Bobbie Walthall

To: Tom Markus
Subject: RE: Feral Cats

From: Michael Blumenfeld <mikeblum@sunflower.com>
Sent: Tuesday, December 11, 2018 10:43:03 AM
To: Stuart Boley; Lisa Larsen; Leslie Soden; Jennifer Ananda; Matthew Herbert; Matthew Herbert
Subject: Feral Cats

To: Lawrence City Commissioners:

Please consider and act favorably upon the contemplated program for feral cats. Lawrence is a humane community. One of the things that makes it so is the effort by the Lawrence Humane Society to become as close as possible to a no-kill shelter. The contemplated program is consistent with and will support that laudable objective. Your support would be appreciated.

Michael Blumenfeld
2713 Westdale Circle

Bobbie Walthall

To: Tom Markus
Subject: RE: Feral Cats

From: Mark Jarboe <markjarboe@att.net>
Sent: Tuesday, December 11, 2018 10:11:58 AM
To: Stuart Boley; Lisa Larsen; Leslie Soden; Jennifer Ananda; Matthew Herbert
Subject: Feral Cats

Dear Commissioners:

I have heard on KPR radio and read in the Lawrence Journal-World of the Lawrence Humane Society requesting permission to establish a Feral Cat or Community Cat program in Lawrence. I would recommend this request be denied.

Many sources attest to the fact that domesticated cats, which are free to roam, and feral cats do great damage to our environment. One such source is the Smithsonian magazine: Feral Cats Kill Billions of Small Critters Each Year

Feral Cats Kill Billions of Small Critters Each Year

Rachel Nuwer

A new study shows that cats--especially feral ones--kill far more birds and small mammals than scientists previo...

I am amazed people, who seem to care for the environment, suddenly seem to reverse course when in comes to pets. Humans have created this problem. We have introduced an unnatural predator to our environment and now can't seem to bring ourselves act responsibly. For those of us who love songbirds and feed birds, feral cats and our free roaming neighbors' cats are a real nuisance (https://www.nature.com/articles/ncomms2380). I would recommend tougher administration of ordinances regarding pets. Cats should be restricted to the owner's property.

The desire not euthanize cats can lead us to disrespect the rights of property homeowners and the "rights" of other wildlife in our city.

Sincerely:

Mark E Jarboe
318 Shannon Ct.
Lawrence, KS 66049

Bobbie Walthall

To: Page Williams
Subject: RE: TNR and no-kill shelters

---------- Forwarded message ---------
From: **Page Williams** <page.williams@gmail.com>
Date: Tue, Dec 11, 2018 at 1:26 AM
Subject: TNR and no-kill shelters
To: <sboley@lawrenceks.org>, <llarsen@lawrenceks.org>, <lsoden@lawrenceks.org>, <jananda@lawrenceks.org>, <matthewjherbert@lawrenceks.org>

Dear Mayor Boley, Vice Mayor Larsen, and Commissioners Soden, Ananda and Herbert

A Lawrence agenda noted that you are considering proposals for TNR of feral cats and no-kill policies for shelters - and that you wish to study the issues further and seek more information. I am an 80-year-old woman, a life-time cat owner/lover, and am writing to share information on why I am adamantly opposed to both practices. I am not a scientist, doctor or veterinarian but, by attachments, I share some indisputable information that I've collected that validates my concerns.

Please google "PETA The Great Outdoors? Not for Cats!" and "PETA The Deadly Consequences of No-kill Policies" to learn why I feel that both practices are cruel to the cats. A 1992 article from a Humane Society publication shows that the Humane Society once agreed with me. A quote in the attachment **POSITION 1992 HSUS** reads: "*The solution to the feral cat problem lies in taking responsibility for these animals. Responsibility means rescuing the cats and either taming them and placing them in homes, or humanely ending their lives, but nothing short of either."* For more professional views on the cruelty of TNR, check the attachments **CRUEL Jessup on ferals** and **CRUEL Tampa gruesome deaths.** Re-abandonment by TNR is far crueler than humane euthanasia, a word that derives from the Greek for "easy death."

Unfortunately, Petco and Petsmart, the companies who benefit from selling a lot of cat food to TNR supporters, have figured out where their profits lie. They subsidize those groups and non-profits that support TNR efforts and that run "no-kill" shelters, which hoard animals indefinitely in small cages while they turn others away due to lack of space (which contributes to more strays abandoned and suffering on the streets.) Please google "Petco TNR" and "Petsmart TNR" to see what projects Petco Charities and Petsmart Foundation support to perpetuate their customer base. The food that TNR folks leave out for cats, also attracts pests and rabies-vector wildlife (think rats, raccoons and skunks) to the food, as well as coyotes to feed on the cats.

In attachments **Opinions Condensed** and **Opinions Table 2** you will learn that 20+% of cat colony caregivers, despite what they tell you, acknowledged to researchers that TNR does not eliminate feral cats. The vast majority of the CCCs denied that feral cats harbor diseases and revealed that their real goal is to have cats accepted as protected wildlife.

As you were elected to serve and protect the humans of Lawrence, your first responsibility must be Public Health. Attachments **RABIES CDC Burden of, TOXO CDC Biology, HEALTH Cats Carriers of Disease, TOXO Milcarsky Stethoscope,** and **RABIES 2016 Pops Barnes** should sufficiently prepare you to dispute any claims made that TNR is not a threat to the health of your citizens. The combined conclusions of the Centers for Disease Control, Florida and Tennessee veterinarians, and a Georgia City Councilman who is also a registered nurse should solidify a priority for Public Health.

The pro-TNR, anti-science lobby can be loud and downright vicious. They are often described by their opposition as "hoarders without borders." They can pat themselves on the back for "saving" cats without having to actually see the agonizing ways that those cats die. My cat is indoor, protected from all disease, predation, and human cruelty, and available for any veterinary care when needed. Yet I've been called a murderer and animal-hater by TNR advocates. You will be under intense pressure and subjected to opinions with drama but no science. I hope that you will base your decisions on the greater good, common sense and sound science. I offer the following advice:

1) Refuse the term "community cats" and use "feral cats" unless your entire community has voted to approve a measure to legalize the usually-illegal re-abandonment of cats who are then allowed to urinate and defecate anywhere they choose, ignoring property rights.

2) Insist upon TNE rather than TNR - with the E standing for either Enclose or Euthanasia, up to the choice of the trapper. They can *microchip* and enclose the cats on their own property OR they can bring the cats to be euthanized as unowned nuisances who need to be saved from harsh street life. Your citizens deserve options. Loan TruCatch traps to both sides.

3) Insist that all opinions presented as fact be verified by reliable scientific research.

4) Insist that all cat colony managers take legal and financial responsibility for the animals enclosed by them in the event that they escape and damage property or attack humans. Require them to submit population reports annually, including microchip numbers and last date of rabies booster, and to allow inspections of the colonies.

I've presented you with a very small amount of my collection of scientific research and facts from professionals; let me know if you want more. I end the attachments with a Miami Herald editorial which says it all: **OP ED Miami TNR ignores science**.

Thank you for any attention that you give to this letter,

(Ms.) Page S. Williams
2234 Ashford Hollow Ln
Houston TX 77077-5814
281-679-7221
Page.williams@gmail.com

Quick release after surgery results in gruesome feral cat deaths

By Steve Andrews Published: June 24, 2016, Channel 8 On Your Side Help Line 1-800-338-0808

HILLSBOROUGH COUNTY, Fla. (WFLA) — Hillsborough County has joined up with the Humane Society of Tampa Bay neutering tens of thousands of wild or feral cats, then putting them back on the street the next day.

It is part of the Trap, Neuter, Vaccinate and Release (TNVR) program to help control and reduce the feral cat population, which is estimated at 200,000 in Hillsborough County. Since 2007, the Humane Society of Tampa Bay says it has neutered or spayed 47,000 feral cats.

But, how are they adjusting after surgery? No one knows for sure.

"It's helping to reduce the killing at our local shelter and that's what's important to the Humane Society of Tampa Bay," said H.S.T.B. executive director Sherry Silk. Silk admits the Humane Society isn't keeping track of what happens to the feral cats. After a 2-year pilot program, the Hillsborough County Pet Resources Center doesn't have any data either.

8 On Your Side has seen pictures of what's happened to some. The pictures are so disturbing, News Channel 8 managers won't allow them on television.

Every Monday, feral cats trapped by the Humane Society of Tampa Bay and the Pet Resources Center, are spayed or neutered and vaccinated. Usually, cats undergoing this sort of procedure spend 7 to 10 days in a cone, to prevent them from getting at their incision.

WARNING: Graphic feral cat photos from Hillsborough Animal Health Foundation

A cage that held a cat that bled out.

A cat that suffered from excessive bleeding. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that was neutered and suffered from an infestation of maggots. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that suffered from an infected incision. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that suffered from an infestation of maggots. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that suffered from an infected incision. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that suffered from an infected incision. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that suffered from an infected incision. Photo courtesy Hillsborough Animal Health Foundation

A feral cat that suffered from an infected incision. Photo courtesy Hillsborough Animal Health Foundation


A feral cat.

