

LIOC ENDANGERED SPECIES CONSERVATION FEDERATION, INC.



NEWSLETTER

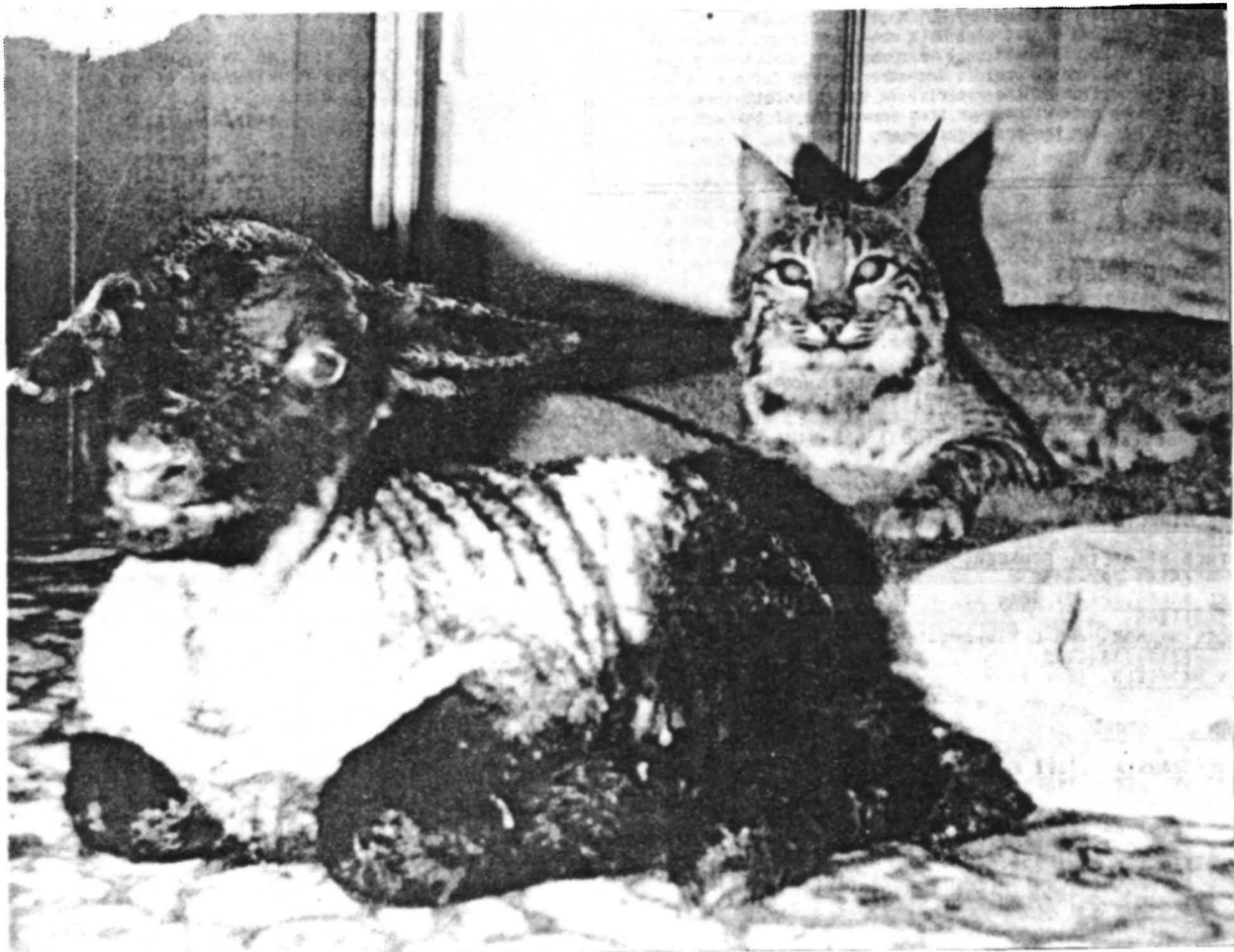
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LONG ISLAND OCELOT CLUB
1454 Fleetwood Dr. East
Mobile, Alabama 36605

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LONG ISLAND OCELOT CLUB



I'D KEEP AN EYE ON HIM, TOO, KID!!!

Photographer Anon.



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PLEASE SEND ALL APPLICATIONS AND MEMBERSHIP
RENEWALS DIRECTLY TO BARBARA FOR FAST SERVICE.

ALL NEWSLETTER RELATED MATERIAL SHOULD BE SENT
TO THE EDITOR, SHIRLEY TREANOR.

Help Wanted

REPORTERS

The Long Island Ocelot Club urgently needs
material for its Newsletter publication. We
can only share those experiences, funny, happy,
sad or tragic, which are sent to us. This
sharing is a part of the enjoyment of owning
an exotic.

WRITING EXPERIENCE: None whatsoever

PREREQUISITES: Love of exotic cats

TYPE OF MATERIAL Articles of happy and
sad experiences;
technical articles; opinions of any and all
exotic cat related subjects (including LIOC)
all short and long items - also day to day
experiences; announcements of: adoptions,
pregnancies, births, deaths (with autopsy
report if one was done) all subjects of
interest; all questions - give other members
a chance to help.

SALARY: The love and gratitude of all exotics,
their owners: and the Newsletter Editor!

STARTING TIME: IMMEDIATELY!! The Newsletter
is waiting on You.



MEETING NOTICE

AUGUST 1982

THE MEETING WAS CALLED TO ORDER BY HERB WILTON. THE SECRETARY/TREASURER WAS NOT PRESENT SO WE DISPENSED WITH THE MINUTES AND TREASURERS REPORT.

THERE WAS SOME DISCUSSION ON FUND RAISING IDEAS. BARBARA WILTON ORDERED FIVE CASES OF CHRISTMAS GIFT WRAP FOR US TO SELL. PAT PARKER IS SELLING COFFERS AND HAS SOME OTHER FOOD ITEMS SET UP FOR US TO SELL. SOME LITERATURE WAS PASSED AROUND ON COUPON BOOKS WE CAN SELL AND WE ARE SAYING SANTIAM AND FLAV-R-PAC LABELS WHICH WE CAN REFUND FOR 3¢ EACH.

ETHEL HAUSER READ THE REPORT FROM THE NEWSLETTER ON THE ENDANGERED SPECIES ACT RENEWAL. THE PETITION WAS CIRCULATED.

OUR GUEST SPEAKER WAS STEVE McCLUSKER, CURATOR OF THE WASHINGTON PARK ZOO IN PORTLAND. HIS MAIN THOUGHTS WERE THAT THE ZOOS AND WE PRIVATE OWNERS WERE GOING TO HAVE TO START WORKING TOGETHER IN ORDER TO PREVENT IN-BREEDING. THE REGISTRATION OF THE EXOTICS HAS REACHED A VITAL POINT. WE MUST KNOW WHO OWNS DIFFERENT STRAINS OF THE SPECIES.

