



Feline Conservation Federation

Jan/Feb 2010

Volume 54, Issue 1



TABLE OF

contents

JANUARY/FEBRUARY 2010 | VOLUME 54, ISSUE 1

FEATURES

- 18** **IMOS and Doug, Montana to Indiana Re-Location, 2005**
Long distance moving with an exotic feline gets complicated but Doug Kildsig and IMOS are living happily ever after.
- 24** **An Early Christmas for Panther Ridge**
A baby jaguar is certainly cause for celebration, and Judy Berens shares the story of Isabella, newest addition at Panther Ridge Conservation Center.
- 28** **Managing Through Prevention**
The first installment of a five-part series, Mindy Stinner explains how the Conservator's Center, Inc. created neighbor and community support.
- 34** **New Cat House in Nevada**
The enclosure for Tiger and Leo involved a lot of retro designing and hard work, but Deeanna Croasmun details how it paid off in a spacious and safe habitat for the pair of big cats.
- 37** **Mishi**
James Godsmark has a hand in helping Sharu and Sheila conceive Mishi cougar.

COVER PHOTO:

Nasira, one of three world famous 'tiger pups' born July 27, 2009 at Safari Zoological Park in Caney, Kansas. (read about the Tiger Pups in the July/August 2009 Journal)
Photo by Tom Harvey



34

Deeanna Croasmun



11

Ron Austing



9

Horace Langford Jr.



21

Jill Galindo



TO SUBSCRIBE TO THE FCF JOURNAL AND JOIN FCF IN IT'S CONSERVATION EFFORTS

A membership to 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. FCF works to improve captive feline husbandry and insure that habitat is available. FCF supports the conservation of exotic felines though captive and wild habitat protection, and provides support for captive husbandry and breeding programs and public education. Send \$35 annual dues (\$40 Canada, \$50 international) to FCF, 4403 S. 334th E Avenue, Broken Arrow, OK 74014

SPECIES

- 7 **Margay - Acrobatic "Protector" of Ancient Mayan Fruit Tree Culture?**
Professor Bill Smith theorizes early agriculture was aided by the natural predatory instincts of margay
- 11 **Husbandry and Captive Breeding of Pampas cats at Cincinnati Zoological Gardens**
Pat Callahan shares interesting facts and his experiences with this rare South American feline.
- 41 **Blast From the Past – Jungle Cat Felis chaus**
John Jackson shares numerous tales of jungle cat births, behaviors, escapes and recoveries in this 1971 reprint.
- 44 **Jaguars**
Big and beautiful - facts about the third largest feline.

PICTORIALS

- 21 **Planning and Building a New Enclosure**
John Erickson and Jill Galindo
- 26 **Member's Best Shots**
Debi Willoughby, Robert Beebe, Jay Smith, Jill Galindo, Teresa Shaffer, Debra Kaprive, Eric Simmons, Kathi Stucki

CONSERVATION

- 9 **Effects of Landscape Pattern and Human Activites on the Gene Flow and Genetic Structure of Geoffroy's Cat (Leopardus geoffroyi)**
Javier Pereira
- 16 **Conservation of the Andean Cat in Chile**
Jim Sanderson

EDUCATION

- 40 **Emergency Planning**
Kevin Chambers

CONTACT US

<p>FOUNDER: Catherine Cisin</p> <p>EXECUTIVE DIRECTOR: Lynn Culver 141 Polk 664 Mena, AR 71953 479-394-5235 executivedirector@felineconservation.org</p> <p>OFFICERS: President: Kevin Chambers 7816 N CR 75 W Shelburn, IN 47879 812-397-2302 president@felineconservation.org</p> <p>Vice President: Patty Perry P.O. Box 2359 Moorpark, CA 93020 805-517-1005 vicepresident@felineconservation.org</p> <p>Secretary: OPEN</p> <p>Treasurer: Kurt Beckelman 4403 S. 334th E. Avenue Broken Arrow, OK 74014 918-407-0341 safarikurbe@aol.com</p> <p>DIRECTORS: Conservation: Pat Callahan 3400 Vine Street</p>	<p>Cincinnati, OH 45220 513-304-7155 conservation@felineconservation.org</p> <p>Development: Billie Lambert P.O. Box 40175 Panama City, FL 32403 850-532-5652 development@felineconservation.org</p> <p>Education: Sylvia Gerber 1679 NW 114th Loop Ocala, FL 34475 352-875-7699 education@felineconservation.org</p> <p>Marketing: Ron DeArmond 1203 Columbus St. Pella, IA 50219 312-213-7975 marketing@felineconservation.org</p> <p>Membership Services: Elizabeth Whitlock 1385 Middle Burningtown Road Franklin, NC 28734 828-524-6943 membershipservices@felineconservation.org</p> <p>Legislation: Robert Johnson</p>	<p>PO Box 31210 Myrtle Beach, SC 29588 786-390-8553 legislation@felineconservation.org</p> <p>Public Relations: Roger Newson 6702 Woodsmere Way Fort Pierce, FL 34951 772-466-6374 publicrelations@felineconservation.org</p> <p>DEPARTMENTS: Accreditation Chairman: Doc Antle P.O. Box 31210 Myrtle Beach, SC 29588 843-271-2299 Gemojungle@aol.com</p> <p>Conservation Advisor: Jim Sanderson, Ph.D. 356 Freeman Street Hartford, CT 06106 505-720-1204 gato_andino@yahoo.com</p> <p>JOURNAL STAFF: Managing Editor: Lynn Culver Layout/Copy Editor: Ilana Burk, 3BI Design & Marketing Associate Editors: Judith Hoffman Robert Bean Mindy Stinner</p>
---	--	--

EDITORIALS

- 33 **Looking Forward**
Roger Newson proposes change

ORGANIZATION

- 4 **Letter from the President**
- 5 **From the Executive Director**
- 31 **Director of Public Relations**
- 31 **Relations**
- 46 **2009 Board Meeting Minutes**
- 47 **Convention 2010**
- 48 **Donations**

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 lynnculver@hughes.net, or send by postal service to 141 Polk 664, Mena, AR 71953.



LETTER FROM THE PRESIDENT

Happy New Year to One and All!

I'd like to welcome Roger Newson to the FCF Board of Directors. Roger was appointed to fill the vacant Public Relations position. Roger owns 2 cougars and 6 servals and has raised them on his Florida facility since 2003. He has a strong background in business and serving on boards for both non-profit and profit corporations. I'm sure Roger will prove to be a valuable asset to FCF.

The accreditation committee has selected Bhagavan "Doc" Antle as its chairman. I cannot stress enough how important accreditation is becoming in these times. If you maintain felines, you should be accredited by the FCF. The application for accreditation can be downloaded from the members-only section of the FCF web site at www.felineconservaiton.org. You must send payment and five copies of the completed application and video footage to Doc Antle. His address is published

on page three of this Journal. Last year the committee approved 3 new facilities, a zoo, a breeding facility and a private owner. The committee has volunteered its time to serve the members, I hope you will take advantage of this program and apply in 2010.

Joe Fortunato has submitted his resignation as secretary of FCF. Joe is the Director of the Bucks County Zoo and his commitments to operating his new zoo has overwhelmed him to the point he felt it was best for FCF if he stepped down. Joe will remain active as his schedule allows. The board is accepting nominations for this position. If you wish to get more involved in the FCF, and have Internet access, good computer skills, and can attend convention, please contact me or any other board member to express your interest in being nominated. The board will vote to appoint a replacement at their next board meeting.



The board approved a new Journal policy. Lynn Culver was appointed managing editor. So far the Journal layout editor position is still open for appointment. The Journal staff has one more opening for an associate editor as well. Please review the minutes of the last board meeting, published in this Journal to learn more about these positions and consider applying. Contact Lynn Culver.

The FCF Convention will be held July 29 through 31 in Oklahoma City, OK. Mark your calendar and plan to attend. See you there.

Kevin Chambers

We are dedicated safety, reliability and quality

We are focused on quality equipment to suit your needs:

- **Chemical immobilization** (syringe poles, flow charts, CO2 guage)
- **Tracking equipment**
- **Stretchers/Litters**
- **Hazmat certified sanitation system** (Portable or stationary)
- **Reptile handling** (Snake tubes, hooks, tongs, bags, protective gear)
- **Versa-nets** (Modular nets flex to help with netting - minimize harm)



**We are innovative and will build
customized equipment to fit your need.**

www.ace-cap.com

1-866-339-9960



**Animal
Capture
Equipment, Inc.**



FROM THE EXECUTIVE DIRECTOR

The FCF is its Members

The FCF is its members. Its former members write its legacy, and its present members build its future. As the FCF grows and evolves, so do its programs and services, its direction and its attention. When our members are fully engaged the FCF pushes forward.

On December first of 2009 the FCF membership declined after a year of steady growth. This was expected. That date marks the end of the 60-day grace period following the October annual renewal date. Synchronizing member renewals lessens the constant workload on the membership services director. The FCF membership had reached over 800, but we are down to about 600 members now. We are working to regain those lost memberships because every member is important to the FCF.

I want to share some numbers with you from the FCF database about who is the FCF. Members who own cats outnumber those who do not by a margin of 2 to 1. At least 400 of our members are exotic cat owners. The actual number is probably higher, as not all members answer our questionnaire when they join. Less than half of the members who answered that they owned cats, have entered their felines into the species survey. But even so, the FCF still registered over 2150 cats. FCF actually represents a lot of cats for which we do not have data. If you are one of those FCF members who have cats, please visit the members-only section of the FCF web site and enter or update your feline census. If you cannot do that, give me a call, and I will do it for you.

Only 62 people have been with the organization more than a decade. Half our members have joined since 2007. Attrition in any organization is natural, especially when we live in such a mobile society with so many things competing for our time and attention. But attrition is very costly to a specialized niche organization like FCF. We must attract and keep our members who are knowledgeable and experienced in captive feline husbandry and conservation.

There is a long and interesting history of FCF members, their cats, and their contributions to the organization. I believe it is important for all FCF members to take

some time to learn about the FCF by reviewing the LIOC/FCF archive DVD you received in your new member package. Recently the archive DVD was updated to include the 2007, 2008, and 2009 Journals. If you wish to purchase the latest archive DVD, you may order one for only \$5.00, shipping included. Send your payment and order to the FCF treasurer.

How people find the FCF provides more insights. Here are the results of 375 people who answered that question. 8 advertisements; 24 Animal Finders Guide magazines; 22 breeder; 78 Internet; 8 link; 273 member; 42 other; 18 zoo

Clearly the word of mouth advertising is our best resource. For every member

who spoke highly of the FCF, thank you. Your referral is our greatest source of new members. Without you, FCF would not be what it is today. FCF pays for brochures, press releases, and magazine ads, but nothing compares to the results of your recommendations. Having a link to the FCF web site on your web site also helps draw attention, so please take some time to link up your website and your social networking sites with FCF. I have plenty of brochures available for passing out at your facility, educational event, or feline customers, just call or email me and I will mail them to you at no charge.

Effectively representing an entire industry and its special interests in legislative and public relations arenas



Executive Director on the job. Lynn multitasks bottle-feeding bobcat and geoffroy kittens while discussing FCF business by phone.

requires a substantial number of members and adequate financial support. While we expend efforts to reach this goal, it is individual FCF members who make the greatest difference. For decades FCF members have challenged prohibitions on the local, state, and federal level. Recently one member, Fred Boyajian took the city of Atlanta to civil court seeking a preliminary injunction to stop the city from misinterpreting an ordinance. Mr. Boyajian has secured the protection of his cats while he proceeds to trial. Fighting in court is extremely expensive and the FCF is yet in a position to retain legal council. But considering what limited resources this organization has to work with, FCF, through its members, has accomplished a lot.

In our five-decade history, generous gifts of our member's time, talents, and money have developed and delivered many programs and services. FCF must meet high quality standards, and it must be dependable. FCF has now hired professionals to work for the corporation. Its most important positions, those of oversight, administrative secretarial, web site, and Journal are under contract. Eagle Web Design built and masters our web site. I work for the FCF as its executive director; Carolyne Clendinen is its executive secretary. FCF hired 3BI Design to layout this Journal. Printing Concepts is printing the Journal. This issue we are trying something new. The Journal is being printed on coated stock, which improves photo quality and gives the Journal a more professional look.

The FCF must pay for these services. The Safari Sweepstakes was an effort to meet these expenses but it did not reach its full fund raising potential. Did every member think they didn't need to participate because they assumed others would carry the load? At this point, we are back to the drawing board to keep the FCF budget funded. If anyone has any ideas, please feel free to share with me, or any member of this board.

2010 offers us a lot of opportunities. FCF has wonderful potential, and room for every member to play a role. If you have been on the sidelines because you thought you were too new to get more involved, I hope you realize now that this is not true. FCF has empty positions that need filling. Chances are you have a skill or talent that can improve the FCF. One

position in particular I hope an FCF member will fill is the layout editor position. If you have that talent, please contact me. I would like to thank all the contributing photographers and authors for making the Journal what it is today. As long as you share your knowledge and experience, the Journal will continue to be a high quality publication. The Journal staff needs additional associate editors. Contact me if you are interested. The husbandry course needs another instructor trainee, and more interested hosts and locations for 2010. The convention committee needs additional volunteers to organize the Oklahoma City event this July. The FCF legislative program needs YOU to get active

and be a state representative. It is going to take each of us to make a difference in the minds of legislators and the media.

FCF is working to meet the expectations of its members, which range from the single pet exotic cat owner, to the conservation center, the large-scale sanctuary, and everything in-between. We face not only membership and funding issues, but also legislation that prohibits our existence, the decrease of genetic diversity, and shrinking available habitat. These challenges can only be solved if we all put aside our differences and join together for the good of the cats. That's what I plan to do, and I hope you plan to also.

Specializing In Manufacturing Exotic Carnivore Diets

Since 1960

BRAVO PACKING, INC.

Carney's Point, NJ 08069

Using Fresh Meat & Only Prime Cuts of Meat in All Meat Eater Diet Products.

CHOICES OF MEAT EATER DIETS

- *SUPREME 100% HORSEMEAT
- *PREMIUM 50% BEEF & 50% HORSEMEAT
- *REGULAR 100% BEEF
- *Bird of Prey 50% BEEF & 50% HORSEMEAT

CHOICES OF FORMULATIONS OF MEAT

- PORTION WITH TRIPE, VITAMINS & MINERALS
- *90% HORSE 10% TRIPE & 5% FAT
- *40% BEEF & 40% HORSE 10% TRIPE & 10% FAT
- *80% BEEF 10% TRIPE & 10% FAT

* SPECIAL ORDERS CHUCK BEEF & HORSEMEAT

* RAW BONES BEEF & HORSE WITH & WITHOUT MEAT

* ALL BEEF PRODUCTS OBTAINED FROM U.S.D.A. INSPECTED PLANTS

* ALL MEAT IS SAMPLED & TESTED FOR B.S.E. BY U.S.D.A. VETERINARY TECHNICIANS

Bravo Packing, Inc. MAINTAINS FULL PRODUCT LIABILITY

Contact Us at: Toll free (888) Bravo40
Visit Us at: www.bravopacking.com

MARGAY - ACROBATIC “PROTECTOR” OF ANCIENT MAYAN FRUIT TREE CULTURE?



Photo by Fred Boyajian

William Smith Ph. D.

The margay (*Leopardus wiedii*) is the smallest indigenous Mesoamerican feline. The Margay is also known as tree ocelot, caucel, gato montes, gato pintado and tigrillo. This small wild cat is most probably the most arboreal and agile feline in the New World (Mondolfi, 1986). Much of this observed remarkable agility is due to its small size and very flexible ankle joints, which can readily swivel 180 degrees. This unusual trait allows for quick change of direction and rapid travel both up and down trees. Such remarkable agility allows the margay to be an efficient hunter of a great variety of tropical forest species. The remarkable characteristic of ankle flexibility is shared with but one other feline – the forest dwelling clouded leopard of southwest Asia. The arboreal adaptations and acrobatic abilities of wild margays have been repeatedly documented. (Ewer, 1973; Konecny, 1989; Ximenez, 1982) Sometimes called monkey cat, the margay has often been observed deftly hanging from a single front or hind paw. Captive margays have been seen to leap 18 feet vertically, and jump 26 feet horizontally.

Within the recent past margays have been killed in large numbers for their spotted fur. A total of 125,547 margay skins were reported to CITES (Convention on International Trade in Endangered Species) in the trade network during the period of 1976–1985. In 1977, margay skins were ranked first among the neotropical cats in trade. Margays have often been eliminated near human habitations for their tendency to kill domestic poultry. The margay is slightly less tolerant of modern human settlement and

altered terrain (forest clearing for the cultivation of non arboreal seed crops such as maize) than its larger close relative the ocelot (*Leopardus pardalis*). The ocelot and margay often share territory. The margay tends to be more arboreally adapted compared to the ocelot, whose larger size tends to indicate more terrestrial activity. Similarly to margays, ocelots have been observed hunting birds in the forest canopy.

There are at least 10 presently recognized subspecies of margay. This speculative monograph is primarily concerned with three of these. These selected three subspecies inhabited ancient southern Mexico (*L. w. oaxacensis*), Yucatan (*L. w. yucatanica*), and northern Central America (*L. w. salvinia*). These regions were the primary forested areas dominated by the Classic Maya in the time period of AD 200 – 900. Margays may be identified from archaeological sites (not without potential great difficulty) by their small adult size, dental formula, (3131/3121), and distinctive cranial and postcranial morphology. Margays, ocelots, jaguarundis, and jaguars now often share the same regional habitats within the Americas. Because of the cross genera similarities in morphology and size of margays with ocelots and jaguarundis, some understandable confusion may be encountered in specifically identifying margay remains from archaeological sites.

In 1986, the government of Belize created the Cockscomb Basin Wildlife Sanctuary, which comprises 128,000 acres. Cockscomb Basin Sanctuary is home to five indigenous felines including the margay. In 1997, the Earthways Foundation sponsored development of the world's first formal margay reserve. The 25,000-acre Playa de Oro Reserve, located in N.W. Ecuador, is comprised of near virgin rainforest.

The average margay litter size is usually one, and occasionally two cubs. Margays have only two nipples, compared to the ocelot with four. Small litter size compared to other New World felines is a major reason for margay rarity and endangerment. The typical hunting/living area is one to as many as twenty square miles, depending on resource availability. Margays tend to be ambush hunters rather than stalkers. Aver-

age prey size is about 600 grams, but the cat may take prey larger than 1 kilogram. Although known to hunt and reside in the trees (partially for protection due to its small size) most modern observed margay prey species are terrestrial.

Because of their secretive, nocturnal nature and preference for thick arboreal habitat, the modern knowledge of margay diet is based upon fecal analysis and stomach contents. Margay wild diet presently consists of small mammals, birds, eggs, lizards and tree frogs, with some vegetable material such as green grass, and occasionally fruit. Margays are known to chase and catch squirrels and birds within the forest canopy. In Chiapas, Mexico margays prey upon mice, rats, rabbits, young agoutis, pacas, birds and occasionally on the fawns of red brocket deer (*Mazama americana*) (Alvarez de Toro 1977). A favorite modern habitat is known to be abandoned or overgrown fruit/nut plantations. These modern tree plantations also include the ancient cultigens of cacao, papaya, cashew, coco, chica sapote and avocado. In Mesoamerica, tree crops are and were very valuable as local sources of dependable food and as exotic export.