“We don’t have a place to put them for a couple of days,” explained Sherry Silk. So, they are kept overnight. The next day, they are released back on the street in the neighborhood where they were trapped. While neither the county nor the Humane Society has any information or data about what happens to the cats once they’ve been released, evidence indicates it can be horrific.

One disturbing photograph shows a bloody trap cage that once held a cat. The cat’s incision opened and it bled out.

“That’s the worse case scenario is that the wound gets pulled back open. At that point you again, without proper care, I’ve got to believe that an animal that’s dripping blood all over the street isn’t going to last very long,” stated executive director of the Hillsborough Animal Health Foundation, Don Thompson.

Other photos showed the animal bled to death, as well as other incisions on other cats that became infected and were then infested with maggots.

“So we have no follow up care, no pain meds, we have nothing. We say that these cats do okay with that, but again I’ve not seen any data to support that one way or the other,” added Thompson.

Sherry Silk admits complications can occur, but they hope for the best.

“You know, you’re doing the best you can with the tools that we have, it is not perfect, it’s definitely not perfect,” she said. Sherry Silk and the county point to the dramatically declining number of cats being euthanized at the shelter and believe TNVR plays a role in that.

Don Thompson is hoping the county’s pilot feral cat program would produce data that would shed light on something more than how many cats were trapped and released. He questions how humane it is to release a cat into the wild with a fresh incision that could open at any time.

“For me personally, I would way rather lie in a bed and have somebody provide something that would let me go to sleep peacefully than I would to say, that you’re going to cut my guts out, drop me out onto the street, and let me bleed out,” he said. #

Should Feral Cats be Euthanized

By Rhonda Lucas Donald

[Adapted from the May 1992 issue of Shelter Sense/The Humane Society of the United States by Department of Fish & Game]

Ever stalking and just out of reach, the feral cat lives on the outskirts--the outskirts of our vision, of our homes, of our care. These cats gone wild look so familiar, so seemingly close. But they have a wary look that most companion cats seldom express, and they consistently maintain their lonely peripheral existence.

Exactly what is a feral cat? The term fosters quite a debate. A feral cat is, essentially, a domestic cat. He is a companion animal who no longer is, nor ever has been, under the care of people. He lives outside and by his own wits, finding food and water, breeding, and surviving as best he can. He lives much like a wild animal, but he isn't altogether wild.

In her book, *Maverick Cats*, Ellen Perry Berkeley quotes Roy Robinson, a specialist in cat genetics, who explains how we have domesticated the cat over thousands of years and why the cat has become dependent on humans. First, he points out, cats retain juvenile characteristics that encourage dependency into adulthood. Second, they have a reduced adrenal response that requires them to be protected. Third, cats have undergone a reduction in brain size. "These changes are the changes of many generations and are not undone overnight," Berkeley says. "We may say that the feral cat has 'gone wild' or 'returned to the wild,' but this is not the same as being a wild animal."

The question of responsibility is at the heart of the feral cat issue.

Not completely wild then, the feral cat, in fact, seeks out humans to aid in survival. Unlike most wild animals, feral cats locate themselves close to people.

Feral cats *do* benefit from humans. Many people feed feral cats and some even go so far as to neuter them and provide veterinary care when needed. Even so, these cats are largely unapproachable. They must be trapped in order to be handled, and once trapped, often will not go near a trap again.

Some scientists argue that because feral cats live fairly successfully in the wild, they should be considered wild animals and treated accordingly. Dr. Andrew Rowan, director of the Tufts Center for Animals and Public Policy, says, "A cat that's never been handled by a human is not a pet." This leads him to the question that is at the heart of the debate over the fate of feral cats: "Are these animals really our responsibility?"

The neuter-and-release method is considered by some to be the solution to the feral cat problem. But what does this method mean for the cats?

For the most part, people have treated feral cats as if we *are* responsible for them. Sometimes this sense of responsibility comes as a result of the problems the cats can cause. Some people attempt to stop the nuisance by eradicating the cats. Others feel obliged to feed these fringe cats and ease their struggles somewhat. Still others see the often miserable lives of these animals as tragic, and they do what they can to end the suffering by trying to tame the cats and put them in homes or by humanely ending the animals' lives.

The UFAW Method

In the early 1970s, the Universities Federation of Animal Welfare (UFAW), a group based in England, was one of the first to attempt neutering entire colonies of feral cats and then maintaining the colonies by providing a constant supply of food. In their booklet, "The Fate of Controlled Feral Cat Colonies," UFAW lists no fewer than 14 reasons why feral cats need to be controlled, including the "sheer abundance of cats; the unpleasant sight of cat corpses, or of individuals in poor condition; annoying caterwauling; fighting; the foul sight and smell of cat urine and feces; and the disturbing of rubbish bins and scattering litter," among other things. The neuter-and-release method was devised to combat these problems.

UFAW reported on eight maintained colonies, tracking the individual animals in them over a three-year period. Each of the colonies had a human feeder, although some of the feeders were more dedicated than others. Their conclusion is that "the 'neutering and returning' programme is now the most humane, cost-efficient, and effective means of population control available."

" ...the struggles of life on the streets. One cat's left eye has been blinded. Gun pellets are embedded in her nose and near her right eye, which is nearly blind also. Alley Animals doesn't advocate neuter and release."

From the standpoint of some people who are working to solve the feral cat problem, the neuter-and-release method seems to be an acceptable way of handling these animals. But is this method the best for the cats?

What About the Cats?

In theory, the sterilization of feral cat populations could be acceptable under the right circumstances. But finding the right circumstances can be problematic. Ingrid Newkirk, national director of People for the Ethical Treatment of Animals (PETA), says this method is acceptable as long as the cats are 1) isolated from roads, people, and other animals who could harm them; 2) constantly attended to by people who not only feed them but care for their medical needs; and 3) lodged in an area where the weather is constantly temperate. As Newkirk says, "I don't think this kind of place exists in America."

Newkirk worked in animal control for 16 years. In that time, she saw a lot of feral cats. "The ones I picked up *always* had something wrong with them--they just can't get along in a concrete society." Newkirk is not an advocate of the neuter-and-release method. She believes, as does The HSUS, that euthanasia, although unpopular, is the best solution to the problem.

"The usual responsibility we have for pet cats is suspended when it comes to ferals. It's not responsible to leave a child on the railroad tracks and walk away. It's not responsible to essentially do the same thing to cats by re-releasing them to the streets, even if they're neutered. You have to play God whether you neuter and release or euthanize. It's a matter of responsibility."

The solution to the feral cat problem lies in taking responsibility for these animals. Responsibility means rescuing the cats and either taming them and placing them in homes, or humanely ending their lives, but nothing short of either.

Newkirk believes that part of the reason why those who neuter and release are so vehement that their methods are preferable is because they don't see what eventually happens to their charges. The feeders see the cats at feeding time. If one or more doesn't show up, they may miss the animal, but they don't see what has happened

to him or her. "They are operating in a bit of a vacuum," she says. "The caretakers don't realize that if the cats aren't there, something bad happened to them. They're not on holiday in the Bahamas."

Because animal control officers often *do* see what happens to these cats, they know what their fates are. The animal control officer [ACO] picks up the cats after they've been hit by cars, ingested poison, succumbed to illness, or suffered a terrible injury. Newkirk advises ACOs not to "ignore the many experiences they've had--the many bad endings that these animals meet." She wants to encourage those in shelters who must deal with this problem: "You are doing the right thing. And a lot of people think you are. I wouldn't have believed that life for cats is as hard as it is if I hadn't seen it for myself. Life is more than food."

The Malevolent Public

Ellen Kowalski, a Maryland resident, recently wrote to *Cat Fancy* magazine describing how the feral cats she rescues in Baltimore are used for "target practice" by kids with "BB guns, firearms, and even bows and arrows. The cats in the area are well fed," she says, "but they have eye infections, abscesses, sores, and deformed limbs." Kowalski has very strong opinions regarding the neuter-and-release method: "This practice should be called the neuter-and-abandon method because that's what the advocates are really doing. These people congratulate themselves for neutering feral cats and saving unborn kittens from lives of misery. Then they return the neutered cats to the same lives of misery."

The concerns of the people living near feral cat colonies also need to be addressed. Neutering cats does not keep them from digging up gardens, fighting, getting into garbage, or causing any of the many other problems cats can cause. Additionally, cats need to be protected from people who dislike them and may try to harm them. People may become especially disturbed if, as in most of the cases studied thus far, the numbers of cats in the colony increase.

"We applaud the efforts of people who care for ferals," says Marc Paulhus, HSUS vice president for companion animals. "But they can't stop their caring at stopping reproduction; they need to go on to taming and finding proper homes for these animals."