CATS PRESENT WERE SHOWN SO VISITORS COULD TAKE PICTURES. WE HAD SEVERAL ARTISTS PRESENT AND WE ARE ANXIOUS TO SEE THEIR WORK OF OUR SUBJECTS.

THE MEETING WAS ADJOURNED SO WE COULD SNACK AND VISIT.



FOUR LITTLE TIGERS, SITTING IN A TREE;
ONE BECAME A LADIES' COAT -
NOW THERE'S ONLY THREE.

THREE LITTLE TIGERS, 'NEATH A SKY OF BLUE;
ONE BECAME A RICH MAN'S RUG,
NOW THERE'S ONLY TWO.

TWO LITTLE TIGERS, SLEEPING IN THE SUN,
ONE A HUNTER'S TROPHY MADE -
NOW THERE'S ONLY ONE.

ONE LITTLE TIGER, WAITING TO BE HAD,
OOPS - HE GOT THE HUNTER FIRST,
AREN'T YOU KINDA GLAD?!

Why Lions Decide to be Layed Back

by L. Tangley

Reprinted from SCIENCE NEWS

Breeding is one realm of animal behavior where aggression toward members of the same species, if it occurs at all, is likely to be found. Observations of wild lions in Tanzania have shown that males courting females form "cooperative coalitions" of one to seven adults that maintain exclusive rights to a female pride of two to 18 adults. Because researchers rarely saw fights among these males during mating, they assumed that there was no intracoalition competition for females and that members shared them equally. The most popular explanation for this phenomenon was that mating coalitions were comprised of genetically close relatives and allowing brothers to mate freely would result in passing on more of the family's genes—a behavior indicative of an evolutionary process called "kin selection".

Two University of Chicago biologists report in the April 22, NATURE, however, that members of breeding coalitions are, contrary to what has always been believed, sometimes aggressive toward other members and that those members are frequently not their relatives. The researchers studied two populations of African lions for three years collecting over 500 hours of behavioral data.

They found that breeding coalitions are made up of non-relatives nearly as often as relatives - 42 percent of the time. And even when coalitions did contain close relatives, this had no effect on the level of cooperation or competition. They also discovered that aggressive competition was common within the coalitions at least when the temporary "ownership" of a female by a male had not been established. Aggression consisted of both threats and actual fights, although threats were more common.

After ownership is established by a male, however, other lions will leave him alone. Why? Packer & Pusey suggest that an answer may be found by looking at the "game theory". A mathematical concept only applied to animal behavior eight years ago, game theory has to do with weighing the possible "payoff" of winning a conflict against the possible "cost" of losing it—similar to some human games. It is very "expensive" for lions to fight, says Packer, "and when they do, both the winner and the loser are often injured - often seriously". Thus, once ownership of a female has been established, it makes more sense for a competing male to look elsewhere for another female rather than risk injury. In addition, previous studies have shown that males that cooperate in general, end up fathering more offspring. "Another way of looking at it," says Packer, "is straight forward selfish behavior."

Packer believes that some other animal behaviors, traditionally accounted for by the popular kin selection theory, may turn out to have other explanations as well. In many species of birds, for example, some males stay home and help their parents take care of other offspring rather than having any of their own because, it has been presumed, they are increasing the genetic contribution of the family. But in many of these examples helpers have turned out to be unreluctant. Parker told SCIENCE NEWS, "There are many reasons why it's beneficial to cooperate with conspecifics - relatives and non-relatives alike."

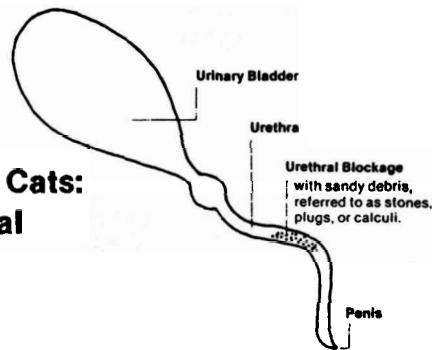
Contributed by Daniel Twedt

NO END TO IT

Jo Anne Krebs writes: "We had to give up the fight in South Carolina - moved to Florida. Only a handful of exotic owners would participate and no other breeders."

Jo Anne lost the battle to keep "wild animals" in that state. We wish her and the critters the best in their new home - Ed.

Urinary Problems in Cats: The Feline Urological Syndrome (FUS)



DEFINITION

In medicine, a disease is differentiated from a syndrome. A disease is an illness identifiable by a clearcut succession of signs or symptoms. However, certain illnesses are accompanied by sets of signs which may appear all together, singly or in less than full sets. These sets are called syndromes.

The Feline Urological Syndrome (FUS), one of the most common health problems of cats today, is characterized by the following major signs:

CYSTITIS: Cystitis is an acute or chronic inflammation of the bladder which damages the bladder wall and causes mucus, blood and other organic debris to accumulate in the bladder.

UROLITHIASIS: Urolithiasis is the formation of stones (calculi) or a sandy-appearing material which irritates the bladder causing cystitis or urethral blockage.

URETHRAL BLOCKAGE: Urethral blockage occurs when stones (calculi) block the urethral passage allowing little or no urine pass.

UREMIA: Uremia is the accumulation in the blood of poisonous wastes normally eliminated from the body via urine. This highly toxic condition occurs when a cat suffering from urethral blockage is unable to urinate.

INCIDENCE

Cats are particularly susceptible to urologic problems because they normally have prolonged intervals between urinations. It is not unusual for a cat to urinate only once a day and, in fact, some urinate only once every 2 or 3 days.

While FUS occurs in both male and female cats, it manifests itself differently in the two. While urethral blockage is commonly seen in the male, the female rarely becomes blocked because the wider urethra in the female dilates more readily, permitting outward passage of stones. In the female, FUS is more likely to manifest itself as cystitis.

The initial episode of FUS most commonly occurs in cats between 1 and 6 years of age. Without proper management, FUS recurs at a rate of 50% to 70%. It does not appear to be contagious. Some evidence suggests FUS is more prevalent in the colder months. No significant differences between breeds have been noted.

CAUSE

The exact cause of FUS in cats is the subject of extensive research and much scientific speculation in veterinary medicine today. It may well be that there is no single cause for FUS in cats. Rather, a combination of factors may be responsible for the occurrence of this syndrome. Certain factors appear to be involved in the formation of stones in the cat.