Speculation on Possible Symbiotic Relationships with the Ancient Maya

The Classic Maya and other ethnic groups of ancient Mesoamerica may have hand raised margays allowing docile and smaller animals to reside in or near temples and houses. Other larger, less docile animals may have been encouraged to reside in tree farms under the protection of Mayan arboreal horticulturalists. Animals that feed on fruit/nut tree crops are traditional margay prey species.

Margays may have been encouraged or “invited” to reside unharmed in ancient orchards to help protect a variety of tree crops. This symbiotic relationship with humans may have occurred during the periods of most intense cultivation, coinciding in time with the Maya Classic period (AD 250-900). Tropical fruit/nut tree groves normally attract a variety of hungry rodents, bats, monkeys, and flocks of birds such as parrots and other fruit eating birds such as toucans. The concentration and variety of

prey species attracted to fruiting and flowering trees would also attract an agile opportunistic hunter such as the margay. Few animals weighing less than four kilograms could hope to easily escape a hungry margay on the hunt. The mere presence of margays in the tree canopy would deter many tree crop pests including the three species of monkeys native to Mesoamerica.

The margay may have been more attractive as a type of residential domesticated than its larger Mesoamerican feline relatives, the jaguar and ocelot. This may have been due to its relative small size (4-9 pounds), which made it less of a physical threat. The margay is known to make an affectionate house pet, especially when hand reared while still young. As with other felines, some members of the same litter will naturally be more affectionate and develop into civilized “housecats” more easily than others.

Margay populations may have reached their greatest numbers during the Classic Maya period. The Classic Maya practiced tropical arboreal cultivation for the production of fruits, fruit seeds such as cacao, nuts, and the production of fermented fruit/herbal

and honey based beverages, such as the “Balche” drink, which is still used in Yucatan today. During the Mayan Classic, tropical tree crops were most extensively grown in order to feed an expanding human population (Classic Tikal had an urban pop. of 50,000) and increasing demand throughout Mesoamerica for prepared export tree crops such as cacao. The primary non-insect pests of tropical fruit/nut orchards are rodents, monkeys, bats and flocking birds such as parrots. Large flocks of fruit/nut eating birds can seriously lessen expected crop yields and can damage the trees themselves. The most important arboreal food/subsistence crop of ancient Mesoamerica was the Avocado – sometimes called the New World “olive.” Avocados are seriously damaged for development and harvest if their skin is ruptured even slightly, which often occurs from the mass feeding activities employed by birds, such as parrots.

The most valuable southern Mesoamerican exportable tree crop over time was the inner seeds of the cacao fruit (*Theobroma cacao*). These dried and processed seeds were relished as a ritual drink and source of

health and also used whole and dried as a form of Mesoamerican currency. Many animals relish the sweet fruit flesh of the cacao pod. Cacao will only grow well in tropical humid lowland regions, which also have forest canopy. They will not grow and produce proper seed bearing fruit in the Valley of Mexico, or in Mexico City. The lowland Maya had a controlling monopoly on Mesoamerican cacao production, as a specialty food and currency. This was possible because their domain of occupation and control provided a suitable climate.

The following is a partial list of Classic period Mesoamerican archaeological sites that have, or have not revealed feline remains. Though unsuccessful so far, I am continuing to research for specific archaeological evidence pertaining to margays.

Zooarchaeological analysis of animal use (ritual and practical) by the ancient Maya of Cozumel Island unearthed no identified osteologic remains of any Mesoamerican feline (Hamblin 1984). Similarly, no feline bones were identified in the excavations detailed in the Zooarchaeologic publication - *An Osteology of Some Maya Mammals* -



Margay at the Sao Paulo Zoo. Photo by Jim Sanderson. Notice the tail length, which provides balance and stability for this arboreal feline when climbing and jumping from tree limbs.

(Olsen, 1982 - Papers of the Peabody Museum Vol.73)

No identified feline remains were discovered in zooarchaeologic excavations at Seibal, Guatemala (Olsen, 1978 – Papers of the Peabody Museum; Vol.14).

At the Classic Maya site of Altar de Sacrificios in Guatemala, Olsen did recover two canines, and two partial mandibles with teeth along with scapula and skull fragments. All were ascribed to a single immature ocelot. Feline bones were also found in a pottery vessel. Additionally, from the same site, the modified shaft of a left humerus and a right upper canine (drilled) were ascribed to an adult jaguar (*Felis onca*).

The absence or lack of identification of margay or other small felid osteologic

remains from Mesoamerican archaeological sites may be because the felines were not the usual prey items of humans. Margays may have been considered much more valuable alive as controllers of tree crop pests and as living, ritualized, totemic manifestations. The bones of small felines such as the margay are gracile and delicate, and quickly biodegrade in an acidic and tropical forest environment.

Conclusion

The margay is a very specialized endangered feline, whose numbers and genetic diversity as a species have been seriously diminished by the activities of modern people.

Responsible steps have been taken to preserve small portions of the tropical ecosys-

tems, which allow this diminutive feline to survive. Because of its small size, exceptional agility, and potentially docile nature, the margay seems the most likely, of the five indigenous Mesoamerican felines, to occupy the role as a Mayan temple and house companion. Other symbiotic roles may have included the margay as “protector” of ancient Mayan fruit tree culture, and as a controller of domestic pests such as rodents, snakes, and large insects.

Dr. Smith has a M.A. in linguistic anthropology from the Oregon State University, and a Graduate Minor in zoo archaeology from the University of Arizona. He earned his Ph. D. in archaeology at the University of Oregon in 2002

EFFECTS OF LANDSCAPE PATTERN AND HUMAN ACTIVITIES ON THE GENE FLOW AND GENETIC STRUCTURE OF GEOFFROY'S CAT (*LEOPARDUS GEOFFROYI*)

Update by Javier A Pereira on the research proposal funded by a grant from the FCF. (read July/August 2009 Journal pg 34-36)



Marcela Uhart prepares to draw blood from a sedated geoffroy's cat. Marcela is the Associate Director for Latin America of the Global Health Program of the Wildlife Conservation Society (WCS) and is also in charge of the veterinary team of this project. photo by Javier Pereira

Presented by Javier A. Pereira^{1,2,3}, Julio Rojo², and Patricia Mirol^{1,2}

- 1 Research Council of Argentina (CONICET)
 - 2 Museo Argentino de Ciencias Naturales (MACN)
 - 3 IUCN – SSC – Cat Specialist Group
- 1) SAMPLES COLLECTED TO DATE

We have applied a hard effort to rescue fresh carcasses of Geoffroy's cats because fresh tissues are one of the best sources of DNA. Although skins and feces are also a good source of DNA, issues related with their age, method of conservation, or their exposure to climate can diminish the efficiency of the extraction technique or even destroy the DNA. The obtained samples to date are the following:

Site 1 (La Pampa and Rio Negro provinces)

Total: samples belonged to 57 Geoffroy's cats

Type of samples:

- 38 blood samples (conserved in Tris-Edta or filter paper). Obtained from individuals live-captured for study purposes
- 13 fresh tissues (mainly liver or muscle). Obtained from individuals killed by rural people, dogs, or vehicles on the road.

- 2 fresh feces of different individuals
- 4 museum skins

Site 2 (Buenos Aires and Entre Rios provinces)

Total: samples belonged to 20 Geoffroy's cats

Type of samples:

- 1 blood sample (conserved in Tris-Edta).
- 14 fresh tissues (mainly liver or muscle).
- 3 fresh feces of different individuals
- 2 museum skins

2) SAMPLES ANALYZED TO DATE

We have tested several methods of DNA extraction, including

extraction with NaCl2, with chloroform, using QIAGEN kits, and with columns. The best results have been obtained using extraction with NaCl2. To date, we have extracted DNA from 55 samples. No DNA could be recovered from some of the museum skins and fecal samples. New samples will be treated soon to improve our protocol to DNA extraction from these sample types.

In order to describe genetic structure, 10 specifically designed primers have been selected to amplify microsatellites due to their higher levels of polymorphism (F42, F53, F124, F146, FCA391, FCA424, FCA441, FCA453, FCA723, and FCA742). Fifteen individuals have been completely described using these microsatellites, and samples belonging to other eight cats will be processed before the end of November.

3) GIS ANALYSIS

We have already defined the exact boundaries of our two study sites based on satellite images of both areas. We are currently processing those selected satellite

images to evaluate potential habitat fragmentation agents and potential barriers to dispersion of cats (water courses, cities, routes, roads, paths, and modified lands).

4) PLANNED ACTIONS -NOVEMBER 2009 – MARCH 2010 PERIOD

- To increase our effort to reach at least 70 sampled individuals in each area.
- To continue attempting DNA extraction to improve our protocols.
- To increase our number of genotyped individuals for the 10 microsatellites.

NOTE: Simultaneously with this study, we are studying the phylogeography of Geoffroy's cat, including samples from the overall distribution of the species. To date, we have sampled 153 individuals, including several of them hosted in six museums of Argentina and Uruguay. The aim of this project is to describe the phylogeography of this species and to detect possible Evolutionary Significant Units (ESU) to adequately conserve the genetic and ecological variation of this felid species.

The obtained samples to date are the following:

Argentina: 112. From the provinces of Buenos Aires (16), Catamarca (1), Chubut (10), Córdoba (17), Corrientes (2), Entre Ríos (2), Formosa (5), Jujuy (4), La Pampa (4), La Rioja (11), Mendoza (1), Neuquén (5), Rio Negro (1), Salta (12), San Luis (3), Santa Cruz (1), Santa Fe (12), Santiago del Estero (3), and Tucumán (2),

Bolivia: 1

Brazil: 1. From Rio Grande do Sul state.

Paraguay: 5

Uruguay: 34

ACKNOWLEDGEMENTS

These projects were funded by The Amersfoort Zoo, Le Parc des Félines, and the Feline Conservation Federation. We specially thank Raymond van der Meer, Grégory Breton, Patrick Callahan, and Lynn Culver for their support.



DNA Samples from captured geoffroy will help wildlife managers assess habitat fragmentation.
photo by Javier Pereira

HUSBANDRY AND CAPTIVE BREEDING OF PAMPAS CATS AT CINCINNATI ZOOLOGICAL GARDENS

Pat Callahan
Cincinnati Zoo Head Cat Keeper
INTRODUCTION

In 1972, the Cincinnati Zoo received a pair of Pampas cats, *Oncifelis colocolo*, from Paraguay. A total of 23 litters were born. Possibly this was the first sustained breeding program for this species. A number of husbandry and management issues were discovered, revealing the Pampas cat to be difficult to breed in captivity. Dames are particularly sensitive to disturbance when birthing and rearing kittens. Kitten mortality was initially very high due to injury by the dame. This paper describes the husbandry, enclosure, diet, including neonate formula, and veterinary issues of the species. Notes on behavior in captivity, including vocalizations are included. While the Pampas cat does well in captivity if its requirements are met, and is capable of living 17 years, lack of genetic diversity—only three founder cats—over time, doomed our project. Many lessons were learned about this high strung and nervous, but very interesting small cat. Captive breeding can be a useful tool in the conservation and indeed saving, of wild species.

The Pampas cat *Oncifelis colocolo* is distributed from Ecuador to Argentina, with eastern groups in Brazil, Uruguay and Paraguay, with a western group in Chile. In 1782 Molina named Pampas cat *Lynchailurus colocolo* (Guggisberg, 1975; Nowell & Jackson, 1996). More recently García-Perea (1994) suggested that there might be as many as three distinct species *Lynchailurus pajeros*, *Lynchailurus braccatus* and the Chilean *Lynchailurus colocolo*. Under this proposal the three founder animals at Cincinnati Zoo appear to be *Lynchailurus braccatus*. However, the name *Oncifelis colocolo* is more generally used (Wilson & Reeder, 1993; Nowell & Jackson, 1996). The species is listed on the Convention of International Trade in Endangered Species as CITES Appendix II and wild populations are estimated to be in excess of 10,000 animals (Mellen & Wildt, 1991). This is a rather wild guess in our opinion. Certainly the Chilean *O. colocolo* is uncommon.

The Pampas cat, also called the Grass cat, *gato pajero*, inhabits open grasslands and savannahs, and also frequents deciduous

forests. Pampas's cats hunt ground-dwelling birds and small mammals, and the narrow body and small head favor pursuit through pampas grasses. Melanism, which occurs in our animals, could be an advantage when hunting in such habitats.

In 1972 Cincinnati Zoo received a pair of Pampas cats from Paraguay and in 1981 a second female was transferred to the Zoo from Oklahoma City Zoo. A total of 31 births (10.5.15) have been recorded at the Zoo.

HOUSING

Since 1985 the Pampas cats have been housed in a naturalistic indoor enclosure consisting of hand-formed rockwork and a pampas diorama. The exhibit, c. 2 x 3 x 2.3 meters high, is glass-fronted and irregular in shape. When the enclosure is being cleaned the cats are moved into an adjoining holding area, measuring 4.4 m², which is secluded and can be dimly lit and where a nest box is provided. Skylights allow natural daylight into the exhibit although artificial lighting is also provided. Due to winters here we never put our Pampas outdoors. It can however, be done in other climates.

Minimum size specifications—Minimum

recommended enclosure size is based upon the weight categories of the cats, those under 10 kg (22 lb) and those ranging from 10-20 kg (22-44 lb) (see Table 1). Recommended minimum space per cat is as follows:

<10 kg = 6.5 x 6.5 x 8 ft (2 x 2 x 2.5 m)
per cat (l ? w ? h)

<20 kg = 13 x 6.5 x 8 ft (4 x 2 x 2.5 m)
per cat (l x w x h)

Each enclosure should include at least one visual barrier for a cat to completely hide behind. Each cat also needs a den or secure area that can be defended against a cage mate. Shift or secondary holding areas are strongly recommended in order to safely move animals from their primary enclosure for cleaning, feeding, and medical procedures. (Adapted from J. Mellen) In addition, HOWDY doors between cats, made of screen metal mesh allow cats to see each other prior to being paired up. Care must be taken that cats and other carnivores cannot get at each other via gaps and spaces between them. The male is always put into the female's cage, or they can be rotated in cages. The olfactory clues are crucial for pairing cats.

Ponytail palms, *Beaucarnea recurvat*, and



Photo compliments CONAF, San Pedro de Atacama, Chile, 2009



Pampas cat at Cincinnati Zoo. Photo by Ron Austing

dagger or sword yuccas, *Yucca aloifolia*, are planted in pockets in the rockwork and dried ornamental grasses collected around the Zoo are positioned in the exhibit in bunches to match the diorama. Maiden grass *Miscanthus sinensis* 'Gracillimus', and fountain grass, *Pennisetum alopecuroides*, provide an enrichment medium and bedding material. Live crickets and grasshoppers, which the cats hunt and eat, are introduced into the grasses and onto the rockwork. Some of the insects are obtained from a commercial supplier while others are surplus stock from our insectariums.

Our Pampas cats are largely terrestrial and rarely climb on the rockwork in the exhibit or use the elevated shelves in the off-exhibit enclosures. This may account for why in this species the claws, with the exception of the dewclaw, are rather blunt. The cats rarely use scratching posts to sharpen their claws or to denote territory. However, females will spray large quantities of urine and emit a strong anal-gland secretion to scent-mark. Hard surfaces of primary enclosures, food containers, and water bowls should be cleaned and disinfected daily. Perches and shelves where animals climb, sit, and rest should also be kept free of feces and urine but it may not be necessary to clean them daily. Dirt substrates in outdoor planted exhibits should be raked and spot-cleaned daily. Footbaths should be used prior to entering and exiting all felid enclosures, or areas containing enclosures. Each should be filled with a disinfectant and its use strictly adhered to by all personnel. Appropriate controls for vermin infestations should be maintained. (Adapted from J. Mellen)

DIET

In general, wild felids share the same nutritional requirements as the domestic cat, although there is evidence that some species differ with respect to selected nutrients. Nonetheless, from a comparative perspective, wild felids are relatively easy to maintain nutritionally. The advent of commercially prepared, nutritionally complete diets has alleviated earlier reports of bone disease, common when cats were solely fed muscle or organ meats. (Adapted from J. Mellen)

The diet is comprised of 70% Nebraska Brand Feline diet mixed with 30% ground meat. Each animal is offered 170-350 g for 6 days and a piece of oxtail bone (c. 140 g) on day 7, to clean the teeth. Freshly thawed mice and/or chicks are given as treats and are always fed to pregnant females. To prevent hairballs, Feline Fiber is mixed into the diet once a week. A female with offspring up to six months old is fed twice a day and a small amount of Osteoform powder is mixed into the meat. Analysis on Nebraska Brand is crude protein minimum 12%, fat 12%, fiber 1.5%. Rodents are an excellent source of food, and can be a major item, as well. Cats that are healthy and have privacy will eat quickly so the food is left in the exhibit for two hours, after which it is removed to prevent a build-up of bacteria in decaying food items in hot weather.

In captivity, weights of our adults range from 3.9 to 4.9 kg. Wild Pampas' cats range from 1.7 to 3.65 kg. (n=3) (in from Sunquist, 2002).

BREEDING

When in oestrus, Pampas cats vocalize and the female calls in response. The "cry" resembles an insect-like buzzing "mink" repeated five to seven times. The only other vocalization we hear is a soft chatter - smacking of the lips. Both sexes may refuse food for several days during oestrus, which lasts 5-7 days. Copulation is typical for small felids, however the male can be overly aggressive. A pair, which is housed together after successful copulation, may appear to continue mating. This "mock mating" is most evident two weeks prior to parturition and accompanies hormone changes that occur at that time.

The gestation period (up to 83 days) is

longer than for felids of similar size. Only one (n=15) or two (n=8) kittens are born to each litter. Although most births at the Zoo have occurred in April (n=5), October (n=4), June (n=4) and July (n=3), a breeding season cannot be defined. The only months for which births have not been recorded are January and September in the Northern Hemisphere. Litter size is 1.31.

REARING

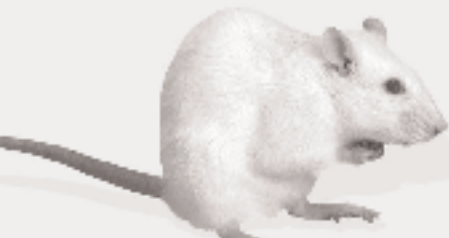
A male Pampas cat must be separated from the female prior to the birth to avoid undue stress to the female and to protect the young from the male. Because females appear to be particularly sensitive to disturbances, and may not rear the offspring while in the exhibit, large sections of the Cat House have been closed to the public after a birth. However, this has only had limited success and more recently the pair has been housed in the exhibit for 65 days then the male is moved back to a more secluded off-exhibit area for the next 90 days, even if no mating was observed.

The off-exhibit enclosures are 1.5 x 1.5 x 1.8 meters high. Two sides and the back are constructed of concrete and the front and top are 2.5 x 2.5 cm galvanized wire. A female can become fully habituated to several nest boxes in the secluded den area. This is more difficult to achieve in the exhibit as the animals are moved into separate holding areas each day while the enclosure is cleaned. The wooden nest boxes are 56 x 28 x 35 cm high with a 13.5 cm entrance hole. Where possible, two nest boxes are provided. These are placed on the floor of the enclosure as far apart as possible so that a female can move her litter to the second nest box if she becomes uneasy in the first. Because there may be a correlation between stress and infant mortality, providing a female with a secure environment could greatly increase the chances of survival of the kitten(s).

Disturbed females may carry their kittens around during pacing, or may ignore or even eat them. Although the first week post-partum is the most critical time, an undisturbed environment for 3-4 weeks is still of paramount importance for successful rearing. The cleaning routine is gradually resumed after one week.