The Inevitable Immigrants

Ironically, the clearest picture of why the neuter-and-release method may not be an appropriate solution to the problem of feral cats comes from UFAW's own report on the feral colonies they monitored.

For example, one colony had 19 cats living in "semi-disused garages." During four subsequent inspections, the researchers found that "two entire [unsterilized] immigrants and one kitten" joined the colony and were neutered. "Two dead cats were found and one cat disappeared, thus leaving a colony of 19 neutered cats and one untrappable male. The next inspection . . . revealed that one cat had died in a car accident, and three others had been killed by two uncontrolled stray dogs. The dogs were soon removed from the area. Seven immigrants had taken up residence in the garages: six males and a female who soon produced a litter of four kittens, all of whom were successfully homed [adopted]. One of the males was diseased and was humanely destroyed (as was another of the original old males), but the other six adults were neutered. During 1987, three more entire immigrants joined the colony."

During the time this colony was monitored, nine of the original 19 cats either disappeared or were killed or euthanized because of illness, while 17 new cats entered the territory. This colony grew by eight cats despite the rather hasty deaths of almost half the original colony. In another study colony, the number of feral cats rose from 70-80 to 100 in one year, even though the number of feeders dropped to only one person. During the six and one-half years that this colony was watched, 40 kittens were "homed" and 200 cats neutered. Reports on other colonies tell the same story: large numbers of original members vanish or die and new cats come in on their own or are dumped there by people.

The Fallacy of Territorial Defense

Many experts agree--and UFAW's report indicates--that cats do not defend their territory to the degree that they prevent new cats from entering it. Dr. Carol Haspel, associate professor at LaGuardia Community College in New York, has studied urban feral cats for years and written many articles on the subject. She says cats occupying a certain area "absolutely do not" keep others out, "particularly if there is a feeder." She describes feral cats as opportunistic consumers who "easily coexist and tolerate others well." In fact, recent studies have shown that rather than living an isolated, independent existence as traditionally thought, feral cats tend to form social groups similar to the way lions do.

One of the main reasons given, then, for maintaining feral cat colonies--to prevent the influx of more cats--is actually a fallacy. Neither does the neuter-and-release method save the cats from injury and disease, or people from the unpleasantries associated with free-roaming cats. Of UFAW's 14 reasons for controlling feral cats, their neuter-and-release method actually seems to eliminate just one: "the profusion of kittens."

Question of Legality

Under interpretations of some state anti-cruelty laws, neuter-and-release programs can even be considered illegal. In Florida, for example, a person who assumes care of any animal is deemed its legal custodian. Florida Statute 828.13 (3) specifically states: "Any person who . . . has charge or custody of any animal and who abandons any animal in a street, road, or public place without providing for the care, sustenance, protection, and shelter of such animal is guilty of a misdemeanor of the first degree . . . " In addition to criminal violations, local ordinances may also require those defined as legal caretakers to license, tag, and confine cats.

Finding the Best Solutions

The most important step to solving the feral cat problem is education. People need to understand that, although it seems the most directly helpful, feeding stray or feral cats--like feeding city pigeons--perpetuates a problem. Where there is a food source, there will be feral cats and the suffering and discomfort that accompanies them. People need to be taught to use humane traps and to know that the most helpful thing they can do is catch feral cats, if they can, and take them to a shelter to be adopted, if possible, or euthanized. Finally, the connection between spaying and neutering and the feral cat problem needs to be emphatically stressed.

Many will argue that life for the cats, no matter how brief, traumatic, or difficult, is preferable to humane death. To this, Ellen Kowalski comments: "Those who believe euthanasia is cruel should consider that the only difference between euthanasia and abandonment [what she calls the neuter-and-release method] is that euthanasia is merciful and quick, and abandonment is slow and painful. The end result is the same--death."

Cats do not belong on the fringe. They belong inside the circle of humans, who have domesticated them. Human companionship and care are as essential to them as food and water. It may be too late for the many feral cats who already lead lives masquerading as wild animals. But it is the responsibility of all involved in community animal protection to help ensure that no others have to endure this tragic life on the outskirts.

This article was originally published in *Shelter Sense,* Vol. 15, No. 5, pages 3-6. 1992.
Transcribed from *Shelter Sense*/The Humane Society of the United States, (May 1992), with permission of The Humane Society of the United States.

Animal Sheltering Magazine, formerly *Shelter Sense*, is published monthly by The National Humane Education Center of The Humane Society of the United States, 2100 L Street, NW, Washington, D.C. 20037.

The welfare of feral cats and wildlife

David A. Jessup, DVM, MPVM, DACZM

There are an estimated 60 to 100 million feral and abandoned cats in the United States. By any measure, this is an important welfare issue, and the many bodies of free-roaming cats visible along roadsides across the country are mute testimony to the tragedy of their unhappy lives. Many people of goodwill want to see this situation improved. Some believe that feeding feral cats; trapping, neutering, and releasing them; and allowing them to live in colonies is 1 answer to the overpopulation problem. Others believe that, on the whole, such programs are most often unsuccessful at sharply reducing and eventually eliminating feral cat populations. In my opinion, attempting to maintain cats in colonies only compounds the problem by causing massive killing and crippling of native wildlife, jeopardizing biodiversity, undermining traditional animal control, enabling irresponsible people to abandon cats, and sending mixed messages about the veterinary profession's commitment to serve the welfare of all species, including cats and wildlife.

The Welfare of Wildlife

Free-roaming and feral cats yearly kill hundreds of millions, perhaps as many as a billion, native North American birds, mammals, reptiles, amphibians, and fish.[1,2] The Lindsay Museum of Walnut Creek, Calif, a full-service wildlife rehabilitation facility, received 5,669 small mammals, birds, and reptiles between January 1 and September 14, 2003. Of these, 24% (1,050) of birds, 12% (143) of mammals, and 15% (11) of reptiles were presented because of cat-related injuries or conditions.[a] These animals were brought in alive and do not include those that died or were not found. When raptors and pelagic birds are removed, accession figures reveal that 30.3% (1,015/3,353) of birds were admitted because of cat-related problems. This includes 36 species, many of which are songbirds or locally rare, sensitive, or migratory species; all are supposed to be protected by law from illegal take (**Table 1**). These figures are from 1 wildlife rehabilitation facility, which serves half of 1 small county in California, for < 9 months.

A recent survey conducted in southern Michigan indicated that free-ranging cats killed from 0.7 to 1.4 birds/wk.[3] Twenty-three species (12.5% of all breeding species) were involved, including 2 species of conservation concern.[3] The authors of that study[3] estimated that cats would kill between 16,000 and 47,000 birds during the breeding season in their 3 study areas and concluded that cat predation "plays an important role in fluctuations of bird populations."

It is in cats' nature to hunt.[4-7] It is part of their telos, a term coined by Aristotle that means "a function, a set of activities intrinsic to an animal, evolutionarily determined and genetically imprinted."[8] No reasonable refutation of this exists in the literature. Even **trap-neuter-return (TNR)** advocates admit "that a sizable problem exists" with regard to the killing of wildlife, but offer no plan for mitigation.[9] Providing abundant food for outdoor cats, even overfeeding, does not stop this natural hunting behavior.[4,10,11,b]

Table 1—Data used to calculate the percentage of cat-related accessions to the Lindsay Museum of Walnut Creek, Calif, for all species and for susceptible birds (ie, nonraptors and pelagic birds).[a]

Species	No. of birds accessioned from Jan 1–Oct 14, 2003	No. of cat-related accessions	%
All birds	4,409	1,050	24
All mammals	1,187	143	12
All reptiles	73	11	15
Blackbirds	58	6	10
Bluebirds	5	2	40
Bushtits	49	17	35
Chickadees	24	7	29
Cowbirds	40	7	18
Crows	107	7	7
Doves	720	234	33
Finches	685	209	31
Flickers	9	2	22
Flycatchers	4	0	0
Goldfinches	130	23	18
Grosbeaks	6	0	0
Hummingbirds	209	35	17
Jays	313	104	33
Juncos	18	13	72
Killdeer	14	1	7
Kingbirds	1	1	100
Larks	1	1	100
Magpies	6	1	17
Meadowlarks	5	2	40
Mockingbirds	175	59	34
Nuthatches	6	5	83
Orioles	10	5	50
Phoebes	46	10	22
Band-tailed pigeons	19	2	11
Poorwills	2	0	0
Quails	88	19	22
Robins	202	71	36
Sapsuckers	2	1	50
Shrikes	4	1	25
Siskins	1	0	0
Sparrows	30	19	63
Tanagers	4	2	50
Thrushes	36	16	44
Titmice	17	8	47
Towhees	183	96	52
Vireos	2	0	0
Warblers	15	3	20
Waxwings	49	12	24
Woodpeckers	49	11	22
Wrens	9	3	33
Total susceptible birds	**3,353**	**1,015**	**30.3**

From the Marine Wildlife Veterinary Care and Research Center, 1451 Shaffer Rd, Santa Cruz, CA 95060.

