of cats extends from a low approaching that of humans (near 20 Hz) to a high approaching that of canids and rodents (near 60 KHz). Larger cats hear lower frequencies slightly better than smaller cats, while smaller cats have an advantage at the high end of the spectrum. At very low frequencies, small cats are probably feeling the sound as much as hearing it. Feline ears are highly motile and can be rotated toward any direction, enabling cats to rapidly locate sound sources in space. Cats are highly attuned to the vocalizations of conspecifics, other species of cat, birds, the peeping of rodents, and the rustling of all small-like forms that might indicate a potential meal.

The acuity of feline vision forms the basis of much myth and legend. Yet the visual system of cats, especially the domestic cat, is very well understood. The domestic cat has a visual system that, in many ways, resembles that of a primate, like us. Unfortunately, this means that many cats, especially kittens, wind up in laboratories with unmentionable things being done to their eyes and brains. Nonetheless, cats have extremely effective



**This lion gets a bit of enrichment in the form of food through the chain-link fence. Photo by Kim Pernicka.**

vision. Cats have forward-facing eyes so that they can assess distance and depth. This is important for small, arboreal cats that spring from branch to branch, and for larger cats that must pounce to capture prey. Feline vision emphasizes the perception of movement over the perception of detail. Their eyes are not designed for fine, detailed analysis, and static objects are frequently overlooked. All felines have a reflective "optic tapetum" at the back of the eye, which bounces incoming light rays back through the light sensitive cells in the retina. This provides cats with the ability to see in low light situations, but it compromises feline visual acuity. Surprisingly, many cats have decent color vision, especially when compared to dogs, bears, and other carnivores. Domestic cats can perceive blues, greens, yellows, and orange. Their perception of red leaves a bit to be desired. Blood probably appears green to most cats. The nature of the cat visual system offers many possibilities for environmental enrichment procedures.

*Read more about enrichment in the May/ June FCF Journal.*



**Debi Willoughby's Geoffroy's cat, Spirit, frolics in this barrel-turned-swimming pool, complete with live fish to stimulate his predatory instincts.**





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## A DAY IN THE LIFE OF AN OCELOT

By Tyler Thomas  
Fragile Planet Wildlife Foundation

As a second-generation exotic feline owner, I started working with cats at the “beginning of my time.” Though only a mere 24 years of age now, the time has added up and I am proud of my own accomplishments. Since the very first cat I have had the pleasure of raising I have been able to tally up over ten exotic feline species under my care throughout the years; all of them quite successfully at that. However, none of those cats prepared me for my dream cat...the infamous ocelot, that one cat that makes so many mouths water.

Ocelots are the largest species of small exotic cat in the genus *Leopardus* that generally averages out to weight approximately 35 lbs. on the high end, however it's not uncommon to hear of others weighing into the 40 lb. range. They are found natively throughout all countries between southwestern U.S. (Texas, Ari-

zona) and northern Argentina, though they are most populated throughout Central America. Due to their wide home range, their habitats vary a great deal as well; anything from scrubland, wet marshy areas, savannah grasslands, and more. Ocelots are often mistaken as margays, which differ visually with their shorter and less soft coats and very specific facial markings.

Ocelots are solitary, polygamous cats and are year-round breeders. Although there is no set breeding season for the ocelot, it is most predominant through autumn and winter. Gestation is typically 79-85 days with an average litter size of one to three kittens every two years. Unlike most other exotic feline who remain with their mother for years to learn to hunt, the ocelot weans at approximately six weeks and is independent within a year's time. Females reach sexual maturity anywhere between 18-22 months, while males will reach theirs as early as 15 months. The male's maturity rate to sexual reproduction is typically related to territory acquisition.

In the wild ocelots are known to live anywhere between 7-10 years, however the oldest recorded ocelot to have lived in captivity was 21.5 years of age. The ocelot is a crepuscular animal which means that it's most active during dawn and dusk and up to 12 hours a day; sleeping the rest of the time generally in hollowed logs, on branches, or in thickets. Although classified as being terrestrial, the ocelot is very well adapted for climbing, jumping, and swimming! An ocelot's wild diet consists 50% or more of rodents with the rest being made up of more medium sized prey items, fish and crustaceans, as well as birds.

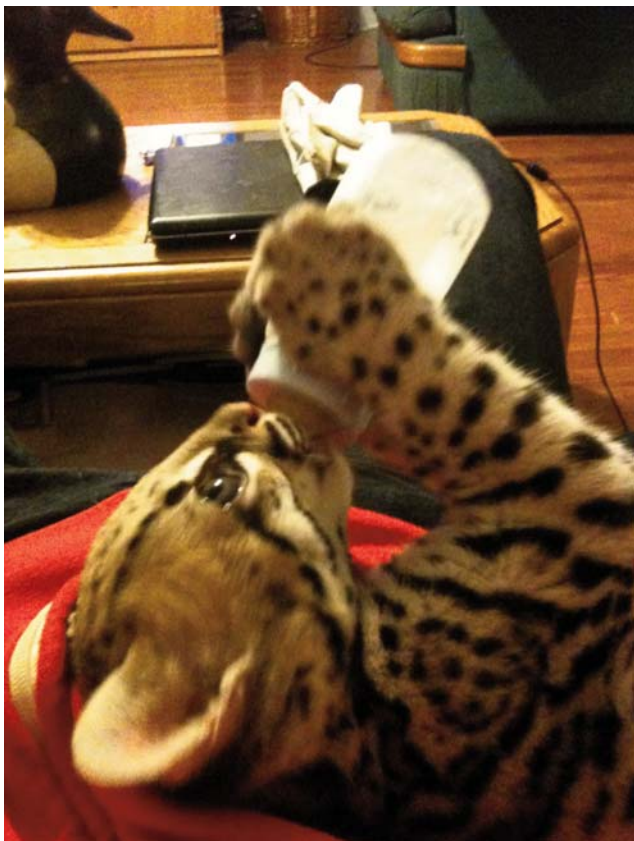
*Our Ocelot, Magic. . .*

Magic is our seven-month old male ocelot donated to our foundation for use in educational out-

reach programs. We acquired Magic at 11 weeks of age on the bottle and have enjoyed his presence ever since.

As of December 5, 2011, Magic weighed in at almost six pounds. Although slender, he was very muscular. When he came to us we made the decision to offer him a bottle for as long as he wished, which lasted until he was approximately five months old. After the 14-week mark, he was only taking a single bottle a day and was already eating solid foods by the age of eight weeks. We appreciate giving our animals the option of staying on the bottle as long as they want as it helps establish a deeper bond between the keeper and the animal. With his size it was affordable for us to keep him on an Esbilac based formula. Due to the deaths associated with KMR, we no longer use it. For proper growth and health, we use a vitamin supplement made specifically for exotic cats, Oasis. We use and recommend the product for anyone wishing to supplement their exotic cats. We will keep cats, Magic in particular, on this vitamin supplement their entire lives. Being that he is still in a growth stage, we also add approximately 300 milligrams of calcium fortified with D3 per day to all of his diets not containing bone or bone marrow. We do not add the supplement to whole prey diets, as the whole prey has the dietary needs available within, which to date consists of approximately 50% of his diet. We have contacted various zoos throughout the US, Canada, and South America, and were unable to find a recommended feed weight for ocelots of any size, but as of right now at seven months of age, we are feeding on average 650 grams of food a day. For a cat of his size, it seems like quite a large amount, but with the ocelot's high energy levels and high metabolism, it is necessary to give them as much as they want to eat at a time while they are still growing. We will discontinue this method of free choice at approximately 16 months of age, when ocelots reach their peak in growth. After this, he will be switched to a weight-specific diet to promote optimal training regimens and proper weight control.

As stated before, ocelots are high-energy animals that require a vast amount of enrichment and exercise. To keep ocelots in their prime mental state of being, I rec-



**Magic the ocelot chills out at the Thomas home with a bottle of his favorite beverage. Photo by Tyler Thomas.**





**Magic is always ready for a close-up shot while hanging out in his domain. Photo by Tyler Thomas.**

ommend a scheduled exercise routine, with time spent out of their enclosures with you personally. This will be to your true benefit, I assure you. Although naturally solitary, captive ocelots in our experience rely heavily on interaction with their care providers. This species of cat is not only extremely interactive, but very intelligent and inquisitive as well. We provide a variety of enrichment opportunities to keep them busy and mentally stimulated. Some ideas that we utilize are hiding food items in an enclosed box, laser pointers, and stuffed animals to play with. We actually have harness-trained Magic so we're able to take him on nature walks, which allows him to experience and be exposed to various scenes, smells, and visual stimulants.

Something else to consider with the ocelot is their extensively demanding and possessive attitude. When an ocelot decides that they want something or it belongs to them, it is highly advisable to be prepared for a very intense game of give and take. Just like feeding any cat that generally becomes aggressive due to the natural instinct of protecting their food from con-specifics, ocelots will carry this behavior over onto other items as well, including you. The ocelot is also notorious for suckling on your fingers, arms, clothes, etc. I would suggest not allowing this behavior, since when you are not available to be suckled on they will resort

to mutilating their own tails and other body extremities in substitution. Fortunately, we have not had this issue, as we have not allowed Magic to suckle or nurse on us. They are very persistent in their wants and will test you until the end, therefore, you should have in place a strict discipline protocol ready. Physical discipline is not helpful and can only make the issue worse, so we would suggest vinegar water spray or what worked for us, lemon juice, to deter Magic from his biting. Fragile Planet Wildlife Foundation and its Beginnings

Fragile Planet Wildlife Foundation is the name that we've given to our wildlife educators organization that Nick and I operate. It all came together in June of 2012, when he and I moved from Oklahoma to New York, taking positions at the New York State Zoo as professional zookeepers, while I am also the zoo's animal enrichment coordinator. Being that we've always had exotic animals in our lives, we decided that we were two kids on a mission to serve much more of a purpose than just providing the daily care of animals in someone else's facility; we wanted more not only for ourselves, but also to give our animals a reason for being in our care – they are ambassadors, serving to help us educate others about conservation and their importance on our "fragile planet." Our mission is to establish ourselves in our local community as an organization dedicated to wildlife education and conservation. We also hope to establish some relationships with other animal lovers and educators like ourselves, in order to develop a sound board, if you will – the ability to help others out without always expecting something in return and to take a greater stand together in order to overcome legislation and help all of us get a little further ahead in our (your) endeavors.

As most people already know, New York is one of the most difficult states in the U.S. to possess exotic animals – with emphasis being on reptiles, exotic felines, and primates. We've had to jump through some pretty big hoops here and hope that, by experiencing what we had to go

through for all our permits and licensing, we may be able to assist others as well. Fragile Planet Wildlife Foundation currently holds a NYS Threatened and Endangered Species license, NYS Wildlife Rehabilitation license, and our Class "C" USDA Exhibitors license. What has really helped us is involving ourselves in professional organizations such as the Feline Conservation Federation, Simian Society of America, and the American Association of Zookeepers. We have also taken part in training set forth by the United States Zoological Association and the Association of Zoos and Aquariums. We also submitted a resume-like letter to our state and federal governments in charge of our Animal Welfare Laws (USDA & DEC) to describe in further detail our experiences, which has honestly helped tremendously. Just like any professional organization of any sort, our government likes to see a formal education that further qualifies us to do what we do, which I have gained. I have successfully completed college courses in herpetology, ornithology, mammalogy, aquarium science, animal nutrition, and more. I do believe that experience and expertise is gained more through hands-on training versus reading books and listening to lectures. But those types of learn-



**Even the car looks like a comfortable place to take a rest for Magic! Photo by Tyler Thomas.**



Magic is "spot-on" in his role as a wildlife education ambassador for the Fragile Planet program.

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ing never hurt either. The work that we have put forth was not easy, nor did it happen very quickly, but the efforts put forth have paid off immensely. We are now working with a local master falconer to further our education and initiative in receiving our falconer's license.




I take great pleasure in

writing this article, not only about the natural history and care of an ocelot, but also the efforts we would like to make to reunite and further solidify our "wild" animal community. Just as everyone else does, we're learning something new every day and look forward to the chance to further expand our knowledge as well as do our jobs in educating others, too! We would love to hear from any and all who take interest in such as we do.



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## PROFESSIONAL MEMBERSHIP HAS ARRIVED!

By Lynn Culver,  
FCF Executive Director

What if the FCF members who are feline owners, trainers, facility owners, employees, and dedicated volunteers had a way to be acknowledged as professionals? Now they do, with the new tiered FCF membership, voted into the Constitution in 2011. As the FCF continues to weigh in on state and federal legislation, it is critical that our professionalism be readily apparent, and nothing says “dedicated, knowledgeable, and experienced” like the word professional. If this describes you, then I invite you to apply and gain recognition and standing.

The FCF has always been devoted to captive husbandry, so it is only natural that most programs and services are geared toward this. And as the FCF already has many professional benefits, the latest one to be added is the by-law passed by this board in February that only professional members may lead this organization on the board. While every member who joined at least a year prior to voting may cast a vote, only a professional member is eligible to be nominated for office May 1 through August 10.

The new category of membership for our professional members is based upon a definition voted on by the FCF Board of Directors and a policy on professional membership. The definition of Professional Member is:

*A Professional Member of the FCF is someone who is substantially involved in the captive husbandry of wild felines and who operates with high standards of animal care and facility management, and who conducts their husbandry, business, and public image in an ethical manner. Professional members will normally hold a USDA license to engage in the breeding, brokering, sales, or exhibition of wild felines, or they may be employed or hold substantial, but unpaid, positions at USDA-licensed or non-profit wild feline facilities. Professional membership may also be granted to those running non-profits, substantial financial supporters, wildlife educators, veterinarians, researchers, and conservationists.*

*Professional members must support the goals and mission of the Feline Conservation Federation, which is to protect the rights of qualified individuals to own and pursue captive husbandry of wild felines, and to preserve, protect, and propagate wild feline populations in captivity and in nature.*

This definition is a guideline for the five-person Professional Membership Review Committee to refer to and decide if an applicant meets the criteria for FCF Professional Membership.

The FCF webmaster has created a new online Professional Membership Application and it is in service. Instructions on how to apply are in my welcome letter on the members’ home page and the application is a four-step process that takes you from start to finish.

Every step to being recognized as an FCF Professional Member can be accomplished online, in the Members-Only secure website. Visit the [www.felineconservation.org](http://www.felineconservation.org) site and log into the Members-Only website. Click on the fifth Hyperlink on the left hand side called “Professional Membership.” This is a four-step process. Instructions ask if you have registered your Feline Handling Experience and invite you to update your file. Being a registered handler is a

requirement of Professional Membership. If you have never registered, you will need to take that step first and pay the \$30 processing fee and wait until your registration has been processed and the proper level has been assigned.