Kittens generally attempt to leave the nest box at about five weeks old, but are usually retrieved by the mother, and it is not until six

RODENTPRO.COM® Wholesale Feeder Price List



RodentPro.com® is proud to offer you premium quality feeder animals for sale at wholesale prices. Our company specializes in the production and distribution of mice, rats, rabbits, guinea pigs, chicks, and quail. RodentPro.com® has been providing premium quality feeder animals to the reptile and bird of prey community since 1999. Since then, our company has set industry standards for quality, value and convenience. These standards have been met by offering unsurpassed quality, best-in-class pricing and year-round availability. RodentPro.com® is committed to serving your feeder animal needs. Quality is of the utmost importance to us, whether it be through the value of a product or the integrity of a relationship. We understand that our success depends not only on the quality of our products, but more importantly, on the strength of relationships established with our customers. We look forward to being a part of your success and hope you will give us the opportunity to serve you.

Mice



	See	Less than 500	500	1000	2500	5000+	Length (inches)	Weight (grams)	Count
10-Small Pinkies:	\$0.16	\$0.15	\$0.14	\$0.13	\$0.12	\$0.12	0.50 - 1.00	1.20 - 1.80	100
Small Pinkies:	\$0.16	\$0.15	\$0.14	\$0.13	\$0.12	\$0.12	0.50 - 1.00	1.30 - 2.40	100
Large Pinkies:	\$0.16	\$0.15	\$0.14	\$0.13	\$0.12	\$0.12	0.50 - 1.00	2.50 - 3.00	100
Peach Fuzzies:	\$0.10	\$0.10	\$0.17	\$0.16	\$0.15	\$0.15	1.00 - 1.25	3.10 - 4.40	100
Fuzzies:	\$0.10	\$0.10	\$0.17	\$0.16	\$0.15	\$0.15	1.25 - 1.50	4.50 - 7.00	100
Hoppers:	\$0.30	\$0.28	\$0.26	\$0.24	\$0.22	\$0.22	1.50 - 2.00	3.00 - 12.00	100
Waxwings:	\$0.40	\$0.38	\$0.36	\$0.34	\$0.32	\$0.32	2.00 - 2.50	13.00 - 13.00	50
Large Rabbits:	\$0.45	\$0.43	\$0.41	\$0.39	\$0.37	\$0.37	2.50 - 3.00	20.00 - 23.00	50
10-Large Rabbits:	\$0.55	\$0.53	\$0.51	\$0.49	\$0.47	\$0.47	3.00 - 3.75	30.00 - 50.00	25

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

Rats



	See	Less than 500	500	1000+	Length (inches)	Weight (grams)	Count
Pinkies:	\$0.80	\$0.84	\$0.84	\$0.80	1.50 - 2.00	3.00 - 3.00	100
Fuzzies:	\$0.90	\$0.94	\$0.94	\$0.90	2.00 - 2.50	3.00 - 10.00	100
Pups:	\$0.70	\$0.74	\$0.74	\$0.60	2.50 - 3.50	20.00 - 20.00	25
Waxwings:	\$0.80	\$0.84	\$0.79	\$0.70	3.50 - 4.50	30.00 - 44.00	25
Small:	\$0.90	\$0.94	\$0.94	\$0.80	4.50 - 6.00	45.00 - 84.00	20
Medium:	\$1.30	\$1.34	\$1.29	\$1.20	6.00 - 8.00	85.00 - 174.00	10
Large:	\$1.90	\$1.94	\$1.94	\$1.80	8.00 - 9.00	175.00 - 274.00	5
10-Large:	\$1.50	\$1.54	\$1.49	\$1.40	9.00 - 11.00	275.00 - 374.00	3
100-Large:	\$1.70	\$1.74	\$1.74	\$1.60	11.00 - 13.00	375.00 - 474.00	2
1000-Large:	\$1.30	\$1.34	\$1.34	\$1.20	11.00 - 13.00	475.00 - 600.00+	2

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

Common Quail



Less than	500	500	1000+	Grains	Oz.	Count
1 Day:	\$0.84	\$0.80	\$0.74	7.50 - 10.00	.25	100
1 Week:	\$0.84	\$0.80	\$0.74	30.00 - 40.00	1.0	25
2 Week:	\$0.84	\$0.70	\$0.74	50.00 - 75.00	2.5	10
3 Week:	\$1.04	\$0.90	\$0.94	100.00 - 125.00	4.0	10
4 Week:	\$1.34	\$1.24	\$1.14	130.00 - 150.00	5.0	5
5 Week:	\$1.44	\$1.34	\$1.24	155.00 - 185.00	6.5	5
10 Week:	\$1.84	\$1.74	\$1.44	190.00 - 225.00	8.0	5

* We offer combined quantity discount pricing.

Rabbits



Size	Our Price	Weight (lbs.)	Count
10-Small:	\$9.50	0.50 - 0.75	1
Small:	\$9.50	1.00 - 1.75	1
Medium:	\$5.50	2.00 - 3.75	1
Large:	\$6.50	4.00 - 5.75	1
10-Large:	\$7.00	6.00 - 7.75	1
100-Large:	\$8.00	8.00 - 9.75	1
1000-Large:	\$9.00	10.00 - 11.75+	1

Chicks

Less than	500	500	1000	5000	10000+	Grains	Ounces	Count
Small:	\$0.25	\$0.20	\$0.15	\$0.12	\$0.10	30.00 - 35.00	1.0	25



Guinea Pig

Less than	500	500	1000+	Inches	Grains	Count
Medium:	\$1.30	\$1.34	\$1.29	8.00 - 8.00	35.00 - 174.00	10
Large:	\$1.40	\$1.44	\$1.39	8.00 - 9.00	175.00 - 274.00	5
10-Large:	\$1.50	\$1.54	\$1.49	9.00 - 11.00	275.00 - 374.00	3
100-Large:	\$1.70	\$1.74	\$1.69	11.00 - 13.00	375.00 - 474.00	2
1000-Large:	\$1.30	\$1.34	\$1.29	11.00 - 13.00	475.00 - 600.00	2
10000-Large:	\$2.20	\$2.24	\$2.19	13.00 - 15.00	601.00 - 3000.00+	1

* We offer combined quantity discount pricing only.



Place Your order online today! www.rodentpro.com

Call: 81 2-867-7598 24 hours a day
Fax: 81 2-867-6058 24 hours a day

P.O. Box 118 • Inglewood, IL 47618-0118
E-mail: info@rodentpro.com
Times: Visa, Mastercard, American Express, Discover, PayPal, MasterCard or money order payable to RodentPro.com

to eight weeks that the mother allows them to explore the enclosure.

Of the many cat species/subspecies bred at the Zoo, female Pampas cats and Jaguarundis, *Herpailurus yagourundi*, appear to be particularly sensitive to disturbances when rearing young. To date we have hand-reared four Pampas cats using MilkMatrix from PetAg Co. Not available for purchase in South America. Even captive-born animals are nervous and show fight-or-flight behavior (often flight) quicker than other felids with which we have had experience.

HEALTH

A veterinarian first examines mother-reared kittens at eight weeks of age. At this time they are sexed and vaccinated with Fel-O-Vax IV against rhinotracheitis, calcivirus, panleucopaenia and Chlamydia psittaci. A killed virus or recombinant vaccine is the safest to use. A second Fel-O-Vax vaccination is given at 12 weeks and at 16 weeks a third vaccination is given with a killed rabies virus vaccine. Adults receive annual boosters of Fel-O-Vax and rabies vaccine. The presence of feral house cats poses extra disease risks to wild and captive exotic cats. They should be vaccinated or removed. Hand-reared kittens are vaccinated with Fel-O-Vax at 6, 8, 10, 12 and 16 weeks of age. Unvaccinated animals under one year old that are transferred to the Zoo receive Fel-O-Vax vaccinations during the mandatory 30-day quarantine period and four and eight weeks later. Older cats are vaccinated while in quarantine and four weeks later. A rabies vaccination always accompanies the final Fel-O-Vax injection.

Other than some instances of urolithiasis and accompanying haematuria, no chronic health problems have been observed in Pampas cats at the Zoo. These urinary tract problems responded well to a diet that lowered urine pH, such as Hill's Prescription Diet c/d or IAMS Low pH/s. Urine acidifiers can be prescribed by a DVM Vet. For older males this forms the bulk of their diet. Anal gland impaction should be checked for at least once a year. This can be accomplished by palpating the glands while the cat is immobilized for other routine procedures. If necessary, the cat can be relaxed with a light anesthesia, via chamber induction (airline kennel in a plastic bag), using isoflurane gas or injectible ketamine. Ear mites are often treated using standard cleaning and flushing

solutions. A 200 μ g-1 subcutaneous injection of ivermectin may also be given for one or two treatments.

Mortality in kittens is primarily the result of injuries inflicted by the dam. Failure to provide nest boxes and seclusion were factors. Hypothermia is a risk. A low light/red light camera can be put in the nest box and kits viewed by closed circuit TV. Two kittens and two adults have died from acute diarrhea resulting from a food-borne toxin or pathogen. Clostridium was suspected but no conclusive tests could be conducted. Several animals have lived to be over 14 years old. Longevity records for this species at Cincinnati Zoo have been 18 years 8 months for a male and 19 years 6 months for a female. Two males have sired offspring at 16 years of age. The youngest female to give birth was 33 months old. This senescence compares closely to *O. geoffroyi* the Geoffroy, in captivity. However, the Pampas seems to have lower fecundity. All our births were one or two kits. *O. geoffroyi* will give birth to one to four kits. (L. Culver pers comm) n= of births is higher for Geoffys than for Pampas. Pampas kits will show play behavior, such as ears down, erectile hairs up and charging low into each other. This behavior is similar to Raccoons *Procyon lotor* and would be a "bowling over" the opponent or prey technique. As kits age they lose the distinct markings seen in our photos, and then resemble the other "dusky" cats in photos.

CONCLUSION

The Cincinnati Zoo Center for Research on Endangered Wildlife has a solid background in felid reproductive physiology. Techniques in the collection and cryopreservation of felid sperm and eggs and embryos are studied. Hopefully these efforts in collaboration with field researchers and Zoos in situ will result in improved husbandry and conservation. The Zoo would be open to doing staff exchanges and visiting scientists and may be able to assist with funding.

Products mentioned in the text.

Aerrane, (isoflurane USP) anesthetic, Ohmeda Pharmacy Products, Liberty Corner, NJ 07938

Fel-O-Vax, Fort Dodge Labs, Fort Dodge, IA. 50501

Feline Fiber, Forte Alpha Vet 10, Gardena, CA. 90248

Ivermectin, by Merck & Co. Rahway, NJ 07065

Ketaset, (ketamine HCL) Fort Dodge Labs

MilkMatrix milk replacers, PetAg, Inc., Hampshire, IL 60140

Nebraska Brand Feline Diet, Central Nebraska Packing Co., North Platte, NE 69103

Osteo-form calcium and phosphorus supplement, Veta mix Inc., Shenandoah, IA 51601

Rabies Vaccine, Live Canarypox Vector, Merial Inc., Athens, GA 30601

References

Culver, Lynn pers. comm. Mena, Arkansas A private exotic cat breeder. Currently Executive Director of Feline Conservation Federation.

Gage, L (2002) Hand-Rearing Wild and Domestic Animals, Iowa State Press Ames, Iowa. 50012

Garcia-Perea, R. (1994) Pampas cats: how many species? Cat News 20 21-24 and American Museum Novitates 3096: 1-36

Guggisberg, C.A.W. (1975) Wild Cats of the World New York Taplinger Press

Mellen, J and Wildt, D Felid Action Plan IUCN Cat Specialist Group, Gland, Switzerland.

Mellen, J Zoo Guidelines from AZA Felid Taxon Advisory Group www.felidtag.org See also ZOO BIOLOGY 10: 95-110

Nowell, K and Jackson, P (Eds) (1996) Wild Cats: status, survey and conservation action plan. Island

Press and IUCN Cat Sp Group Gland, Switzerland.

Sunquist, M and F (2002) Wild Cats of the World, Univ. of Chicago Press Chicago, II 60637

General Reference:

Feline Conservation Federation, www.felineconservation.org

Felid TAG part of the American Zoo Assoc. at www.felidtag.org Meets twice a year. Co-chairs Bill Swanson, Cincinnati Zoo and Norah Fletchall, John Ball Zoo.

Acknowledgements:

Interns Jewel DeJager and Rachel Smith Pampas vocals on a/v

Zoo Nursery Staff Dawn Strasser and Rhoda Preston dawn.strasser@cincinnati-zoo.org

Intern Elisabeth Wylie, Word Processor



Purrrfect for Your Exotic Cat!

Delight your felines! Feed them **Mazuri® Feline Diets** - a constant formula diet supplying complete life cycle nutrition for reproduction, lactation, growth and maintenance. They will thank you from whisker to tail.

For more information, visit us at www.mazuri.com
or call **1-800-227-8941**, for your nearest Mazuri® Dealer.

Mazuri.
The Exotic Animal Feeding Resource

Mazuri® Feline Feeds: Exotic Feline Large—SMA3, Exotic Feline Small—SMA4

CONSERVATION OF THE ANDEAN CAT IN CHILE

What We Know and Where We are Going

Jim Sanderson, PhD

Formerly, Chile was divided into 13 regions designated by increasing Roman numerals from north to south. In October, 2007, two new regions were added: XIV and XV (Fig. 1.). The Andean cat is known to occur in the Andes of Perú in the

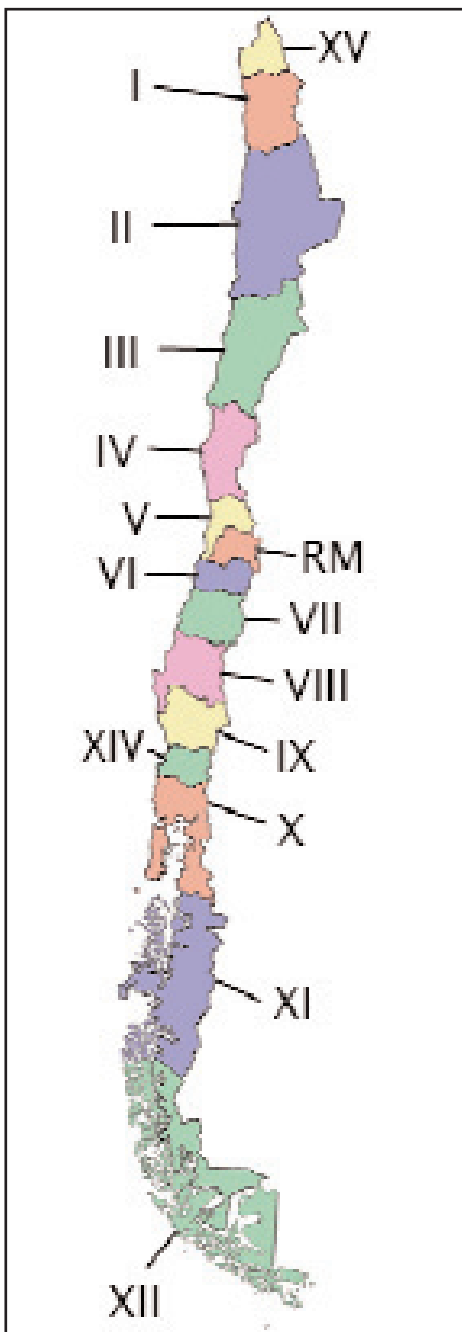


Fig. 1. Chile is divided into 15 regions. RM represents the Santiago Metropolitan Region.

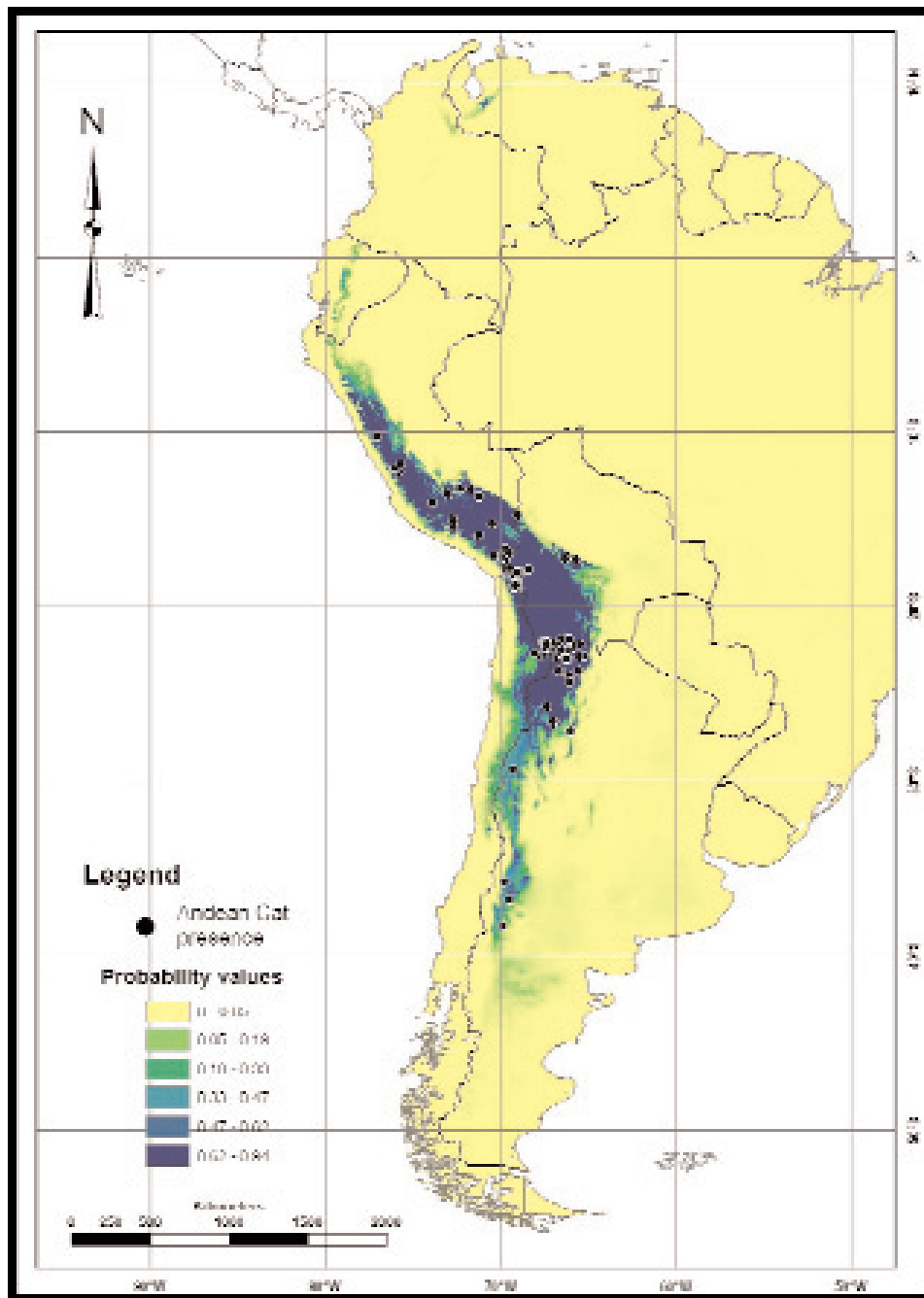


Fig. 2. The estimated and confirmed (dots) Andean cat occurrences in Argentina, Bolivia, Chile, and Perú. Note the southern-most confirmed record in Argentina is far south of the most-southern confirmed record in Chile.

north, south to Bolivia, Chile, and Argentina (Fig. 2.).