NUCLEATION CENTER - The presence of a nucleation center on which minerals are deposited, thereby creating a stone or calculus, is important. Sloughed epithelial cells, cellular debris resulting from a urinary tract inflammation, viruses, bacteria, casts and foreign objects such as suture material or hairballs have been found to provide nucleation centers on which stones have formed.

THE pH OF URINE - The pH of a normal cat's urine is below 7.0, indicative of an acid condition. If the pH changes to an alkaline condition, salts that are soluble in acid urine precipitate out as crystals. These crystals may then conglomerate around a nucleation center (see above) to form stones. Therefore, an increased urine pH in cats appears to foster mineral crystallization, leading to calculus formation. Phosphate calculi, which comprise over 97% of urinary calculi in cats, form more readily at a pH of 7.0 or greater and dissolve more readily at a pH of 6.6 or less.

URINE VOLUME/CONCENTRATION & FREQUENCY OF URINATION - The greater the urine concentration the greater the chances of calculi forming. A decrease in water intake decreases urine volume, leading to infrequent urination and increased urine concentration. Infrequent urination allows more time for calculi formation to occur and increases urine pH, making a more favorable environment for calculi formation.

INTAKE OF CALCULI-FORMING CONSTITUENTS - Increased intake of magnesium and phosphorus has been implicated in the formation of urinary stones in the cat.

PREDISPOSING FACTORS - Certain other conditions or situations predispose cats to FUS. While these factors do not cause FUS, they encourage its onset or recurrence. Predisposing factors include:

- Lack of Vitamin A
- Stress
- Bladder injury
- Lack of exercise
- Small penis which is subject to blockage
- Early castration (before 8 months of age)
- Heredity
- Feeding dry food

SIGNS

Cat owners - especially those whose cats have already experienced an episode of FUS - need to be aware of the signs of FUS. Signs listed in order of occurrence and increasing urgency follow:

EARLY

1. A housebroken cat that suddenly begins urinating in unusual locations.
2. Frequent voiding of small quantities of urine or attempts to urinate which result in nothing or just a few drops. Cats at this stage squat and strain. Many people mistake this for constipation and administer a laxative. When the urethral passage is blocked, laxatives can kill a cat by causing spasms which can burst the distended bladder.
3. Traces of blood in the urine, which may be accompanied by a strong, ammonia like odor.
4. Listlessness and poor appetite and/or excessive thirst.
5. Excessive licking of penis.

LATER

If the infection is severe or if the urethra is blocked, the cat will become uremic. Signs of uremia include:

1. Vomiting
2. Depression
3. Dehydration
4. A urine-like odor to the breath.
5. A hard and distended bladder when the abdomen is palpated (examined by hand) Pain becomes quite evident from the cat's reaction to abdominal palpation.

DANGER

1. Inability to urinate
2. Convulsions
3. Coma

Once the urethra becomes blocked and the cat cannot urinate, convulsions, coma and death follow within about 48 hours. Time is critical and veterinary aid must begin quickly if the cat is to have a reasonable chance of survival. If treatment is not started until the cat is comatose the chances of saving its life are low since the damage from uremia and pathologic changes to the kidneys by this stage are usually irreversible. Another potential hazard is rupture of the distended bladder. This usually is fatal as a uremic cat seldom survives surgery to repair the rupture.

MEDICAL TREATMENT

RELIEF OF BLOCKAGE: Relief of urethral blockage is absolutely essential. Many blockages yield to flushing by catheterization (passing a fine tube) of the urethral passage. The catheter may be sewn in place for a few days and a restraint collar put on the cat to prevent him from removing the catheter.

Surgery may be required if flushing and catheterization fail, if blockage recurs frequently or if stones are unusually large. Surgical techniques include:

- slitting the penis
- removing part of the urethra (urethrostomy) to increase the size of the urethral opening
- Opening the bladder (cystotomy) via abdominal surgery and scraping the lining.

LABORATORY TESTS: Laboratory analysis of the cat's urine and blood helps the veterinarian to determine the severity of the cystitis, the condition of the cat, the extents of the uremia and what - if any - bacteria are present.

In some cases, x-rays may be necessary to observe the bladder or to determine kidney function.

FLUID AND NUTRITION THERAPY Fluid therapy is indicated for dehydration and extensive vomiting. This usually consists of intravenous injections of large volumes of special fluids at regular and frequent intervals.

Force-feeding is frequently used once the cat can keep food down. This may be done orally or by an ultra-fine tube inserted into the stomach by way of a nostril or mouth. A diet low in magnesium is called for, and Vitamins A & B are often used to aid restoration of the bladder's damaged lining.

DRUGS Antibiotics are administered to treat any bacteria identified by laboratory tests and other infections that may flare up in the cat's weakened condition. Acidifiers may be used to make the cat's urine acid. Antispasmodic drugs, painkillers, stimulants, hormone treatments and special drugs that stimulate kidneys and increase urine production may be necessary.

SPECIAL TREATMENTS In some cases, one or more blood transfusions may be necessary to save the cat's life. In severe cases of uremia, an artificial kidney technique may be called for. This time-consuming, costly technique can be used only in special cases. Your veterinarian can explain this technique if it is thought to be necessary.

PROGNOSIS

Some cats do not survive acute phases of FUS despite all medical efforts. Others respond, with varying degrees of success to treatment.

If a cat is brought to the veterinarian in the early stages of cystitis and if the veterinarian is allowed to conduct laboratory tests, the prognosis is usually more favorable. The cat that survives an acute attack of cystitis has a good chance of leading a full-term life with minimal chances of recurrence if the veterinarian's instructions are followed closely and the cat is observed carefully by the owner.

Cases which are referred to a veterinarian later tend to become chronic with recurrences being more likely. Medication for extended periods and sometimes frequent, routine checkups and frequent urine tests are usually necessary in such cases.

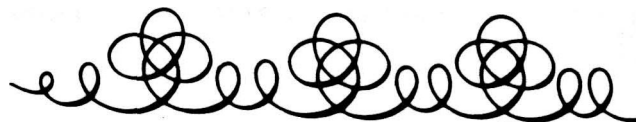
MANAGEMENT/PREVENTION

The following are general care instructions to which your veterinarian may add special instructions tailored to your particular cat. Although these measures are not overly time-consuming or expensive, they do require a certain degree of awareness and diligence on the part of the cat owner.

1. Make sure your cat is urinating. Change the litter box daily to encourage frequency of urination.
2. Provide free-choice, clean, fresh water that is changed daily.
3. Feed a diet low in magnesium and phosphorus
4. Use all medication exactly as prescribed. Antibiotics are necessary to combat infection; urinary acidifiers and vitamin supplements may also be called for.
5. Encourage the cat to exercise.
6. Minimize stress factors such as changes in environment, exposure to harsh weather, emotional upsets and obesity.