Since each FCF membership may be either one or two persons, and both are linked to a single email in the FCF database, you must choose either primary or partner to proceed further. If you have a website, please type in the web address in this section. You must also have your felines listed in the FCF Feline Census. If you have already done this, take the time to review the information and make any changes necessary. If you have not listed your felines, you will need to do that before you can proceed further with the Professional application. The next step is to read the FCF Code of Conduct, agree to abide by the code by checking “I Agree,” and type your name. Then, in the text box provided, describe the qualities that you possess that meet the definition of “Professional” approved by the board. Finally, you will be taken to the PayPal website, where you can either pay a \$15 non-refundable processing fee or sign in as a guest and PayPal will charge your credit card \$15 on their secure site. When you have completed PayPal, please be sure to

click on the link to return to the FCF website so that the Professional Membership Review Committee will be notified that you have completed an application for Professional Membership and they can review your request. This process can take up to two weeks, as each member of the committee is a volunteer who must work when available. If your application is approved, you will receive an email notice and follow-up letter by mail. Annual dues for Professional Members are \$25 higher than general members.

If you have any problems or questions, please do not hesitate to contact me by phone or email and I will be happy to assist you. I cannot stress enough how important the creation and recognition of Professional Members will be to the FCF organization, and to the future of private feline ownership.

### **FCF Professional Membership**

The FCF Professional Membership Review Committee has approved the following members who have applied for Professional Membership.

**Bhagavan Antle**  
**Judy Berens**  
**Kevin Chambers**  
**Bart Culver**  
**Lynn Culver**  
**Robert Johnson**

**Bill Meadows**  
**Patty Perry**  
**Teresa Shaffer**  
**Scott Shaffer**  
**Terri Werner**  
**Debi Willoughby**

Professional members are experienced people who have registered that experience with the FCF Feline Handler program. Professional members who own cats have entered their felines into the Feline Census database. FCF professional members have pledged to abide by the FCF Code of Conduct. FCF Professional members have met the definition of professional as described in the FCF Policy on Professional Members.

Professional FCF members support the cost of programs and services that benefit them by paying annual dues \$25 over general membership. Professional members are the only members who can be nominated and run for a position on the FCF Board of Directors.

## YOUR FACILITY MIGHT QUALIFY FOR AN ON-THE-JOB TRAINING FEDERAL ASSISTANCE PROGRAM

By Jim Broaddus  
Bear Creek Feline Center

As the old saying goes, "You cannot push a rope!" I am sure that many of you who run volunteer/intern programs understand what I mean. But there is hope! Here, in Florida, the State Department of Education administers an "On-the-Job Training/Vocational Rehabilitation" program. I learned about it just less than two years ago, at which time I did my due diligence for Bear Creek Feline Center (BCFC) and set out to qualify. Here's how it works: Bear Creek Feline Center is a 501(c)(3) non-profit corporation, which may have given us a slight edge at the onset. I do not think that this is a prerequisite, however. The objective is to offer a course of study to those who qualify. The qualified applicant must possess certain, well-defined, "human conditions." To wit: social anxiety disorders, mild autism, a history of depressive issues, and so on and so forth. As you read this, please do not think that we have flown over the cuckoo's nest, as 90% of the humans I know are taking some kind of medicine for some human ailment or they

have been declared to have some sort of learning disability. Most of the better interns that I have known possess one of these special qualities. I have learned that many times these individuals are actually gifted when it gets right down to animal care. We all know that with the exception of a chosen few, no one ever gets rich working with animals, so this program makes sense!

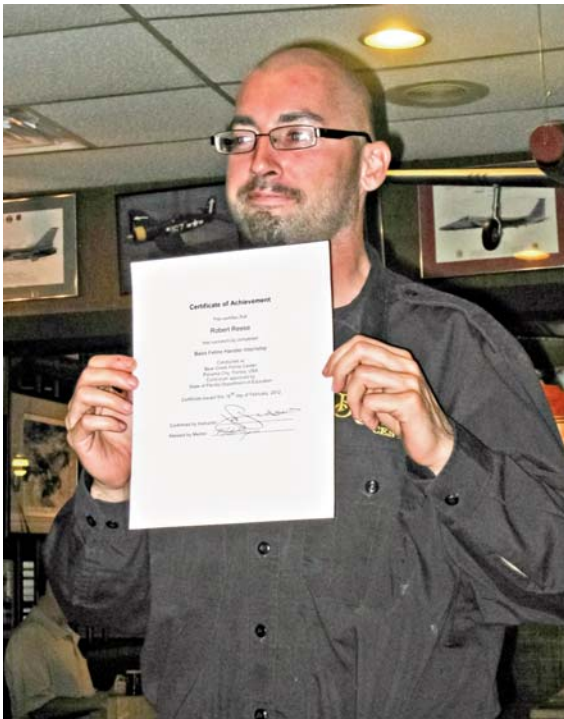
Once we submitted our curriculum, "Basic Feline Husbandry," to the State and gained approval, Bear Creek Feline Center became a State contractor, entering into an agreement to train approved interns to prepare them to find employment within the area listed as "the employment goal." The buzzwords here are "The program must be designed to lead to an employment goal." For Bear Creek interns that is animal care. This means that the system cannot help our graduates find employment in the grocery store/service industry and non-allied fields. We prepare them for animal care. The opportunities in this field may lead to future employment as vet techs and at boarding facilities, not just at zoo or sanctuary work.

The big news is that the State of Florida pays the intern salary, usually slightly less than \$10 per hour, for a full 40-hour week! The initial internship, under State of Florida guidelines, is for 90 days with an option to extend for a second 90-day period. Rounded off at \$400 +/- week gross, that is about \$10,000 over a 26-week period. No student loans here, as the program pays the student while they learn a valuable skill. I am given to believe that this program is available in many states, as the federal government funds it. I suggest you do a Google search for OJT /VR Training and then add your state to see links that will help you find the proper agency in your state that administer the program and read the guidelines for becoming a state-approved contractor. This process does not get finalized overnight, so plan ahead.

It took BCFC the better part of a year to gain approval. The

process for BCFC began with a master's thesis written by our colleague, Billie Lambert, entitled "First Start." We used her master's thesis, with a few tweaks here and there, for the program curriculum. After several submissions and resubmissions, we were issued a vendor ID number by the State. Once you are assigned a vendor number, there are two options available to get the program moving. (1) Interview and select a student that you "pre-qualify," or (2) allow the State to screen applicants to be interviewed and approved by you. Either way, the applicant will be evaluated by State counselors under a microscope, including medical files and criminal records. We have seen several instances where psychological evaluations were ordered. Our first student qualified after about 60 days, whereas the last applicant applied before Thanksgiving and is still waiting for his "in processing" approval. The program here in Florida, although administered by the State Department of Vocational Rehabilitation, is managed on a county by county basis. Although cumbersome, it is possible to have an individual's file moved from a distant county of domicile. State-to-state file transfers have been denied, however.

Okay, knowing that some things that glitter may be fool's gold, here are my suggestions: Screen applicants carefully. Hire no convicted felons and be careful with those who have pain management issues. Lortabs and cats make for a bad outcome. Hire no one with drug abuse issues. Be cautious so that your program does not become an opportunity to foster social relationships. Do not go "hog wild" and have more than two students on board at one time. Plan to run the program somewhere between cub scouts and Marine Corps boot camp. Insist on "yes, sir/no, sir" respect. We have graduated two interns from this BCFC program so far. Four students quit before completion and one wound up in jail! Obviously, this program is not intended for everyone. As Doc Antle very aptly told me years ago, "Interns can be trouble!" Expect failures. If you and your operation qualify, the rewards can be great. Bottom line: If we train one good person in our lifetime, we are preparing the "keepers for tomorrow."



**Robert, an intern at Bear Creek, receives his certificate of completion after a successful stint in Jim's program.**

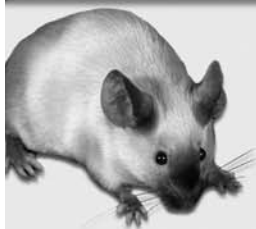


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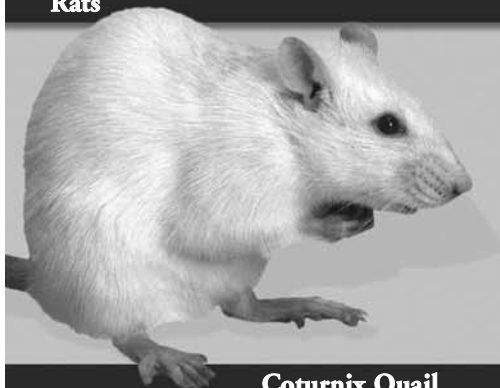
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Size	Less than 500	500	1000	2500	5000+	Length(inches)	Weight(grams)	Count
X-Small Pinkies:	\$0.16	\$0.15	\$0.14	\$0.13	\$0.12	0.50 - 1.00	1.30 - 1.80	100
Small Pinkies:	\$0.16	\$0.15	\$0.14	\$0.13	\$0.12	0.50 - 1.00	1.90 - 2.40	100
Large Pinkies:	\$0.16	\$0.15	\$0.14	\$0.13	\$0.12	0.50 - 1.00	2.50 - 3.00	100
Peach Fuzzies:	\$0.19	\$0.18	\$0.17	\$0.16	\$0.15	1.00 - 1.25	3.10 - 4.40	100
Fuzzies:	\$0.19	\$0.18	\$0.17	\$0.16	\$0.15	1.25 - 1.50	4.50 - 7.00	100
Hoppers:	\$0.30	\$0.28	\$0.26	\$0.24	\$0.22	1.50 - 2.00	8.00 - 12.00	100
Weanlings:	\$0.40	\$0.38	\$0.36	\$0.34	\$0.32	2.00 - 2.50	13.00 - 19.00	50
Large Adults:	\$0.45	\$0.43	\$0.41	\$0.39	\$0.37	2.50 - 3.00	20.00 - 29.00	50
X-Large Adults:	\$0.55	\$0.53	\$0.51	\$0.49	\$0.47	3.00 - 3.75	30.00 - 50.00	25

\* We offer combined quantity discount mouse pricing. \* Measurement does not include tail length.

## Rats



Size	Less than 500	500	1000+	Length (inches)	Weight (grams)	Count
Pinkies:	\$0.39	\$0.34	\$0.29	1.50 - 2.00	3.00 - 8.00	100
Fuzzies:	\$0.49	\$0.44	\$0.39	2.00 - 2.50	9.00 - 19.00	100
Pups:	\$0.79	\$0.74	\$0.69	2.50 - 3.50	20.00 - 29.00	25
Weaned:	\$0.89	\$0.84	\$0.79	3.50 - 4.50	30.00 - 44.00	25
Small:	\$0.99	\$0.94	\$0.89	4.50 - 6.00	45.00 - 84.00	20
Medium:	\$1.39	\$1.34	\$1.29	6.00 - 8.00	85.00 - 174.00	10
Large:	\$1.49	\$1.44	\$1.39	8.00 - 9.00	175.00 - 274.00	5
X-Large:	\$1.59	\$1.54	\$1.49	9.00 - 11.00	275.00 - 374.00	3
XX-Large:	\$1.79	\$1.74	\$1.69	11.00 - 13.00	375.00 - 474.00	2
XXX-Large:	\$1.99	\$1.94	\$1.89	11.00 - 13.00	475.00 - 600.00+	2

\* We offer combined quantity discount rat pricing. \* Measurement does not include tail length.

## Coturnix Quail



Size	Less than			Grams	Oz.	Count
	500	500	1000+			
1 Day:	\$0.39	\$0.34	\$0.29	7.50 - 10.00	.25	100
1 Week:	\$0.69	\$0.64	\$0.59	30.00 - 40.00	1.0	25
2 Week:	\$0.89	\$0.84	\$0.79	50.00 - 75.00	2.5	10
3 Week:	\$1.14	\$1.09	\$1.04	100.00 - 125.00	4.0	10
6 Week:	\$1.44	\$1.34	\$1.24	130.00 - 150.00	5.0	5
8 Week:	\$1.54	\$1.44	\$1.34	155.00 - 185.00	6.5	5
10 Week:	\$1.74	\$1.64	\$1.54	190.00 - 225.00	8.0	5

\* We offer combined quantity discount quail pricing.

## Rabbits

Size	Our Price	Weight (lbs.)	Count
X-Small:	\$5.00	0.50 - 0.99	1
Small:	\$6.00	1.00 - 1.99	1
Medium:	\$7.00	2.00 - 3.99	1
Large:	\$8.00	4.00 - 5.99	1
X-Large:	\$9.00	6.00 - 7.99	1
XX-Large:	\$10.00	8.00 - 9.99	1
XXX-Large:	\$11.00	10.00 - 11.99+	1



## Chicks

Size	Less than				Grams	Ounces	Count
	500	500	1000	5000			
Small:	\$0.25	\$0.20	\$0.15	\$0.12	30.00 - 35.00	1.0	25



## Guinea Pigs

Size	Less Than			Inches	Grams	Count
	500	500	1000+			
Medium:	\$1.39	\$1.34	\$1.29	6.00 - 8.00	85.00 - 174.00	10
Large:	\$1.49	\$1.44	\$1.39	8.00 - 9.00	175.00 - 274.00	5
X-Large:	\$1.59	\$1.54	\$1.49	9.00 - 11.00	275.00 - 374.00	3
XX-Large:	\$1.79	\$1.74	\$1.69	11.00 - 13.00	375.00 - 474.00	2
XXX-Large:	\$1.99	\$1.94	\$1.89	11.00 - 13.00	475.00 - 600.00	2
XXXX-Large:	\$2.29	\$2.24	\$2.19	13.00 - 15.00	601.00 - 900.00+	1

\* We offer combined quantity discount guinea pig pricing.



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## FELINE FILIAL LOVE

By Bart Culver

I have been a scientist and thoroughly enjoyed the thrill of discovery, yet there are some mysteries I wish science could never unravel. Like love. How wonderful will love be when it is reduced to a series of equations – when there are chemicals that can make anyone fall in or out of love with anyone at any time? We are just about there. Pandora's box is open wide. We now have no choice but to peer inside, try not to arouse the demons, and search for the seeds of wisdom. Here's one - objective confirmation of our direct experience that animals can love.

Several studies have been done where people in love were shown pictures of their beloved while their brain activity was observed by magnetic resonance imaging. These studies revealed that human love is part of a reward system originating in the sub-cortex, which is common to all mammalian brains. The formation of "attachments" occurs in the dopamine circuit of the limbic system. Stimulation of dopamine and oxytocin receptors produces mating and bonding behaviors in mammalian species from rhesus monkeys to voles. This is a mammalian survival mechanism that scientists describe as "empathic resonance" or "limbic resonance."

Basically, science has found no evidence to suggest that animals cannot love. Instead, it has shown that all mammals possess all the equipment humans use to love. From this I conclude that the most reasonable explanation for why animals behave as though they love us is that they do. Of course, this does not mean we can expect animal love and human love always to have the same behavioral manifestations. That is precluded by many obvious differences in comprehension, communication, perception, and social modalities. Compared to humans, animals have crude language and simple rules of social interaction. But they have vastly superior olfactory sensitivity to the physical and emotional status of others. When I visit my feline

friends, they feel obliged to present their posteriors to me. They are offering me a wealth of information which I am incapable of receiving. Yet they assume I now have this information. They could well be confused or offended by my failure to reciprocate. Human sensory deficiencies create so many opportunities for interspecies misunderstandings that our success at routinely avoiding them is quite remarkable. I find two possible explanations for this: operant conditioning and trust born of love. The basic principal of operant conditioning is associating desired behavior with a reward. I have experimented with operant conditioning of three bottle-raised cougars, where the only reward was praise and affection, and all three learned to jump across three pedestals through a hula-hoop in one afternoon. They initiated this training by sitting at my feet, waiting for me to teach them something, as their mother would normally do. Their survival depends on learning, which requires their brains be programmed to pay close attention to their mother and desire her approval. You could call this programming instinct, or you could be more precise and call it filial love. And although it may have begun with the awareness that their mother is the source of food and all good things, it obviously transcends food rewards. In fact, it is not necessary for infants to love their mothers to be fed. It is only necessary for the

mother to love them. That leaves us with learning as the primary reward for filial love, and love as the essential prerequisite for learning.