Andean cats have been documented in Regions XV, I, and II (Fig. 2.). The southern-most confirmed record in Argentina is far south of the most-southern confirmed record in Chile. This suggests that the

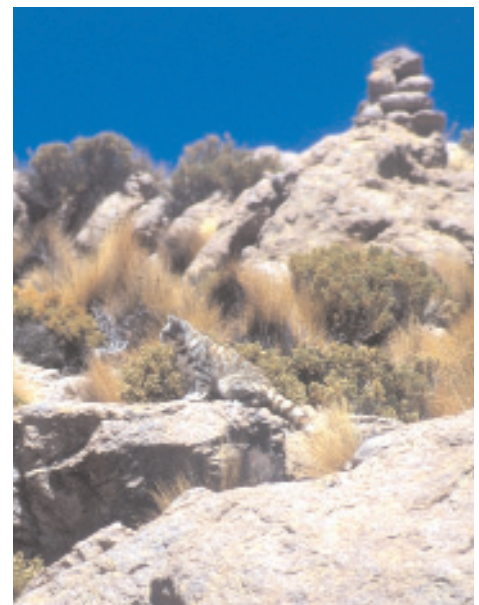
southern-most record in Chile has not been located. Professor Gonzalo Medina (personal communication, October, 2009) has observed mountain viscachas as far south as Coihaique, the regional capital of Region XI (southern-most red arrow, Fig. 2.). This location is likely south of the

important objective should be undertaken with systematic surveys in Regions II through XI.

(2) Additional surveys and simultaneous in-depth studies of Andean cats should be undertaken in Regions XV & I.

(3) The two high value conservation areas should be continuously monitored for the presence of Andean cat. An obvious choice for a conservation and monitoring center is in Region XV near the border with Perú and Bolivia at Parinacota. A remote station can be established at Salar de Surire in Region I where confirmed records have been recorded. This conservation and monitoring center will involve local people, students, and researchers from Chile, Perú, and Bolivia to undertake activities in the area. The remote conservation and monitoring station at Salar de Surire can replace an aging building known as “the ice box.” This new building can be outfitted with solar electricity and hot water panels that will also supply the neighboring CONAF staff building.

(4) A second conservation and monitoring center is required in Region II in San Pedro de Atacama that lies to the west of high conservation value areas in Bolivia and Argentina. The San Pedro area is a top priority for surveys to confirm the presence of Andean cats in Chile. Remote stations in Bolivia and Argentina should also be considered.



Andean cat in its native environment blends in with rocks and boulders. photo by Jim Sanderson

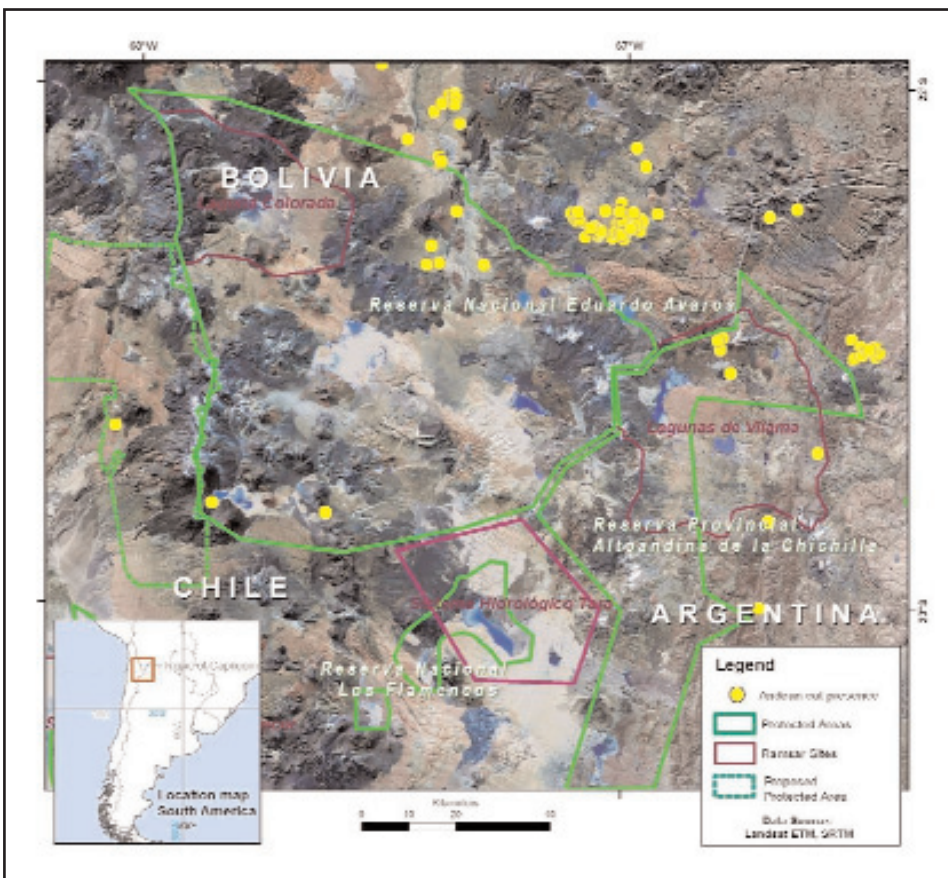


Fig. 3. Chile Region II, San Pedro de Atacama, on the west of the international borders with Bolivia and Argentina. Confirmed records of Andean cat in Bolivia and Argentina are indicated by yellow dots. These areas in Bolivia and Argentina are difficult to reach internally and are more easily reached from Chile. Note the paucity of confirmed records in Chile.

Andean cat’s range but is worth exploring.

The presence of Andean cats has been confirmed by scat analysis and camera traps. Nearly all confirmed locations in Chile are in Regions XV and I. There are at most three known records in Region II. No other Regions have been surveyed.

Confirmed records of Andean cats collected by members of the Andean Cat Alliance (AGA) show there are two high conservation value areas. Both are located in the tri-border areas of Perú-Bolivia-Chile, and Bolivia-Argentina-Chile (northern-most red arrows in Fig. 2.).

Priorities in Chile

(1) The original AGA plan dated 2005 called for surveying each region starting in Region XV and proceeding south until the southern limit of the Andean cat’s range was established. Surveys were carried out in Regions XV and I only.

(2) Andean cat records from scats, camera traps, and visual observations have

been made in Regions XV and I. Locations of some latrines are known. The diet of the Andean cat (and Pampas cat) is known. Camera trap pictures and video records of Andean females with young have been recorded.

(3) The total confirmed records collected by AGA show that there are two high conservation value areas (northern-most red arrows, Fig. 2.).

(4) The high conservation value areas in Bolivia and Argentina are difficult to reach from the east but are more easily reached from Chile (Fig.3.). Thus, it is logical that a monitoring center be established in Chile west of the areas in Bolivia and Argentina. Unfortunately, there is a paucity of records from Region II, Chile west of the international borders with Bolivia and Argentina. This makes surveys in Region II a priority.

Action plan

(1) Determination of the geographic extent of the Andean cat in Chile. This

IMOS & DOUG, MONTANA TO INDIANA RE-LOCATION, 2005

by Doug Kildsig

After about three years of beautiful panoramic scenery and rugged wilderness life in the mountains of NW Montana, IMOS and I decided it was time to head back to Indiana. For me it was a return to the state where I was raised, for IMOS, it was full circle. IMOS was born in Stevensville, MT, adopted into my Indiana residence in 2001, raised to about a year of age, and then taken on a month and a half journey by camper to seek out our refuge in the rugged mountains of NW Montana. Her home the last three years had placed her within 150 miles of her birthplace, after journeying by vehicle and living by camper to the tune of about 4,000 miles! Now, we were to make the 2,000-mile journey one more time, back to Indiana.

She and I were fortunate to have been included by a FCF magazine article of our story of the 2003 move from Indiana to Montana, and how we had been successful to establish a wonderful log residence there,

to include her 2,400 square foot log enclosure system, that attached to the log home. Now we were embarking on a re-do of that initiative, only in the opposite geographical direction!

As all owners of larger cats can attest, or imagine, forward planning is critical to the successful re-location of self and animal...at least if you are concerned about you and your animals welfare ("welfare" defined...long list...sanity, peace, safety, security, etc.). Bottom line, you have to



IMOS the bobcat. Her name is an acronym, for a domestic tabby that she was named in memory of, the domestic tabby's name was Sissy...I=In M=Memory O=Of S=Sissy
Photo by Darren Wheeler

have a facility waiting on the other end to accommodate BOTH of you, not just you! With this in mind, I flew to Indiana, and requested the blessed assistance of a good



Our first log cabin in Montana with attached play yard for IMOS was the basis for our second home in Indiana - Doug Kildsig



Just two days before departure, a local vet makes a house call to stitch up IMOS after her accident. Doug Kildsig

friend of mine in Montana, Nancy, to care for IMOS while I was away shopping for a new home. As fate would have it, I found a wonderful log home in Southern Indiana, and it had great possibilities for the addition of a 2,400 square foot matching enclosure system for IMOS. After agreeing to purchase the home from the original owner/builder, the builder, a skilled carpenter associate of the owner/builder, and I agreed to build the designed enclosure system that would be added to the home in advance of our planned fall arrival. The arrangements were that I would make another trip from Montana to the new Indiana residence by airplane and help the two complete the enclosure system by stretching/applying the chain link components (what joy!). Since I had already designed and built a very similar enclosure system attached to the Montana log home, it was not difficult to communicate the design details and lay out the design, trusting that they would frame the system according to the specifications. But, since chain link can be very difficult and tricky to stretch, and apply to these types of systems, I wanted to be a part of executing that aspect of the

design in completion. So, July 2005 arrived before I knew it, and I was in Southern Indiana, remarkably pleased with the framed enclosure system that I found waiting. Not so pleased that my contributions would involve long hours of staining wood and stretching chain link in near-100 degree heat! Thankfully, the enclosure completion went extremely well, and the design was fully complete by my departure date (about a week's time). IMOS now had a home waiting for her...after the 2,000-mile journey that was to come.

Back home in Montana, saying my goodbyes, and having the last visitors come to visit IMOS and I before we

left...IMOS suffered a serious injury to her left side. TWO DAYS before we were to begin the 2,000-mile trip to Indiana by vehicle, she had gotten hung up on a nail in the cabin, and opened her hide up about six inches! It was very stressful, but we were blessed beyond our wildest imaginations by our friend, Nancy, and her contacts with one of the best rural vets in the remote area. Nancy was able to help arrange that a vet make a house call to provide stitches to close the wound. So, I watched anxiously as the vet tranquilized, then anesthetized my beloved IMOS, sewing her up expertly. I am sure it was more stressful on me than on her. Regardless, the vet expertly put about 30 stitches into her hide, using the kitchen counter as an operating table. Following the procedure, she seemed no worse for the wear...but we were only two days from when I would need to

put a harness on her, and restrain her during our 2,000 mile ride. I was very concerned that the harness/leash would apply pressure and discomfort to the wound area, and create serious discomfort and manageability issues during the journey. As loving, gentle, and social as IMOS is, she has little tolerance for pain and discomfort.

That behind us, and 2,000 miles before us, I continued to pack and prepare for the

Join the Zoological Association of America



promoting the responsible ownership, management, and propagation of animals in both private and public domains.

There are several levels of membership including commercial, educational, facility, and individual. Accreditation is also available.

P.O. Box 511275
Punta Gorda, FL 33951
info@zaa.org
www.zaa.org

trip...loading a semi tractor trailer with vehicle, boat, tractor, ATV and other personal belongings. The plan was for IMOS and I to travel in my truck, pulling a sixteen-foot flat bed trailer with a 2,000-pound camper loaded on it. We would be able to stop during the trip as necessary, sleeping and resting in the camper, atop the flat bed trailer, behind the truck. We had about three days time to make the trip, meeting the contracted semi tractor-trailer and driver on the other end at the new residence in Indiana.

So, we headed out in late August 2005, with our new home waiting in Southern Indiana. My biggest concerns were heat, and I do mean heat! I was pulling about my maximum tow load for the light duty truck, and we had many mountainous regions to navigate under very high air temperatures. Engine and transmission temps were a real concern, as well as the temperature of the passenger compartment of the truck where IMOS and I would experience little opportunity for the relief of air conditioning. I was also going to be pulling on a harness/leash system that was precariously attached near the stitched wound site on IMOS the lady bobcat! Remarkably, the harness never seemed to create discomfort for IMOS. As many readers may note, if you are pushing

your engine temperature (or your cat's tolerances) with a maximum tow load and air temps, running an air conditioner compressor may result in the engine over-heating. I recall distinctly passing through Kansas City, MO, and the temperatures reporting at close to 100 degrees! IMOS was sprawled out, panting with a listless countenance. I was very concerned for her welfare in the extreme heat, but air conditioning was not an option. Every time we would stop for gas, the engine being shut off, and the cooling fan shut down, the engine temp would rise at start up, but each time it would come back down out of the danger zone. I was doing a lot of praying and hoping for both the truck, and IMOS! My sweat was of little concern if the truck and IMOS could hold out for the duration of the trip and the intense heat. I became so concerned for her that I made a cellular telephone call to my original Indiana veterinarian to inquire about what her professional opinion was of felines in extreme heat. She encouraged me to keep adequate ventilation and water available for her, and that it would most likely be fine. And, praise God, it was fine.

About midnight one late August evening, IMOS and I navigated into our new residence, and were able to relax and enjoy a

visit with the original owner/builder on the front porch! This was his first time to meet the animal of which we had worked so hard to provide for in building the enclosure system attached to the home. Of course he had heard stories from me, but he was intrigued to meet the animal of which we had all made such an investment. To be face-to-face with a North American bobcat on his (soon to be mine) front porch was a welcome reward. As irony would have it, the owner/builder had a mounted bobcat positioned on a main beam in the cabin/home. So it was a topic of conversation, and something to ponder how from 2,000 miles away, a live, loving bobcat had found it is way to a comparable home that was already decorated with her likeness!

So, we had made it...against all odds...a serious injury for IMOS just days in advance of the trip, high heats and marginal transportation, extensive packing and transport preparation, to combine with difficulties in the closing of the real estate transactions on both ends (that is another story in and of itself)! We planned, and we tolerated some very tenuous conditions, but we were very blessed when we arrived at our new home. IMOS is extremely happy, healthy, and well cared for in her Southern Indiana home.



IMOS has it all; a loving owner to care for her, the creature comforts of a real log cabin in southern Indiana, and an outdoor habitat surrounded by beautiful scenery with plenty of room to run around and go wild. Photo by Doug Kildsig

PLANNING AND BUILDING A NEW ENCLOSURE

by John Erickson

Photos by Jill Galindo

Figure 1

Clearing and leveling the site:

We live in an area blessed by heavy winter rains and high ground water. Protecting the animals from moisture was a primary concern when planning the construction of our new enclosure. Elevating the base for the foundation and designing an adequate drainage system was a critical first step.



Figure 2

Adding drain rock, compacting the base and designing a system of Dutch drains and retaining walls were all part of the preconstruction. Controlling the environmental factors will insure both the comfort of the cats and the longevity of the structure.



Figure 3

Subject to both heavy moisture and occasional earthquakes the foundation was a combination of piers and cement slab. All steel reinforced, the design provided both adequate airflow under the individual cages and good stability.



Figure 4

Following the first rule of construction: If the foundation isn't square and level, the end product won't be either.



Figure 5

Rule two: Use the right materials and you won't have to rebuild it later on. In our particular climate, redwood and pressure treated wood will last for 50 years. Less expensive materials like fur or pine will start rotting the day after you pound the last nail.

Wood or metal, you also need to consider the corrosive quality of cat urine when choosing building materials.



Figure 6

By adding pitch to the roof and extending the rear eave well past the perimeter fence and retaining wall, we further protected the cats and the structure from heavy weather. The enclosure was designed to take full advantage of the morning sun while protecting the cats from the afternoon heat. In our case, this alignment also used the solid back wall to block the prevailing winds. Insulation further enhanced the protection.



Figure 7

We used redwood 2x6's for the decking, and outdoor siding for the interior and exterior walls. Every board and panel was well oiled with Duck Back to protect against moisture, urine and insects. For obvious reasons, the deck boards were oiled on all sides to completely seal them.



Figure 8

Although most of the electrical wiring was hidden in the back wall, we used wire with an outdoor rating and ground fault outlets for added protection, and metal sheath wiring for anything exposed. Two protected outlets per cage services the heating pads in the den boxes. Four-foot fluorescent light fixtures in each cage are both energy efficient and light up every dark corner at night.



Figure 9

It's been our experience, that given the option, an Ocelot will use a toilet 90% of the time. These modified poly drums are easy to clean and provide containment for even the most enthusiastic sprayer. For this new housing we added a drain and plumbed it into a septic system installed the same time as the drainage pipes. High-pressure water outlets with quick release fittings are positioned between each set of pee stations. A short piece of hose equipped with spray nozzle and corresponding quick release fitting snaps easily into the water supply and is used to wash out the toilet, hose down the cage or fill water bowls. The main sewer line under the cage is connected to a 2" high-pressure water line at one end to flush out the entire system mitigating any odors finding their way back up through the drain. This system precludes the necessity of cleaning with chemicals or steam and damaging the wood and possibly the animals. Most importantly, it works!



Figure 11

The completed enclosure is 56' long and divided into 5 cages. Designed for breeding, each individual cage is large enough to accommodate two cats and is connected by horizontally sliding doors operated from the outside of the cage. To save space, each lock out is comprised of three doors so that one lock out can service two cages. The outer wire is 12.5 gage galvanized welded wire with a black poly coating for both corrosion protection and aesthetic quality. The wire in the common walls between each unit is 1x1/2" to prevent the loss of body parts.



Figure 10

Each breeding pair has separate den boxes. When occupied by only one cat, we turn the extra den box to the wall so it won't be mistaken for an extra toilet. Sometimes we get confused.



AN EARLY CHRISTMAS FOR PANTHER RIDGE



Aztec (left) and Lea (right) take a romantic swim in the pool - photo by Judy Berens

by Judy Berens, founder, Panther Ridge Conservation Center

It's all Mindy Stinner's fault. She set up the introduction with Lea Jaunakais that started Santa on his way. My old jaguar, Aztec (probably 17 years old) was extremely lonely after the passing of his long time cage mate last year. He called and called to no avail...no jaguar voice answered. Enter Lea, with a female jaguar believed to be about 12 years old. Tia had never bred and was also very lonely after the passing of her 19-year-old leopard – jaguar mix cage mate. She too, constantly called out for companionship.

All it took was a couple of phone calls, and Lea and I were making plans to get our old cats together, even if just for companionship. It was determined that it made the most sense for Tia to

come south, as I had a roomier enclosure and a pool already in place. This sojourn would give Lea some time to make some changes to Tia's habitat without having to keep shifting Tia around.

Mindy was heading south at the end of May for an Expo in Orlando and offered to chauffeur Tia to her new accommodations. I was anticipating that it could take months of living side by side before enough of a friendship was forged to allow them in together. Tia, however, arrived in estrus, and no sooner had she been shifted into her side of the enclosure, both cats began cooing and snuffling and rubbing noses through the wire. It was love at first sight.