As presented by Winter,[11] the negative effects on wildlife populations can be extensive, devastating, and prolonged. Negative effects are particularly severe on islands, in parks where habitats have been fragmented (urban and suburban areas), and for endangered and ground-dwelling species.[6,12-14] In a study[15] of 2 California parks, feral cats selected native species of rodents and birds over introduced (pest) species. In locations where regularly fed feral cat colonies existed, native birds were markedly less abundant and less likely to nest, and ground-foraging species such as California quail and thrasher were entirely absent.[15,c] Native rodents were less abundant, and house mice were more abundant.[c] This makes evolutionary sense in that species of European origin, such as Norway rats, house mice, starlings, and English sparrows, have had many thousands of years to coevolve with *Felis silvestris* and *Felis catus,* whereas North American species have had only several decades to perhaps 200 years.

Feral cats also indirectly kill native predators by removing their food base.[16] Because they are subsidized, feral cats can exist even when prey species have been reduced to far below carrying capacity.[6,7] In some areas of Wisconsin, feral cats outnumber all native mesopredators combined.

Cats' victims (native species) have evolved in and belong in North America and provide ecosystem services.[15,17,18] The loss of these animals reduces biodiversity, even in somewhat degraded ecosystems.[17,18] Loss of their ecosystem services has implications for such basic life processes as insect population dynamics, soil fertility and stability, pollination, and seed dispersal. Removal of cats from native and even degraded ecosystems has no negative and only positive ecologic consequences.

Wild animals are not only killed by cats but are also maimed, mauled, dismembered, ripped apart, and gutted while still alive, and if they survive the encounter, they often die of sepsis because of the virulent nature of the oral flora of cats. Veterinarians working in the area of avian and wildlife rehabilitation see this problem frequently.[a,d] Wild animals experience pain and suffer too. On the basis of compassion alone (for those who can ignore the impersonal nature of wildlife mortality figures and disruption of ecologic processes), the suffering of wildlife must be weighed against the perceived welfare of feral cats.

It is pointless to debate every potential disease and parasite of cats and situation in which they might affect wildlife. Clearly the potential for transmission of diseases and parasites from dense aggregations of feral cats to wildlife exists. Some diseases carried by feral cats are negatively impacting sensitive and endangered wildlife populations. The Alala, or Hawiiian crow, and southern sea otter are being seriously affected by systemic and central nervous system disease caused by toxoplasmosis linked to cat feces.[19,20] In a recent publication, we showed that toxoplasmosis was the primary cause of death for 23% of the threatened southern sea otters (n = 105) we examined during a 3-year period and that it contributed to the death of many others.[21] There is also reason to believe that feral cats may serve as a source of FeLV for cougars and Florida panthers.[22,f]

The following passage from *Animal Rights and Human Morality*[8] represents an ethical viewpoint: "I would not adopt as a universal principle always favoring the 'higher' animal—for example, if the choice came down to a quick death for the higher animal versus a slow, lingering death for the lower animal, one should presumably choose the death of the higher animal."

The first law of medicine is "primum non nocere," or "above all, do no harm." How do we square this most basic law, and the now popular phrase "veterinary medicine is for all species," with this situation? Feral cats and the programs that foster their free-ranging existence do not serve the welfare of individual wild animals or wildlife populations, can cause an alteration of basic biological processes, and have serious potential negative impacts on biodiversity and recovery of endangered and sensitive species[12] in many landscapes.

The Welfare of Feral Cats

In my opinion, TNR really stands for trap, neuter, and reabandon, and that is how I will define TNR for the purposes of these proceedings. Abandonment of animals cannot be morally justified and is illegal under state humane laws.[23] The California Penal Code goes on to say it is illegal to fail to provide animals with shelter, water, food, and protection from weather.[24] Such conditions often occur at TNR sites. If it is illegal to abandon a cat once, how can it be legal to do it a second time? How can veterinarians justify being party to abandonment, an illegal act of animal cruelty?

Part of the cat's telos is its desire for affection and human companionship and its semidependence on human care and provision. Veterinarians and animal shelter workers in particular know how important human touch and companionship are to a cat. Cats that lose their owners are often bereft and suffer what appears to be depression. Practicing veterinarians often see sick or injured cats begin to heal and thrive when petted and interacted with more frequently.

Some TNR programs do not distinguish between truly feral cats and lost or stray pet cats. Photos are not taken, and cats are not held for owner identification and reunion with their families. In the world of TNR, unless a stray cat has a collar or is microchipped, it is very difficult to distinguish from a truly feral animal. Once trapped, neutered, and marked, these lost cats are much less likely to ever be found and returned to their owners or adopted. Trap, neuter, and reabandonment is a cruel fate for many former pet cats.

People for the Ethical Treatment of Animals (PETA) has called TNR "subsidized abandonment" and states that "feral cats do not die of 'old age.' They are poisoned, shot, tortured by cruel people, attacked by other animals, or hit by cars, or they die of exposure, starvation, or…contagious diseases…. In one feral cat colony, half of 32 cats were shot by a man who claimed that they were attacking his children. Cats in another colony were shot with darts. A loose dog killed several cats in another colony. Ferals often scratch their ears bloody, driven crazy by pain and itching of ear mites and accompanying infections. Others die of blood loss or anemia from worms and fleas. Urinary tract infections, which frequently lead to blockage in male cats,

cause extremely painful, lingering death if not treated. Untreated upper respiratory infections leave eyes and noses so caked with mucus that animals can barely see or breathe."[25]

Many feral cats live short, brutal lives. Figures vary, but the AVMA has used the figure of 2 years as opposed to 10 for the mean lifespan of owned cats[26]; others estimate that feral cats live approximately half as long as owned cats.[27] Mortality rates for feral cats can be up to 80%/y.[27] Feral cats suffer considerably higher rates of injury and disease.[26,27] Many feral cats succumb to vehicle trauma, predation, disease, or severe weather.[27] Winter[11] has presented a number of examples of the dangerous and unsanitary conditions found at feral cat feeding sites. Clearly these conditions and outcomes are not serving the welfare of feral cats.

TNR Sends Mixed Messages About the Veterinary Profession

Is veterinary medicine for all species? The AVMA's Long Range Plan, Goal 1, Objective 6 states in part, "emphasize the concept that veterinarians have a positive influence on the health and well being of all living creatures…."[e] Trap-neuter-return appears to be advantageous to only 1 species (cats) and disadvantageous to many dozens, perhaps hundreds, of other species (Table 1). What kind of ethical message and world view does veterinary support for TNR and feral cat colonies send?

Many wildlife biologists, ecologists, conservation agencies, and bird and mammal lovers strongly oppose TNR and feral cat colonies.[28,29] Most avian and wildlife veterinarians strongly oppose TNR and feral cat colonies.[29,30] What message does veterinary support for TNR send to millions of conservationists and the veterinarians who provide care for birds, native species, and their ecosystems?

The conditions under which feral cats are handled in TNR programs and the level of veterinary care provided may be lower than prevailing local practice standards. In large-scale TNR operations, dozens of cats may be dropped off in the morning for spays and neuters.[31] A history is almost never available, and examination of the cat in the trap is necessarily brief and from a distance. No owner or client is present. How is it possible for a veterinarian-client-patient relationship to exist as required under federal laws regarding the use of veterinary drugs and under the Model Veterinary Practice Act and other AVMA policies and positions if there is no client and no lasting relationship? Neutering is an elective surgery, not an emergency procedure. If a valid veterinarian-client-patient relationship is not necessary for an elective surgery, why is it necessary for clients seeking popular medications? Practitioners who worry about the impact of Pet Med Express should give serious thought to how TNR will effect public perceptions about the value of veterinary services.

Veterinarians involved in TNR programs have told us that in large-scale spay clinics in Florida, cats are spayed for $12 to $17 in drugs and supplies.[31] If this is so and widely known to cat advocates, how must they then look at veterinarians who charge $70, the amount the **California Veterinary Medical Association (CVMA)** reimbursed its members,[32] or $100 to $150 as is charged in many practices. Consumers, particularly those who read Consumer Reports and are already suspicious of veterinarians, may be left wondering.

Is the $17 spay done in a sterile theatre with a separate instrument pack? Is ketamine the sole anesthetic? Is postoperative pain relief considered? Is there any substantive postoperative care or surgical follow-up? Are medication and instructions given at the time of examination and spay followed? Vaccinations may or may not be given, but if given, is there any follow-up? If not, this is not in keeping with recommendations in the AVMA's Model Veterinary Practice Act. Is this professionally acceptable or appropriate? How can the veterinary profession provide high-quality medical care for some cats and yet provide and support a much lower standard of care for others? If 2 different levels of care are professionally acceptable standards of practice, how can you deny a client the low-cost version if they know it is available?