It is ridiculous for people to postulate that animals are playing you - pretending to love you - for food. What? They understand love, but do not love? They're all psychopaths? Nonsense. And what of the mother's love? The perpetuation of her genes is her reward for her love. But for her to be aware of that would require knowledge and a cerebral hemisphere beyond what she has. So, like all human mothers, she is aware that her children are a part of her, they are her life's work, and she loves them. As animal caregivers, we give or at least mimic maternal love and receive filial love. Have you ever noticed that for adolescents and adults, it is not the one who is feeding them now, but the one who fed them as an infant, the one who played with them, bonded with them, and taught them, whom they love the most, whose touch they crave?

I think it is important to understand that filial love is dependent and needful, with high expectations that you will provide for all needs and make every wrong thing right. If we do not take full responsibility for this love we have engendered, it could be dangerous. We must be as sensitive and attentive to our furry friends' moods as they are to ours, and we must avoid working with them if we are angry, fearful, anxious, or disoriented. They will detect such negative energy and assume that it is directed at them. People unwilling to follow this rule run the risk of the aforementioned misunderstandings. This involves the dark side of limbic resonance – the norepinephrine circuit - which produces fear and defensiveness. If this happens, especially in the absence of sufficient flight distance, you could find yourself in an altercation with a natural warrior, armed with tremendous speed, agility, and strength, plus 18 knives, and you lose.

Our detractors eagerly await such rare events so they can loudly proclaim their ridiculous self-aggrandizing propaganda. The animal has



**Puma filial love of the human surrogate parent is strengthened with play time, which also prepares the young feline for future learning lessons, and helps reinforce the emotional attachment process.**





**Since some captive felines never leave the custody of their human surrogate parent, their filial love forms a bond that can last through adulthood, as this obvious act of affection shows.**

“reverted to the wild,” thus proving that it never loved you. Should we say that humans do not love because nearly every human child bites its own mother, or because so many humans beat and kill their spouses, or because human altercations persist for decades involving whole nations of people deliberately making and using the most hideous weapons to blast each other to oblivion by the millions? No one who clings to the notion of human love after thousands of years of human atrocities should have any trouble believing that animals can love, need love, and deserve love.

I know there are animal trainers who will say that love has nothing to do with it. Probably because they have successfully trained animals they did not love, and assumed the animal did not love them. This is like people skilled in the use of computers who have no idea how computers work. Most trainers will say you need a hand-reared animal. You cannot train a mother-raised adult animal. But still, they say its all about food - you become the source of food, and you induce the animal to work for their food. But the cognitive reasoning required to comprehend, accept, and execute this “food for work program” involves cerebral activity far more complex and unlikely than the filial love I have described. And it would be amazing indeed if wild

cougar mothers had to be so clever as to devise all these training techniques

because their babies did not love them. The principal of Occam’s Razor tells us that the simplest explanation is the most probable. Which means that animal love deniers are probably wrong. If so, they are utterly incapable of knowing and providing for the psychological needs of animals. And they should not control, legislatively or otherwise, how animals are cared for. This is one reason so many independent zoos refuse to join AZA with its autocratic rules against keepers forming affectionate relationships with animals. That kind of thinking may be good for a politically correct, monopolistic trade association, but it is not good for animals. That kind of thinking is the cruel and dangerous fallacy that produced Tatiana.

*References:*

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## **Registered Exotic Feline Handler Program**

The FCF board of directors congratulates the following individuals for being accepted into the Registered Exotic Feline Handler Program since the past *Journal* issue.

**Robert Beebe - Intermediate**  
**Justin Dildy - Intermediate**  
**Patty Perry - Intermediate**  
**Derek Small - Intermediate**  
**Bhagavan Antle - Advanced**  
**Kevin Chambers - Advanced**  
**Wilbur McCulley - Advanced**

**Gretchen Mogensen - Advanced**  
**Karl Mogensen - Advanced**  
**Charlie Sammut - Advanced**  
**Heather Sammut - Advanced**  
**Susan Steffens - Advanced**  
**Brian Werner - Advanced**

The three levels of FCF Feline Handler registration are: *basic* – at least one year of experience, *intermediate* – at least five years of experience, and *advanced* – more than ten years’ experience handling exotic felines.

Be sure to update your registration in the members-only website when you obtain additional handling experience or new species experience. If you believe your experiences qualify you for an upgrade in registration status, make a request with your updates and the secretary will process the registration.

The online registration form can be filled out directly in the members-only section of the FCF website and the \$30.00 registration fee can be made through PayPal. Being a registered handler is the first step to becoming a Professional Member. The Professional Membership application process is online on the Members-Only website.

The board further challenges all FCF facilities to apply for accreditation by the FCF Accreditation Board. The overview, basic standards, and accreditation application are on the FCF members-only website.

Congratulations to all of these members for their dedication to their cats.

David Lewis, FCF Secretary

## HAND-RAISING JAGUARUNDIS (*PUMA YAGOUAROUNDI*)

By Balazs Buzas and Eszter Gulyas

Last year, we were permitted to hand-raise five jaguarundi (*Puma yagouaroun-di*) kittens originating from two litters. Even though successful hand-rearing of this species was described by CUTTER (1957) and HULLEY (1976), the observations presented by us may serve as a further point of reference for those trying to raise cubs in the future.

### **Housing of the breeding pair**

The breeding pair is housed in an indoor enclosure in the “Jungle” section of the Rare Species Conservation Centre (RSCC), Sandwich, Kent, United Kingdom. While temperatures and humidity levels are usually higher in the “Jungle” than outside, winters can still be chilly (an all-time minimum of 0 °C was recorded). Fortunately, a heater keeps the nesting area on 22 °C and a 150 W infrared bulb inserted into a fake tree provides additional warmth for the cats. A 50 x 40 x 37 cm (L x W x H) wooden nest box is placed in the heated nesting area. Fresh sawdust and bamboo leaves are used as bedding materials in the nest box.

The area is fully enclosed by wooden walls covered with sprayed concrete (“fake rock”) and stainless steel wire netting (one x one cm). A glass plate is inserted into the backside and stainless steel wire netting covers the roof. The enclosure size is 540 x 300 x 300 cm (L x W x H) and the attached nesting area measures 120 x 120 x 300 cm (L x W x H). Bark and bamboo leaves serve as a bottom substrate, and huge artificial trees and plants provide additional cover.

### **Handling and care**

Jaguarundis reproduce annually, and after a gestation period of 70–75 days the dam gives birth to one to four kittens that she nurses for at least half a year.

Hand-raising is always the last choice, but sometimes is the only way to keep the kittens alive. Our adult female produced two litters in 2011. The first litter consisted of one male and one female, the second of one male and two female kittens. We started to hand-raise both litters on the third day of their life so they could receive colostrum from their mother, which is extremely important for developing a healthy immune system. Therefore we did not administer any electrolyte solution, just started with kitten milk replacer

(Pet-Ag’s KMR® milk formula). We used a 30ml standard Catac® feeding bottle (Catac Ltd., UK), fitted with medium teat (ST2). The first milk was given almost immediately.

When we took them for hand-rearing, the mean weights of the kittens were 186 grams (males) and 190 grams (females). ANDREWS (2003) specified the average birth weight of ten kittens as 134 grams. The eyes and ears of most kittens were closed at that time, except for one female from the second litter, of which the left eye was already open.

After removing the kittens, we kept them in an incubator layered with a bath towel. A soft plush toy and a hot water bottle were provided, and the temperature in the incubator was set to 28 °C.

We maintained different feeding regimes with the two litters. The kittens of the first litter received milk every three hours, including during the night, but they did not drink as much as during the day. After this experience, we kept a six-hour night break with the second litter. The cubs of the two litters drank almost the same amount at each feeding session.

At the end of the first week, we fed them six times daily (at every four hours during the day), but reduced feeding sessions to five times daily by the end of the second week and four times daily by the end of third week. Solid food was accepted from the end of week four (at first chicken breast, later, day-old chicks, mice, and rats were offered once or twice a day). From that point, the kittens were able to drink independently from their water bowl, and received food three times a day. They refused milk after the end of the eighth week, and from then on they were given meat twice a day, and, after the tenth week, just once a day. The kittens’ anogenital region was stimulated with baby wipes or moist cotton wool before and after each feeding session to evoke urination and defecation. Normally they urinated after each feeding time, and the first litter produced feces on the first day (when we removed them), while the second litter did not produce feces until the



**The kittens accepted the tits easily and quickly.**  
Photo by Balazs Buzas.

fourth day.

We weighed the kittens every day. They gained 20 grams daily in the first week, and as much as 40–50 grams daily in the third week. The quick initial growth decreased to a daily gain of just 20 grams in the seventh week.

Apart from an occasional constipation treated with cod-liver oil, the rearing of the cubs proceeded without any serious medical problems. Fecal screening at eight weeks showed they were positive for internal parasites, and they were administered 0.5 ml Panacur® (50mg/kg fenbendazole) once daily for three consecutive days. Routine vaccinations were administered through subcutaneous injection at eight and eleven weeks using Fevaxyn® i-CHP (inactivated vaccine).

For the amounts of food consumed and the kittens’ physical development, see the chart on the following page.

It is interesting that in some zoos jaguarundis accepted fruits, but in RSCC they did not.

### **Behavioral development**

The eyes of jaguarundi kittens usually open at six to eight days; the kittens leave the den at four weeks and take solid food at four to five weeks of age. However, similarly to all other feline species we monitored, kittens suckle for up to 60 days.

Our kittens hissed aggressively on the first day upon their separation from their mother, but started to purr on the next day. Between the third and the 13th day, both of their eyes opened but never simultaneously. Usually one eye opened three to five days earlier than the other in the same



cub. Teeth eruption was noticed on day eight to ten. After two weeks, the ears folded out completely. Also, the kittens started to walk around, and the first social interactions (playful behavior) between them were noticed. Around week three, they started to clean their fur, and grooming became a routine before they reached one month of age. On the fourth week, they readily used the cat tray, sharpened their claws, and drank from their water bowl. At the age of five weeks they could run, climb, and jump—six times higher than their own height—very well. When they became six to eight weeks old they had to be transferred to the Centre and housed in an enclosure. Although we wished to minimize contacts with them, they were very friendly towards almost any human. Aggressive intraspecific behavior was observed mainly during feeding sessions from the age of three months on. In the second litter the male kitten behaved aggressively towards his sisters from the age of four weeks.

It was interesting to notice that the kittens of the first litter were completely diurnal, while those of the second litter stayed confined to one corner of the enclosure during the day until they were seven weeks old. The reason might be that we spent all our time with the first litter, but we could not do the same with the second one. Perhaps the kittens of the second litter felt that in order to remain hidden from predators they should sit quiet, because in nature the dam leaves her offspring for prolonged periods to hunt during the day. The kittens of the first litter had no worries; they felt themselves completely safe in our presence.

All kittens slept for at least eight hours at night.

The most interesting observed difference in behavior between jaguarundis and other cats for us was they love water and from the age of five weeks they played in their drinking bowl. HULLEY (1976) described one female that transferred her eight-week-old kittens to a large water bowl. We noticed the same behaviour in fishing cats (*Prionailurus viverrinus*) at a very early age (four weeks), but it is certainly not widespread in jaguarundis. The kittens defecated into their water bowl sometimes, which is common in some felines, such as the rusty-spotted cat (*Prionailurus rubiginosus*), but has never been recorded in jaguarundis. We can only guess at its purpose, for example to hide or deodorize the feces, as jaguarundis never scrape away their scat and do not perform scraping movements with their hindfeet.

Their vocal repertoire is totally different from other felines. CUTTER (1957) described three different vocalizations, but later HULLEY (1976) determined 13 different sounds, most of which we also have heard our jaguarundis utter.

**The determined voices were:**

- short whistle: attention seeking. The answer for this is a single peep.
- long whistle: greeting. Definitely a long



**Although the kittens sometimes fought and behaved aggressively with each other, they have never bitten or scratched their keeper. Photo by Balazs Buzas.**

whistle when they see the mother or each other.

- chirp (chirping noise): calling others when they can not see each other.
- short purr: calling each other. Female calling kittens.
- long purr: content. Their purr is almost the same as the purr of the domestic cat.
- one quiet hiss: greeting, from the age of four weeks.
- loud hiss: warning to others to keep away, from the age of a few days.
- spit: insistent warning to others to keep away, from the age of four weeks.
- scream/growl: during feeding and fighting.

**More voices determined mostly among adult jaguarundis were:**

- snuffle: patrolling territory boundaries.
- chatter (smacking lips together): close contact greeting.
- scream: challenge and during mating.
- muted yap: between individuals in conditions of mild stress.
- faint cry: female during periods of sexual receptivity.

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**In the picture, the different colors are seen nicely. The female is on the left side and the male is on the right. Photo by Balazs Buzas.**

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copied articles from his collection for me and reviewed the manuscript. We also would like to say thank you for Mel and Gary Reddecliffe (Ash, Kent, UK) for their continuously help.

*Balazs was born in Budapest, in the capital city of Hungary, in 1974. He began his career as a big cat keeper at the Budapest Zoo at the age of 14, then (in 1996) he joined the expeditions of the Hungarian Natural History Museum and worked for the Mammals Collection for 4 years. During the years, he also worked overseas for a reptile breeding center and studied venomous snakes in captivity. Since 2002, he has been an adventure tour leader for Baraka Travel Company and he guides Hungarian tourists around the globe. Currently, he works with cat species in the Rare Species Conservation Centre in Kent, United Kingdom. He started to research and photograph ani-*

*mals in their habitat during the first expeditions with the Natural History Museum and, thanks to the character of his jobs since then, he has now been to 85 countries on 4 continents. He may be contacted through his webpage (balazsbuzas.com) or email (bbuzas@gmail.com).*

*Eszter Gulyas was born in Szeged, in the southern countryside of Hungary. She is a biologist, has worked full time at a pharmaceutical company, and was a volunteer at the local zoo in her spare time. She had her experiences with exotic felids in the Rare Species Conservation Center in Kent, United Kingdom. Now she lives in the United Arab Emirates. Her email is eszter.gulyas@gmail.com.*

#### Food consumed and weights per week.

<u>Age in weeks</u>	<u>Food consumed (average/day)</u>	<u>Weights in the first day of the week</u>
4th day	37.2 ml milk	male: 187 g, female: 190 g
1st week	68.4 ml milk	male: 257 g, female: 246 g
2nd week	67.3 ml milk	male: 344 g, female: 359 g
3rd week	95 ml milk	male: 455 g, female: 481 g
4th week	117 ml milk	male: 630 g, female: 667 g
5th week	55 ml milk + 64 g meat	male: 741 g, female: 748 g
6th week	46 ml milk + 84 g meat	male: 960 g, female: 945 g
7th week	39 ml milk + 110 g meat	male: 1155 g, female: 1075 g
8th week	40 ml milk + 110 g meat	male: 1263 g, female: 1170 g
9th week	160 g meat	male: 1362 g, female: 1227 g
10th week	150 g meat	male: 1430 g, female: 1311 g
11th week	200 g meat	male: 1715 g, female: 1615 g
12th week	200 g meat	male: 1656 g, female: 1652 g
13th week	200 g meat	male: 1765 g, female: 1670 g
14th week	200 g meat	male: 1980 g, female: 1880 g
15th week	200 g meat	male: 2140 g, female: 2050 g
16th week	250 g meat	male: 2322 g, female: 2192 g
17th week	250 g meat	male: 2380 g, female: 2302 g
18th week	250 g meat	male: 2462 g, female: 2402 g
19th week	250 g meat	male: 2517 g, female: 2322 g
20th week	250 g meat	male: 2590 g, female: 2416 g



## Feline Conservation Federation Convention 2012 Course Offerings:

Take the highly acclaimed FCF Basic Wild/Exotic Feline Husbandry Course, offered for the 13th year. Newly updated in 2009, with more photos, expanded facility design section, and updated natural history and regulatory information. This is a must take course for any aspiring owner, and a great source of information to round out the knowledge of any experienced cat person. This all day course includes lunch. Students will receive textbooks, tests, and certificate of successful completion.