After four days of pacing and licking and rubbing each other I could not stand it and opened the door between them. I had all my

separation equipment ready to go if it turned into a fight. Well, the old man thought it was surely his lucky day and proceeded to jump on her back, bite her neck and get the job done. Tia was not amused, and out weighing him by about 75 pounds, tossed him off like a fly and gave him a good dose of slapping and growling. She demanded manners! Apparently he was a quick learner, because by the next morning they were either cuddled up grooming each other or mating repeatedly. Both of them had a little hair knocked off, but no other injuries. Whew!!!

Fast forward — — — exactly 103 days after they were first together, Tia gave birth to a single cub in the middle of the night of September 17. Several weeks before we guessed she was due, we set up a hay filled den box and separated her from Aztec. She kept it impeccably

clean, so we had hopes that she would be a great mother.

But something was wrong....Tia would not go near the baby. We could not tell if she had tried to nurse it. Tia stayed outside the den box, leaving the baby completely alone. We could see that the baby was alive and that it could change position, but if Tia did not begin to care for it, we would have to take it out and try to do it ourselves. We gave Tia as much time as we could, but after what must have been almost 12 hours, we shifted Tia with food and I crawled in and picked up the baby – a beautiful little girl – and a very hungry one. She weighed in at a respectable 700 grams and then hovered down her bottle of about two tablespoons of formula. I used Esbilac with several Apperon supplements; Crisis Care pack, Rapid Rehab and vitamins with taurine. Because she did not get any colostrum from Tia, I switched to Pro-Biolac for a while. Luckily the little girl had no problems with the switch and was always ready for another helping.

Let me assure you, I am way too old to be a mother. I am not a great sleeper, anyway, and every time I really dozed off it was time to get up for another bottle every couple of hours for what seemed like an eternity! I went through the first month like a zombie. As she grew, the feedings lessened a little and her constant weight gain told me that we were doing something right. Month two was not much less demanding, not for those with a lack of commitment. At seven weeks we started to mix a little ground turkey into the milk,



Isabella is 7 weeks old now and exploring her world - Judy Berens

turning a beautiful shade of pale pink. Like the trooper she is, this, too, was gobbled up. A little more turkey was added to the mix every couple of days, and it was well received.

Now, at nine weeks, she will drink about four ounces of formula followed up by a couple ounces of tiny turkey meatballs with bone meal and vitamins mixed in. Her first instinct was to guard and protect her meatball kill, so from that point on, she eats out of my hand, one at a time. She WILL have good manners. Pushy, food

aggressive big cats are no fun!

Every day is a new adventure for little Isabella — there is so much to learn! Wearing a harness, going for walks on a leash, toys, meeting the other cats and most importantly lots of people. She was a bit shy at first but now is very easy going and loving with everyone here and even strangers and small groups of people she does not know. She does not mind car rides, but is not too sure about the golf cart. I do not think she likes seeing the ground whizzing by. Quite early on she took a tumble off the ledge by my pool and fell three feet into the deep end while I was inside warming a bottle. Half her body weight must have been her noggin, and when she peered over the edge, gravity took over. Thankfully Liz Hatton was there to scoop her up, but she had already started to paddle, who says they have to learn to swim! Now she knows where the shallow step is and jumps in by herself just for fun, always supervised, just in case.

Everyone who meets Isabella is amazed at her composure. She is 95% cuddles and 5% temper, which flashes and subsides in a nanosecond. It is essential to always have a toy to stick into her mouth when she feels the need to be a feisty jaguar, and so far, it does the trick. Patience, love and repetition over and over again is the recipe for a good cat. Liz babysat for me over the Thanksgiving weekend, and Isabella blended seamlessly into her family of kids and animals never once missing her mark on her wee-wee pads. What a girl! Santa did indeed leave me a precious package this year!



Isabella is 4 weeks old - Judy Berens



Spirit in the snow - Debi Willoughby



Amadeus greets Robert Beebe



Mala gets herself a drink from the frig - Jay Smith Jr.

YOUR BEST SHOT



Tequila hangs out on a tree branch. She is one of two female Indian leopards at Elmira's Wildlife Sanctuary. - Deb Kaprive



Tige the fishing cat s



Scooter geoffroy meets Danali ocelot through the sliding glass door - Jill Galindo

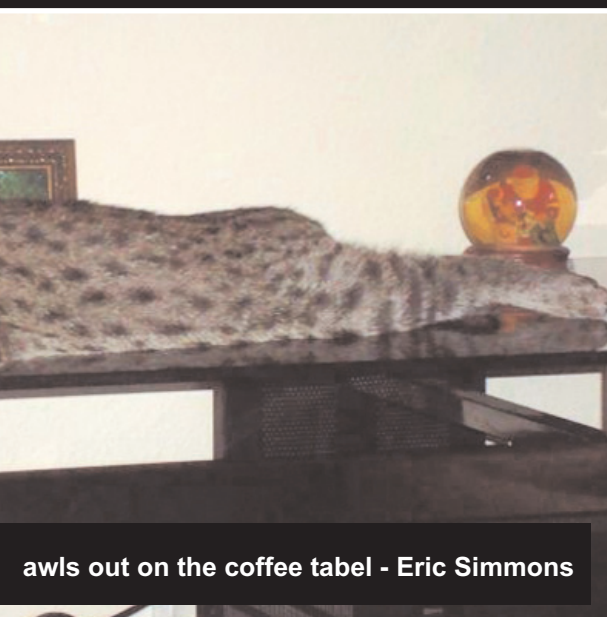


Solo stares intently at a goat - Robert Beebe



Crackers wears reindeer antlers to celebrate the season - Teresa Shaffer

S



awls out on the coffee tabel - Eric Simmons



Serval mom Dea nurses her newborns - Kathrin Stucki



Courtesy Horace Langford Jr.
Photographer - Pahrump Valley Times

It' Like Herding Cat People: Managing Confrontation with Diplomacy

*This is the first installment of a five part series by
Mindy Stinner, co-founder Conservator's Center, Inc.
Mebane, North Carolina*

PART 1 - MANAGING THROUGH PREVENTION

About 10 years ago, my partner and I founded a non-profit educational wildlife facility that also takes in some rescue animals when we can. We are pretty much grass roots, with a low budget and a small staff. We rely on volunteers to get everything done, donors to help out, and the press to be kind enough to us so that we can keep operating and have a positive effect on our community.

One of the challenges of working with volunteers, the public, and wild animals is that we are always in the public eye. Managing difficult people and situations is a huge challenge to any business. Add in having to be acutely aware of public perception, having more volunteers than employees, and working with potentially dangerous animals, and you have serious management issues on your hands.

Because we work with potentially dangerous wildlife, people pay attention to how we handle ourselves at all times. It is critical that we all set ourselves up for success by managing potential problems ahead of time.

Step one in managing difficult people and situations is prevention. There are many things you, the animal owner, can do to set yourself up for success.

I strongly recommend everybody name their facilities—even if it is built to house one animal. “Chuffling Tiger Farms” sounds like it would be much more reliable in a crisis than “Joe, that tiger guy.” Print up business cards with the facility name, and give yourself an appropriate title: owner, founder...whatever is right for you. Leave them with everyone you meet. This is the right time for overkill—if you stop the concern before it starts, you have headed off the

biggest problem you are likely to encounter.

Before you move in, or before you obtain a wild animal, go meet the people you need to have on your side. If you are going to own a wild animal any bigger than a house cat, you cannot afford to be shy. Talk to your neighbors. Meet local officials. Talk to businesses near you that might have concerns, like schools or day care operations. Know the laws. Be honest about your intentions. Know what you plan to do and how you plan to do it. Indicate clearly that you have the expertise to own and care for your animals.

When these people express surprise or dismay, your first instinct might be to get frustrated with them because they do not understand your passion. If you are impatient, it will feel to some less assertive people like you are bullying them. Listen to their concerns. Do not dismiss them. Address each issue clearly and without anger, looking them in the eye so they can believe you. Do it as many times as you need to, with as many different people as you have to. Remember, these people do not know if they should be afraid or excited about you having this cat, and your behavior will help them decide which way they go.

When we were getting ready to move to new land in 2001, we made a list of people we wanted to talk to ahead of time. We were not asking their permission to move in, but we did not want to have to fight them later, either.

Before we chose the new land's location, we spoke to county officials, including the town manager, the town planner, the newly hired zoning official, and several of the county commissioners. A few

of them were invited to come visit our previous location, to help assure them we knew how to be safe in managing our animals. When they arrived, they met the animals, fed some with a feeding stick, and got a notebook with a copy of our emergency management plan and information about the development we had planned for our property.

A strong emergency or contingency plan includes information on managing accidents and injuries involving animals, people, and combinations thereof, handling escapes, and management of your animals during all kinds of natural disasters that could happen in your area. Written plans should include people in roles, not by name. People may change roles depending on who is available. For plans you keep in your own records, include specifics on who will help you, what roles each person can fill, where you may evacuate to, what materials and supplies need to go with you. Written plans should be updated regularly and hand-walked to any new contact. (In 2004 I updated our 2002 emergency plan. We had taken in a large number of big cats, and our plan needed to reflect the management of 30 cats. Our 2002 plan included the line “load the tiger into her transport cage.” Obviously, things had changed a great deal for us in that short time. Keeping plans current may be a challenge, but it is important.)

When we spoke to county officials, we also included information about our mission, our non-profit status, and our credentials, including workshops we had attended and certifications we have. They went home with some great photos and big notebooks demonstrating our

planning and capabilities. We included copies of our certificates, workshop credits, and our resumes. They welcomed us as economic development.

When we went to get permits, we dreaded having to deal with the scary lady they have managing most of the process. She is infamous for making people draw a sketch of the future building, even if it is a shed. She often over-charged people by assuming little workshops or sheds were going to have the same amenities as a house. On our way to visit her office, we stopped by to say hello to the town planner. He not only hand-walked our permit through, he set it up as an open ended development permit so we could continue to add structures over time without having to keep returning for more permits.

When we arrived on our land and began work, we had an opportunity to meet deputies from the sheriff's department when some of our materials were stolen. We dealt with it very politely, even though we were frustrated and angry, and they offered to treat us like a standard commercial construction site

and do a special patrol of our property. We were thrilled. We watched for them to come by, always went out to speak to them, handed off a few plates of cookies, and introduced the deputies to our cats and wolves. We made sure to remember all their names. This is not one of my strengths—so I kept a cheat sheet in my pocket.

We worked hard to establish ourselves as go-to people in our region. We volunteered to be on our state's animal response team, which deals with animal-related disasters in NC. This model program offered terrific training opportunities for us, and meant that when county officials were invited to attend some of the training, they found us already established members of the team. We have been very accommodating to Department of Natural Resources officers, who in turn have made sure that confiscated meat and animals that had to be culled have made their way to us. Having these people know and trust us makes a strong relationship that benefits both parties. We look out for each other, and we know we can rely on each other's support.

We went out of our way to meet some of the more influential neighbors, most of whom are farmers. Once they felt like our cats weren't going to escape and wreak havoc on their chicken houses or chase their cows, they were very kind to us. Local farmers not only provide some of the food we feed to our animals, but they have helped us maintain our half-mile long gravel road, move giant tree stumps, and find a company who would rent us a dumpster. They have even offered to let us use their wells whenever the power goes out (they all have generators).

Some of these farmers serve on the board of the area Farm Bureau. In an agricultural state like NC, they wield some serious influence. This has been a great benefit in dealing with legislation that may have shut us down. In 2007-8 we managed to stop a bill that would have been devastating to any owner of exotics in NC. We could not have stopped it without all of the exotic animal facilities plus all the farmers who support them had not pulled together, and if the Farm Bureau, Poultry Federation, and



Zuzana Kukol and Scott Shoemaker prepared for emergencies by inviting local first responders to their big cat facility. Scott points out facility features and discusses contingency plans with fire department personnel. Photo courtesy Horace Langford Jr. Photographer - Pahrump Valley Times

Pork Council had not asserted their influence.

As we built, we made sure we looked like we were a secure facility from the start. We hired some local folks to help us put up the first tiger cage. After working with heavy duty steel for several days, and then helping pour concrete, these men went back to their neighborhood and told everyone how the cages we build are incredibly secure. When our perimeter fence went up, we posted lots of “no trespassing” and “danger” signs. Doors are marked “authorized personnel only” and so on. My favorite sign reads:

Warning: Tampering with this animal may be a federal offense under the animal enterprises protection act of 1992. Penalties may include fines, damages, restitution and prison sentences from one year to life. —Ordinance No. 18 USC Section 43 Public Law 102-346

We put up cameras. Some are real and some are dummy cameras, but visitors do not know. We make a strong effort to show a constant physical presence on site. When someone pulls down the driveway, we go out to meet them before

they get to us. When we see a “lookie-loo” going up and down our road, trying to see the animals, we approach them and ask if they need help, and give them a brochure. We want everyone to know there are always people here watching the property and providing security for both animals and people.

Some of our animal handling equipment is visible to people who visit our facility. Most of it is in storage, but we have chosen to let the weather abuse a few catch poles, nets, and transport cages. We prefer to have them stored right where they will be used if needed, and we want people to be able to see some of the tools of our trade. If people are curious on tours, we pull them out for a demonstration, like using a catch pole on a person’s arm. It reinforces to them that we are trained and ready to handle any situation.

Since we do take in some rescues and retirees, we have a lot of older animals or animals with chronic health conditions. We have been at zoos before where an animal was limping or had groomed out some of its hair, and we remember hear-

ing other patrons wonder about the animal’s care. We provide guided tours, so on the tour we make sure they address any physical issues the animals have. Tour guides explain how our 24 year-old bobcat with the cataract has been checked to be sure his eye is not under pressure, but that he is not really a candidate for surgery at his age. Explanations are given about the older cats that have arthritis and our regimen of glucosamine and other supplements is explained before the group sees the cat limping. Tour guides make sure that before anyone sees the lioness with the bad hip, they are told about where she came from and that she could not run and jump when she got here, but with extra time and attention and lots of toys to play on, tour guides have her demonstrate how she can now jump to the top of her four foot-tall den box. She is a success story, not a problem. These issues can also be addressed with the use of carefully worded signs.

Look for part II of this series, “Managing Public Perception” in the March/April Journal.



MEAT COMPLETE WITH TAURINE

RAW MEAT SUPPLEMENT FOR ALL CARNIVORES

Based on whole prey composition, this supplement balances the nutrients lacking in skeletal muscle meat-based diets for carnivores: vitamins A & D (normally supplied by the liver), B vitamins (from gut contents of whole prey), and of course calcium (found in bones). This supplement also contains added taurine – an essential amino acid for felids – and the antioxidant vitamin E.

CENTRAL NEBRASKA PACKING, INC.

PO BOX 550 ~ NORTH PLATTE, NEBRASKA 69103-0550

1-877-900-3003 ~ 1-800-445-2881 ~ FAX:1-308-532-2744

EMAIL: cenpack@kdsi.net WEB PAGE: www.nebraskabrand.com

DIRECTOR OF PUBLIC RELATIONS - ROGER NEWSON



Roger Newson and Kowe

Mr. Roger Newson was born and raised on the western slopes of the Rocky Mountains. He has a forty-year career in the

telecommunications industry. Currently he is operating a computer related business in the Florida panhandle.

Mr. Newson has worked directly for and as a consultant to a number of major U.S. corporations in various capacities including director of operations, engineering manager, project manager and other related management and technical positions across the USA and overseas in the Caribbean, South Ameri-

ca, Africa and the Middle East. Mr. Newson has pursued feline conservation efforts wherever stationed.

Mr. Newson has maintained his license for possession of felidae by the Florida Fish and Wildlife Conservation Commission since 2003. Presently he owns two cougars and six servals. His exotic feline experience includes working with jaguars, pumas, ocelots, margays, servals and bobcats.

RELATIONS

Hi folks. As the result of a vacancy, your board of Directors recently appointed a new Public Relations Director... me! (New blood, or perhaps, just fresh meat.)

By way of introduction, my adventures with wildcats span the last twenty or so years, spread over South America, Africa and here in the USA. I've owned Jaguars, Pumas, Ocelots, Margays, Servals and Bobcats. I am currently owned by a couple of Cougars and half-a-dozen Servals.

I have been deeply involved with both natural and captive feline conservation, and I am prepared to fight to the death to preserve our right to possess these animals. I've been a member of the FCF since 2004.

Member Relations

Plain and simple... public relations begin and end with member relations. How we treat each other as fellow members, how we as individuals care for our animals, how we protect the public, and how the FCF as an organization supports its members, all reflect upon and ultimately define our public relations image.

As cat people, those among us are as varied in their views, methods and opinions as any assemblage could possibly be. As a member, everything you do reflects upon the FCF and, likewise, what the FCF does impacts upon the diverse sensitivities of our members. Nevertheless, we must capitalize on our similarities and tolerate each others differences to present a united, committed, and professional public face. Each of us individually has a responsibility to our felines, to ourselves, to the public and to the collective of the FCF to present our passion in the most favorable light possi-



Roger and Kowe demonstrate for audiences at the Washington County wildlife exhibition at the Florida Expo '09. Photo by Shirley J. Brown

ble. That, ladies and gentlemen, is the root of good public relations.

Our members are the single most important aspect of our organization. If we're not looking after our members, it matters not whatever else we accomplish.

Can the FCF be all things to all members? ...Most probably not, but it is certainly worth trying. Considering the vast diversity in our ranks this is a difficult if not impossible task. To this end, your management team is seeking to become more responsive to members' concerns and to provide an open, more transparent management process; giving our members greater access to input and understanding of organizational objectives and how management decisions are calibrated to accomplish those goals.

Achieving excellent member relations is the basis by which we may improve the FCF and, thereby, solidify and grow our membership. As such, I believe that an emphasis must be placed not only upon public relations, but more importantly, upon member relations. Upon talking to various FCF members over the years, I know that a number of members, upon occasion, have felt frustrated with and, perhaps, disenfranchised from the organization. This is something that must be corrected. Every voice counts!

During my tenure as your Public Relations Director, I will equally address the concerns, treatment and contributions of individual members, as well as the organizational concerns, goals and accomplishments. Along these lines, I am prepared to act as your personal liaison with the FCF management team. Please feel free to contact me directly and I'll personally present your concerns to the board or others to bring about a fair and timely resolution. E-mail: PublicRelations@FelineConservation.org

In addition to standard press releases, interviews, etc. there are a couple of other things, I'd like to try...
Public Relations

Firstly, one of our members, Jim Broadus, of the Bear Creek Feline Center in Panama City, Florida had a terrific suggestion for grooming our image. Jim has had a very successful career in the broadcasting business and is well connected in the industry.

He informed me that many of the regional television markets are always looking for

human interest clips to fill various time slots (1 to 3 minute), particularly on week-ends. He suggested that our members submit interesting digital video clips of their felines that favorably illustrate the nature of private captive conservation. We are currently looking into sourcing editing and voice-over talent to finalize and present clips that get our message across. This is just in the early stages, details will be forthcoming.

Secondly, as an organization, it's time to openly and aggressively take on our vegan adversaries. Time to attack with truth to the public about their special interests, hidden agendas and misinformation campaigns. Who better than us? If we don't look out for ourselves, who will? We have nothing to lose, considering that they are already actively engaged in managing us to extinction. I will address these issues in press releases, etc. as opportunities present themselves.

I am looking forward to helping each of you in any manner possible and to improving the FCF and its image for all of our members.

Truly for the cats,
Roger Newson

FCF is still on
www.igive.com and
www.goodsearch.com!!!