Some TNR advocates argue that vaccination is not a good return on investment[31] and that resources should instead be directed toward spaying and neutering. Ninety thousand feral cats were released into California without vaccinating them for rabies, despite bat and skunk rabies being endemic within this state. This was justified on the basis of local practice standards,[32] but the cats in question were not going to homes where they might have some insulation from wildlife rabies carriers or other feral cats. In the face of CVMA support for TNR, only 1 county health veterinarian in California insisted that all TNR cats in his county be vaccinated against rabies. Hopefully, recent cases of rabies in feral cats in Florida and at Kennasau State University in Georgia,[33] which resulted in human exposures, will cause this stance to be reconsidered.

Diseases and parasites affecting feral cats can have human health implications. Pregnant women; people receiving chemotherapy for immunologic diseases and organ transplants; and those with HIV, AIDS, or other immunologic problems are at increased risk of clinical disease if exposed to toxoplasmosis. Maintaining feral cats where they can deposit cat feces in national, state, county, or city public parks; on campuses; and around schools and hospitals constitutes a public health risk.[34,35] In 1994, 5 Florida children were hospitalized with encephalitis that was associated with cat scratch fever.[35] The daycare center at the University of Hawaii in Manoa was closed for 2 weeks in 2002 because of concerns about potential transmission of murine typhus (*Rickettsia typhi)* and flea (*Ctenocephalides felis*) infestations afflicting 84 children and faculty.[36] The fleas were from a feral cat colony that has grown from 100 to over 1,000 cats, despite a TNR effort.[36] Some of the obvious sanitary, vermin, and parasite problems associated with concentrations of feral cats have been presented by Winter,[11] but wherever cats are concentrated and under minimal care and control, their diseases and parasites are likely to be more abundant. What does support of TNR say about the veterinary profession's commitment to public health in light of the fact that many public health veterinarians strongly oppose TNR?[29,37]

Although most veterinarians donate their skills and attendant costs to spay feral and abandoned animals, substantial funds have been made available recently to subsidize TNR programs. Maddie's Fund provided the CVMA with $13 million over 3 years to support TNR efforts.[32] Practitioners who were or became members of the CVMA in aggregate received $12 million, were paid $70/spay and $50/castration, and were not required to vaccinate cats or provide other health services (more than 90,000 cats did not receive rabies vaccinations).[32] The CVMA retained $1 million for arranging and promoting the program.[32] Although money can be a powerful motivator, we do not believe that greed is central to this issue but rather that a large number of veterinarians have been led to believe that TNR is humane and relatively harmless and will help control feral cat populations. I do not believe this is so.

If TNR does not provide high-quality health care for cats; undermines the veterinarian-client-patient relationship; undermines support for high-quality veterinary practice; or shows the veterinary profession as environmentally insensitive, not supportive of biodiversity and conservation, or less than vigilant about public health, then in my opinion, TNR serves neither our profession nor the welfare of feral cats, wildlife, or the public.

TNR Does Not Work Under Most Prevailing Circumstances

Each situation and location where feral cat populations exist and where TNR has been tried is different. Geography and groundcover vary from open and easy to access (campuses and some parks) to steep, broken, and densely vegetated. Feral cats in some locations are semitame and allow approach and handling, and in other locations, they are extremely fearful and flee at the site of people. How "success" (reduction in cat numbers) is defined also varies. The fact that many TNR groups fail or refuse to keep adequate records[11] does not help resolve the issue of success or failure.

Although some TNR programs have succeeded in slowing the growth of feral cat populations and sometimes the number of cats has declined over several years, in most locations where TNR has been tried, it fails to substantially or quickly reduce cat numbers and almost never eliminates feral cat populations.[11,38,b,g] After bad experiences with TNR at both the Mayport Naval Station and Norfolk Naval Shipyard, the US Navy banned TNR from lands under its control. Winter[11] has provided examples of other failures. Even at the original Palo Alto location where TNR was first tried,[39] cat numbers have been unstable and cats have had to be periodically removed to reduce the population to an acceptable level. I believe it is misleading to claim that TNR works in locations where cats are permanently removed periodically for adoption or other reasons. I have personally seen multiple feral cat colonies on state property and park lands and in a number of sensitive habitats on private lands in California where various levels of TNR (from casual to serious efforts) have gone on for many years. None of these efforts, by themselves, eliminated the feral cat population.

Simple population modeling and hands-on experience reveal that TNR is likely to succeed only when numbers of feral cats are small to begin with (30 to 40 or less); when the colony is closed (no immigration) or nearly so; where essentially all female cats in the area can be captured and neutered; where all the terrain is accessible (so pockets of untrapped animals do not remain); and where capture and neutering efforts are early, intense, and prolonged.[38,b,g,h] These circumstances seldom prevail long enough for cat colonies to be eliminated. Exceptions happen when unexpected lethal events occur, such as the mass dog mauling that led to the elimination of 1 study colony.[g] I do not believe that any of us would argue that this is a desirable scenario. In some situations where TNR has been described as successful, cats were all semidomesticated and approachable. Ironically, cats like these are the most likely to be adoptable and to succeed in an enclosed sanctuary. Other feral cat colonies reported to have disappeared under TNR programs were actually moved by their caretakers to other locations.

The largest TNR program in the nation, which neutered and reabandoned 180,000 cats, is not expected, even by its proponents, to reduce the number of feral cats in California.[32] Despite articles claiming success,[40] a follow-up study[h] on one of the largest and most active TNR programs in California has revealed no demonstrable effects at the population level after nearly a decade of effort. The coastal sage scrublands of San Diego County, where this work took place, are among the most imperiled habitats in the world with one of the largest assemblages of endangered animals anywhere. I could find no evidence that this program was carried out with any sensitivity to its potential impacts on wildlife. An ecologic study[10] in these same areas of San Diego County indicated that owned, free-ranging cats bring home 24 rodents, 15 birds, and 17 lizards to their owner's residence yearly and leave an unknown number of other wildlife dead or dying.

Trap-neuter-return's failures are, in part, attributable to its being based on several false assumptions, including the following: rates of abandonment and immigration are relatively low; cats at existing sites will exclude others (in reality, the presence of food attracts others)[11]; feral cats will stay where you put them (you cannot herd cats, well fed or not); all cats can be caught; and populations of cats in colonies will behave in general as if they were isolated and in a closed system. Modeling to guide some TNR efforts that incorporate these assumptions has lead to unrealistic conclusions.[h] Suppression of feral cat numbers is possible with great effort, but for the same reasons, it is difficult to exterminate rats and cats on islands by use of lethal means and it is vastly more difficult to accomplish this by use of nonlethal means in open systems. Finally, planning for TNR has almost universally failed to appreciate the reproductive potential of cats (Malthusian Index of 3, similar to that of the rabbit) and the very early onset of breeding in some females.

Since TNR is not sustainable, does not generally reduce feral cat populations in a reasonable period of time (5 years or fewer) in most circumstances where it is used, and almost never results in the elimination of

feral cat colonies, I do not believe it serves the welfare of cats or wildlife.

TNR May Be Illegal and Veterinarians Are Not Above the Law

If well-meaning individual veterinarians or associations found themselves the subject of misdemeanor or felony lawsuits, it would be most unfortunate. The comments in the following section are offered in the interest of avoiding such situations.

It is against the law to take protected species of wildlife, which is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect."[41] Because cats can and do kill, harass, harm, pursue, and wound endangered species, people who reabandon cats, maintain feral cats, or both and the veterinarians who knowingly provide services (an oral contract exists or in some cases a fee is paid) for animals destined to be so abandoned appear to be in potential violation of the **Endangered Species Act (ESA)**.[42] Under the ESA, citizen suits are allowed and "any person may commence a civil suit…to enjoin any person…who is alleged to be in violation."[42]

Wild animals and their right to exist are protected under other state and federal laws. The Migratory Bird Treaty Act makes it a misdemeanor or felony to kill or take "any migratory bird."[43] The act states that "any person, association, partnership or corporation who shall violate any provision…shall be deemed guilty of a misdemeanor…fined not more than $15,000 or be imprisoned not more than 6 months, or both."[44]

Most states also have their own endangered species laws (eg, California Endangered Species Act), and in all states, the taking of native species is prohibited, except as allowed under hunting and fishing regulations, which are commonly referred to as game laws. Relatively few species killed by cats can be legally taken for any purpose. Recent actions by several game and fish commissions suggest that states may be starting to take a more aggressive approach to TNR. From a wildlife agency perspective, the release of nonnative predators is just as illegal as poisoning or poaching wildlife or bulldozing their habitat.