### Wildlife Conservation Educators Course



Take the all new FCF Wildlife Conservation Educators Course at the FCF's annual convention. This eight-hour course presented by Debi Willoughby, FCF Education Chair person and founder of Jungle Encounters, which provides outreach education programs to the Boston and surrounding areas, will teach students how to become a wildlife educator. If you want to start your own wildlife education business, this course will teach you tried-and-true tips on how to do so. If you currently perform shows for an animal facility, the FCF course will teach you different ways to improve your shows

and be a great asset to your employer. The morning session teaches feline species, IUCN conservation statuses, and tips on how to start your own business and market it. After a catered lunch, it's back to work learning to build a successful wildlife educator reputation, what species of animals to use, how to create popular show topics, and how to continue to grow your business and shows. You will also be able to use your newfound knowledge during a hands-on workshop during this course. Students will receive textbooks, tests, and certificate of successful completion. Also, this course has planned a very special guest appearance from the Cincinnati Zoo's wildlife outreach program, "Wildlife Comes To You." These seasoned exhibitors will not only present a few animals to students, they will also take time to speak as professionals on their preparations and considerations for creating successful outreach presentations. There is something in this course for everyone and we hope you sign up to attend!







# Rare Species Fund

The Rare Species Fund is contributing to the conservation of fishing cats and the critical habitats in which they reside through the Fishing Cat Research and Conservation Project. The goal is to secure and restore fishing cat populations and the conditions they need to thrive in the wild. The project supports basic surveys, ecological research and outreach activities at sites throughout the fishing cat range.

While the fishing cat's range spans throughout tropical Asia and India, the project focuses its attention primarily on sites in Thailand where robust populations have recently been documented. Frequent development, conversion and over-fishing of wetland habitats have resulted in a high degree of habitat loss and population fragmentation throughout the fishing cat's global range. They are often hunted, snared or poisoned as retribution for their perceived attacks on domestic fowl and the impact on local fisheries. The conversion of the land into palm oil plantations and the wetlands into shrimp farms has caused far reaching environmental damage and put even more pressure on this already endangered species.



Don't buy  
Shrimp Farmed  
in Thailand.





**RIGHT: Project leader Namfon Cutter helps educate local children about the fishing cat and the importance of biodiversity. BELOW: Namfon Cutter discusses measures of predator avoidance with a local Thai farmer in order to promote a peaceful coexistence between man and nature.**



The project is engaged in a detailed ecological study of the fishing cats in their natural habitats. A major component of the project is education and outreach. Using the activities and results of the research projects as primary content, staff use presentations, posters and other tools to raise awareness of fishing cats and other wetland dependent species and encourage more sustainable use of the wetland landscapes upon which they depend.



[www.RareSpeciesFund.org](http://www.RareSpeciesFund.org)

**RIGHT: Dhivira, one of the resident fishing cats at the Rare Species Fund, trades glances with a bowl full of fish. BELOW: Camera trap photo of a young adult male fishing cat that the researchers have nicknamed "Pepsi."**





# Feline Conservation Federation

Thursday, June 7th – Saturday, June 9th, the FCF will converge at the Radisson Hotel Cincinnati Riverfront as our base of



open for our Convention. Bad winter weather has put construction behind, but if we all pray to the goddess of cats, perhaps they will bring sunny days so the contractors can get the job done in time for us!

Cathryn Hilker, founder of the Cat Ambassador Program and the Angel Fund, will join us at the Cheetah Encounter, where we will experience

Convention 2012 is coming up fast and we have plenty to offer this year...

## WEDNESDAY

Arrive early to take either of the great FCF learning opportunities, The Wild/Exotic Feline Husbandry Course or the Wildlife Conservation Educator's Course, taught on Wednesday, June 6, beginning at 8:00 am and concluding at 5:00 pm at the Radisson Hotel Cincinnati Riverfront.

## THURSDAY

Thursday afternoon is the official start of Convention with the opening of the hospitality suite. Drop off your donated gifts for our silent auction, visit vendor displays, socialize with the other attendees and interact with exotic kittens on display. Dine on an assortment of complimentary hors d'oeuvres, and drinks at the cash bar. Bid on the silent

auction where you may win some great items and help FCF raise needed funds.

The annual Membership Meeting will follow. This is the middle of the nomination period for electing the 2013-2014 board of directors, so there should be plenty to discuss, and this is the time to do it.

Friday, our bus leaves at 9:00 for the world-renowned Cincinnati Zoo and Botanical Gardens. If you have been to Cincinnati Zoo and our conventions there in year's past, this will be a real treat. The zoo has undergone a complete renovation, and we will hardly recognize the place.

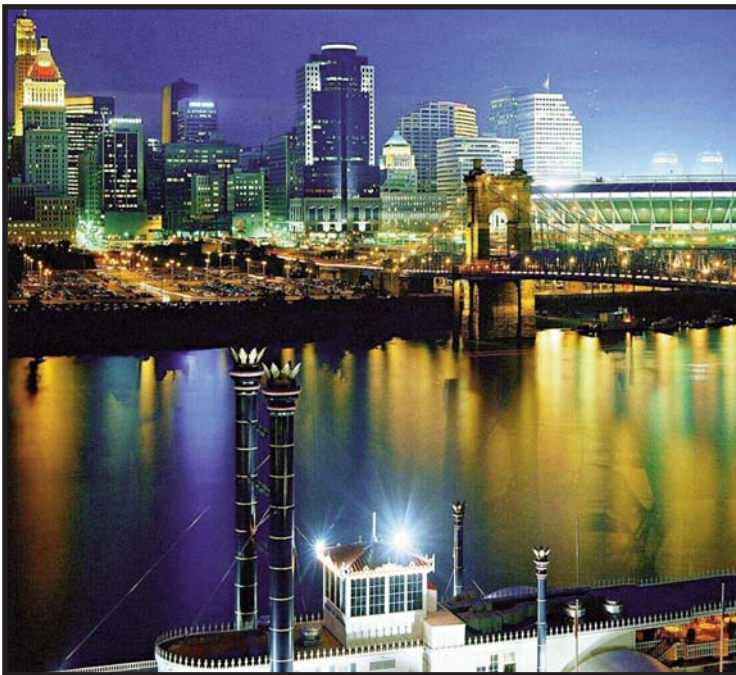
Cincinnati Zoo has plenty to keep us busy; Wings of the World shows are world famous. Gibbon Island and Monkey Island will please any primate lover. Siegfried and Roy's white lions lounge in luxury. The historic Cat House has been replaced by the brand new Night Hunters building. Beside the Night Hunters is a clearing in the woods where Tecumseh and Joseph, Cincinnati's puma pair prowl nimbly among the rocks and streams. The one thing we cannot guarantee is that Cat Canyon is



Neville Buck and rusty spotted cat friend.

the fastest land animal in the newly remodeled Cat Ambassador Arena! Trainers explain about the physical adaptations that allow cheetahs to reach top speeds of 70mph as we watch cheetahs show off their amazing agility and speed. During the show FCF attendees will also learn the challenges cheetahs face in the wild and the conservation efforts underway to save habitats around the globe. In addition to the cheetah run, also featured are other animal ambassadors, including domestic housecat, fishing cat, African serval, red river hog, Anatolian shepherd dog and African crested porcupine.

For the FCF Registered Handlers, once again you will have a unique opportunity to gain continuing education, this time by the cat ambassador trainers. During the "Ask the Experts!" presentation Cat Ambassador trainers will share their combined experiences working with ambassador cat species. Topics will include how to rear an ambassador, the "must have" behaviors for any animal ambassador and how to problem solve



Cincinnati skyline and riverboat cruise.



# eration Convention 2012

Feline Conservation Federation  
Volume 56, Issue 2 • March/April 2012

Radisson Hotel Cincinnati Riverfront, 668 West Fifth Street, Covington, Kentucky,  
operations for the Cincinnati, Ohio Convention!

inappropriate behavior. Watch a training demo and have the opportunity to ask questions and discuss training topics. If you have feline experience, and you have not registered with FCF, it is not too late to do it today. Visit the FCF website and don't miss this exclusive opportunity.

We will conclude our day at the Cincinnati zoo by returning to the Cheetah Encounter for a special encore appearance of cheetahs and an afternoon treat of a Cincinnati favorite – Grater's Ice Cream. What better way to cool off on a June afternoon and wake up the taste buds than with homemade ice cream and toppings delivered just for us? And joining us for ice cream and to give a talk will be Cincinnati Zoo Director Thane Maynard. Thane Maynard is best known for telling the story of biological diversity, natural history, and wildlife conservation as the writer and host of the daily public radio series "The 90-Second Naturalist," which airs on stations across North America. He has also been featured on Good Morning America, The Today Show, CBS This Morning, and Late Night with Conan O'Brien. Thane is an expert at edutainment with a seriously wild flare and he will be speaking to us on Friday on the Nature of Hope: Saving Endangered Species in the 21st Century.

## **SATURDAY - Speakers & the Kitten Corner**

Saturday at the Radisson Hotel Cincinnati Riverfront, from 9am to 3pm, we'll listen to a variety of speakers. And for our younger attendees, this year our Youth Education Committee has a learning event just for our junior members; we are calling it the "Kitten Corner." From 9am to noon, kids will have various fun and entertaining projects to complete, such as mask making, cat drawing, and enrichment toy building. Then they can join the adults for lunch and sit in on the afternoon speakers.

Once again, the FCF is extremely proud to have as speaker our own conservation advisor, Jim Sanderson, who will bring us up-to-date on the latest in camera-trapping and cat news from Arizona to Zimbabwe.

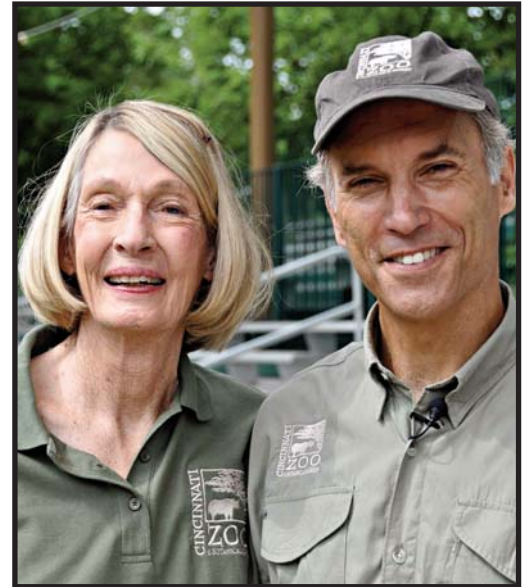
Also speaking this year is Dr. Jan Janecka, Research Assistant Professor at the Department of Veterinary Integrative Biosciences, at Texas A & M University. Jan has worked on projects integrating genetics, ecology, and conservation. Presently, one focus of Jan's is DNA studies of white tigers, as well as other feline species, and he wishes to work with FCF members on DNA samples.

Bruce Eberle, founder of Eberle Associates, will help our non-profit facility members and the FCF organization to better compete for charitable donations. Bruce will help us develop and achieve successful fundraising plans.

The FCF is also especially proud to announce our keynote speaker, Neville Buck, from across the ocean, all the way from Kent, United Kingdom, where he works at the Port Lympne Wild Animal Park. This is one of two parks established by the late John Aspinall, one of conservation's most ambitious and groundbreaking citizens. John was a hands-on man, from tigers to gorillas, and his unique approach to husbandry has shaped the legacy of Port Lympne. Neville knows cats, and has a wild range of experience with species not found in US captivity, felines like the very rare Indian Desert Cat, Rusty Spotted Cat and the Scottish Wild Cat. Neville is also the Scottish Wild Cat studbook keeper. He was recently recognized for his 25 years of dedication to the Port Lympne Wild Animal Park with a fantastic sculpture depicting a Scottish wildcat chasing a rabbit. Let's give him an especially warm welcome to the U.S., as he joins the FCF for Convention.

## **SATURDAY - Banquet Dinner on the River**

We'll finish off the Convention with a special banquet dinner held on the Belle of Cincinnati riverboat! We have the whole first floor of this majestic Victorian beauty to cruise in ultimate comfort and luxury, complete with cash bar and full course dinner. We'll cruise down the Cincinnati River in total style as the setting



**Cathryn Hilker and Thane Maynard.**

sun highlights the river and skyline. On desk we'll have plenty of room for FCF awards and our special items live auction.

## **REGISTRATION INFORMATION**

Convention Registration is \$200 adults, before May 23, and \$225 after. Children 12 – 18 is \$125, and under 12 is free. The Convention registration form is included in this issue of the *Journal*. Or register and pay online at the FCF website, [www.felineconservation.org](http://www.felineconservation.org).

Reserve a room at the Radisson at the Feline Conservation Federation price of \$99, good until May 26. Call Reservations at 1-800-395-7046.



**Cincinnati Zoo's Cheetah Encounter.**



## NEVILLE BUCK JOINS US AT THE FCF CONVENTION

By Neville Buck

I have now spent half my life living and working at Port Lympne Wild Animal Park with the cats (my home is inside the zoo). Last year was my 25th year here. When I started, I would have been happy to work with any taxa, although I was very lucky to have started with the cats and this began my obsession! I am now the section manager of small cats (with a few other small carnivores thrown into the mix; red panda, binturong, and bush dog). I am a working manager, so still have full contact with the animals. I manage the European studbook for Scottish wildcat and am the coordinator for the European and international bush dog programs. I am also on the European species committee for fishing cat, margay, and clouded leopard.