How can you make searching at shopping for that perfect gift this holiday season even more perfect? Use iGive, where with every transaction a portion goes to benefit Feline Conservation Federation.

Everyday prices/policies NEVER change from purchasing through other stores websites, so help our organization with your everyday purchases!

**Also, check out the new searchable coupons and deals, where you will find all available, up to the minute offers and specials offered through your choice of stores.



Here's another easy and free way to help our organization!

Download or just use the goodsearch toolbar (like you would a google, yahoo, msn, etc... search bar) from www.goodsearch.com and use it for your everyday searches and internet browsing!

For any questions
E-mail Erin Patters fcfmynspace@gmail.com



It's fast, easy, and did we mention that it's free?!

Raise a penny (or more) per search and generate donations from many of the 730+ stores listed with iGive, ranging up to 20%.

NEW for the holidays:
Recruit new members (the more the merrier!) and iGive will send your cause a \$5 bonus for those members who shop within 45 days. We are also doubling all search donations to \$.02 a search for all members. (Ends 11/15/09)
P.S. Searching at iGive is a great way to get people involved.

EDITORIAL: LOOKING FORWARD

Prior to accepting a board member position, I had discussions with several FCF board members and officers. I had a number of concerns regarding where the FCF is now, where it is going, and how it will get there.

I was astonished to discover that the FCF manages by way of eleven board members, each of whom is charged with a particular area of responsibility, and some of whom also hold positions as corporate officers.

Drawing upon my personal experience in the corporate boardroom, I had to question, "How do you get anything done? That is a huge number of directors to try to get consensus in the decision making process. Furthermore, management by committee just doesn't work! Particularly, if they're involved with minor decisions and the accomplishment of day-to-day tasks. The day-to-day operations are best left to corporate officers (president, vice presidents, secretary, treasurer, etc.) and their delegates. An ideal number of directors should be around five. That's a large enough number to get diversity, yet small enough to gain efficient consensus."

It was explained to me that numerous board members were necessary to carry the work load for each area of responsibility. I countered with the suggestion that it was far more efficient and flexible to establish a 'committee chairperson' for each area of responsibility, with that chairperson reporting to a corporate officer such as the president or a vice president.

Under the current structure, if a board member is incapacitated or becomes non-responsive, the only recourse is to hope that the individual resigns, or possibly having to wait two years until a new election takes place. In contrast, by using the committee chairperson approach, if they don't perform, the board may release them from their position and usher in new blood.

I went on to explain that typically, in most corporate settings, the board of directors, as elected by the members, should function only to elect officers,

approve committees, formulate policy and set organizational objectives in accordance with membership significance; and to approve budgets to implement those policies and objectives... nothing more!

Any member may be nominated for the various corporate officer positions (president, vice president, secretary, treasurer, etc.). Elections for which are carried out by a majority vote of the board. The officers then serve to meet the objectives as determined by the board. They certainly must not function as a dual officer/board member. Otherwise, there is no chain of command or control to ensure execution of tasks. The board must retain discretionary proxy powers in the event that an officer fails or is unable to carry out their duties.

Recognizing that although the FCF is a non-profit volunteer organization, the same level of performance excellence and accountability must be demanded and controlled as in any other corporation.

As I see it, the FCF must nurture sustained growth of membership by meet-

ing members' expectations and by management of the organization as a lean, mean business machine. Our public image must emerge as 'the definitive authority' regarding wild feline issues as exemplified by the deeds of our members and the leadership of our organization.

I was pleased to find that my views and concerns are shared by other board members. They are aware of the necessity to adjust the focus and structure of our organization. This will encompass revamping our bylaws and implementing new process and procedure.

As I had mentioned in a previous article, the FCF is on the cusp of a major transition. We are eager to begin and hopeful that this transition can be completed before elections, next year. Please note that we are merely in the preliminary stages of discussion and formulation. As such, we ask for your continued input and support in this endeavor.

Truly for the cats,
Roger Newson

Domestic
Exotic
Dogs
Cats
Snakes
Birds
Ferrets
& more!

EIB Unleashes Animal Liability Line

EIB provides animal liability coverage for dogs, cats, big cats and performing animals. If you have been denied first time coverage, or your homeowner's insurance does not cover your animals for liability, this protection is for you! 10% discount with the insured's proof of FCF accreditation.

- EIB can quote coverage for all breeds, and especially hard-to-place breeds.
- Exotic animals such as big cats, snakes, birds and ferrets are also considered for liability coverage.
- Animals used for business purposes like security and guard dogs, show dogs and other performing animals will be considered for coverage.

As a pet owner, give us a call today to learn how EIB can help you get the liability coverage you need.

Learn more, today!



EIB
EVOLUTION
INSURANCE BROKERS
www.eibdirect.com

info@eibdirect.com | 877-678-7342

NEW CAT HOUSE IN NEVADA



It was love at first sight. Deanna gives Tiger a kiss on the nose. Photo by Randy Croasmun

By Deanna Croasmun

My husband, Randy, told me absolutely NO BIG CATS, so I found a couple of little ones to bring home. Twenty-one months ago we got a 40-pound baby lion and a 30-pound baby tiger. For the first several months, Leo and Tiger were house pets and slept on the couch and rode around in our van. As we saw how fast they were growing and how much trouble they could get into (after all tigers do not belong on top of the big screen TV, nor lions in the hall eating leather work boots), we realized we needed to build them their own outdoor enclosure.

We built them a 60 foot long, 45-foot wide, by 12-foot tall open-topped pen, and inside of that was a 10-foot wide by 30-foot long lockdown area, and attached to that, a smaller 10-foot long by 5-foot wide cage. When we first built their enclosure, they were still coming inside with us, going out for walks, and they had access to the large exercise area, but if we were not there, we would close the gate and enclose them in one of the lockdown spots for security. As they got bigger and bigger and I read more stories of big cat escapes or people getting hurt, I

stopped taking them out for walks, going in the van, or bringing them inside our home.

As Leo and Tiger continued to grow, Leo was content to lounge around, but Tiger became a very athletic cat. So next, we decided Tiger needed

three foot lean-ins on top of the fence.

While watching our tiger and seeing others, we came to suspect that our tiger is one of the nuttiest flying tigers around. As we heard stories about tigers jumping 10, 12, and even 13-foot fences, we realized the only way we would be able to

sleep comfortably at night would be to have Tiger under a roof, 100% secure - meaning no more open top. The next step in our cage construction was cutting the fence down to 9-feet tall and building a heavy-duty roof to keep Tiger safe.

When my husband cut down the sides of the 60-foot by 45-foot pen, we no longer let Tiger into that area, as we were worried she would jump out. We kept her in the 10-foot by 30-foot lockdown cage until we got the roof finished. I felt really bad that we had to confine her in the small pen for a few months. We did not realize it would take so long to accomplish the roofing project. While this renovation was going on, Leo could be in either area, but with Tiger in the lockdown cage, when Leo came out he would mostly just sit on the other side of the wire to stay close to her.

Over the last three months, they have gained a lot of weight since they were not getting enough exercise. But, they have always been a bit on the heavy side. I reduced their food portions, but they really love to eat, so I have a hard time judging how much to feed them. My bobcats, lynxes and jungle cats are easier to gauge how much to feed because they are not gluttons like Leo and Tiger. Leo and Tiger keep saying “more, more, more”



Once we decided to roof over the original cage, we had to cut down the recurve and some of the wall height. Deanna Croasmun



The city of Wendover donated the large tree. Moving the 8,000-pound behemoth was easier said than done. Deeanna Croasmun

when it is feeding time.

The enclosure now has 565 bolts (all hidden), 240 pressure treated four by fours, and 20 steel I-beams across the top to support the roof, which is nine-gauge chain link. The fencing on the sides is also nine-gauge chain link. The two lock down areas are constructed of eight-gauge welded wire panels bolted to railroad ties on the ground and roofed with metal bars u-bolted to the tops of the panels.

The way the enclosure was originally designed, to gain access to the two lock down areas, one had to walk into the large exercise area in contact with the cats. When we designed this habitat we were not thinking about safety concerns of large, adult felines. We were hands-on with both young cats and I did not even move them when I was cleaning. Now we have a corridor built inside that we use to gain access to the lock down areas and we can open gates to the different sections from within the corridor. This makes it safe for me, or others, to clean and feed. These adjustments were necessary because what was okay for little cats was not okay for big, powerful cats.

Tiger is very energetic. My husband played with her while she was growing up (he says she always started the wild play on her own), so she thinks it is perfectly fine to go flying through the air and land on humans. She also loves to smack people on the ankles or back of the calf while walking next to them. It was cute when she was little. If we ever have a

baby tiger again, we will do some things differently next time. When we visited Zuzana Kukol and observed the way she interacts with her cats, I realized we had been letting Tiger get away with too much. Tiger is a very loving cat, just a



Leo spread eagle in front of his lounging table. Deeanna Croasmun

little out of control. Leo is a sweetie, and very gentle, so I am still hands on with him, but careful. I keep in mind the accidents and escapes I have read about.

During this latest construction phase, the City of Wendover cut down a large tree. Local residents cut most of it up for firewood, but Randy rescued the stump because he knew it would be a perfect couch for Leo and Tiger. When the crane operator lifted the stump onto our trailer, he said the huge chunk of wood weighed in at just over 8,000 pounds on the crane's scale. It was slow moving on the freeway getting the stump 10 miles out to its new home at Pilot Peak Wildlife Park, a project in Northeastern Nevada that we have been working on since the cats first arrived.

To get the stump inside the enclosure, we opened up one of the sides by weaving out one of the chain links (which we put back in when we were done). Then Randy pushed the stump through with his backhoe using railroad ties between the bucket and stump to push it further when the backhoe couldn't go in anymore. He almost knocked out one of the four by fours getting the stump in. We wanted to

move it a little more, but could only go so far with the railroad ties, so we had to be happy with where it ended up.

Since Leo is not as adept at getting up

on high places as Tiger, as a finishing touch, we topped a smaller stump with a round wooden spool top and added rock steps just for Leo. We finished this stage of the remodel on December 2nd. We still plan to pour concrete pillars around the inside posts, but we will wait until March when it is warmer outside. Then, we will also have to add a sun deck and a pool.

While Leo and Tiger really seemed to enjoy watching the construction for the last three months, it was a thrill for them to come out and experience their new play area to celebrate their second birthday. It is amazing how fast they have grown in the short time we have had them. They are still just as sweet and goofy as they were when they were 30-40 pounds, but now they are closer to the 300-400 pound range, so they are definitely big cats.

From the right side of the cage, Leo



The first snow of 2009. Leo and Tiger by their tree. Deanna Croasmun



Leo and Tiger check out their new tree in the finished enclosure now completely roofed. Deanna Croasmun



Post office at Pilots Peak Ghost Town, which will open in 2010 and feature historic buildings and exotic wildlife on display. Deanna Croasmun

and Tiger have a view of Pilot Peak, which is 10,786 feet tall. The left side of the cage is a few feet away from the Kit Carson trail, the path that Kit Carson and John C. Fremont chose in 1845 to cross over the Toana Mountain Range while heading west to California. Keeping Leo and Tiger company at the wildlife park is a variety of other animals, so there is never a dull moment. Now that their enclosure is done for a while, Leo and Tiger can go back to watching the restoration of Pilot Peak Ghost Town (next door) just 100 feet away. Both attractions should be open to the public by the middle of 2010.

MISHI



Mishi at 4 months explores his world. Photo by Lynn Culver

by James Godsmark

“The best laid schemes o’ mice an’ men
Gang aft agley,
An’ lea’e us nought but grief an’ pain,
For promis’d joy!”

From “To A Mouse, on Turning Her Up
in Her Nest, with the Plough” – Robert
Burns (1785)

The reason I have chosen the above quote from Robert Burns, is because the inimitable Burns knew, (as do most other folks), that life has a way of never quite going the way you would like it to, whether you be mouse or man. By the same token, occasionally bittersweet (often pyrrhic), victory will emerge out of the wreckage of the best-laid plans.

This is an unusual exercise in writing a prose-styled article from a person, who has spent the better part of a decade concentrating on scientific or philosophical writing, so I do hope that faithful readers will forgive my meanderings.

This is a story of plans for research, which suffered a series of setbacks. This is a story of snatching defeat from the jaws of victory. This is also a story of how an unexpected and unplanned success coalesced from the failure of those original plans, and how that success, in itself was bittersweet.

Most of all, this is the story of Mishi and how he came to be.

First, a bit of background:

As for myself, I am a relatively long-term FCF member, having first become a member of the current organization in 1991, when it was still under a different name. I am also a long-term veteran of non-domestic carnivore care, first having

contracted the incurable ‘big cat’ bug (or ‘spotted fever’ as it has been laid out in more poetic terms), during an eight-year stint as a zookeeper. Toward the bitter end of the nineties, I ended up leaving the happy, and often not-so-happy, world of zoo keeping for a number of reasons.

And there were quite a few reasons, but the biggest two were that I had come to realize that, as much as I loved my direct involvement in day-to-day care of these majestic creatures, I was more interested in conservation, specifically research that would benefit conservation.

The second reason was that I had come to the unpleasant realization that, eight years into what I thought would be a career, I had gone as far as it would ever be possible to go at the age, education level, and experience I possessed.

So it was that in mid 1998 I applied to the Biological Sciences program at the University of Guelph, and was accepted for the January 1999 entry point. I emerged in late 2003 with a double baccalaureate: an honors B.Sc. in Animal Biology focusing on reproductive physiology, along with a B.A. in Bio-Ethics.

Hey! Great! Now I have a double bachelors, and scads of experience behind me! It should be easy to find a professor, who will be interested in my research ideas, and who will be more than happy to take me on for a master’s thesis! I will be able to use all my education and experience, and I will start working right away to use research ideas to benefit conservation!

Uhm... Not so much. And the people reading this article, who were already laughing by the time they got through the first sentence of the preceding paragraph, are the smart ones; or at least, you are certainly smarter than I am!

You see, I did not know at the time that I was in for a very quick and very rude awakening. The first part of that was finding out just how cutthroat and competitive getting into grad studies really is. The second part was finding out that it is all about the funding. Unfortunately, traditional sources of government funding for university-based research have all but dried up in many countries, and as a result, corporations have stepped in to fill the gaps.

The problem with this is that a great deal of academic freedom has been lost, simply because he who pays the piper calls the tune. Corporations tend to want to fund research, which will be beneficial to them. Hence, many professors, who have had to rely upon corporate funds can only offer research projects within a narrow, and strictly-defined focus, which has been set out by their corporate benefactors.

The other factor in this is that quite often, the research is proprietary, which severely limits, or even curtails the ways and means in which the researcher can eventually cite that research. It also severely constrains when and how they can publish from it, or if they can even use the findings or techniques in subsequent, follow-up research. So, it is really the proverbial double-edged sword in that the researcher can indeed get needed funding, but at a very large, long-term cost in academic and scientific freedom.

Thus, like everything else, research has become another industry.

The other possibility is that a prospective student can try and find their own sources of funding, which they can then put on the table when negotiating with an interested professor. The downside to this is that it can turn out to be a very tricky business, as I found out the hard way.

To make a long story short, I had been scheduled to begin a M.Sc. program in the fall of 2004, under a professor who was interested in a project I had proposed, which was an andrology (male fertility) study in wild cats. Pursuant to this, I began to contact a number of facilities and individuals who housed potential subject animals: Essentially intact males in good health, with no known abnormalities; who were potentially about to be safely handled, and who could either be trained to manual semen collection procedures, and/or who could be submitted to electro ejaculation protocols.

Starting from late 2003, I was in contact with a number of possibilities, including revisiting two facilities that had cooperated with me in 2001 when I had performed a similar, smaller project for my fourth year undergraduate Reproductive Physiology course.

One of the facilities I contacted during this period was the NOAH Feline Conservation Center, run by Lynn and Bart Culver, whom I have been friends with pretty much for as long as I have been a member of FCF.

At the time, the Culvers had several intact males of a few different species that they thought might be candidates for the study, including a young cougar named Hercules. So with that in mind I made arrangements to make my first trip down to Arkansas in over 10 years, essentially to meet and get the measure of each particular animal, find out which ones I could build up a rapport with, and, if possible, successfully obtain samples.

Lynn and Bart were gracious, friendly hosts as always, and it was good to see them again after a span of so many years since my last visit. We began evaluating potential subject males. The first was Hercules, who, at that time was aged a little over a year and a half, and who was a very friendly, approachable cat. Unfortunately, preliminary inspection and handling showed that he was unsuitable as a subject at that time, due to the fact that he had one undescended testicle, and his penile frenulum was still attached.

For those, who are unfamiliar with the penile frenulum and its purpose: In many mammals, such as carnivores, whose penis is located inside a sheath, there is a small strip of tissue, which attaches the glans penis to the prepuce in young males. The reason for this is so that the penis cannot be fully erected or extruded from the sheath during early development, and this will protect the organ from damage from the mother's tongue or teeth, while she cleans her cub.

Normally, as the male nears pubescence, the frenulum will naturally degrade and break away, allowing the male to achieve normal extrusion and erection. However, on some males, the frenulum will persist, and the discomfort it causes will encourage the male to eventually bite it away, or in the case of domestic animals, occasionally owners will take their potential stud animal to the veterinarian to have the persistent frenulum cut away in order that the penis can then function normally.

Hercules was not suitable as a candidate. Lynn later told me that his retained testicle

eventually descended on its own, and a year later he successfully mated with Sheila, so his frenulum did detach naturally or he bit it away).

Of the other three male cougars that Lynn and Bart housed at the time, all three were initially thought to be unsuitable: Mercury, due to his extreme age (nineteen years at the time), Caesar, because he was very shy and fearful of men, and Sharu, the last survivor of Mercury and Tara's first litter, due to his own advanced age of 16 years and his severe arthritis in his hips and feet.

The Culvers' young female cougar named Sheila had been placed with Sharu, mostly to keep him company, although they hoped Sharu might be able to breed her as he and his brothers had always been exceptional cats and they wanted to have his genes passed on. Unfortunately, Sharu's arthritis prevented him from hunching his hips enough to get the job done properly.

Shortly after ruling out Hercules as a research animal candidate, Lynn informed me that Sheila was currently in heat, (not that her screaming had not already made that painfully obvious), and that Sharu was showing some interest in her, although, for previously-mentioned reasons, he was

unable to successfully breed her.


Sharu had already demonstrated to me that he was physically capable of having a normal sexual response; it was just the actual mechanics of copulation that defeated him. Sheila was quite obviously rip-roaring to go.

The Culvers and I discussed options for assisted reproduction. I felt it was physically and theoretically possible. However, I had none of my usual, sterile equipment with me. I was limited to the pretty much stone-age option of simply waiting until Sharu tried to mount Sheila, and I would only be able to assist this pair if they were attempting to mate right next to the outside wall of the connecting lock-out shift area, which was constructed of cattle panels, but unlike the main enclosure did not have the same 2 x 4 welded wire overlay that restricted contact with the cougars.

On the first three occasions they attempted breeding, they were in the center of the enclosure. Sharu failed to penetrate Sheila. On the final mounting they presented themselves right against the fence in front of me and I was able to guide Sharu to his target and he bred her like a professional.