CONCLUSION

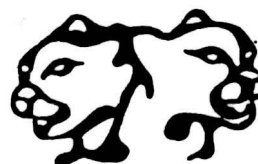
It should be remembered that 99% of all cats are not affected by FUS. There is no reason to restrict the diet of a cat that has never been affected by FUS. Proper dietary management is, however, extremely important for the cat that has had FUS. Once FUS occurs the recurrence without diet management is 50-70%



R A M O N A

Her footsteps feel the night beneath her feet and the morning that is coming.
 She senses the black bulk of trees squatting in the darkness like fat toads waiting for a fly.
 Her footsteps lift above the mist and echo against the starry dome that is sky.
 Her footsteps are soft against the sleeping world, gliding silently from nothing to nowhere.
 Ignorant of non-existing - she exists.
 Her footsteps go about an endless trek to some lost destination she forgot.
 An empty, aimless wandering.
 Sometimes she goes with them - Sometimes not.

Wanda Sand
Exotics UnLtd Newsletter



BEST ANIMAL HANDLERS

Looking for someone to handle animals? Choose a woman. According to a study made by Washington State University, most animals, especially babies, prefer women. Dr. R.L. Preston, chairman of the animal sciences division says, "Its amazing. Animals relate to women ten times better than to men" Amazing? Big city hot spots like San Francisco aside, you can say the same thing for most men.

Reprinted from Pet Business



HERB WILTON & SEAN PLAYING "KING OF THE MOUNTAIN"

THESE ARE FOR YOUR ENJOYMENT ONLY. GET YOUR PICTURES IN FOR THE NEXT PHOTO CONTEST. WE CAN'T PRINT SOMETHING WE DON'T HAVE!



DOES A CUTE FACE COUNT?



C.C. THE "CRAZY CARACAL"

COMPUTER DATING SERVICE

Reprinted from WPS Newsletter

In a cramped little office on the grounds of the Minnesota Zoological Garden, computers keep track of vital statistics for 50,000 animals and birds on three continents. The aim is match-making. This "animal dating game" is a project of ISIS, the International Species Inventory System. ISIS was the Egyptian goddess of fertility; ISIS helps member zoos mate animals to avoid inbreeding and subsequent infertility. Each of 150 member institutions, including 130 zoos in the U.S., Canada, Europe, New Zealand, Puerto Rico & Columbia pays a minimum of \$100 yearly or \$1 for each animal or bird reported to ISIS.

For each animal reported to ISIS, zoos list the age, sex, parents, present whereabouts, where born, where acquired, and tattoo identification or tag number. Reports are updated for births and deaths and when animals are moved. ISIS handles about 80,000 transactions a year, including 15,000 to 18,000 donations, sales, trades or loans for breeding purpose.



"We now have current information on about 50,000 live animals, plus 30,000 to 40,000 of their departed ancestors said Director Nate Flessness. We know how many of a species are in zoos, who has them, their age, sex and who their relatives are. "It's not enough to know that the San Diego Zoo has 12 Siberian tigers. We have to know who they are, so brothers and sisters and cousins aren't mated". Inbreeding lessens the chances of survival, builds genetic defects and eventually can lead to infertility. There are other reasons why biological information is important. Some species wild populations are falling off because their natural habitat is being destroyed. In addition, national and international regulations now forbid taking animals out of the wild - captive populations must therefore be self-sustaining and breed their own population. Many species would soon become extinct Flessness said, if it weren't for captive animals.

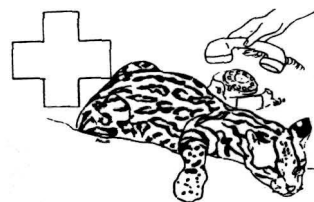
The Mongolian horses known alive are about 350 - all in captivity.

If wild populations do go under, zoo populations could replace them.

ISIS was started in 1973 by Drs. U.S. Seal & Dale Makey, two physicians who used laboratory animals for research at the Minnesota Veteran's Administration Hospital, but discovered there is little physiological data available on animal norms. Unlike medical doctors, who can treat only humans, veterinarians care for frogs & snakes, camels & lions and hundreds of other species.

Zoo veterinarians are great general practitioners but, in detecting illness, can't know the degree of deviation from normal if they don't know what's normal. The physiological data goal was sidetracked by the inventory project, but this year ISIS began collecting blood chemistry and hematology data on healthy animals. About 10,000 blood samples have been collected so far.

KNOW YOUR VET'S TELEPHONE NUMBER



ADVERSE REACTION TO SAFFRAN

An adverse reaction to Saffran has been reported in a small number of cats.

Affected cats have recovered from anaesthesia and been returned to their owners. However, typically 8 to 10 days later, the cat is presented, in good general health but with areas of necrosis on one or more extremities. The most common site to be affected is the ear pinna, but paws and tail tips have on occasion been involved. The lesion progresses to sloughing of the affected areas. In a few recent cases similar lesions over the site of the intravenous injection have been recorded. In no case has the patient failed to make a satisfactory recovery.

SAFFRAN has been in extensive and increasing use since 1972 and this unusual reaction was not reported until about 2½ years ago. Since that time, 14 reports involving 25 cats have been received; this represents an approximate incidence of 1 case per 42,500 doses.

In view of the extremely low incidence we have been unable to discover whether or not premedication with any of the routinely used agents will help prevent the reaction. Glaxovet, the maker of Saffran is currently undertaking a full investigation

Contributed by John Perry

A communication recently received from a drug firm (see above) reported the incidence of an adverse reaction to an anaesthetic injectable combination - Saffran, which had been reported by the veterinary profession to occur in a very small number of cats.

In expressing their intention to undertake a full investigation it was further stated that it had not been possible to discover whether premedication might prevent the reaction.

In view of the fact that this agent has been found by this writer to be entirely devoid of analgesic properties the ethics of using it on its own as an anaesthetic for surgery is questionable. Early recognition of this fact let the writer in fact, never to use it without the addition of neuroleptic combination. Total dose required for anaesthesia was reduced thereby to 50% of that recommended.

Percy Blackler
Broadway Veterinary Hospital
Kent, England

Condensed from Letters as published in The Veterinary Record.





SNAKE-CHARMER'S BLUFF

Cobras, especially the Indian & Egyptian species, are the favorite performers in the snake-charmer's act. It is common knowledge that the snakes are not reacting to the music, but to the rhythmic movement of the charmer. The pipe is just a prop - the snakes are deaf and cannot perceive airborne vibrations. They have no eardrum - they detect vibrations through the earth.