I have been very privileged to have worked with some amazing species, including rusty spotted cat, black-footed cat, leopard cat, Asian wildcat, Scottish wildcat, Pallas's cat, margay, jaguarundi, ocelot, serval, caracal, fishing cat, Asian golden cat, African golden cat, Siberian lynx, Carpathian lynx, and clouded leopard. In my early days, I also worked with Barbary lion, Siberian and Bengal tigers, cheetah, black leopard, and snow leopard, but these pale into insignificance compared to the beauty and adaptability of the small cats I share my life with. I have

shared my home with Siberian lynx, fishing cat, and bush dog, which I have had the pleasure of rearing due to them being abandoned by their mothers. My favorite has got to be the rusty spotted cat - so much attitude for such a small cat!

My work involves all aspects of felid husbandry including close assistance with veterinary care and enclosure design. John Aspinall's philosophy of bonding with the animals has resulted in my being able to successfully integrate problem animals into successful breeding situations and see very nervous animals build their confidence enough to hand-feed.

*A little history of Howletts and Port Lympne*

John Aspinall purchased Howletts in 1957, through the proceeds of gambling, and he moved his collection of animals there from his London residence. Port Lympne was acquired in 1973, again through gambling, to accommodate his expanding collection of rare and endangered animals. I believe this was due to the fact that none of the landowners wanted to sell land around Howletts. Both parks are relatively close, only 17 miles apart. Both parks are similar in that the animals were always given spacious accommodation with plenty of vegetation in which to hide. Animals were never locked in or out and have had free access to come and go as they please (much to the displeasure of visitors). Aspinall had more respect for the animals than the public, who he viewed as an inconvenience, so it was never a problem if people never saw the animals. For the more delicate species, they would often be in off show exhibits or so far in the distance the public could barely see them. Howletts is about 90 acres and on fairly flat ground compared to the 550 acres of rough, hilly terrain found at Port Lympne. Both collections house similar taxa, although many of the species differ.

Part of the success is probably due to the large number of individuals that we house of each species, making it easier to find compatible mates. But it also helps having the very close relationship with the animals we care for (although this was not



**Neville Buck has experience with a myriad of different species, including this fishing cat.**

expected, it was encouraged). Keepers will often work late to fit in with the animal's natural behaviors (with no extra pay!).

These are a few examples of numbers we house between both parks: eight Malayan tapir (two births last year), 12 rusty spotted cats, eight Pallas's cat, 11 margay, 11 fishing cats, 30 clouded leopard, 73 gorilla, and 19 black rhino (not all cats, but still very significant).

The Aspinall Foundation is also doing amazing work abroad. Projects include two gorilla rehab centers in the Congo and Gabon, work with lemurs in Madagascar, and rehab for gibbons and langurs in Java.



**Neville proves that baby jaguarundis are not only a handful, they're also an armful!**



**Neville says he's privileged to have worked with many small cats, like this caracal family.**



## SUCCESSFUL HAND-REARING OF BLACK-FOOTED CATS (*FELIS NIGRIPES*)

By Balazs Buzas (balazsbuzas.com,  
email: bbuzas@gmail.com)

Although black-footed cats (*Felis nigripes*) are bred with some frequency in zoos, as of August 2011, the known world population of captives consisted of 22.24.5 animals distributed in 18 European and U.S. collections. According to STADLER (2010), the declining European Endangered Species Program (EEP) population may soon become extinct. In Europe, the Rare Species Conservation Centre (RSCC, Kent, United Kingdom) was the only institution which managed to breed this species in 2010, but there were several births in the USA and South Africa (A. SLIWA pers. comm., 2011). The kittens were hand-raised to adulthood.

Successful hand-rearing was described by ARMSTRONG (1975, 1977) and OLBRICHT and SLIWA (1995). All three reports gave an insight into the early development of this species. The breeding pair at RSCC is genetically important to the European Endangered Species Programme (EEP) and their kittens may with time contribute to future breeding programs.

### **Housing of the breeding pair**

Although most institutions opt for housing the species in a heated indoor area year-round, SLIWA (2003) recommends a combined indoor and outdoor enclosure for its maintenance. At RSCC, the breeding pair of black-footed cats is maintained in an outdoor enclosure in the quietest area of the centre. The temperatures in the southeastern United Kingdom are comparable to those where the species originates.

However, humidity levels are markedly different. *Felis nigripes* naturally occurs in low-rainfall areas of the southern African sub region, where precipitation ranges from just 200 to 800 mm per year, with most of it falling between September and March. Winters in the region can be cool, with temperatures dropping down to  $-20^{\circ}\text{C}$ , but are mostly dry. In Frankfurt and Wuppertal Zoos, black-footed cats are kept at  $18\text{--}26^{\circ}\text{C}$ , while the Belfast Zoo initially maintained them at  $29^{\circ}\text{C}$  and 19% relative humidity (SLIWA, 2003). In Belfast, the temperature was later dropped to  $18\text{--}20^{\circ}\text{C}$ , because  $29^{\circ}\text{C}$  proved to be

too high (A. GALWAY, pers. comm. 2011). In the southeast of the United Kingdom, local temperatures range from a mean daily minimum of  $0^{\circ}\text{C}$  in winter (December–February) to a mean daily maximum of  $22^{\circ}\text{C}$  in summer (July–August). Although black-footed cats in the wild have been observed sitting in the rain, captive animals reportedly have a low tolerance of humid and cool weather, and are prone to rhinitis (OLBRICHT and SLIWA, 1996). For this reason 75 Watt heating bulbs were inserted into the animals' wooden nest boxes. The sizes are  $84 \times 42 \times 44$  cm each (L x W x H) and the nest boxes are raised 70 cm off the ground. The nest box entrance measures  $20 \times 15$  cm (W x H) and can be closed with a horizontally sliding door. While this species naturally occupies grasslands and bush lands, the cats at RSCC prefer to use the elevated nest box over the hollow log placed on the ground. Straw was used as bedding material in both nest boxes.

The enclosure is fully enclosed by wooden walls with a large window in front and a meshed service door on the side. The roof is covered with stainless steel wire netting (one x one cm). The enclosure size is  $500 \times 185 \times 250$  cm (L x W x H). Bark is used as a bottom substrate, and a large hollow log (cc.  $150 \times 50 \times 50$  cm) and plants provide additional cover.

### **Breeding**

The sire (studbook No. 612.) was two years old when he arrived on August 8th, 2008, from a private South African breeder. This animal was a very important addition to the European breeding program, as this bloodline was not yet represented.

The dam (studbook No. 656.) arrived from Belfast Zoo one year later aged six months. The pair was introduced within a short period of time, with no signs of aggression observed. The first mating attempt was probably on March 21st,



**You can already see at one week of age that the black-footed cat is one of the smallest cat species.**  
Photo by Balazs Buzas.

2010. Copulation was not witnessed as the pair spent most of the day together in one of the nest boxes, although during late afternoon the cats were heard to vocalize.

Estrus lasts only for 36 hours in this species (LEYHAUSEN and TONKIN, 1966), with a gestation of 63–68 days. It was planned to separate the pair two weeks prior to the estimated parturition date, but as there was no notable sign of pregnancy or change in behavior (e.g., “burrowing” behavior observed in Wuppertal Zoo, Germany, SCHÜRER, 1988), it was decided to keep the pair together.

In captivity a litter of one to four kittens (on average two) can be produced at any time of the year, compared to births in the wild, which coincide with warmer summer months (SLIWA, 2003). In the wild, kittens are usually born in dead and hollowed out termite mounds or deserted springhare (*Pedetes capensis*) burrows.

During routine cleaning on the morning of July 8th, 2010, two kittens were found in the nest box. It is known with most species of wild cat, that the male does not participate in raising young, and will often cannibalize kittens if the opportunity presents itself. In order to minimize the risk of losing the kittens, a decision to remove them for hand-raising was made.

### **Handling and care**

The kittens were removed for hand-rearing on July 8th at 15:40. The male weighed 126 grams and the female 122

grams. Both had their eyes and ears closed. Given that the average birth weight is much lower in this species (79 grams), the cubs were thought to be a few days old, and the date of birth was thus recorded as July 5th, 2010. The kittens were maintained in an incubator lined with a cotton towel. A soft plush toy and a hot water bottle were provided for extra comfort, and the temperature in the incubator was set to 28 °C. The kittens appeared content with full stomachs, suggesting they had suckled the female, gaining essential protection through colostrums.



**The incubator was too small for them after three-four weeks. Photo by Balazs Buzas.**

Therefore an electrolyte solution was not administered and they were started immediately with a kitten milk replacer (Pet-Ag's KMR® milk formula). Milk was offered from 16:00, using a 30ml standard Catac® feeding bottle (Catac Ltd., UK), fitted with the smallest teat (ST1). For the first week, the feeding intervals were three to four hours resulting in seven feeding

times per day. Because the kittens did not consume much during the night, ARM-STRONG's (1975) suggestions were followed and the kittens were allowed to sleep for five to six hours.

A nursing female requires a high food intake, so in the wild she hunts for several hours on the day of birthing. After four days, she will hunt throughout the night, only returning at dawn to suckle the young. The female will warm and nurse her babies during daylight hours (OLBRICHT and SLIWA, 1995).

Between the second and fifth week the feeding intervals were reduced to every four hours resulting in five feedings per 24 hours.

The kittens' anogenital region was stimulated with baby wipes or moist cotton wool before and after each feeding session to stimulate urination and defecation. Urine was produced after each feed, although feces was not produced until day five following separation.

Food consumption and weight gain are indicated in the chart on the following page.

Solid food was eagerly

consumed from the fifth week, which consisted of raw chicken breast. Mice were introduced to their diet later. By the end of the eighth week, they were fully weaned and refused to consume milk.

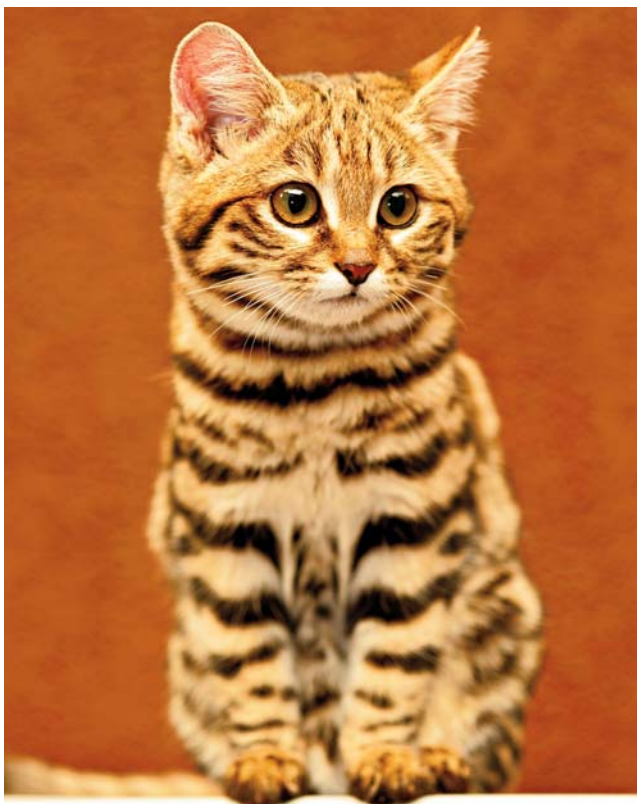
Other than the occasional constipation, which was treated with cod-liver oil, the kittens were raised without any serious health concerns. Mild conjunctivitis was observed in the female kitten when she was two weeks old, which started with glistening in the right eye and soon progressed to being almost completely closed the next morning. Treatment was Tiacil® (gentamycin)

drops, which were administered one drop twice daily, for seven days. Fecal screening at eight weeks showed they were positive for internal parasites, and they were administered 0.5 ml Panacur® (50mg/kg fenbendazole) once daily for three consecutive days. Routine vaccinations were administered through subcutaneous injection at six and ten weeks using Fevaxyn® i-CHP (inactivated vaccine). Due to the species being susceptible to Amyloidosis (TERIO et al., 2008), which can result in early renal failure, they were administered 37.5mg Rubenal® twice daily. Rubenal® is a complementary feeding supplement produced by Vêtoquinol to support renal function in felids and canids (BUCK and HOPPER, personal communication 2010).

#### **Behavioral development**

Black-footed cat kittens develop much faster than other small felids: their eyes opening at six to eight days. They leave the nest at four weeks, consume solid food at four to five weeks and kill live prey at six weeks. According to SLIWA (2003), kittens are suckled for up to 60 days by their mother.

The kittens at RSCC hissed aggressively on the first day of separation from their mother, although by the next day they were relaxed and were heard to purr. On the third day both kittens opened their eyes and after two weeks their ears were folded out completely. The kittens started to walk around, and showed first signs of social interactions (playful sibling behavior) at the age of sixteen days. From the third week they started to clean their fur.



**Even at semi-adult age, our black-footed cats remained very friendly. In this picture is the four month old female. Photo by Balazs Buzas.**



Grooming became routine before they reached one month of age. A litter tray was readily used when they were four weeks old, and at six weeks they were sharpening their claws and drinking from a water bowl.

Up to two months of age, they were reared in a home environment before being transferred to their permanent enclosure at RSCC. During the rearing process, contact with their human surrogates was kept to a minimum to reduce imprinting and allow natural behaviors to develop. Despite this, both kittens remained very friendly and are now maintained under the European breeding program. The male is at Port Lympne Wild Animal Park, Hythe, Kent, United Kingdom, and the female at Wuppertal Zoo, Germany. Both have been successfully paired with maternally raised cats and will hopefully play an important role in the future of the species.

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**The gaze of the sire from South Africa shows the natural behavior better than the friendly kittens. Photo by Balazs Buzas.**

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**Acknowledgements**

Todd Dalton (Rare Species Conservation Trust, Sandwich, Kent, UK) is acknowledged for offering me the opportunity to hand-rear the kittens. I am most grateful to Dr. Alexander Sliwa (Cologne Zoo, Germany) for commenting on an earlier draft of the manuscript and providing key literature. Neville Buck and Jane Hopper (Port Lympne Wild Animal Park, Hythe, Kent, UK) shared their extensive knowledge of cat husbandry and veterinary procedures. Allan Galway (Belfast Zoo, Northern Ireland) supplied information about black-footed cat breeding, while Christopher Brack (Wuppertal Zoo, Germany) copied articles from his collection for me and reviewed the manuscript. Last but not least I thank my lovely wife, Eszter Gulyas (Rare Species Conservation Centre, Sandwich, Kent, UK), for her continuous support.

**Food consumed and weights per week.**

<u>Age in weeks</u>	<u>Food consumed (average/day)</u>	<u>Weights in the first day of the week</u>
1st week	35 ml milk	male: 126 g, female: 122 g
2nd week	40-50 ml milk	male: 188 g, female: 180 g
3rd week	50-55 ml milk	male: 278 g, female: 272 g
4th week	50-70 ml milk	male: 347 g, female: 325 g
5th week	45-55 ml milk + 20 g meat	male: 445 g, female: 425 g
6th week	50 ml milk + 60 g meat	male: 555 g, female: 534 g
7th week	40 ml milk + 75 g meat	male: 600 g, female: 585 g
8th week	40 ml milk + 80-100 g meat	male: 700 g, female: 700 g
9th week	30 ml milk + 100 g meat	male: 859 g, female: 730 g
10th week	100-150 g meat	male: 836 g, female: 711 g
11th week	100-150 g meat	male: 900 g, female: 820 g
15th week	100-150 g meat	male: 1250 g, female: 1080 g

## IDENTIFYING GENES CONTRIBUTING TO THE WHITE COAT COLOR IN TIGERS AND ASSOCIATED PHENOTYPIC DISORDERS

By Jan, E. Janecka & Emilee Larkin,  
Biomedical Sciences Program, Department of Veterinary Integrative Biosciences, Texas A&M University

### Introduction:

Tigers have always prompted a primal mix of awe, fear, and respect like no other animal. They have become an important cultural symbol in many societies, and for many of us have deeply motivated our love for wildlife and passion for conservation. They are indeed one of the most impressive, and important, representatives of the natural world.