The federal Migratory Bird Treaty Act and ESA laws are strict liability laws, which means there is no affirmative defense allowed.[42] Telling the judge that "you didn't mean to," "didn't know," or "it wasn't as bad as they say" is not an acceptable defense. Repeated or knowing offenses can be tried as felonies in civil and criminal courts. Veterinarians who have been informed in their professional communications and journals and who admit they are aware that illegal taking may occur (what veterinarian can argue he does not know that cats kill birds?) are open to felony prosecution. Even acts that inadvertently take wildlife protected under the federal law, as occurred when veterinarians inadequately disposed of barbiturate-laden carcasses, have resulted in successful prosecution under ESA.[45]

Activities judged to be illegal that result in the taking of wildlife can result not only in legal prosecution, fines, and penalties but also in restoration costs that are often accessed under both state and federal laws. These financial penalties are designed not only to deter future violations but also to assist species recovery or provide habitat for the species affected. Oil spills and other illegal acts that kill hundreds to thousands of birds often result in legal costs, fines, penalties, and restoration packages in the tens of millions of dollars. To prevail in court, it has not been necessary to have all the animals' bodies for evidence as models and estimates are used to calculate losses and needs for restoration. Trap-neuter-return programs that release thousands of cats to prey on native wildlife, if adjudicated, could result in similar financial consequences.

As noted, in addition to breaking wildlife protection laws, TNR may result in acts considered illegal under some state humane statutes. Repeated misdemeanors or a felony committed by a veterinarian in many states is sufficient reason for review, suspension of licensure, or both. The AVMA PLIT has been informally asked by the Committee on Environmental Issues what sort of liability they see associated with TNR, and their informal reply has been that insurance does not cover acts deemed to be illegal.[i] Our interpretation is that practitioners should not expect their malpractice insurance to cover their legal costs. Given the widespread participation of veterinarians in TNR, I believe that many practitioners may not understand that their activities may place them in legal jeopardy.

TNR as an Enabler

Trap-neuter-return creates an attractive nuisance and has been hypothesized to act as a classic enabler, encouraging people to abandon cats instead of taking them to animal shelters.[11,46] It should not be surprising that some people, believing that their cat will get veterinary attention, be neutered, and be provided with food and water, choose abandonment over paying fees to relinquish the cat to animal control. Trap-neuter-return advocates admit that posted locations where TNR programs are being conducted regularly experience substantial and repeated influxes of cats.[31] Thus, TNR actually appears to undermine its stated goal of protecting the welfare of cats and fails to educate people as to their legal and moral responsibilities.

Many feeders of cats will not keep records, are not committed to population control, or are not willing or able to aggressively maintain a vigilant TNR effort. How much of a fig leaf does TNR provide for people who just want to have lots of cats?

Some people are compelled to own and care for excessive numbers of cats. This psychologic illness is referred to as "collectors psychosis."[47] How is the person who must save 25 to 30 cats in their home different from the person who sees themselves as the savior of 25 to 30 cats in a park? Some "cat people" may be "collectors," and it is possible that TNR is enabling and supporting some people who need psychologic counseling and assistance.

Rollin[8] says that "we also do not wish to prolong a life that is in gross or hideous violation of the creature's telos, even if the creature is conscious and not suffering." One can argue whether a feral existence is a gross or hideous violation of a cat's telos, but it may not be the life for which cats have been genetically programmed or evolved.

The perspective of PETA is, "because of the huge

number of feral cats and the severe shortage of good homes, the difficulty of socialization, and the dangers lurking where most feral cats live, it may be necessary and the most compassionate choice to euthanatize feral cats. You can ask your veterinarian to do this, or if your local shelter uses an injection of pentobarbital, take the cats there. Please do not allow the prospect of euthanasia to deter you from trapping cats. If you leave them where they are, they will almost certainly die a painful death. A painless injection is far kinder than any fate that feral cats will meet if left to survive on their own."[25] If even ardent animal rights groups and philosophers can accept euthanasia as part of feral cat control, why can't those advocating for TNR accept it?

If and when TNR programs enable illegal, inhumane, irresponsible, and unhealthy behavior, they do not serve the welfare of feral cats, wildlife, or society.

Where Do We Go From Here? What Can We Do About Feral Cats?

Barrows[50] has stated that we probably all support the "T" and "N" parts of TNR, but we strongly disagree on the details of the "R" part. Our success in controlling populations of feral cats and reducing the suffering of these cats and of wildlife depends on redoubling our collective efforts. We must be practical and strategic in the use of the tools available to us and ensure that all of these tools are used appropriately. We must embrace comprehensive and long-term solutions that manage people in addition to feral cats.

We must do more to prevent abandonment.[49] We must work toward a time when it is just as socially unacceptable to abandon a cat on public or private property as to abandon a horse, cow, or dog. Until there is broad recognition of this and real social stigma and penalties are attached, we will continue to have a feral cat problem in this country.[49] We must educate feeders of cats that keeping large numbers of cats outdoors for years on end is cruel to cats and wildlife, possibly illegal, and unacceptable.

Mandatory spay/neuter laws, if strictly enforced, have the potential to reduce the population of feral cats in many areas. Marin County in California is an example of a community where cats and kittens are sometimes imported from adjacent counties to fill the need for adoptees. In many counties, however, existing pet ownership laws are not enforced or penalties for noncompliance are less than the cost of compliance and thereby ignored.

We must all be more generous and supportive of adoption and fostering programs. The fostering of cats and kittens until they are either healthy or tame enough to be adopted or until local animal shelters have sufficient room for them can spare cats from euthanasia. My family and I have found this to be particularly rewarding. We were able to tame and find homes for 6 feral kittens this year. Even adult and young adult feral cats can be tamed. We have 4 adult cats now, all of whom were feral at one time, and during the past 17 years, we have had 11 such cats. If animal control agencies are to deal effectively with feral cats, they must have the resources they need. This means funding and gratis or low-cost professional services. Efforts to undermine animal control programs that do not use TNR as their primary means to manage feral cats must cease.

Just as it is becoming clear in many parts of the United States that "no-kill" shelters are not sustainable,[51] we must acknowledge that TNR has limited applicability. We must accept that euthanasia will remain part of animal control activities for at least the near future and that some cats may indeed have to be humanely killed if other efforts at placement fail. Cats would be better served if we could all agree to support serious and comprehensive efforts to sharply reduce their populations. If cat advocacy groups expect support for limited TNR from those who typically oppose it, they should in turn be supportive of all feral cat animal control efforts, even those that do not focus exclusively on TNR.

Recently, another option has become available: enclosed sanctuaries where cats can live out their lives protected from weather and most injury. Large and well-known cat sanctuaries exist in Delaware, Massachusetts, New Jersey, New Mexico, Utah, Virginia, and several places in California. Others are being built and operated by individuals and organizations on small and moderate scales similar to other sanctuaries, as described by Winter.[11] This is happening simply because people sense it is the right thing to do. Hopefully, we can all agree this is 1 thing that truly serves the welfare of both cats and wildlife.

Gandhi stated that "the advancement of a civilization can be seen in the way it treats its animals." In my view, trap, neuter, and reabandonment of cats is not the measure of a healthy or mature society. A balanced and multidimensional approach to management of feral cats that is practical, legal, sustainable, effective, and compassionate and that embraces stewardship and responsibility for all species is the measure of a mature society.

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Opinions from the Front Lines of Cat Colony Management Conflict

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Abstract

Outdoor cats represent a global threat to terrestrial vertebrate conservation, but management has been rife with conflict due to differences in views of the problem and appropriate responses to it. To evaluate these differences we conducted a survey of opinions about outdoor cats and their management with two contrasting stakeholder groups, cat colony caretakers (CCCs) and bird conservation professionals (BCPs) across the United States. Group opinions were polarized, for both normative statements (CCCs supported treating feral cats as protected wildlife and using trap neuter and release [TNR] and BCPs supported treating feral cats as pests and using euthanasia) and empirical statements. Opinions also were related to gender, age, and education, with females and older respondents being less likely than their counterparts to support treating feral cats as pests, and females being less likely than males to support euthanasia. Most CCCs held false beliefs about the impacts of feral cats on wildlife and the impacts of TNR (e.g., 9% believed feral cats harmed bird populations, 70% believed TNR eliminates cat colonies, and 18% disagreed with the statement that feral cats filled the role of native predators). Only 6% of CCCs believed feral cats carried diseases. To the extent the beliefs held by CCCs are rooted in lack of knowledge and mistrust, rather than denial of directly observable phenomenon, the conservation community can manage these conflicts more productively by bringing CCCs into the process of defining data collection methods, defining study/management locations, and identifying common goals related to caring for animals.

Citation: Peterson MN, Hartis B, Rodriguez S, Green M, Lepczyk CA (2012) Opinions from the Front Lines of Cat Colony Management Conflict. PLoS ONE 7(9): e44616. doi:10.1371/journal.pone.0044616

Editor: Niko Speybroeck, Université Catholique de Louvain, Belgium

Received: June 12, 2012; **Accepted:** August 6, 2012; **Published:** September 6, 2012

Funding: This project was supported in part by the National Science Foundation and United States Forest Service's Urban Long Term Research Area program. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript. No additional external funding received for this study.