The explanation of the cobra's "dance" is that the basket is suddenly opened, exposing the snake to the glare of daylight. Half-blinded, and somewhat shocked, they rear up in the defensive position with hoods inflated. Their attention is caught by the first movement they see - the swaying snake-charmer. Part of the act is the cobra being handled and even kissed on the head. This is not such a dare-devil act of bravado as it may seem for it is said that cobras cannot strike accurately in the full light and their lips are usually sewn up or their fangs pulled. If this has not been done, the chances are that the charmer is immune to the venom. The legendary asp or Egyptian cobra grows to a length of nearly 6 feet and length for length is much heavier than its Indian cousin.

Louise Jenny

FISH & WILDLIFE STUDY SHOWS U.S. ATTITUDES

Where is the Fish & Wildlife Service spending its money? For one thing on a study to see what Americans know about animals. A study of 3,107 adults was made by Yale Professor Stephen Kellent to discover how citizens, who rarely see animals in the wild, perceive them. Some answers: An iguana is an insect, a koala is a bear and spiders have 10 legs (as those of us interested in animals know, an iguana is a lizard, a koala is a marsupial and spiders have 8 legs.)

Among other items, the report unearthed favorite and less favorite animals - some favorites: horses, dogs, butterflies and trout, the least favorite: rats, wasps snakes and bats.

DOGGONE

A rash of thefts has the guard dogs of Southern California upset. Where, of all things, they are being dognapped. It seems that recently, a large number of dogs, many of them guard dogs, are disappearing from the homes they are protecting while their owners are away.

The thefts appear to be very professional, and one Rottweiler owners adds that she is reluctant to go to a local store without having a "baby sitter" stay with her dogs.

EVERGLADES DEER THREATENED

Unless the flood waters reside, one entire herd of deer in Florida's everglades are threatened according to biologists. The problem gained wide publicity when a hunt was ordered to thin the starving herd to make more foliage available to those animals remaining. Humane societies and other animal "conservation" groups protested the proposed hunt and for a time stalled efforts to reduce the herd's population. Eventually the hunt took place and 723 deer were shot by hunters in mid July.

About 1,000 deer are known to have died from lack of available grazing, but biologists believe this number to be only about a fourth of the actual damage. "In a day or two the bones are scattered by buzzards or alligators and other creatures" Lt. Lampton of the state game commission said, therefore any count of the dead is unreliable.

17,000 GATORS BAGGED

According to an Assoc. Press release, hunters bagged about 17,000 alligators during Louisiana's one month long season, state officials said.

Early prices on hides were running about \$12 a foot and meat was selling for \$2.50 per pound. The Department of Wildlife & Fisheries issued 18,000 tags, each authorizing the holder to bag one alligator and expects to get about 1,000 back.

Alligators were once on the endangered species list but made a remarkable comeback in recent years.

SNAIL DARTER COUNT UP

The snail darter, whose presence in the Little Tennessee River halted the construction on the Tellico Dam, has been found to be hardier and more numerous than its supporters 1st imagined.

When it was discovered in 1973 the government immediately listed it as an Endangered Species, insisting the tiny fish lived only in small sections of the Little Tennessee River.

One year ago a large colony of the fish was discovered 80 miles south of the dam although some experts insisted these could not survive. Now, Dr. David Etnier of the University of Tennessee, who discovered the fish, says three or more groups have been located in Alabama and Georgia as well as in Tennessee. All seem to be doing well.

One surprising point: It was originally felt the fish could live only in the "cold, clear, pure waters of the Little Tennessee but one of the new colonies was found doing well in a badly polluted creek near Chattanooga.

The U.S. Fish & Wildlife Service says it will downgrade the status of the fish from Endangered to Threatened.

AQUARIUM SEEKS HELP

If you live in or near the windy city - Chicago - you may want to help the John G. Shedd Aquarium. The staff is looking for volunteers to handle a variety of jobs including the care and feeding of the fish & exhibits.

Applicants should be 18 years or older and able to serve one day a week - Monday thru Friday from 10 am to 2 pm. Call the Volunteer Dept - (312) 939-2426

CALIF REPTILE BAN UPHELD

A district court of appeals in Riverside County Calif. overturning a ruling of a lower court a year ago held that the California Fish & Game Commission acted within its powers to outlaw the taking of native reptiles and amphibians, whether or not they were threatened or endangered.

SEA TURTLES HATCHED

A dozen Atlantic green sea turtles hatched recently at the Miami Seaquarium, the first time this species has been conceived and hatched outside natural habitat. The animals will be released next spring to the Atlantic off the coast of Florida.

SAVE THE RHINOCEROS

After arresting 532 poachers this year, Tanzania is planning an international "Save the Rhino" campaign, according to a recent AP release.

Tanzania intends to make a worldwide effort to stop the marketing of rhino horns and trophies. Wildlife experts have estimated the population of the African rhino at 15,000 less than half the total a decade ago.

Rhino horns are coveted in North Yemen for dagger handles, and in parts of east Asia, where, in powdered form, it is used as a folk remedy or said to be an aphrodisiac.

PENGUINS NEXT?

Japanese and Argentina businessmen have announced a pilot that will involve slaughtering about 100,000 of Argentina's penguins. The plan is to find commercial uses for them which has proven to be non-profitable so far.

The Newly formed Hinode Penquin Company plans to use skins for gloves and oil from the birds is expected to be converted into food stuffs. A \$120,000 plant is in the planning and "harvesting" of the birds is supposed to help regulate the populations.

From Fin & Feather News

Following the shadowy trail of the cat that walks by itself



By Hope Ryden

Condensed from Smithsonian

Few people are ever privileged to see a wild bobcat. I had all but despaired of doing so when, one day, I leaned down to pull a cactus spine out of my shoe and one stepped out of the Arizona brush not 15 feet away. The bold creature stretched, yawned, and turned away. I was not so blasé; I wanted to shout for joy - at the very least perform a short caper! That bobcat was first of its kind I had met in the wild in nearly 10 years of tracking the species.

The tawny animal was handsome, probably a male, and looked to weigh about 30 pounds. Seemingly oblivious to my presence, it began to stalk the edge of the brush, from time to time pausing to monitor sounds inaudible to my ears. As I stood and watched, I had to fight down an impulse to shoot pictures. From experience I knew that to point a camera at a wild animal the moment it reveals itself is to get a picture, if only a fleeting one.

I WAS MYSTIFIED by the bobcat's lack of reaction, so inconsistent with the species' reclusive nature. The intrepid animal sat down and nonchalantly began to wash its face with its oversized paws. A tongue-curling yawn signaled when the grooming session was over and I quickly imitated the action. The yawn, according to some ethologists, is sometimes used by members of the cat family to disarm and appease, and I was eager to send this one all the proper messages. After a short time, the bobcat made an unhurried departure and, as it wended its way into the brush, I was struck by how perfectly its coat merged with sun-splotched vegetation. How many times, I wondered, had I gazed with unseeing eyes on such a cryptic creature?