One or two copulations are not normally enough physical stimulation for a female to

APWE



Association of Professional
Wildlife Educators

No matter where your passion lies, wildlife education unites us all

The APWE has organized educators at all levels so those looking for professionals only need to look at one web site - www.apwe.org

Member benefits include curriculum resources, continuing education opportunities, and continued support through our list serve.
Go to www.apwe.org for details



Mishi at three weeks, sleeps soundly in Bart's arms. Photo by Lynn Culver

actually ovulate. I needed to work with Sheila. Fortunately she was very friendly and easily handled. It was not long before she was coming to the side of the enclosure and soliciting 'pseudo-breedings' from me. I was able to administer two inseminations by syringe and this must have been enough stimulation to fool her body into ovulation.

Before leaving the following day, I told

Lynn and Bart that I thought the realistic chance of Sheila successfully becoming pregnant from such crude, stone-age assisted reproduction techniques would be slim to none. Nevertheless, when I got back home two days later, I called Lynn, and she told me that Sheila had stopped calling a few hours after I had left and had completely come out of heat by the next day.

I returned to Arkansas again in mid-July on a follow-up visit, this time with all my equipment, and I was finally able to examine Sharu's semen under the microscope. I found that, while his sperm quality was not the greatest, he was still within a fertile count range. Lynn had also informed me that Sheila had never come back in heat since April, but she was not positive she was pregnant.

Three days after I left from this second trip, Sheila gave birth to two kittens, a male and a female. Unfortunately only the male survived. Since I had had the privilege of being a pseudo-father to Sheila's litter, Lynn was kind enough to allow me to name the remaining kitten.

I decided upon Mishi, naming him after a character in a short story about

a tame cougar that I had read years before.

I finally got to meet the (now grown) Mishi on a second follow-up visit in late 2005, and he laid his full body across my lap, and purred. There have been very few times in my cat care or research career, where I have been as close

to tears as I was then.

Unfortunately, as things turned out, the intended M.Sc. thesis never happened, as funding issues on the professor's end served to kill things at the very last second. I eventually went into a slightly different master's degree project in late 2006 and completed at the end of 2007. In the future, I plan to try to resurrect the original cat study for a possible Ph.D. thesis.

Nevertheless, for the short while when Mishi lay across my lap and purred, looking into my eyes with his own, all of my frustration, depression, and all the sense of failure for things falling apart seemed to fade away to nothing. Looking in Mishi's eyes and feeling his purr seem to vibrate throughout my own body and somehow made it all worthwhile.

James Godsmark M.Sc., B.A., B.Sc.

Specialist in Reproductive Immunology and Andrology in Non-Domestic Carnivores

Graduate of the Centre for the Genetic Improvement of Livestock (CGIL)

Department of Animal and Poultry Science, Ontario Agricultural College

University of Guelph

e-mail: jgodsmar@gmail.com

Postscript. The birth of Mishi was a wonderful event, one that we had little expectation of ever achieving without James. Mishi was bottle-fed beginning at two weeks of age. He had the companionship of bobcat, geoffroy and domestic kittens in our home and our grey domestic named Momma Cat, allowed him to nurse her along side her own kittens. Mishi is an outgoing cougar that has befriended many people. Lynn Culver



Momma cat allows a baby bobcat and Mishi to nurse along side her own kitten. Photo by Lynn Culver

EMERGENCY PLANNING

Kevin Chambers

Everyone who owns exotic felines (or any other animal, for that matter) should take some time and come up with some plans to deal with those “what if...?” situations. Doing it now could save valuable time should one of those situations become reality. It literally could mean the difference between life and death for your animals, or even yourself. It's not really hard to think out the situations while you are calm and collected and not in a stressful “every-second-counts” position. Mentally put yourself in these “what if...?” situations and devise one, or even better several, plans that could be implemented for each scenario. Write these down and keep the plans in a safe place where you and others can find them.

Some of the situations to think about are: animal medical emergencies, animal escapes, natural disasters, fire, sickness or death of the owner, and injury caused by an animal to yourself or someone else. There may also be other situations specific to your local area that should have an emergency plan. Try to think of what could happen and make plans accordingly.

Emergency medical condition with one of your animals-

You'll need to have the name and number of a veterinarian that is available for emergencies 24 hours a day. Always have a backup vet's information, too, in case the first is unavailable. It is best if the vet is one that has worked with your animal before. If the 24 hour vet is not your regular vet, you should visit with him, or even better, have him visit your facility, so he has some idea of what he may be working with. That will also make it much easier to get him to come out at 3 am on a Saturday night. It seems like emergencies never happen during regular working hours. Find out if the vet will make after hour home visits or if you'll have to bring the animal to him.

If you have to take it to the vet, make sure you have equipment to safely load and transport the animal. Remember that if you have to borrow this equipment and/or crate, you might have a hard time finding them in the middle of the night. The time spent locating or retrieving these items could cost your animal its life. Remember that even if your animal is tame, when it is in extreme pain, it

most likely will not be handleable. You'll need something like a net or tranquilizer to avoid getting injured yourself.

Animal escapes-

The best thing to do is to do your best to make sure this never happens. Make sure all of your enclosures are structurally sound at all times. If you keep your animal in the home, make sure all doors have a double door system so the cat can't run out while you're not looking. Make sure all windows are kept locked at all times or have sufficiently strong protective coverings. The regular mosquito mesh is not strong enough to contain a cat if the window is open and the cat becomes frightened. The best thing would be to have all window openings covered with some sort of wire mesh that the cat can't get through. Remember that if the cat is scared, it is capable of things that you would say it would never do. It is better to be safe than to have to try to recapture a frightened cat.

Do you have the equipment needed to recapture the cat? Items such as nets, tranquilizer gun, or even a heavy blanket are invaluable. If the cat were out longer term, things like live traps would be needed. Make a list of people that you could call that could come help you catch the cat. It is even better if some of these people have capture equipment of their own that they could bring. Keep a cell phone on you at all times so you can communicate with others on the location of the cat and the status of the recapture.

Some areas have laws that you must contact the police or department of fish and game in the event of an escape. List these numbers so you have easy access to them. Talk to these agencies and find out what they would do in the event of an escape. Try to talk with them and make sure that they know that sometimes their actions can escalate a situation if they have untrained personnel coming in with sirens blasting. Show them a copy of your recapture protocols so they are familiar with them and can help work with you. Remember, most likely you will be the expert in how to recapture your cat. Not always, but if an untrained agent comes to the call determined to be a hero, the situation can turn bad fast.

As a last option, make sure that you have a firearm capable of administering deadly force. The last thing you want to happen is for some member of the public being endangered. This is particularly important for big cats, but even small cats could attack if provoked while stressed. If an attack is imminent or in progress, you have no other responsible choice but to destroy the cat.

Natural disasters-

This can encompass a wide range of situations: tornados, hurricanes, storms with high winds, blizzards, freezing rain, wildfires, flooding, etc.

You should make sure that your pens have a strong and secure lockdown area where the animals can be locked down when weather is severe. Sometimes it is even best to lock the animal in a strong travel cage and place it in a secure area. Some of these natural disasters can come up almost without warning and time can be of the essence. Make sure your cats are trained to enter the secure areas or crates so this can be accomplished quickly and safely. Make sure you have all the necessary capture equipment and travel cages at the ready at all times.

In the event your facilities are damaged, have a list of other facilities where you may be able to take your animals until the emergency has abated. Make sure you have several facilities on this list in different directions because it is likely that those nearby may be affected by the same disaster.

Fire-

Have the number of your local fire department prominently posted and call them first, even if you think the fire is not out of control. It is best to have them show up and find the fire out rather than call them after the fire has become unmanageable. Have fire extinguishers or hoses readily available so you can extinguish or contain the fire before help arrives.

Once again, capture equipment and crates to move the animals to safety must be readily available, as is the list of alternative facilities to place the animals in case of severe damage.

Sickness or death of the owner-

In the event you become sick or are unable to care for your animals yourself, you need to have someone trained on how to care for your animals. They will need to

know where the feed and equipment is kept, how much food each animal gets, and any other particular tasks that need to be performed. They will also need to know where you keep a copy of your emergency protocols and become familiar with them so they can implement them if need be.

You should also make a will or other document that states what should be done with your animals when you die. Many times this is not done and a grieving family is left with animals they just are not sure what to do with or who to call. You can provide your animals with an easy transition with a little forethought and planning.

Injury caused by an animal to yourself or someone else-

If an attack takes place while you are present, you'll need to have equipment handy to try to stop the attack. Fire extinguishers, tasers, high-pressure hoses, pepper spray,

and even a bite stick (a short piece of hardwood or pipe) can help to get the person to safety. Remember that you should not put your self or others at risk while trying to stop an attack. Try to isolate the animal and lock it away from the victim and rescuers before entering the enclosure. Sometimes this is not possible and the animal will have to be destroyed in order to stop the attack. Be careful in your aim as to not further injure the victim.

Move the victim to safety and apply first aid. Apply pressure to any areas of profuse bleeding. Determine if the injury calls for a visit to the hospital. If it does, call emergency personnel to transport the victim. If any limbs or digits have been severed, retrieve these and pack them in ice so that an attempt to reattach can be made. Send these along with the victim to the hospital.

Make sure you know where all of your

vaccination histories are. Even though rabies vaccines are not approved for wild cats, proof that the animal was vaccinated may enable the animal to be quarantined rather than destroyed for rabies testing.

Contact the appropriate authorities as required by law. You can be pretty sure that the media will contact you. Have a prepared statement ready so that the media does not pressure you into saying something that could damage you.

These are just a few of the major scenarios that could happen. As you think of others, prepare an emergency plan. Pre-planning can save a lot of headaches and heartaches should you be unfortunate enough to be beset with an emergency. It is all part of being a responsible owner.

BLAST FROM THE PAST - JUNGLE CAT: FELIS CHAUS



Photos by Teresa Shaffer

Long Island Ocelot Club Newsletter
Volume 15, Number 4

By: John Jackson, Manhattan Beach, Calif.

(Ed: Reference to and review of earlier article by John Jackson, "Noiseless Scene of Wonderment" will acquaint readers with many of the characters mentioned below. LIOC Newsletter Vol. 13 No. 1 January-February, 1969)

Though we are impressed by the magnificence of the larger cats, the small exotics are the chief interest of Juleen (Mrs. Jackson) and me. If we should ever move our residence to an appropriate location, we will undoubtedly get a larger cat. In the meantime, our ambition extends only as far

as the clouded leopard, caracal and golden cat, all of which are beyond the range of our pocketbook.

We still have a strong attraction to the jungle cat and feel that our knowledge and experience in this direction is about as great as any other amateur. I plan, when time permits, to write a long article on *Felis Chaus*. In the meantime, in breeding and selling jungle cats, our primary aim is to produce a domesticated breed, one in which coloration and stature is as handsome as any to be found in the wilds. We also want to give some competition to the pet shops so as to discourage further importations.

We recently gave our breeding pair to Bob and Coreen Morgan because of space limitations. Growl-Tiger whom we kept and his sister Maya, are both very tame and certainly are handsome. Kerula, the hybrid who produced a litter of three fourths hybrids when she mated with her father. Hee, and then produced a second litter a year later when she

mated with her son, Singh, we had spayed. However, eternal mother that she is, she was able to produce milk when we took in a boarder, a young jungle cat female from the Los Angeles Zoo. She had performed the same feat two years before when we took Growl-Tiger away from his

mother, Retha, and gave him to Kerula to raise.

When Retha's third litter came along, Kerula already had a litter of her own so we merely switched litters giving Kerula's quite tame kittens to Retha and Rethal's approximately 10-day old kittens to Kerula. Incidentally, let me digress for the record, to point out that the Los Angeles Zoo which started with three or four jungle cats about five years ago has approximately 20 now, and has "unloaded" new kittens at least twice. The first time they were sold directly to the public, the second time they were traded to a pet shop for exotic birds. The pet shop in turn, sold the kitten we had cared for at an exorbitant price and gave the buyer incorrect or no information on the proper care of such a cat.

Again, for the record, let me report that Retha's first Litter, March 27, 1968, comprised three kits, all of which grew to maturity. (Noiseless scene of Wonderment.) Growl-

Tiger was from this litter as was Marcus (owned by the Morgan's — he sired several litters of hybrids). The female from this litter was eventually turned loose in the hills by the owners.

Retha's second litter comprised five kits, one of which was defective causing the

mother to reject it. The four that lived all grew to maturity, but eventually one female, after changing owners, was struck by a car and killed; the second female after escaping once was allowed to escape a second time and live at large in the neighborhood, killing chickens before she was finally recaptured. One of the males of this second litter made a fairly good house pet in a very tiny house, but had to change owners after a divorce. He could not adjust and was eventually put to sleep. The other male changed owners in the Midwest and I was informed through the Newsletter that he is now happily situated in a home where he is much admired.

Retha's third litter, March 31, 1969 comprised eight kits, one of which had a hernia on its navel. This, our vet informed us could be repaired at a later date. However, the mother, not understanding the wonders of modern veterinarian medicine, apparently took matters in her own paws and the kit simply disappeared from the bathroom in which the litter was confined. Maya we wanted because of her color and Narlanda who had a strange non-contagious respiratory ailment, we had to keep. One of the females was dead within a week from the time we took her to her new home. The owners lived on a boat and we were most hesitant about selling her to them. Now I am almost totally convinced that this cat of the open fields could never adapt itself to life in a restrictive environment unless the security measures were 100% effective, and they never are.

The two males from the third litter were sold right away and one of them, which we saw at six months, was very tame. One of the females I cannot account for at all. It is more than likely that Juleen sold the kitten while I was at work and failed to make a written record for the files.

A year ago last spring we were very actively involved in an attempt to breed the jungle cat to the bobcat, totally unsuccessfully. We also tried breeding jungle cats and leopard cats. In this our effort was little more than a token effort. Singh spent a week with a bobcat 40 miles from home, and another 11 days at large in the middle of San Fernando Valley. After escaping from our friend's garage and clearing their electrified fence, he traveled 10 miles in a direction contrary to a homeward route.

After crossing safely over numerous heavily traveled thoroughfares, he arrived at the barn where he took up temporary residence.

This happened during a period of almost continuous precipitation. Almost miraculously the farmer under whose barn Singh took shelter and whose tame roosters he systematically assassinated was a kindly person. He obtained a "catch-em-alive" trap from the humane society and finally took the chicken thief into custody.

The second unbelievable incident is the nearly simultaneous arrival at the "pound" of our friend from whose garage Singh escaped and the farmer with captive "wild-cat" in tow. Our friend who is a lawyer by profession did some quick and fancy talking. Thirty minutes later, Singh was prancing about our living room looking a bit thinner than usual but only mildly subdued.

Even more unbelievable than the preced-

ing story is the escape and recapture of Growl-Tiger almost a year later. The cage in which our outside cats are housed is an expensive and elaborate affair. The vestibule and safety door give me an almost unshakable faith in my safety measures. However, the combination of salt-laden beach air and male cat urine has a devastating effect on welded wire. When there was a sizable hole in the wire separating the main part of the cage from the vestibule and the cats were jumping through like trained dogs through a hoop, I should have recognized the obvious danger and made repairs.

You can imagine my horror and grief when I opened the outside door one evening about 11 p.m. which is the hour I feed the cats and Growl-Tiger gracefully leaped through the hole in the wire, executed a sharp 90 degree turn and passed between my legs as though I was not there. I gazed



in dumb wonderment as he glided like a ghost across the expanse of yard and appeared to evaporate as he approached the foliage. At that moment I was heartbroken. At that hour what could be done? Juleen was already asleep so I could not find a source of consolation for what seemed to me to be utterly stupid on my part.

The next morning I was up early cruising up and down every street within a one-mile radius. Not finding the broken remains of my cat, I was convinced that Growl-Tiger was still alive. Returning from work at the end of the day, I promptly told my next-door neighbor what had happened and hesitantly inquired about the health of their duck. I offered him a cat-carrying cage as a safe roosting place for the duck. Then, with part of my weight of guilt set aside, I impatiently awaited the dinner hour (11 o'clock) hoping he would come home for dinner. The other cats were locked in the back half of the cage with their food. The outside door and safety door were then propped open and food was set inside for Growl-Tiger. Of course he was nowhere to be seen. At 1 A.M. Juleen went into the bathroom but did not turn on the light. Looking out the window onto the moonlight back yard, she sighted Growl-Tiger near the cage. She quickly went to an outside door and switched on the porch light. For some unaccountable reason he ran straight into the cage and stayed there while Juleen ran down the steps, across the

Yard, and up to the cage door which she hastily shut and locked. I hardly need tell you how happy I was to have my wife wake me on this occasion shortly after I had just gotten to sleep!

A final note on the Jungle Cat.

It took quite some time for Retha and Hee to adjust to their new home and produce their fourth litter. I am of the opinion that breeding (at least among jungle cats) is more likely to occur in captivity when the cats feel entirely at ease in their environment. Retha's fourth litter constituted one kit. As a result of this birth a long-standing mystery has been solved.

In almost every litter, one or more kits have lost the tip of one ear (the true glory of the jungle cat). We attributed it to the sharp claws of a brother or sister who would vigorously claw its way to possession of a nipple at dinnertime. Now we know from the



Morgan's careful observation that it is Retha who chews off the ear tips. Possibly when we have different female jungle cats, we will find that biting ear tips is a characteristic peculiar only to Retha.

Jenny-Any-Dots was the first leopard cat hybrid we had seen. We bought her from Gene Liberal, owner of "Flower" the golden cat. Since our purchase of Jenny, leopard cat hybrids have become quite numerous. Jenny is a nut. She slept with us under the bedcovers the day we brought her home. This was all right until she started sucking the tip of her tail. Admittedly, having your bare leg slapped in the middle of the night by a wet tail is not my idea of bedded bliss. Eventually the time arrived when we had to say she could not sleep with us any more.

She was required to take up residence with Rao in a semi-outside cage. Eventually they came to enjoy each other's company and we finally heard Rao's rusty door hinge, the sound of the leopard cat. It is more like that of a bird than anything. When they finally mated, they went on mating for a week and we had no difficulty predicting when Jenny was due to deliver. She was quite fat during the latter stages of pregnancy, but had only one female kitten on July 5, 1970.

We have made many comparisons of the "small cats": Jungle Cats and Leopard Cats in particular. One day our extensive notes will be translatable to our satisfaction at which time I may use them in my aforementioned article on Felis Chaus.

JAGUARS

Jaguars, (*Panthera onca*) are one of the four large cats in the *Panthera* family. The name jaguar is derived from the South American Indian word, 'yaguara,' meaning 'a beast that kills its prey with one bound.' The unique feature of this species is the rosette-shaped spots in their body. A jaguar can be often mistaken for a leopard due to the similarity of spots in their body, but the jaguar has small spots within the rosette markings and a shorter tail. Jaguars have a unique vocalization, unlike a true roar; it is more like a series of five to a dozen repetitions of a short, hoarse coughing. It has been referred to as "sawing", or "snoring". The male has a stronger and more resounding call, although the intensity of the female

captive breeding programs that support the survival of the species in nature. This usually translates into some form of financial support for in-situ conservation of the jaguar or its habitat.

The International Union for the Conservation of Nature (IUCN) lists jaguars as lower risk, near-threatened. The US Fish and Wildlife regulates jaguar as an Endangered Species.

In nature, jaguar populations are threatened by population fragmentation, deforestation and direct persecution. Overall, it seems that jaguars are not in immediate peril of extinction, however, their current geographic range is somewhere between one-third and half its historical size

Venezuela and it is completely unprotected in Ecuador and Guyana

Originally 24 subspecies were identified. A study of skulls at a British Museum led to the conclusion that only eight subspecies existed. In 1997, Shawn Larson's re-evaluation of jaguar sub specific taxonomy led her to conclude that variations exist from north to south, but more variation is apparent within subspecies than between subspecies.