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Introduction

Management of free-roaming (outdoor pets and feral) domestic cats (*Felis catus* L.) is a long-standing international conservation issue [1], [2], [3], [4]. Although the number of domestic cats is uncertain, around 600 million domestic cats exist globally, and 50–150 million roam freely in North America alone [5], [6], [7]. Estimates of wildlife mortalities attributed to free-roaming cats range from millions to billions, and predation on birds has created significant controversy. This may reflect the fact that cat impacts on birds received widespread attention in the media following two studies in the UK [8] and the US [9] and the subsequent involvement from major non-governmental organizations (NGOs), advocacy groups (e.g., The Audubon Society, The Nature Conservancy, and American Bird Conservancy; [10]), and professional societies (e.g., The Wildlife Society). Conservation efforts focused on protecting birds by removing legal protection of feral cats, encouraging responsible pet ownership by keeping cats indoors [11], opposing trap-neuter-return (TNR), and eventual removal of feral cat colonies from the landscape [11], [12], [13], [14] sparked organized opposition from cat colony NGOs, feral cat bloggers, and cat colony caretakers (CCCs) [15]. Organizations representing CCCs (e.g., Alley Cat Allies) lobbied against lethal management of cat colonies in favor of no kill options. Many of these larger organizations are well are well funded and work to network CCCs, and advocate for legal and financially viable TNR programs [16].

Conservation biologists have well-founded concerns about cat colony advocacy. First, certain cat colonies are responsible for threats to endangered species in locations such as Florida and Hawaii [17], [18], [19]. In these cases, removing free-ranging cats or limiting their access to critical habitat is a vital tool conservation biologists need to prevent extinction of native species [19]. The second concern relates to the issue of setting a legal precedent for management of all free-ranging cats through regulations focused on cat colonies. Such scenarios become more troubling if regulations release CCCs from legal responsibility for damages caused by cats they maintain.

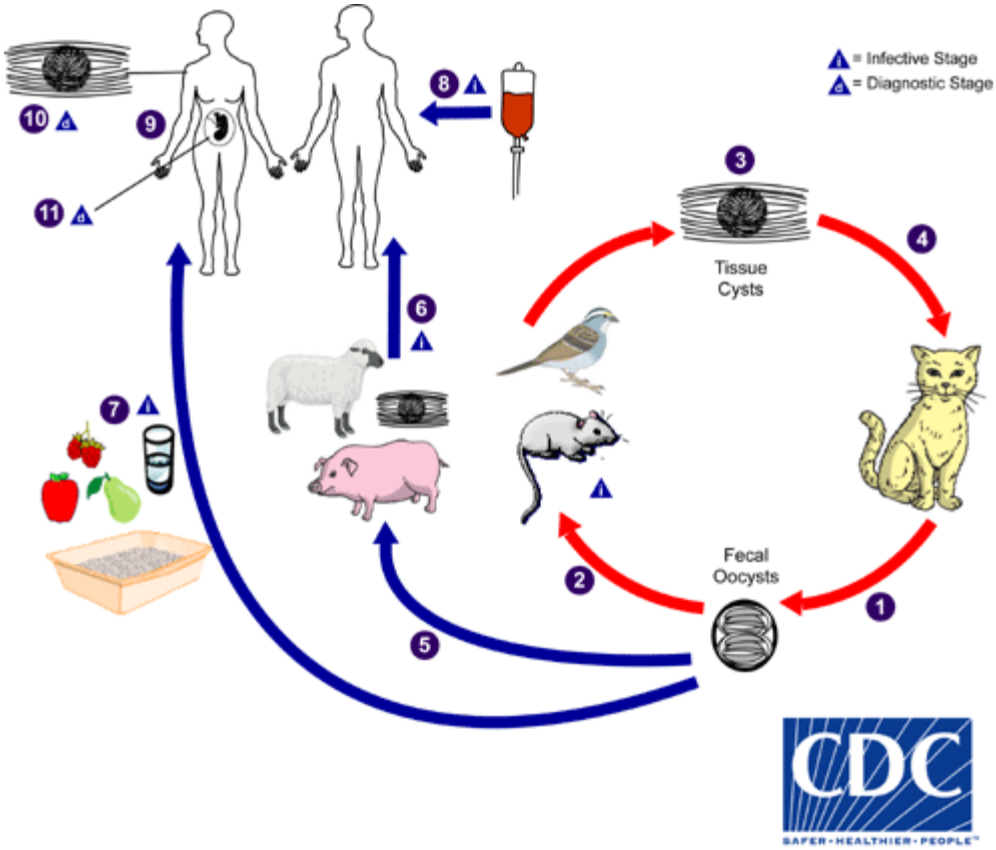
Conclusions

Because western society's orientations toward wildlife is becoming more moralistic and less utilitarian [49], conservation biologists must develop innovative and collaborative ways to address the threats posed by feral cats rather than assuming wholesale removal of feral cats through euthanasia is a universally viable solution. Parties to conflicts surrounding cat colony management can address value conflict by creating spheres of influence where each set of values dominates, and identifying shared long term goals [28]. For instance, BCP values could be used to guide management in high conservation priority areas and CCC values could guide management in low conservation priority areas. Similarly, both groups could share the superordinate goals of protecting, conserving, or–at minimum–caring about animals, and focusing on this shared long term goal has led to progress among these stakeholders in Hawaii [18]. These strategies build on conservation psychology principles [50] by providing both groups a greater sense of control, expanding their sense of belonging, and promoting positive self-images.

(https://www.cdc.gov/parasites/toxoplasmosis/biology.html)

Toxoplasma gondii is a protozoan parasite that infects most species of warm blooded animals, including humans, and can cause the disease toxoplasmosis.

Life Cycle:



The only known definitive hosts for *Toxoplasma gondii* are members of family Felidae (domestic cats and their relatives). Unsporulated oocysts are shed in the cat's feces 1. Although oocysts are usually only shed for 1-2 weeks, large numbers may be shed. Oocysts take 1-5 days to sporulate in the environment and become infective. Intermediate hosts in nature (including birds and rodents) become infected after ingesting soil, water or plant material contaminated with oocysts 2. Oocysts transform into tachyzoites shortly after ingestion. These tachyzoites localize in neural and muscle tissue and develop into tissue cyst bradyzoites 3. Cats become infected after consuming intermediate hosts harboring tissue cysts 4. Cats may also become infected directly by ingestion of sporulated oocysts. Animals bred for human consumption and wild game may also become infected with tissue cysts after ingestion of sporulated oocysts in the environment 5. Humans can become infected by any of several routes:

- eating undercooked meat of animals harboring tissue cysts 6.
- consuming food or water contaminated with cat feces or by contaminated environmental samples (such as fecal-contaminated soil or changing the litter box of a pet cat) 7.
- blood transfusion or organ transplantation 8.
- transplacentally from mother to fetus 9.

In the human host, the parasites form tissue cysts, most commonly in skeletal muscle, myocardium, brain, and eyes; these cysts may remain throughout the life of the host. Diagnosis is usually achieved by serology, although tissue cysts may be observed in stained biopsy specimens 10. Diagnosis of congenital infections can be achieved by detecting *T. gondii* DNA in amniotic fluid using molecular methods such as PCR 11.

Page last reviewed: March 17, 2015 Page last updated: March 17, 2015

Jerry "Pops" Barnes **http://popsbarnes.com/feral-cats-or-public-health**

(706) 442-0249

District Headquarters
3640 Buena Vista Road
Columbus, Georgia 31906

Columbus, GA City Councilmember District 1, **August 30, 2016**

Feral Cats or Public Health?

Everyone knows I am a Registered Nurse and for years have been involved in the health and welfare of this community. Since 2003 I have been providing free health education, free health screening and free case management, both singularly and in partnership with other health organizations through periodic Health Fairs in Columbus and also in the counties. In addition to all of that, I have been writing a health column in the Columbus Times Newspaper called "Healthy Wealthy and Wise" and have a television program on the Consolidated Government Television Station called "Focus on Health". My goal is for everyone to live a long life of quality and health with their loved ones.

In 2013 the city approved a program to trap, neuter cats, and return them to the community. Initially, I thought this was a good idea, however, my position has changed. My position has changed because I began to hear the roaming cat population is increasing rather than decreasing like the proponents of the program promised, and the cats are creating a nuisance for residents by raiding trash cans, defecating in yards, and the smell of cat urine. After hearing these complaints, I researched the program and what I learned made me, a health care professional, very concerned about the potential of the program to adversely affect the health of the community. Two of the diseases I discovered that cats can spread to people are Rabies, which can be transferred from wildlife to cats to people, and Toxoplasmosis, a cat borne, parasitic disease that people, especially children, can contract through contact with cat feces. The proponents of this program never revealed to us councilors any of the public health risks this program poses.