I had not planned to track wild bobcats. The book contract I had signed with Viking Press called for a quite different approach to the subject. Bobcat kittens were about to be born at the Arizona Sonora Desert Museum (a "museum" of living animals) at Tucson, and I had been granted permission to watch and document the litter from birth to adulthood.

But the litter I observed being born had not survived and my well-laid plans had to be scuttled. Once again I set out into the wilderness, this time on the track of an animal that is a master of concealment.

Besides being well camouflaged, a bobcat hears sounds at a distance and, long before an approaching human hies into view, will slip into hiding. In time I was to observe this manifested by a California bobcat. While feeding on a road-killed rabbit I had dropped, the animal suddenly stood up in alarm. Though I could hear nothing, it dashed for cover. I did not understand until ten minutes had passed when a solitary hiker passed through.

That a bobcat would hide from a potential enemy is natural enough, yet at times I wondered if the animal was taking perverse pleasure in playing hide-and-seek with me. For, on a number of occasions, in retracing my steps out of some remote canyon or dusty wash, I discovered fresh cat prints on top of my incoming tracks. And, now and then, when the elusive bobcat did emerge and allow itself to be seen, it walked about with the confidence of a lion.

However capricious it seemed, the species' tendency to remain quietly unobtrusive is a behavioral adaptation that has helped it to survive through evolutionary history of some 40 million years. A bobcat must conceal itself to ambush prey, for it is not physically adapted to course long distances after rabbits, canine fashion. Its lightning fast sprints soon fade as the animal becomes winded. So a bobcat hunkers down behind a rock or glides along silently, then takes its unsuspecting victim in a sudden rush.

The species is served in still another way by its reclusive nature. Bobcats are weakly social and prefer to avoid one another. Each cat occupies an area that is loosely delineated by the boundaries of its neighbors' home ranges. It is critical that the species space itself so as to assure each animal an adequate and renewable supply of rabbits, mice and other small game to feed upon. Its inherent avoidance of kind also spares the animal the risky need to do combat to protect its land claim. Each cat sprays its own home range with small amounts of strong-smelling urine. Non-resident cats seeking solitude themselves, turn away from these scent stations, while spraying their own haunts with "cat repellent".

In Florida, I watched a bobcat do this. While going about the never-ending business of searching for prey, it deposited scent on conspicuous brush at frequent intervals and hardly paused to perform the act. A perfunctory "genuflect" and the selected leaf was targeted.

A bobcat, the female in particular, also will create visible evidence of its presence in an area by repeatedly defecating at some special, often elevated site. That these pyramids of stools are purposeful constructions seems apparent from the fact that elsewhere the same bobcat will bury its excrement. In Idaho I found many such mounds. In every case these were located near dens where kittens had once been. Some contained scores of aging stools.

The amount of land an individual bobcat occupies varies from one part of the country to another. Bobcats in Idaho, where I spent the summer of 1978 tracking them, require considerably more space than do bobcats in Arizona, California or Florida where I also observed the species.

In Idaho I spent time at the national reactor testing station where Theodore Bailey conducted outstanding bobcat research between 1969 & 1972. Using radio telemetry, he mapped the distribution of 17 adult cats that inhabited 250 square miles of sage desert. One of the male cats he monitored occupied an impressive piece of this total area, its home range measuring 42 square miles. The smallest polygon Bailey surveyed belonged to another male cat; it contained 2.5 square miles.

In central Arizona, biologist David Lawhead conducted similar studies and found his study animals to be occupying significantly smaller home ranges. In Lawhead's study the average bobcat home range measured 2.68 square miles, not much more space than was used by Bailey's deprived cat.

Other research confirms that Southern bobcats use less space than do Northern bobcats. One reason may be a greater prey density in the sun belt. Whatever the explanation, bobcats are most sparsely distributed across the northern states and, tragically, it is there that they are most heavily exploited. Cold climate produces thick coats, and the current vogue of longhaired "fun furs" coupled with a worldwide decline in spotted cats of many species, has created an unprecedented run on North American bobcat pelts which before 1970 sold at fur auctions for under \$20 in 1979 brought prices as high as \$650.

That a single bobcat pelt should have acquired such monetary value confounds professional trappers. The fur is inferior - weak and brittle, it sheds easily. Moreover, it does not take dye well. In the past, bobcat was used almost exclusively for trim. Ironically, it was the passage of the Endangered Species Act in 1973 and the conclusion of an international agreement to regulate trade in endangered species (CITES) that created the market for bobcat fur. Representatives of 67 nations have since signed CITES. As a result, the luxurious pelts of the vanishing cheetah, leopard and ocelot became unobtainable. Furriers, unhappy over the loss of these markets substituted spotted fur - the North American bobcat.

Eleven matched belly skins pieced together into a full-length coat bearing the euphemistic label "lynx cat" or "Cat lynx" began to appear in fashion salons throughout Europe and in Japan. To a lesser degree these coats have been marketed in the US. Here, however, people have shown some reluctance to pay the prices asked for the inferior fur - \$8,000 and up.

Not so abroad, where an unaccountable taste for spotted cat fur persists. An estimated 80-90 percent of the yearly bobcat "take" is exported. As a result, prices have continued to escalate, as has interest in trapping. Once the province of a few old-timers, today housewives, teenagers and retirees are trapping for dollars - and for sport.

If the bobcat were as difficult to trap as it is to observe, all this commercial pressure would likely present no threat to the species. The animal however is vulnerable to a leghold trap. Whereas coyotes will react with suspicion to any strange object it comes upon, the bobcat's feline nature compels it to investigate and play with the novel object. Even cats that have suffered the trauma of finding themselves snapped fast in a steel trap do not seem to profit from the lesson. Theodore Bailey, using padded and offset traps to catch and collar his study animals, made 103 captures, but obtained only 66 different animals. Thirty-seven times he found repeaters in his traps.

In times past, before the bobcat's pelt became so valuable, trappers often expressed annoyance over the species' propensity for getting into sets baited to catch more valuable furbearers. Today some of these trappers are wondering why they are catching so few bobcats. In Idaho, A.W. Barnes, a veteran trapper of 50 years voiced concern: "They're overtrapped," he told me, "The price is too big. They don't reproduce like coyotes, you know."