This conclusion was further supported by an analysis, published in 2001 of mtDNA differences and microsatellite location in somatic DNA that reveals very weak phylogeographic differentiation. Jaguars from the southern part of the range are significantly different from those in the north, with very little difference between those in Central America and northern South America.

The US zoological population of jaguars is managed without any consideration of subspecies. The jaguar has been bred in US captivity for decades and many of the felines alive today are forth and fifth generation offspring. The AZA zoo's Jaguar Species Survival Plan requires pedigrees that trace back to wild founders, so many of the approximately 100 jaguars in their control are not being bred because their ancestors are unknown. The challenge for the jaguar SSP is to import enough known-pedigree jaguars for management to create a sustainable captive population for US zoos.

Jaguars can live until their mid-20s and can reproduce through age 20 with a few recorded births in the mid-20s. Sheba, the oldest jaguar in the US was born in the Jacksonville Zoo on December 8th, 1980 and died one month before her 27th birthday. The second oldest living female jaguar lived at the San Francisco Zoo, until she died in 1976 at the age of 26.

The Feline Conservation Federation feline census shows only a dozen jaguars held at seven FCF member facilities. Four zoos, an exhibitor, two conservation centers, and a sanctuary report jaguars in their collections. All four zoos maintain both sexes of this species, but it is the Panther Ridge Conservation Center that is sharing news of a jaguar birth in this issue.



Like all jaguars, Aztec the jaguar is a water-loving feline. Photo by Judy Berens

call will increase when entering estrus.

The jaguar is regulated as an Appendix I species under CITES (Convention on International Trade in Endangered Species). This means that all commerce in jaguars or their parts is prohibited. International export and import permits are granted for

Hunting of problem jaguars is legal in Brazil, Costa Rica, Guatemala, Mexico and Peru. Bolivia allows trophy hunting. Jaguars are protected from hunting in Argentina, Colombia, French Guiana, Honduras, Nicaragua, Panama, Paraguay, Suriname, United States, Uruguay and

Jeffers

Premium Products for the
Health & Care of Your Pet



Shop On-Line at
JEFFERS PET.COM

Full Line of Supplies for Cats - Large and Small



Safe-Guard Paste with Fenbendazole
H-82, 1DS \$5.99



Jolly Ball Critters™
H7-J2, chipmunk 3" \$8.25
H7-J3, squirrel 4.5" \$7.99
H7-J4, raccoon 5" \$11.49

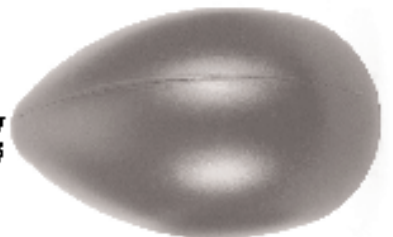


Chase'n Pull Toy
BE-V2, \$14.95

The Best Ball™
HU-B1, 4 1/2" D \$4.99
HU-B2, 6" D \$8.95
HU-B3, 10" D \$9.95

Performer® Ear Mite Killer with Aloe
A2-HE, 5 oz \$3.95

Egge® Cat Toy
BD-D1, 13" L \$16.95



Call for your **FREE** catalog today.

1.800.JEFFERS

\$10 off your next order of \$50 or more.

When ordering online or by telephone, enter code ZZ-F3.
Limit 1 per customer. Excludes Supreme products.

2009 THIRD QUARTER BOARD MEETING

November 2 to 20, 2009

The 2009 Third Quarter Board Meeting was held November 2 - 20, 2009 online via the FCF website forums.

Board members participating were Kevin Chambers, Patty Perry, Kurt Beckelman, Sylvia Gerber, Pat Callahan, Ron DeArmond, Billie Lambert, Betsy Whitlock, Joe Fortunato, Robert Johnson, and Roger Newson.

Moved by Kevin Chambers, seconded by Betsy Whitlock to approve the following Journal Policy.

The FCF Journal is to be published bi-monthly and mailed to all current members. The Journal shall publish organizational news in a timely manner and should consist of board meeting minutes, and reports on FCF supported activities and current and planned events. The Journal shall include member and guest submitted articles on wild feline husbandry, feline conservation, and regulatory and legislative information pertaining to private ownership of wild felines. The Journal shall be produced through a cooperative staff consisting of the Managing editor, Layout editor, and Associate editors who will insure that the Journal conforms to the Journal policy and directives as set by the board. The FCF Board of Directors shall appoint the Managing editor. The managing editor will appoint the Layout editor, Associate editors, and may create any additional staff positions as needed. The FCF Board of Directors shall then confirm all appointments made to the Journal staff. The Journal message must present FCF as a positive force in feline conservation, and as experts on hands-on husbandry of wild felines. FCF member articles and stories and photos published must adhere to existing regulations and laws governing possession of wild felines. Photos or articles published should depict actions and events that show personal and public safety, and good feline husbandry practices. The Journal editors will jointly develop Journal content. Journal associate editors will review the Journal before publication to insure that all articles, photos and captions adhere to this policy, and where needed, make recommendations for changes. The managing editor will obtain necessary arti-

cles and photos and assist in editing of written submissions for format, content, and clarity. The managing editor will make appointments to the Journal staff and has the authority to re-assign the duties amongst the Journal staff members as appropriate. The layout editor is responsible for the timing, look and composition of the Journal and makes article selection decisions based on the recommendations of the managing and associate editors. The layout editor forms and shapes articles for space and content, writes headlines and captions, and reviews page proofs. The layout editor will set and enforce deadlines and act as the official representative of the Journal. The layout editor will receive and chose letters to the editor for publishing, respond to Journal correspondence, and maintain contact with authors about the status of their submissions.

Motion carried, 10 to 0

Moved by Kevin Chambers, seconded by Betsy Whitlock to amend Bylaw Article 10 as follows: Change the name of Article 10 from "the Newsletter" to "The FCF Journal" 10.1-change "newsletter editor" to "managing editor", add a new 10.2 - The Managing Editor shall appoint the Journal staff in accordance with the Journal policy.

Change the original 10.2 to 10.3 Change "Newsletter" to "Journal", change original 10.3 to 10.4, change "the editor" to "the managing editor", add "and directives" after "FCF Policy", change original 10.4 to 10.5. The Proposed new article 10 would read: Article 10 - The FCF Journal 10.1 The Board of Directors shall appoint the Managing Editor at the first

Board of Directors? meeting following an election when the newly elected Officers and Directors have taken office. The Editor serves for two (2) years, until the Board of Directors terminates the appointment, or the Editor resigns. 10.2 The Managing Editor shall appoint the Journal staff in accordance with the Journal policy. 10.3 The budget allocated for the production of the Journal shall not exceed seventy-five percent (75%) of the annual budget for the Corporation. 10.4 The Journal staff is charged with following FCF policy as set forth by the Board of Directors. 10.5 Advertising policy and related charges are set by the Board. However, all advertising for felines must carry the name of the owner or broker, the state, and the phone number.

Motion carried 10 to 0

Nominees for vacant public relations positions were Caroline Alexander and Roger Newson. Nine votes for Roger Newson. Roger is appointed

Moved by Kevin Chambers, seconded

There Is No Substitute - Oasis is the #1 Selling Vitamin Supplement in the World!

Do Not Settle for Imitators

Oasis Vitamins with Taurine is specie formulated to complete appropriate raw meat diets!

Kittens require bioavailable and pure calcium. Don't risk broken bones and poor bone density. Prima-Cal is formulated to work with Oasis for optimal response & growth.

Our friendly technical support staff is the best in the industry! We are always available for you!

Specialized Natural Health Products
Formulated by
DR. GARY PUSILLO

1-866-807-7335
www.apperon.com

APPERON

by Joseph Fortunato to ratify the hiring of Carolyne Clendinen as the FCF Executive secretary as per the board's vote in August. Motion carried, 8 to 2

Moved by Sylvia Gerber, seconded by Kevin Chambers to ratify the 2010 convention date be July 29-31, 2010, as per the board vote on the Board yahoo list during September.

Motion failed, 5 to 4

Moved by Betsy Whitlock, seconded by Patty Perry that FCF to purchase 1000 FCF Journal Archive DVD's with printed covers at a cost \$1005.00

Motion failed, 5 to 5

Any Other Business Items:

Robert Johnson purchased a multimedia projector, on behalf of FCF, with all the requisite cables and expendable supplies to present to Marian Holmes in South Africa as per the Conservation Grant application approved by the Conservation Grant Committee. Robert also purchased

two camera traps using funds donated by the FCF co-managed Rare Species Fund to document and photograph black-footed cats in the wild.

Doc Antle has been named the accreditation committee chair by the accreditation committee

Financial Report:

Treasurer Kurt Beckelman reported assets of \$19,169.29 in checking, and \$66,341.52 in savings.

Adding to the FCF Programs and Policies a section covering the training, and procedures for the FCF Wildlife Educator's Course was presented for discussion. Ron and Sylvia were asked to comment by the president, but neither did. No action taken

Vacant Journal editor position. Mike Friese resigned. Lynn has received some interest from four members. She requested that the board allow more time for applicants, as the Nov/Dec Journal had another announcement to the members requesting volunteers.

Proactive Video Update from Robert Johnson. The project is in the planning stage. The basic outline and script will create a video that encourages the viewer to follow a path of logic in order to dispel many of the misconceptions and AR propaganda about the role of private exotic feline ownership. A good basic formula to follow can be

seen in the video The Story of Stuff, <http://www.storyofstuff.com>. The length of the video is planned to be 4-7 minutes.

Photo Library on FCF website. Jim Sanderson suggested having a photo library that is available to members consisting of member photos that available for use free of copy write. Expected cost of this project is about \$300 in web site code writing. No action was taken.

Registered Handler Form update. Kevin requested a definition of 'experience' from Joe and Lynn. Lynn reported the new Intermediate Handler status has been integrated into the online form. Joe did not comment.

2010 Convention Date

A second round of voting was necessitated when the motion to ratify the July date failed. Board members were asked to chose between a November and a July Convention date.

November, three votes. July, seven votes. The Oklahoma City, convention will be held July 29-31, 2010

FCF Journal archive DVD

The motion to update and replicate the LIOC/FCF Journal archive DVD failed to reach a majority. During this second round, the board was given four choices for the number of DVD's, and two cover options.

500 DVD's with unprinted cardboard covers for \$680, one vote

1000 DVD's with unprinted cardboard covers at a cost of \$810, two votes

1000 DVD's, with full color cardboard covers for \$1,005.00, seven votes. FCF will purchase 1000 DVD's with full color cardboard covers.

Start making your plans for the

38th Annual FCF Convention

Oklahoma City

Thursday, July 29th to
Saturday, July 31st, 2010

For anyone interested in exotic feline husbandry and conservation, the annual FCF convention is a not-to-be missed experience. Come learn and interact with other members, reconnect with old acquaintances and make new friends. We look forward to seeing you there!



ANIMAL FINDERS GUIDE

18 issues a year for only \$30.00
Single issue \$2.50



Informative articles on exotic animal husbandry. Exotic animals, products, services, auctions and shows advertised.

PO Box 99, Prairie Creek, IN 47869
812-898-2678 or Fax 812-898-2013
visit our website at www.animalfindersguide.com
email: animalfinder@thnet.com

DONATIONS

The FCF board of directors wishes to offer a special thanks to the following individuals who have made donations to various projects since the last published Journal.

Your generous donations enable the FCF to provide additional funding for special projects, develop and deliver educational materials to our members and legislators, and help FCF support feline conservation, and improve 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 their example by donating funds for those projects that are of special interest to you.

Safari Sweepstakes

Fund Donors

Benjamin Kee
Brian Ferkos
Candy Ogden
Cherisse Hughes
Chris Vassaliussa
Craig Derosa
Deborah Diann Saul
Frederick Tomaski
Gary Patterson
Gerald Hollom
Jamie Fowler
Jeanne Newson
Jennifer Young
JoAnne Ellerbrock
John Belt
Kathrin Stucki
Kelly Thomas
Margaret Gomez
Michelle Kotner
Noelle Elsberry
Nora Scholin
Pamela Sellner
Susan Carnahan
Tom Caporale
Vickie Delby
Brian Ferkos
Susan Carnahan
James Battista
Cherisse Hughes

Jennifer Young
Shelly Fintor
Nancy White
John Wyand
Alvaro J Mestre
Babak Bagheri
Liz Monaghan
Susan Nelson
Diane A Eckert
Leia Wassom
Maxine Sauer
Chris Tromborg
Andrea Johnson
Marley Petersen
Patty Perry
Larry Bertram
Heidi Radix
Laura Walker
Lynn Culver
Abraham Basmajian
Diane Herman
Kurk Beckelman
Stephanie Tauton
John & Esther Key
Dave & Brandi Ables
Jim & Tracy Shaw
Marni Dalke
Terri Werner
Deb Willoughby
Mary Ellen Carlin
Judy Domaszek
Vincent Enriquez

Steve & Ann Hedderick

Mindel Gaines
Deanna Davies
George Strohmeier
Connie Coker
Julie Oasthurpen
Sheila Myers
Evelyn Owens
Scott Oasthuysen
Jim Mullen
Sandy Gibbs
Patti Garman
Jean Hatfield
Mary Lowe
Deborah Hall
Pam Manseth
Joanna Lockett
David Norris
Laura Denum
Leslie Lisdell
June Bellizzi
George Stowers

General Funds Donors

Barbara Richelo
Goodsearch

Rare Species Fund Donors

Wildlife and Environmental
Conservation

The FCF appreciates your generosity and continued support.



**Created by Zoo Nutritionists
and Zoo Veterinarians.
Chosen by Zoos Nationwide.**

CARNIVORE DIET

All Beef • All Stages • 5, 10, and 15% Fat
Salmonella, Listeria and E. Coli O157:H7 Free
Guaranteed by Real Time PCR (DNA) Testing
Certificate of Analysis Available on Our Website
Emulsifier Free • Palatable • Better Stools
Leak Proof Freezer Casings
USDA/FSIS Inspected
Available in 1, 2, 5 lbs

BEEF BONES & MORE

Hind Shanks with Meat • Knee Bone
Femur Bones • Rib Bones with Meat
Oxtails • Chunk Beef • **NEW** Beef Blood

MEAT-EATING BIRD DIET

All Beef - 5% Fat
High Digestibility
Low Insoluble Fat in Stool
Water Resistant
USDA/FSIS Inspected
3 IQF Sizes: 1/2" Mini Cubes, 1" Cubes, 2" Bars
Talon, Toe-Pressure Resistant

REPTILE DIET

All Beef • 10% Fat • USDA/FSIS Inspected
A Lifetime Diet. Fully Balanced. Meets All Dietary Requirements.
Ideal Start-up Diet for Newly Born/Hatched Reptiles and
Meat-Eating Amphibians.
Replaces Requirement for Whole Prey
Handler Friendly • Easy of Food and Thaw.
4 Sizes: Pinky, Fuzzy, Mouse, Rat

ASSOCIATION
OF ZOOS &
AQUARIUMS

Dick Van Patten's Natural Balance® Zoological Formulas™
12924 Pierce Street, Pacoima, CA 91331 U.S.A. - 1 (800) 829-4493
Contact: Martin R. Dinnes, D.V.M., Dipl. ACZM, Director, Product Research & Development
zoovet@naturalbalanceinc.com • www.naturalbalance.net





Note cards group 1



ALL NEW AND READY FOR YOU TO ORDER TODAY!

Thanks to the many FCF members contributing photos for these new note card selections. Photos selected included ones from Jos Fortunato, Melissa Faust, Randy Johnson, Cindy Hornstein, Tammie Medina, Jim Peacock, Thierry Plaud, Deborah Wlaniok, Laura Walker, Vicki Zimmerman, Teresa Shaffer, Jim Sanderson, Gail Howell, Susanna Billias, Lynn Culver, and also included its original artwork by artists Rachael Amott and Cheryl Hughes.



Note cards group 2

Note cards are 4.25 by 5.25 inches, printed full color outside, blank inside. Envelopes included.

Sets of ten cards mailed are \$11.00 to US, \$12.00 to Canada, and \$15.00 to international addresses. Choose group 1, 2, or 3.

Send order and payment to:
FCF Treasurer
4403 S. 334th E. Ave
Broken Arrow, OK 74014

Or order online and pay with Paypal
Visit the FCF store at
www.felineconservation.org

Note cards group 3





. Francis (C) 2009 Nine5Four Photography
hotos.nine5four.com | 954-709-6444

24



Photo by Debi Willoughby

26

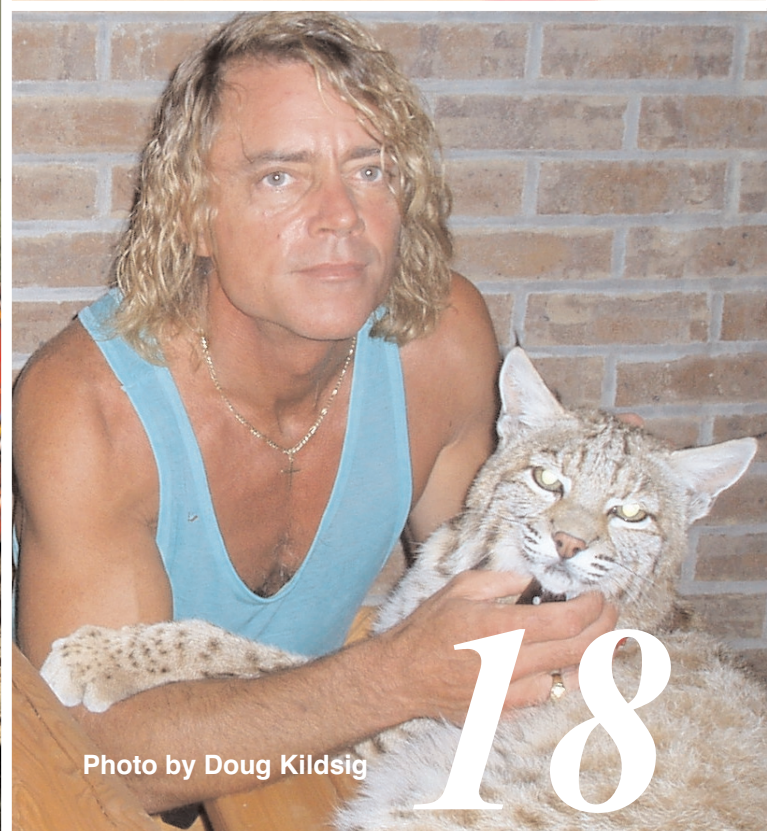


Photo by Doug Kildsig

18



Photo by Deeanna Croasmun

34



Feline Conservation Federation

Jan/Feb 2010

Volume 54, Issue 1

Jamma is a black leopard that calls Serenity Springs Wildlife Center of Calhan, Colorado, home. He retired there after a successful performing career, and still occasionally likes to do little tricks and stunts. He seems to prefer the girls, becoming downright grumpy and uncooperative around men, and contrary to his performing days, is much more comfortable with only one or two people around. Here Jamma stares down the barrel of a Nikon Coolpix 8700, which photographer and volunteer Caz Oswald says she uses for a number of reasons: "The smaller lens size allows me to get in between the chain link fence, but the high zoom and 8 megapixels still allows for incredible poster size enlargements with huge impact, especially with a face like this!" Caz has been volunteering at Serenity Springs for over three years now, and Jamma one of her favorite cats to photograph out there. She has a favorite of each species, but don't tell the others.