Among tigers, individuals with the white coat color have become very popular and are frequently exhibited in zoos, wildlife rescue centers, private collections, and public outreach and entertainment programs. Unfortunately, there are several physical disorders that at times occur in white tigers, including crossed eyes, cleft palates, and spinal or facial abnormalities. To date, research exploring the molecular mechanism behind the white coat color and these associated disorders is limited, yet such efforts could provide information to improve the health and vigor of the captive tiger population.

Previous observations have suggested that the white coat color pattern in tigers is inherited recessively and determined by a single gene. However, the gene or genes involved are yet to be identified. Since the tiger's genome is around 3 billion base pairs, and is composed of 10's of thousands functional genes, structural elements, and even DNA we don't know the purpose of, it can be difficult to find the specific genes that contribute to this phenotype. Fortunately, over the last decade there have been advances in genomics and technological breakthroughs that have enabling coat-color research in other mammals such as mice, rabbits, and domestic cats that we can apply to tigers. The findings

from these studies can guide us to candidate genes that may be responsible for the white color in tigers and its associated disorders.

### Rationale & Significance:

There are several reasons why research on the white coat color and its associated physical disorders in tigers is important. First, it will increase understanding of molecular mechanisms that lead to the development of color phenotypes. Second, it will provide insight into important aspects of felid evolution, specifically, how coat color pathways have enabled adaptation to different environments. Third, it will allow us to understand the history of the white coat and if it can be considered a part of the tiger's natural variation. Fourth, it will clarify the exact connection between the white color and physical disorders; whether they are directly connected through a molecular pathway or just associated by inbreeding. *One of the project outputs directly relevant to the tiger community is knowledge on genetic diversity that will enable us to make breeding recommendations to improve the health and vigor of the captive tiger population.*

### Candidate genes for the white phenotype:

Skin and hair color is the result of

melanin pigments, which are divided into two major types expressed in epidermal tissue: Pheomelanin, which produces red and yellow colors, and eumelanin, which produces black and brown colors (Hill et al. 1997, Lin & Fisher 2007). When either of these is not expressed, the individual no longer retains those colors.

In the domestic cat, mutations that interrupt the pheomelanin pathway create the silver coat pattern, which is similar to white in tigers (Robinson 1969, 1990). A region of the genome designated as the "SILVER" locus on chromosome D2 has been closely linked to this phenotype (Menotti-Raymond et al. 2009). Within this area, there is a gene called solute carrier family 18 (SLC18A2 for short) that affects the pigment pathway (Peter et al. 1995). It is possible that this gene also plays a role in the tiger's white color; therefore, this is first the candidate we are exploring.

One of the other promising candidate genes is the melanocortin 1 receptor (MC1R for short). Mutations in MC1R have been observed in "chinchilla" colored rabbits, the coat of which is similar to white in tigers (Fontanesi et al. 2006). Black color has been found to be linked to this gene in both mammals and birds.

Further, in jaguars there are mutations in the MC1R gene believed to cause the melanistic coat, which in a way is the direct opposite of the white tiger color. In the Norwegian Forest Cat, this gene also contributes to amber (Peterschmitt et al., 2009). The MC1R gene plays a role in diverse coat colors, therefore based on this evidence we have selected this gene as the second white color candidate for in tigers.

### Study Objectives:

The purpose of this study is to identify mutations that are responsible for the white coat color in tigers and associated phe-



**The Nehru Zoological Park, also known as the Hyderabad Zoo, is one of the largest zoos in India. Here a typical orange colored Bengal tiger roams its open-air habitat.**





**The white Bengal tiger is a rare color morph of the tiger subspecies that is native to India. Because only a couple white tigers were ever brought out of nature into captivity, the pedigrees of all white tigers trace back to a bottleneck in genetic diversity. DNA research of the captive population could identify inheritable defects, and help facility managers make informed breeding decisions that improves the quality of the white tiger genetic bank.**

notypic disorders. We are currently sequencing SLC18A2 and MC1R in both orange and white tigers and will compare differences between these groups to identify mutations that may be contributing to the white color. We will also correlate the observed mutations with associated physical deformities to determine if these are directly linked to the white color or are associated as a result of inbreeding. Our ability to detect significant pattern is directly related to the number of samples we analyze. It is very important we include samples from diverse tigers throughout the US population. If you are interested in contributing to this study over the next year, please contact J. Janecka.

#### *Methodology:*

This study is not possible without the generous participation of the tiger community in the United States. Currently we have samples from 15 orange tigers and 7 white tigers generously provided by rescue facilities, and private owners, and zoos. However, to answer these important research questions we need more samples. Once we obtain samples from tigers we extract DNA from blood, hair, whiskers, or buccal swabs and use the polymerase chain reaction to amplify exons, 5' UTRs, and 3' UTRs of the SCL18A2 and MC1R genes. The PCR amplicons are Sanger

sequenced at the Molecular Cytogenetics and Genomics Laboratory, Texas A&M University, and the genetic variation statistically compared between orange and white tigers and those with associated with phenotypic disorders.

#### *Summary and Goals:*

The long-term goal of this study is to understand the molecular mechanism that leads to the white coat color in tigers and associated morphological disorders. Identifying the genes responsible for coat color variation in tigers will have applications for the biology of tigers and other felids, and could be used to make breeding recommendations. This work will also potentially increase our understanding of physical disorders such as cross eyes and facial deformities. Ultimately we would like to provide genetic information for improving the health and viability of tiger. Both private owners and AZA facilities that house tigers are the key to studies like this that examine the biology and health of endangered species. It is critical that we maintain healthy captive populations to ensure the future of these remarkable animals.

#### **NEED FOR SAMPLES:**

We request biological samples (blood, buccal swabs, hair, or whiskers) from tigers of all phenotypes, particularly indi-

viduals of known pedigree.

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*Dr. Jan Janecka works with the Snow Leopard Conservancy to help estimate distribution and abundance. He has also studied the social structure and dispersal of bobcats at the Welder Refuge in Mississippi, and the effects of habitat fragmentation on genetic diversity of ocelots in Texas. Janecka's post-doctoral position with Dr. William Murphy (Texas A&M University) focuses on phylogenetics and diversification of mammals.*

*Dr. Janecka has graciously accepted an invitation to join us and speak at the Convention in Cincinnati. Research into the DNA of feline species can greatly aid in the management of captive populations to determine sub-species mixtures or purity, as well as relatedness between individuals and the population at large. Research into these areas is critical to the FCF goal of developing Feline Species Registries.*

## BLAST FROM THE PAST: DOMESTIC BREEDING AT THE HATFIELD COMPOUND

Long Island Ocelot Club Newsletter  
 Volume 17, Number 4  
 July/August 1973

By Jean Hatfield

We would like to preface this resume of breeding information and miscellaneous comments by telling you a little bit of who we are; otherwise, you might wonder why we feel we are qualified to write such an article! Jean has been the Florida Chapter Secretary since its inception eight and a half years ago. You "older" members remember the meeting reports supervised by old Hillbilly Hatfield, otherwise known as margay Mittens. (He is still fine and still running things; in fact, he ran two of the ocelots out of our bedroom the other

day!) Two years ago, when Dave Salisbury resigned, Ken was elected President of the Chapter. We are also extremely proud to say that we are the latest recipients of the LIOC award, but that is another story!

Five years ago, we decided we would like to move to the country and try to breed ocelots, which, if you remember, was said could not be done in captivity. We thought we would have maybe three or four females and a male or two. Right? We now have 43 cats – 18



Ocelot kittens, Fall 1971.

ocelots, ten margays, one bobcat, seven cougars, three leopards, three jaguars, and two oncilla - and we would like to have a few more ocelots. Well, as you can see, things sort of got out of hand, but we do have some experience. The facts in the chart, of course, speak for themselves, but the opinions and conclusions we have drawn from our own experiences. There are other ocelot breeding compounds here in Florida as well, Charles and Sadie Douglas, whom many of you know, for example. They have as many cats as we do and I am sure they could also fill a book with their experiences and knowledge.

There is much more that could be written, such as ideas and suggestions for bottle-raising a kitten when necessary, for example. (I do not believe I will ever forget the first time it happened to us; it is worse than bringing home your first baby.) But to quote an old saying, "first things first."

*Chart Remarks:*

A. First kitten born at our farm. Unfortunately, the mother's "immunity factor" was not considered when given her panleukopenia (distemper) shots. Contracted disease, died at 3 months.

B. Three to five day estrus periods not unusual for Heidi (and Donna).

C. Kittens dead before went into labor; lost mother to peritonitis.

D. Gave one medium strength hormone shot as would not come into good estrus or stay in long enough for male to mate with her.

E. Gave hormones because she

Species	Date In	Date Out	Total Days In	Birth Date	# Days Gestation	Mother	Remarks Key	Kitten Sex	
OCELOTS: Year 1970	2/16/70	3/11	23	5/27/70	78	Heidi	A	F	
	6/24	6/27	3	9/15	81	Heidi	B	MM	
	9/20	9/30	10	12/19	80	Donna		M	
	Year 1971	11/15	11/18	3	2/5/71	80	Heidi		M
		12/3	12/10	7	2/27	79	Puggy	C	MM
		2/4	2/13	9	5/1	78	Heidi		M
		5/18	4/23	5	7/11	80	Maya		M
		6/9	6/13	4	9/1	81	Donna		M
		7/1	7/6	5	9/22	79	Heidi		F
		7/17	7/23	6	10/9	79	Maya		F
		--	7/25	-	10/12	80	Twiggy	H	MM
	Year 1972	11/20	11/24	4	2/11/72	80	Maya		M
		12/6	12/8	2	2/24/	80	Donna		M
--		3/22	-	6/10	81	Twiggy		M	
5/1		5/5	4	7/21	78	Donna		F	
5/5		5/13	8	8/1	81	Heidi			
6/18		6/24	6	9/11	80	Maya		FF	
7/2		7/11	9	9/24	77	Sherry	D	M	
6/26		7/11	15	9/27	79	Tai	E	MF	
10/6	10/11	5	12/30	81	Sheena	F	-		
Year 1973	--	--	-	1/10/73	--	Donna	G	M	
	12/15	12/20	5	3/10	80	Maya		FF	
	12/20	12/23	3	3/13	81	Heidi		FF	
MARGAYS:	7/6/71	7/13	5	10/5/71	84	Sheila	I	M	
	9/26/72	10/1	5	12/22/72	84	Sheila		F	
COUGARS: Year 1971	5/2/71	6/15	27	9/10/71		Stasha	J	MFFF	



was coming into estrus, staying in a month or more, mating but not conceiving. Has stayed in estrus for as long as 78 days.

F. Gave one large dose of hormone on 10/6, as over three years old, does not come into estrus strong enough or long enough for male to mate with her.

G. Did not know she was in season. Had been in just three weeks before.

H. Apparently has ovarian cysts as stays in estrus unless pregnant, does not conceive unless given a series of hormone shots, and usually takes three series before conceiving.

I. Caesarian delivery both times, as kittens were too large and lazy for normal births.

J. Males visited for five days, mated for 24 hours only. Gestation was 88 days from Out, but 93 days from time of mating.

Comments and conclusions below are drawn from the proceeding chart and from our observations and experiences during the past three and a half years, lessons sometimes learned the hard way!

We feel the chart is a good basis for establishing a gestation period for ocelots of 80 days (+/- 3 days), as it covers 23 deliveries and 8 females. We use the "out" date as day #1, rather than the "in" date, as periods of estrus vary so much. Also, we think ovulation and conceiving changes the hormone balance which puts the female out of estrus very quickly and apparently acts on all females in approximately the same length of time, which



**Liki Ocelot in the Hatfield home watching TV., circa 1972.**

gives us an "out" date and gestation time that can be somewhat depended upon. (There is always the exception to the rule; we know of a female that consistently goes 95 days.) The multiple births apparently take the same gestation time.

We have had great success with gonadotropin hormone injections for various female problems. We have used it in varying quantities and frequencies depending on the particular problem involved. We used Bill Engler's article in the Newsletter for the basis of our research and usage.

We do not recommend the male be kept near the mother, much less allowed in the room or cage with her. We know from experience that a male will kill a young kitten, even if he is the family house pet and does not have the reputation of a "biter." We suggest a three-week separation before delivery, which allows the female to adjust. Another odd thing we have noticed is that the male will react to the female as if she were coming into estrus when she is very close to delivery. He will talk to her, nibble on her neck, and go through all of his courting rituals, possibly causing a person to think she is coming into season. We found this out from leaving pairs together when we did not know the female was pregnant. We have been extremely fortunate in that we either realized it somehow just before the female delivered or the female was able to protect the kitten until we found them.

The ocelot mother does not usually carry the young by the scruff of the neck the way a domestic cat does. She picks the kitten up by putting its whole neck in her mouth; one set of top and bottom fangs usually are behind its front legs and the other top and bottom fangs are in front of the legs. And there is this tiny creature, dangling out of her mouth with its head sticking out of one side and its body hanging out the other, completely limp and not moving. It is a sight that can lead to pure panic on the part of the human observer! This is one of the strongest reasons we have for recommending that females not be defanged. They do not always carry their kittens around, of course, but who knows which one will and which will not. We have had one of our best mothers (Heidi) fatally injure two kittens from two separate births just by carrying them



**Heidi Ocelot with kittens Dandy and Pee Wee, circa 1973.**

around. As she has no fangs, she grips the neck area just as though she did, and we suppose she must have applied too much pressure to keep the kitten from slipping out of her mouth.

Ordinarily, our mothers nurse their kittens. We believe this will result in healthier babies without any strain on the mother. She, of course, must be exceptionally well-fed; egg yolks, KMR formula or milk, beef, and any other tidbits she will eat along with her chicken necks, if that is her basic diet. Nursing the baby will also space out her pregnancies.