Barnes' knowledge of animals, gained from years in the field, is squarely consistent with scientific evidence. The bobcat's reproductive rate is low. According to data collected in Wyoming by Douglas Crow, a female bobcat produces a single litter annually. By counting placental scars in carcasses, Crow was able to establish the average number of embryos carried per litter to be 2.8. The number of stillbirths, resorptions and spontaneous abortions is not known, and so the number of kittens actually born would be lower.

Moreover, the bobcat's small family size does not guarantee its young a high rate of survival. At the Archbold Biological Station in central Florida, biologist Douglas Wassmer is in the process of collecting data on bobcat population previously monitored by another biologist, Del Guenther. In 1978 one litter of three was known. By winter only one kitten was known to have survived. In 1980 four litters were known. Of these, only 4 kittens survived their first nine months of life.

Besides being vulnerable to traps, kittens fall victim to viral diseases, internal parasites, scabies, infections, predation by dogs, road accidents, starvation and injury. The fact that a mother bobcat, unlike a coyote or wolf, receives no help from her mate in rearing her family probably explains why such a small litter size has evolved in the species. Hunting for food requires energy, as every meal must be stalked and captured. About 3 kittens probably defines the limits of her capacity to successfully feed her hard working self and keep her young well nourished.

Nor are these demands on the mother cat short-lived. Until kittens are 9-10 months old, they remain with their mothers "on the dole". At the Archbold station, I watched a mother bobcat with 3 trailing adolescent kittens. Everyday or so they shifted to a new location, thus giving relief to the rodent and rabbit population upon which they depended. At each new base, the young remained in the brush during most of the day while their mother made forays in search of food.

One evening as I was crashing through the vegetation in the wake of this stealthy hunter, I pushed aside a palmetto frond just in time to see her jump a young raccoon. In a split second she had that fierce fighter by the throat and, despite its writhing and thrashing, held it fast. The cat calmly throttled its victim while fixing me with a steady gaze. When at last the raccoon ceased to struggle, she trotted off with it. I followed and observed how she towed the cumbersome load to a place where she had parked her young. When she delivered the food, I could hear the commotion inside the dense thicket of live oak and palmetto.

Although pouncing and stalking behavior is instinctive to young kittens, these maneuvers must be practiced. A mother bobcat therefore begins to deliver live mice to her young when they are a few weeks old. She carries this "training prey" in a soft mouth, then looks on with a detached air while her kittens chase and play with it.

The kittens quickly learn to anticipate and block the escape attempts of such "toys" but are slow to learn when it comes to killing. Studies by German ethologist Paul Leyhausen demonstrate that in felids, excitement must reach a certain intensity before the animal is able to inflict a killing bite. Human beings seeing cat behavior in the light of human values often condemn the animal for "tormenting" its prey. Sadism, however plays no part in the cat's psychological make-up. The predatory performance is made up of a sequence of responses and the culminating act, the killing response, is simply not as easily released as are other components of the behavior. A good thing, too. Otherwise litters of young bobcats might destroy one another during play.

With age and experience, of course, a wild cat learns that it must execute its victims promptly to avoid losing a meal. Half-grown bobcats nevertheless experience hunting failure and, even when food is delivered to them, they sometimes have difficulty getting at the meat. In California I watched a 4 month old kitten with a road killed jackrabbit I dropped for it.

The excited kitten drooled and rolled on the carcass, but could not bite through the hide. Finally, the little bobcat curled up with the intact rabbit, clutching it like a teddy bear, and took a nap. Later I watched an older bobcat open such a carcass. Before slicing through the hide with its sharp teeth, it plucked a wide band of fur from the victim's back.

Though a bobcat will feed on a variety of small game, a number of studies indicate that hare or rabbit is preferred, where available. And long before a kitten is able to bring down this coveted prey, its fate is linked to the cyclical fluctuations normal to rabbit populations. In 1971 Idaho's hare population declined. By fall Theodore Bailey was unable to locate a single kitten in the bobcat population he was studying. His adult subjects fared better. Bailey theorized that during periods of rabbit scarcity, a mother bobcat

may be forced to range so far in search of prey that her own energy needs compel her to eat whatever she does catch. Her undernourished kittens soon become vulnerable to death from a variety of causes.

accountably, since 1971 hares have been slow to make a comeback in Idaho. The Idaho Department of Fish & Game argues that the state's bobcat decline is a result as much of this rabbit depression as of trapping pressure. The two factors operating together could prove fatal to the bobcat population.

Recent research published in the *Journal of Wildlife Management*, shows that trapping pressure can have a significant impact on cat population. In a study of the bobcat's nearest relative, the Canada lynx, investigators Christopher J. Brand and Lloyd B. Keith, demonstrated that in certain places where trapping proceeds during periods of snowshoe hare scarcity, afterwards the lynx may not make a complete comeback. A few such cycles and the lynx may be exterminated from this part of its range.

In effect, this study challenges long-standing wildlife management assumption that trapping is always "compensatory" - meaning that, where trapping is banned, other causes of death come into play to reduce the species to an equivalent level. Brand and Keith show trapping mortality may be "additive" during years when snowshoe hares are in short supply, and urge that trapping of lynx be curtailed at that time.

What has proved true for the lynx and hare is likely to prove true for bobcats and rabbits. Little is known of how predator populations respond to the unnatural condition of being preyed upon. The bobcat's inability to adjust its litter size to compensate for "harvesting" sets it apart from certain prey species such as deer, mice and rabbits which will respond to a reduction in their overall population by producing larger numbers of offspring. That a bobcat's litter size is not similarly responsive to population changes can be deduced from placental scar counts made in four states where bobcat density differs.

Yet, in the face of these and other indications of the animal's inability to sustain heavy predation and what regard to what has befallen other species of North American wild cats, exploitation continues. Seven wild felids once existed on American soil. Today the jaguar is extinct within our borders. The ocelot, the jaguarundi and the margay are rare. The cougar or mountain lion today is regarded as viable only in a few regions of the west, and perhaps Florida. And the lynx, whose range borders Canada, has decreased to the vanishing point in New England and Wisconsin.

While the bobcat is faring better, its range, which formerly encompassed 48 states, has been drastically reduced. Throughout wide swaths of the Midwest and the East, the animal is virtually absent. In New Jersey the bobcat is all but extinct and efforts are being made to restock it. Indiana, Iowa, Ohio and Delaware call it "endangered", while Illinois terms it "threatened". In Kentucky, Pennsylvania, Rhode Island and Maryland numbers are so low that the animal is given total protection. In others it has partial protection.

Many other states, too, impressed by the animal's sudden worth, have elevated the species from its status of "varmit" to that of "furbearer" and now set seasons when it may be trapped. Of the states where bobcats are trapped, only nine have imposed a bag limit and none has placed a limit on licences sold. Hence the number of licensed trappers goes up each year & between 1979 and 1980 leaped by 21 percent.