The kitten should not be left with a mother for more than 5 1/2 to 6 weeks, unless the mother is a house pet and she



**Ken Hatfield, this organization's first elected president, holds his first exotic cat, Mittens, a margay. It was the love of a pet margay in 1964, that eventually led the Hatfield's to pursue captive breeding programs for ocelots, margay, puma, geoffroy's cats, and jaguar.**

and the baby can be handled daily. A kitten left with its mother for any longer will begin to develop the fear of people, even though the mother may come out of the box to you, but especially if she cannot be handled and/or is afraid of people. Kittens that nurse on their mother for the first 12 hours after birth have received the colostrum, which comes before the milk. This gives it her maternal immunity, particularly in regard to panleukopenia (distemper), and it will last somewhere from 8 to 16 weeks. As long as the kitten has its mother's immunity, any vaccine given will be destroyed; then, when the immunity does finally disappear, the kitten is left with no protection at all. We recommend vaccination with a killed virus vaccine every two weeks (maximum) or 10 days (preferred) or under circumstances of high exposure, such as being brought to a vet-



**Florida LIOC chapter members brought ocelots to monthly meetings. Imported as kittens, some were paired up for breeding. Early LIOC members created the original captive bred population in the US, and offspring spread throughout the US, prior to the passage of the Endangered Species Act, which made interstate commerce for pet purposes illegal.**

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erinarian for some reason, every six or seven days, at least during the period of exposure. This program is to be carried out up to age four months, because to the best of our knowledge, no one has yet determined when the immunity wears off. We understand that there is a test that could be given, but it is more trouble and far more costly than just giving the shots.

Do not give up on a pair of ocelots just because they get to be three years old or more and have not produced any kittens. We bought one of our males at 18 months and had him with two females for three years and two months before his first kitten was born. One of the females was put with another male over the preceding two and a half years and had produced kittens four times before he finally caught on to the whole thing.

We do not recommend any one particular method of housing the adult cats over another; that is, both the "family unit" method and the "one male, many females" situation have proven successful. One comment on the family unit; we have two such situations and find we now cannot introduce another female to the family. However, our Sylvester is a producing male and we can put any female or group of females with him, so long as we shift them around occasionally. (NOTE: It is not wise to introduce a strange or new female to a male when she is in season. Better to let them get acquainted when she is "out," particularly with margays.)



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## JUNGLE LOVE

By Jennifer Kasserman

On Saturday, February 4, 2012, I, along with friends Randy Spaw and Teresa and Scott Shaffer, ventured to the Kansas City Zoo for their special Valentine's program, Kiss & Tail. We were not sure what we were in for but knew it was going to be "special."

The evening started out with appetizers and candies. We were given the opportunity to purchase raffle tickets for different zoo items. Drink tickets were provided to get a start on the festivities. While enjoying the snacks, which included heart shaped smoked salmon patties, animal handlers wandered around with some special friends.

On our way to see Nakita, the polar bear, we passed handlers with varieties of animals; a chinchilla, blue tongued skink, blue poison dart frogs, some sort of chicken, and I am sure we missed a few others. Having the different animals out and about was a nice touch (literally with some) for everyone.

We arrived at Nakita's home just in time to watch the trainer, way above on a ledge, toss fish down to him. Sometimes he would throw the fish into the water and we could see Nakita dive down, while other times the trainer got Nakita to stand on his back legs and hold his paws up to



Ron Magill and Jennifer Kasserman at the "Kiss & Tail" event.



get his fish. While watching, we were provided with little cups of tomato soup with goat cheese sandwich bites. Also, a handler brought around a sample of polar bear fur to touch, which was soft, yet wiry. Getting Nakita at the Kansas City Zoo a few years back was a huge accomplishment for the zoo. He is one of the most popular attractions and loves on-lookers watching his personal show. There was a short Polar Bear Keeper Chat before we headed back to the main auditorium.

With a little time before the next event, we used our drink tickets and explored more snacks. Unfortunately, the attendance appeared to be more than expected and we did not get to try the cupcakes that layered the tables upon our arrival. Tasty food, but a little disappointed in the quantity available to all.

Next, we entered the auditorium for Jeopardy!! This was done in a fun way; questions were asked, prizes were passed out. With a full auditorium, it was a little difficult for the "spotters" to determine who raised their hands first. Teresa was on top of most questions with her expert animal knowledge. Raffle winners were announced next, again no winners in our group, but we were there for the show.

Finally the main event, Sex and the Animals, was presented by Ron Magill of the Miami Metro Zoo. Ron's purpose is to present strange and interesting methods of animal courtship and mating in the interest of education and science. He starts off with the philosophy, "If it feels good, it is right."

Ron goes through and explains the importance of "sex and the animals;" the value of mating and reproducing to ensure continuation of many species throughout the world. He explains the importance in animal reproduction. For example, pandas only have a three-day window a year when they can become pregnant. The rest of the time, they are not very friendly with the opposite sex. That is why it is always such a big deal when panda babies are born, aside of course from the fact that they are adorable babies. Really, though,

are not all babies adorable?! Anytime during the presentation when there was something questionable, that really had your mind going, "Hmmmmm... Should I be seeing this? Do I want to see this?" Ron would remind us of the importance of his scientific studies and show a picture of the end results--the adorable babies that are produced by "animal love."

There were many comparisons made throughout his presentation of the animal to human worlds. Did you know that homosexuality is found throughout the animal kingdom? Did you know that animals are individuals and do not always "do it" the same? How about the fact that the leopard tortoise has passion? We had a few clips of lion love to view also; many of us in the FCF know how this works with cats, but many in the room seemed very surprised by the talk of "barbs," and do not mess with the kitties.

I had no idea you can tell the sex of crocodilians by the temperature the eggs are kept at. Nor did I know the extent of voyeurism in the animal world. Granted, yes, my servals catch themselves in the mirror and have to spend a good few minutes admiring themselves, as I have also seen birds do. But did you know flamingos, even though they only choose one mate, feel they need an audience of at least 30 others to "perform"? Mirrors have even been used to simulate the audience to help with the success of flamingo reproduction.

All in all, the experience was an unforgettable one. There were many funny moments, questioning thoughts, and educational information. Many people joked about the idea of this kind of presentation. I feel, however, that Ron did an excellent job at taking this "risqué" topic and keeping it fun-filled, while really educating the audience about the importance of reproduction in the animal world and preservation of so many different species.

After the presentation, we had a few minutes with Ron to let him know how much we appreciated his hard work and dedication to the animals. Not just anyone is comfortable enough with their own sexuality, let alone to get up and explain it about so many different animals/species. Ron ended the evening with a great response: "Protect what we love, understand what we do, and love what we protect."





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## F.U.R.R.Y BUSINESS

By Teresa Shaffer,  
FUR Team Chair

"To protect and serve the community and the animals for safe recapture and placement."

The FCF's FUR (Feline Urgent Response) Team, consisting of Terri Werner, TX; Jessica Sanders, ND; David Sol, CA; Daniel Blinder, FL; Caroline Alexander, CA; Randy Donahue, MO; Patty Perry, CA; Doug Kildsig, IN; Chris

Comstock, OK; Deborah Warrick, FL; Charles Vanneste, MI; Kevin Chambers, IN; and Teresa Shaffer, MO, are making good progress. Thanks to Kevin's persistence, the committee has finally moved

out of the planning stage and on to the DOING stage.

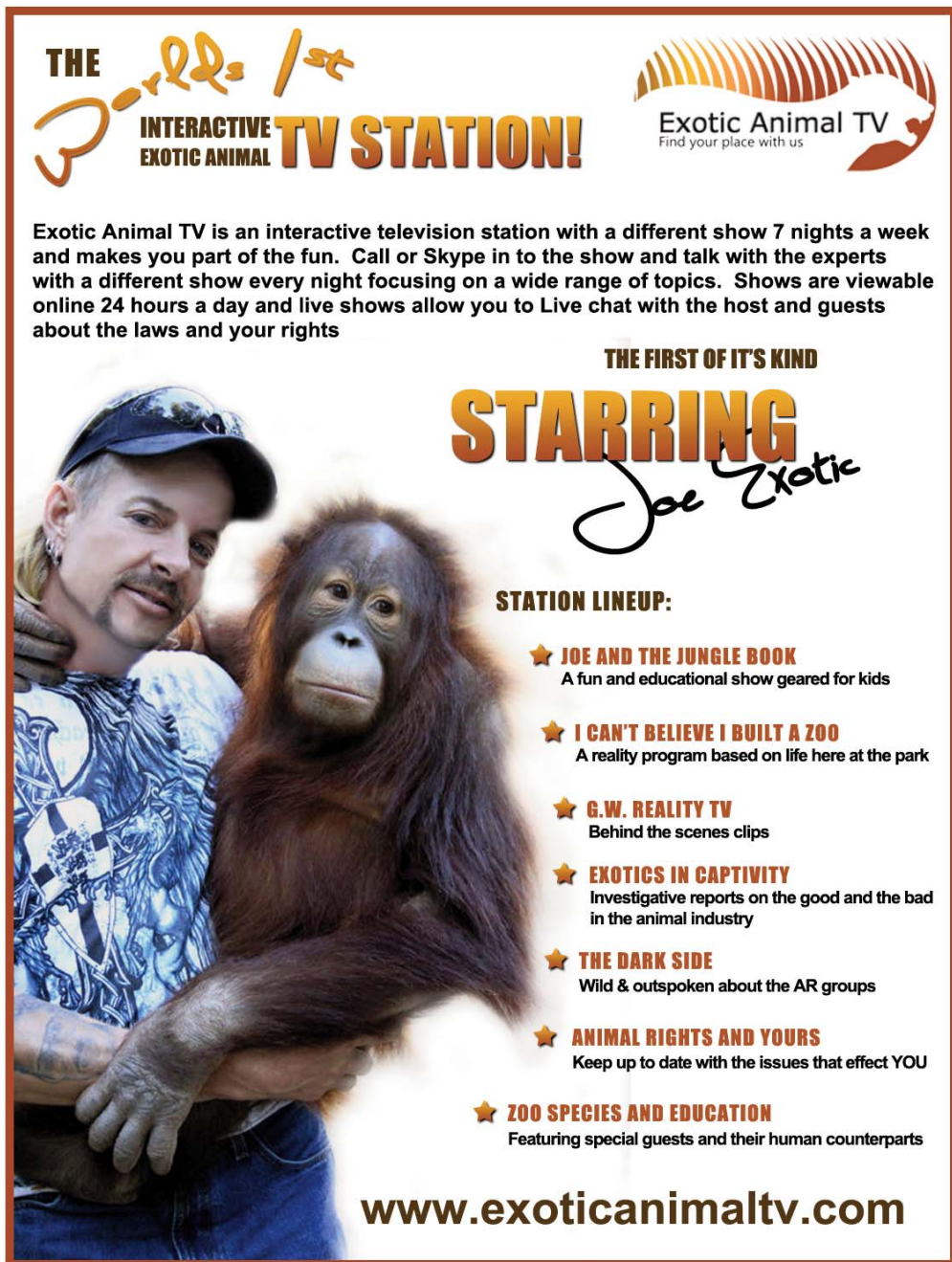
The FUR team can be an invaluable resource for our cats and humans. With all the ban laws being introduced, it shows we are being proactive in maintaining the safety of the public. Our ultimate goal is to give governmental agencies aid in handling escapes or other emergencies dealing with exotic cats.

The FCF has secured several web domains, with the main address to be [www.wildcatescapes.org](http://www.wildcatescapes.org). We are in the process of building the content and graphics for this website and will purchase a 1-800 emergency phone number which law enforcement can call for direction. The committee has contacted state law enforcement to get a list of national contact information, so that FUR information can be distributed to the appropriate local officials.

The FCF's FUR team is not about rushing to the scene and helping with capture. FUR is a resource to help aid local authorities or owners in the capture, by providing needed information about exotic felines. FUR will be building a database of footprint photos, feline vocalization audio files, photos of felines from a distance, and education summaries of the natural behaviors of feline species, as well as general information about feline behavior. If you have resources which would fit these goals that you wish to share with the FUR team for publication or uploading onto the websites, please contact Teresa Shaffer. The team is open to your involvement and any FCF member is welcome to join by contacting Teresa Shaffer at [director@felineconservation.org](mailto:director@felineconservation.org) or calling 816-739-3999. We will keep you all updated on our progress.

# FUR

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## TIGER HAS AN ALIBI

By Vera Chaples  
Vice President, Mystic  
Jungle Educational Facility

The day started simply enough. On Tuesday, January 10, 2012, I had just finished all the chores and was in the house when our alarm went off that there was someone in the facility. I stepped outside to find our FWCC (Florida Wildlife and Conservation Commission) standing outside the compound of Mystic Jungle, peering into the enclosures. I was a bit surprised as we had just had a thorough inspection at the end of October, but I was, of course, not at all upset. We always remain in compliance. What he said next flabbergasted me.

After our mutual greetings, he asked me if I was “missing anything.” I did not even hesitate in my resounding NO. He asked AGAIN. Now I was doing a mental inventory of what could have even been a possibility. Monkeys-check, snakes-check, birds-check, never ONCE thinking he was referring to any of our big cats.

He informed me that there was a complaint of a “tiger” at large. The image was captured by a hunting camera. When he showed it to me, I about died laughing, as you would have had a better chance of identifying Big Foot than a tiger on it. The picture was grainy, shadowed, and blurred. Still, now we had a problem. The rumor mill had begun and mass hysteria thus ensued. The phone calls and emails came flooding into us from as far away as Massachusetts, asking if it was our tiger roaming loose.

Even reasoning did not work. First of all, why would ANYONE even think of a tiger being loose in the area, unless you knew we were local and had one? Tigers are not indigenous to Florida, much less the United States. But, by the following week, things had spiraled out of control, with other papers picking up the story of “Bobcat or Tiger” without even checking to see if anything was true. Even the FWCC had stated that due to the Ohio incident everyone was on high alert.



**Spike takes a leisurely cat bath while sitting safely at home, unaware of all the hype over a “tiger at large.”**

I did call the property owner where the image was captured. I was told flat out that NO, I could not come on the property to see what kind of animal it might be, and the sheriff also denied us any information. We offered tranquilizer guns, trackers and

our expertise in tracking this animal, but it appeared from all outward appearance that the only motive for all this was to trap and kill whatever animal it was.

Our local newspaper then ran a small article entitled “Bobcat or Tiger,” and I sat trying to remain composed as I read it. Then when I read the “local game farm” stated, “all their cats were present,” I really lost it. The uneducated comments such as, “Well, she better go back and recount her cats,” and “This is a danger to our community,” were just off the charts. I immediately emailed the editor and instructed him to retract the statement that Mystic Jungle was a “game farm,” as by then I was getting hate mail from people now thinking we raised tigers to hunt and kill.

The editor emailed me the following



**Chewbacca (aka Chewy) a western cougar/Florida Panther cross poses for Vera’s camera.**



morning, Wednesday, January 18, and asked if they could come out and do an interview. I was leery, as we have all seen where exotic animal owners have given the media a chance to do stories on us, and have been ambushed. I felt I had no choice though at this point, and I agreed.

The reporter who came out was an avid animal lover. She recorded me as she interviewed me, and I can tell you that it was the best positive story I have ever read. Coming from where we were a week before, with people wanting to hunt and kill the cat, the echoes of "The Ohio Incident" ringing in my ears day after day from uninformed people, I just knew for sure we were about to be targeted. Instead, we were skyrocketed to local fame and welcomed with open arms. The media can make or break you, as we found out first hand.