In 1977 the federal government acted to slow down the exploitation. The Endangered Species Scientific Authority (ESSA), a federal panel charged with the task of monitoring the status of species listed in the CITES treaty, announced a ban on the export of bobcat pelts. The bobcat is defined in the appendix of that international agreement not as endangered, but as likely to become so if subjected to uncontrolled international trade. The treaty stipulates that, unless evidence proves export has no harmful impact on an animal so listed, export must be prohibited.

For a brief period, it appeared that a mechanism was in place to dampen bobcat trapping. But within a few months, ESSA reversed its stand by setting generous export quotas on bobcat pelts taken from states willing to institute a tagging program. The following year, ESSA went even further, approving unlimited export for the states that had tagging programs in operation.

Some conservation groups objected, but the game departments, represented by the International Association of Fish & Wildlife Agencies (IAFWA) argued that the bobcat did not deserve to be put into the "Threatened Species" category. IAFWA reiterated its traditional position that authority over wildlife should reside entirely within the states.

The conflict landed in court. In 1979 the Defenders of Wildlife filed suit, charging ESSA with failure to implement the CITES treaty. The Defenders argued that ESSA's data on bobcat populations, obtained from the states, failed to prove its case that export was not harming the species. Supporting ESSA in court was the Fur Conservation Institute of America, 11 private fur and trapper organizations and the state game agencies as represented by IAFWA.

Defenders was not satisfied and took the case to a higher court. In February, 1981, (2 years and perhaps a quarter of a million dead bobcats later), the U.S. Court of Appeals issued its findings. The biological standards used by ESSA to authorize bobcat exports, the court said were "inadequate" and "Should be set aside". Moreover, 26 states and the Navaho Nation were improperly dismissed from consideration at trial. The case has been remanded to the lower court with instructions to favor the protection of the animal where doubt exists.

Attorneys for the fur & trapping interests, together with IAFWA, have announced the intention of carrying the case to the Supreme Court. Meanwhile, ESSA has been superseded by the International Convention Advisory Commission; this new panel has recommended that a proposal be sent to the 67 part nations to CITES that the bobcat no longer be listed in the treaty.

Although it is not hard to understand the position taken by the trapper-fur interests, one must wonder at the reluctance of wildlife professionals to grant relief to an animal's population about which so little is understood. The issue, however, is only partly a biological one. What is at stake is not just bobcats but the authority of the state wildlife management establishment.

Traditionally, the states financed their wildlife programs exclusively through the sale of hunting, fishing and trapping licenses and a tax on ammunition. Thus whatever might have been the private views of individual employees, the fish & game agencies were asked to answer to a hunting-fishing constituency.

Gradually, however, this has been changing. A few state agencies have been accepting financial and philosophical input from "non-consuming" nature lovers who perceive wildlife as possessing an intrinsic legitimacy, unrelated to economic profit. Other states still evaluate wildlife in terms of exploitable and nonexploitable elements (i.e. "harvest species" "varmits", "game animals", "predators", "trophy species" "Competitors", "furbearers" and so forth).

Meanwhile the bobcat continues to work out its private destiny in places few people visit. Only on the backs of the fashionable does it put in an appearance. Inevitably, of course, the demand for its spotted coat will pass; even buffalo robes were once popular. In the end, those scraggly hides were packed away in attic trunks, though not before the teeming herds of native beasts that had produced them were gone. The demise of the bobcat would not be so noticeable an event. Few people are privileged to see a wild bobcat.

Conservationist Hope Ryden spent three years tracking bobcats. Her resulting book *BOBCAT YEAR*, will be published by Viking Press.



BOOK REVIEW:

PANTHER



By Roger Caras

This is a tale of the Everglades, that unique wilderness at the southern tip of Florida. Here the elevation varies from sea level to 10 feet, and there are willow swamps, hammocks, sloughs, cypress jungles, saw grass flats and pine flatlands. Mangroves grow near the edge of the sea, orchids and other air plants live in the trees, which include gumbo-limbo, strangler figs, pigeon plums and wild tamarinds. Sixty species of fern grow in the Everglades. There are 323 bird species, 142 butterflies, 37 mammals, 50 reptiles, 16 amphibians, and 50 species of mosquito!

In the surrounding coastal waters live 10 species of whale and dolphin. The islands and hammocks in this vast wetland have such names as Billy Buck, Bitter-root, Little Owl, Willy Willy Island, Lostman's Hammock and Graveyard Key - where the Seminoles used to bury their dead.

These islets are home to the Everglades mink, raccoon, black bear, deer, alligator, rattlesnake, the egret, herons and ibis, and the mysterious, ghostlike Florida panther, reduced now to a pitiful remnant of its former numbers.

This rarest of cats, reddish-brown in color with dark ears and a white belly, was known to the Seminoles as "pa-hay-okee." Some tribes built shrines to it, and most built legends around it.

PANTHER is the fictitious hero of this story. His sister is killed by a black bear, his mother - weakened in a fight with an alligator is killed by hunters.

Panther grows to be a 200 pound cat, mates and fathers cubs, survives fire and battles daily for his life.

The story evolves and his tracks are spotted one day by "Doc Painter" an 80 year-old man who claims to have shot 200 panthers in his day. Reminiscent of "The Old Man and the Sea" the battle between these adversaries unfolds.

Roger Caras has written a wonderfully descriptive tale of the Everglades and its teeming wildlife. He contrasts the swimming pools and casinos of Miami Beach with Panther's wild world only forty miles away. Drawings by Charles Frace' noted wildlife artist illustrate every chapter.



FRANK CASTORNA, DAILY NEWS

from Fairfield Daily News

Ghengis Khan, a 325 pound lion that faced extinction unless he could be sent to an animal sanctuary in California, will soon be on his way. Khan is the ward of Tatiana Gillette-Infante, supervisor of the Queens Zoo. Gillette-Infante has taken care of the lion since last March when a friend asked her to watch animal. The zoo however, is for North American animals exclusively and Parks Commissioner Gordon Davis frowned on Ghengis' residency. An animal retreat in the San Fernando Valley agreed to take Ghengis if his shipping costs were paid. A story about Ghengis' plight appeared in the Daily News and American Airline's Vincent Modugno, upon learning of the trouble, brought the problem to his superiors.

American Airlines will absorb the cost of shipping Ghengis. "We feel the animal will bring happiness to thousands when properly exhibited in a natural surrounding. We hate to see so magnificent an animal destroyed.

A HEARTY CHEER FOR AMERICAN AIRLINES.

Contributed by Art Human



CRAZY CARACAL

BY REBECCA MORGAN