The article made front-page news in our local community. The reporter stated we were a sanctuary, but that was corrected later, as we are not. Although we do provide homes for cats in need of re-homing and give them lifetime homes, as members of the FCF we all know that it is our ethical obligation to allow excellent specimens to breed. As such, we have bred at our facility one litter of leopards, Sher Khan and Keeper (Sher-Khan is the melanistic male leopard and Keeper is the tawny rosetted, both 17 months old). Fury was an unannounced arrival shortly after her mother Rosie arrived here. As we all know, there is a real difference in re-homing and rescuing, and I for one do



**Spike, a Siberian tiger, checks out the recently presented pumpkin, a favorite toy for the big cat.**

not and will not down an owner who has done the right thing and made that phone call in the first place. I know there can be cases out there of "real rescues," but do not feel it is so much in the big cat world, as we are a tight knit community and, when asked, we can and will pull together. But again, I never say never, and, yes, there may be some that need "rescuing," but in my experience I have yet to see it; just the need to be "re-homed."

We are allowed to exist because, although we are not open to the public, we do give private tours and have the guests log in. This satisfies all requirements from FWCC. We will be open to the public though most likely late April or early May of 2012, as we have applied for our federal 501 (c)3. We are already a Florida State non-profit corporation. We have laid out the supplies and area for our enlargement of all cat compounds to provide them a more natural, roomier setting.

I began my journey into the exotic field working under a veterinarian at a large animal hospital. I was intrigued by the different pets people brought in and fell in love with a monkey that had been seized by

FWCC (they used this facility as a quarantine/holding facility), and I studied many hours to get my Class II and Class III primate licenses. I dealt with the big cats on the medical end, but at the time did not have the space to keep them. My husband, Mark, on the other hand, was diligently mentoring under another big cat facility. Thus, 16 years ago our journey together began.

Mark and I began the dream to have our own big cats together, so we went on a search to find the land to have them. In Florida, even though we now had the hours, we needed to have the land, as the licenses would not be issued unless the land was there and

the enclosures were ready. Mark poured every spare dollar we had into this and we never lost sight of our mission. In the meantime we had to satisfy our appetites for the cats by volunteering hours upon hours at other facilities. The dream was finally realized when the final cage was in place, the inspection was done, and we had the Florida license in hand (oh did I forget to mention the liability bond we had to have?). On Thanksgiving 2009, I was in the bathroom brushing my hair and all of a sudden I get bumped behind my knees and hear that familiar "chuffing" sound. Spike had arrived!

After his arrival, there were four more cats that were in need of re-homing. These were older, declawed cats which, although not in dire straights, needed a new home as the owner had a stroke and did not feel it safe to continue his work. A mere two months later, we had now acquired Rosie, a tawny rosetted female leopard, then six years old, Sampson, a melanistic male leopard, then five years old, Cheyanne, a female Florida panther, and Chewbacca, a.k.a. Chewy, a neutered male western cougar/Florida panther cross. I regret not one moment of taking in these cats. They have brought such joy and fulfillment to my life. We finally saw the dream start to unfold. But it got even better.

Sampson and Rosie were housed together, but had not had any offspring in several years. The owner thought one of them must have gone barren. Rosie

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showed us otherwise, when a mere month later, we found a little black spitfire in the den box with her! Fury and, yes, she does fit her name!

By being a veterinary technician, I got to see the good, the bad, and the ugly, especially since we were on the receiving end of seizures and animals ending up in the courts due to bad circumstances. We have learned from others' mistakes and all the cats of Mystic Jungle Educational Facility belong to the company, therefore they can and will be provided for after we are gone, or if life circumstances do not allow us to care for them any longer. The one thing I have noticed, though, is that the big cat owner must be on top of their game with big cat medicine, as a lot of vets are "earn as you learn" and, through no fault of their own, do not know big cat medicine. We are fortunate to have a wonderful vet in Ocala who is just amazing (Dr. Suzanne Billiard), but before that, I had to "help" my vet find the solution, find anesthesia protocols, etc.

Having big cats has a lot of down sides. We are married to this place. Someone is ALWAYS on the property at all times. We never trust everything to be done by the volunteers and, yes, we do go behind and check to assure it is done and done right.

We have sacrificed literally blood, sweat, tears, money, time, and so much more to have them. Starting with the 1,500 hours (which is a drop in the bucket considering now we have many years of experience) required of hands-on with the big cats to even try to get a license, starting a non-profit business (you do not have to be non-profit, but you MUST be a business here in Florida in order to have big cats), buying the land with no restrictions in a rural community, and literally leaving a job where I was making over sixty thousand dollars a year, and taking one in our current location at one quarter of that income, getting bonded and insured, and basically jumping through a lot of hoops, we are here. And here is where we will stay. It was worth every bit of it!



**Fury, the black leopard, was born at Mystic Jungle shortly after his mother arrived at the center. Since he has always lived at Mystic Jungle, he is very comfortable, and very affectionate, with Vera.**



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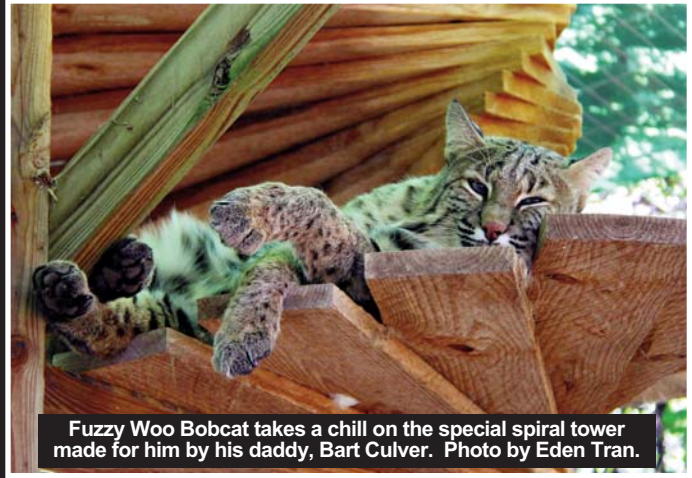
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Ahni finds that her feline companion, Blue, makes a great pillow. Photo by Kurt Beckelman.



Fuzzy Woo Bobcat takes a chill on the special spiral tower made for him by his daddy, Bart Culver. Photo by Eden Tran.



Kelly Watson caught serval naptime for Lilly, May, Cool Hand Luke, and Sunny.



Chuck Bunnell shot this one of his puma, Mocha, sitting atop her earth mound, reigning over her jungle enclosure.

# YOUR BEST SHOTS



Buck Griffin gets a head rub from his big Siberian lynx buddy, Rein.

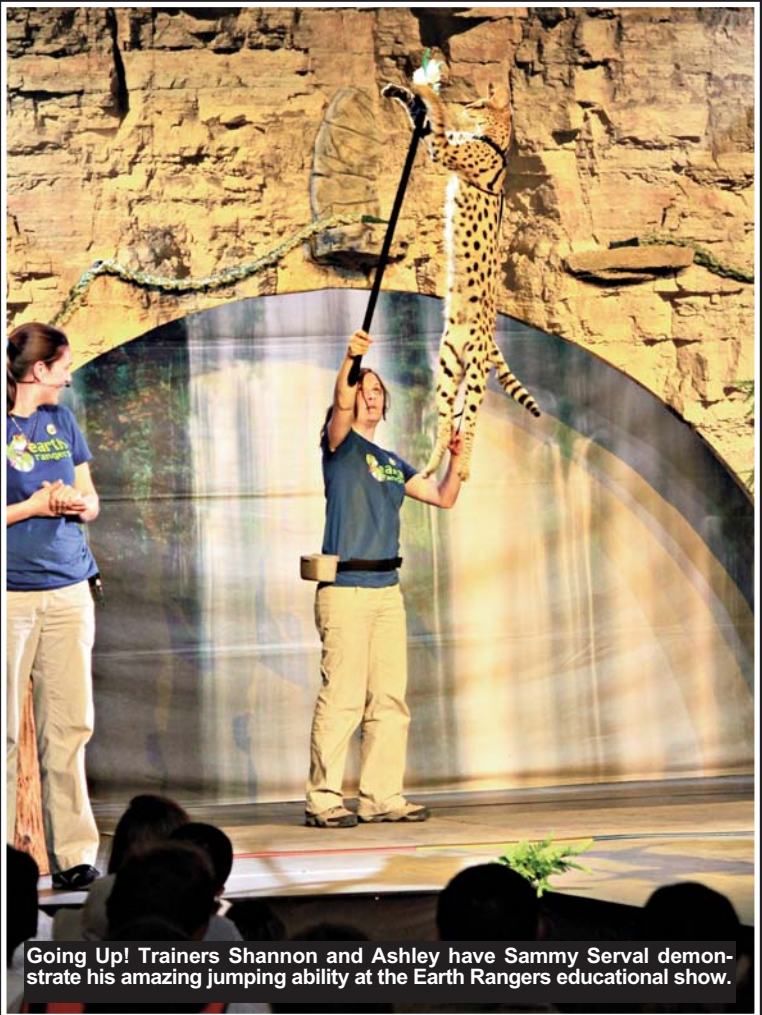


Billie Lambert plays tug of war with Sally, her lovely caracal with the long, dangling ear tufts.





Scarlett Bobcat looks mighty comfortable on the couch at David Lyday's.



Going Up! Trainers Shannon and Ashley have Sammy Serval demonstrate his amazing jumping ability at the Earth Rangers educational show.



Canada lynx Sookie checks out Jennifer Kasserman's camera, making for a real close-up shot.



Shelleen Mathews took this photo of Hunter Serval sunbathing at Wild Cat Advocacy Center.



## FIRST QUARTER 2012 BOARD MEETING MINUTES

First Quarter Board of Directors Meeting Minutes Held on the Internet Forums from January 19 to February 3, 2012. Board members present were: President-Kevin Chambers; Vice-President-Patty Perry; Treasurer-MariLin Antle; Director-Robert Johnson; Director-Teresa Shaffer; Director-Pat Callahan, and Executive Director-Lynn Culver. The following motions and discussions were held during the meeting:

*ratify the 4th Quarter 2011 Minutes:* The minutes of December 9 through December 18, 2011, meeting were approved for publication in the *Journal* outside a meeting. There were no additions or corrections. Motion to ratify the vote to approve the minutes passed with 5 yes votes.

*Professional Member Status for Board Members:* Moved by Robert Johnson, seconded by MariLin Antle, that the Bylaws be amended to read: An FCF member must be recognized as a professional member within the organization to qualify for a nomination or appointment to the board of directors. Amendment passed with 6 Yes, 0 NO and 0 Abstain.

This action is to take effect during the 2012 FCF elections. Current board members may serve the remainder of their term, but must be qualified as a professional member within the organization to be eligible for the following election.

*Vote to fill the position of Secretary for the remainder of the term vacated by George DeLong, ending Dec. 31, 2012:* The president posted the resumes of 8 members who volunteered to serve as secretary: Jennifer Kasserman, Kansas City, MO; Danny Blinder, Miami, FL; Kerry Ferguson, Henderson, NV; Kurt Beckelman, Broken Arrow, OK; Jessica Hanline Sanders, Minot, ND; Amy Doyle, Bloomington, IL; Chelsea Maute, Tyler, TX; David Lewis, Conway, SC. A preliminary poll narrowed the selection to three candidates; Jennifer Kasserman, David Lewis, and Chelsea Maute. The votes were Jennifer Kasserman, 2 votes; David Lewis, 4 votes; Chelsea Maute, 0 votes. David Lewis is appointed FCF secretary.

*Vote to appoint new Membership Services Chairperson:* Due to the resignation of Caroline Alexander, two members expressed interest in being appointed Membership Services Chairperson, Jennifer Kasserman, Kansas City, MO, and

Kim Maney, Clarkdale, AZ. Jennifer Kasserman is appointed with 5 votes; Kim Maney received one vote.

*Moved by Teresa Shaffer, seconded by Patty Perry, to ratify the vote to appoint Debi Willoughby as FCF Director of Education:* Ron DeArmond did not renew, leaving an opening for Director of Education and instructor for the Wildlife Conservation Educator's course. In December 2011, President Kevin Chambers contacted Debi Willoughby, who was already serving as Chair of the Youth Education committee. A consensus of the board approved appointing Debi to these positions. The board voted to ratify the appointments with 6 yes votes.

*Moved by Patty Perry, seconded by Teresa Shaffer, that the FCF renew its subscription to CAPWIZ for the next quarter (Feb-April 2012).* Motion passed with five yes votes.

### Other Topics Discussed

*Bookkeeping services:* The bookkeeping and financial statements will be compiled by the office of David G Lewis, CPA, Conway, SC.

*Professional Membership Implementation:* The executive director reported that Webmaster Chuck Bunnell has written


code to enable the FCF to start implementing professional member applications on the Members-Only website and keep track of the two types of memberships.

*Legislative strategy:* Legislation affecting private ownership has been introduced into MO, OK, IN, IL, PA, SC, WV, and is expected to be introduced shortly in OH, and a federal breeding ban bill is expected also. FCF has utilized CAPWIZ to enable members to send emails to legislators on several of these bills, and has issued PR web press releases to publicize the FCF position on proposed legislation.

*Executive Director Contract:* The board approved by consensus to approve a new contact with Lynn Culver for Executive Director services through January 31, 2013.

Respectfully submitted,  
David Lewis, Secretary

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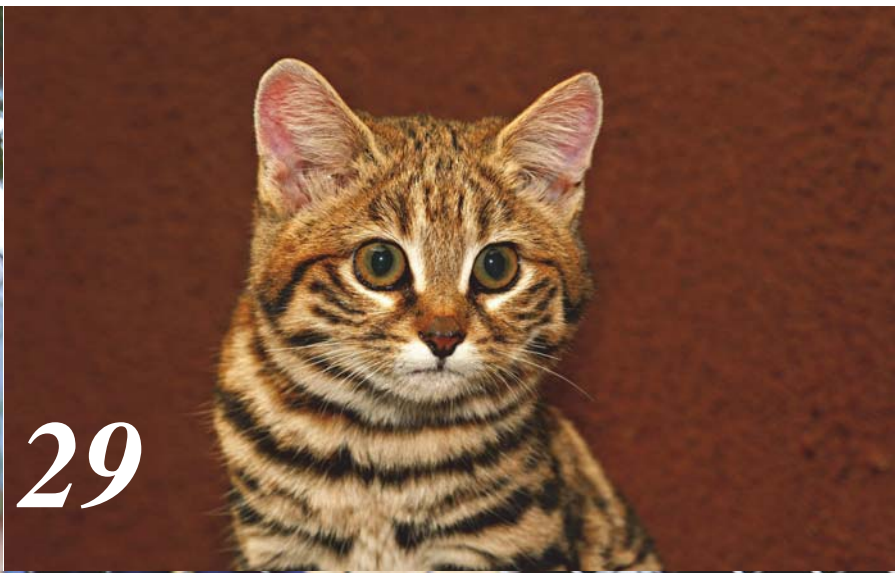
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## Feline Conservation Federation

March/April 2012 • Volume 56, Issue 2

Cover photo: The red and brown jaguarundi kittens are littermates born at the Rare Species Conservation Center in Kent, United Kingdom. Photographer, researcher, and wild feline keeper Balazs Buzas documented the early neonatal care, growth, and behavior development of this litter. Read more about his experiences hand-rearing these little felines, beginning on page 20 in this *Journal*.

Back photo: Photographer Sharon Tolly used a Nikon D100 on this close up study of Count, an adorable, four-year-old male that arrived at Zooville in June 2010. Like many of his species, Count is very shy and elusive - except at feeding time - he loves food!