During my research on rabies in cats, in the Center for Disease Control's (CDC) 2016 Compendium for Prevention and Control of Rabies, I read that "more Rabies cases are reported annually involving cats than dogs" (**Compendium, page 506**). The Compendium states that in order for cats to be fully protected against rabies they must receive an initial rabies vaccination followed a year later by a booster vaccination

(**Compendium pg 508**). Also on page 508 is a statement saying “titers do not directly correlate with protection because other immunologic factors also play a role in preventing rabies,” a position repeated by other authorities. My concern is that ACC is not following these guidelines. This passage also instructs people to follow the manufacturers’ vaccination recommendations and the vaccination schedule contained in the (**Compendium, pg 516**).

http://www.drugs.com/vet/purevax-feline-rabies-3-yr.html

Package insert

PUREVAX Feline Rabies 3 YR

This treatment applies to the following species:
Cats
Manufacturer: Merial
Rabies Vaccine
Live Canarypox Vector
Rabies 3 Year
SWD
PFR 3 YR III

DOSAGE: Reconstitute the lyophilized vaccine with accompanying liquid diluent and aseptically inject 1 mL (1 dose) subcutaneously into healthy cats. Revaccinate 1 year after first vaccination, then every 3 years.

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NAC No.: 1111132.0
MERIAL LTD.
3239 SATELLITE BLVD., DULUTH, GA, 30096
Telephone 888-637-4251; website - www.merial.com

Every effort has been made to ensure the accuracy of the PUREVAX Feline Rabies 3 YR information published above.

DIRECTIONS

DEFENSOR 3

DEFENSOR has an inactivated rabies virus from an established cell line to effectively help protect dogs and cats from rabies

Dogs and Cats:

General Directions: Shake well. Aseptically administer 1 mL subcutaneously. Dogs may be vaccinated intramuscularly or subcutaneously.

Primary Vaccination: Administer a single 1-mL dose at 3 months of age or older to healthy dogs and cats. A repeat dose should be administered 1 year later.

Revaccination: Subsequent revaccination every 3 years with a single dose is recommended.

As you can see, the manufacturers' labels and the CDC vaccination schedule say to follow the initial shot with a booster. Furthermore, the section on rabies prevention and control methods in the 2016 CDC Compendium specifically addresses cat colonies: "Stray cats serve as a significant source of rabies exposure risk. If communities allow maintenance of feral cat colonies despite this risk, they should safeguard the health of the cats and the communities in which they reside by requiring that cats receive initial rabies vaccinations and appropriately scheduled booster vaccinations" (**Compendium, pg 509**).

To confirm that I was not misinterpreting the statements in the Compendium that there must be an initial vaccination and a booster shot one year later to fully immunize the cats against rabies, I wrote letters to the Center for Disease Control, the US Department of Health and Human Services, the National Association of State Public Health Veterinarians (NASPHV), which publishes the Compendium, and the Georgia Department of Public Health. Each wrote back confirming a booster one year after the initial vaccination Is required to fully immunize the cats. (**Read their letters here**).

The proponents of the cat program claim that a single injection enables three years of immunity. In a letter the Mayor gave me on Jan. 2, 2016 (**Mayor's Letter**), she confirms that the cats trapped under this program are only given a single injection before they are released, and insists that one injection conveys three years of immunity, even though the Compendium, the vaccination schedule, and the vaccine manufacturers say otherwise. Her letter also says that following the CDC recommendations would jeopardize the program since it

is nearly impossible to re-trap the cats a second or more times, and too costly. It appears to me that the Mayor's concern is more towards continuing the program, whereas my concern is the potential risk to public health that releasing these partially vaccinated cats represents. We follow CDC guidelines and recommendations in all other public health matters, and our state law requires us to do so (**Georgia Law**).

In direct contrast with what Mayor Tomlinson stated in her letter, that a single vaccination administered to cats in the TNR program protects public health, a longitudinal study conducted by the Florida Dept of Health proved just the opposite. Two of the counties in the study had been conducting TNR since 1998 and one county has never had a TNR program. Rabies cases in the TNR counties rose significantly whereas rabies cases in the non-TNR county fell significantly over the same time period: **Rabies in Three Florida Counties**.

My question is why are we not complying with CDC guidelines for protecting the health of the community, and secondly, why are we in violation of the law?

On June 23, 2015, after learning about the health risks these cats pose, I asked that a work session be held at Council to discuss the issues surrounding the program and the community health concerns I had. The work session was held on September 29, 2015. At my invitation, three scientists attended the work session to tell the public about the human health risks associated with these cats. The scientists were Dr. Judith Milcarsky, DVM, a national speaker on public health issues from Daytona Beach, Dr. Chris Lepczyk, an Auburn University Biology Professor, and Dr. Joel McNeal, Biology Professor at Kennesaw State University; additionally, Ms. Christy Reeves, blinded by Toxoplasmosis as a child when she touched cat feces deposited in her sand box, described how it has affected her life (Toxoplasmosis is one of the cat borne diseases about which I have big concerns.).

During the work session, I asked the TNR participating veterinarians if it is necessary for cats to receive a booster vaccination a year after the initial vaccination in order to be fully immunized against rabies. The Mayor asked one of the vets to answer and his answer was "Yes". Later in the discussion he admitted that, "We recommend boostering on all vaccines *like that and again it's the best we can do right now; there's no one shot lasts forever" (***Vet answers booster question**). I was dismayed by the veterinarian's dismissal of the recommendations set by an organization whose sole purpose is to safeguard the health of every community in the entire nation.

After the work session ended, I asked the Mayor for a referral from ACC to explain why Animal Care and Control (ACC), is not following the Centers for Disease Control guidelines to properly immunize the cats released back into the community. They did not directly answer the question I asked, so a month later, I asked again; again they did not directly answer my question. It was at this point that I came to feel I would not get a direct answer from them.

I have no problem with the people who think they are doing the right thing by taking care of these cats; however, I am concerned that the Mayor continues to promote a program when she has admitted the participants cannot properly vaccinate the cats against rabies. I am concerned that Animal Care and Control is operating a program that to me appears to violate Georgia law. I am concerned that the public health risks associated with this cat program were not disclosed to us councilors so we could make a fully informed decision before we voted the ordinance into law. And, most of all, I have grave concerns when a government agency refuses to follow the guidelines of a recognized organization whose sole existence is to protect public health.

As I said in my introduction, my primary goal with this newsletter is to inform the public about the health risks posed by these stray and feral cats, but during my research, which included reading many documents, watching video clips, asking questions, and talking with experts, I realized there is a plan afoot to radically change the mission, purpose, and activities of ACC, and to eliminate or limit services ACC currently provides to citizens. The cat program is part of this plan. The plan is to turn Animal Care and Control into a No kill animal shelter;

in fact, ACC is already operating as a limited access No Kill shelter, as the Chief of ACC, Drale Short, describes in this video clip dated December 2015: (**Short describes ACC as a limited admissions shelter**).

The original mission of Animal Care and Control was "to protect public health by controlling animal populations" as Pat Biegler stated in May 2012 during a television interview**.** In fact, she says the primary mission of ACC is not to be an animal shelter; the primary mission of animal control is to protect the public (**WRBL interview with Pat Biegler**),

- **When did ACC's mission change and who made the decision?**
- **What part of the original ACC mission to protect public health remains and how is it demonstrated?**

ACC is citizen funded. Animal sheltering was a secondary focus; now it is primary. By operating with a No Kill agenda, Acc is operating as do private animal shelters.

No Kill can only be achieved by refusing, restricting, and eliminating citizen services. A No Kill shelter's primary objective is to lower euthanasia statistics as close to zero as possible; the consequences to human and animals are not considered. Statistics seem to be the point, not humanity. At first glance, it seems to be admirable, but closer examination reveals no kill is cruel to humans and animals, and it radically changes the mission and activities of a municipal animal control agency. What happens to all of these saved animals? Since there just aren't enough homes to accommodate them, only the most adoptable make it into wonderful homes. The rest end up living out their lives in filthy cages, hoarding situations, dumped on the streets, transported to locations all over the US, used as bait or fighting dogs, in research facilities, and chained in backyards. In the rush to empty shelters, dogs with biting histories are adopted out to unsuspecting citizens who eventually pay the price**.** Here are the no kill standards downloaded from the No Kill Advocacy website; the red lettering shows the standards Animal Control has already implemented: **No Kill Standards**.

The Mayor was initially against No Kill. In a WRBLTV interview dated May 2, 2012**,** the Mayor describes No Kill as a failure and its supporters as fanatics: (**WRBL interview with the Mayor**). She refers to a letter in the interview from People for the Ethical Treatment of Animals (PETA) that advised her about the negative effects of No Kill, which you can read here: **PETA letter**. However, Drale Short, ACC chief, in a memo dated June 11, 2014, described how the Mayor instructed her to adapt portions of the No Kill equation and implement programs that would meet the goal of becoming a no kill shelter: **Short's memo**.

The objectives of No Kill objectives are accomplished by restricting or eliminating the rights of citizens who are actually funding the program. As an example, one of the objectives is stated as follows: " Abolishment of trapping, lending traps to the public to capture animals, and support of trapping by shelters, governments, and pest control companies…" (please refer to Standards above).

Another problem with this program is that no one can access any records related to the program. How can a citizen funded governmental agency not be subject to the open records act? An elected official, Councilor Glenn Davis, asked for information referencing cat colony locations and was told they are not available to him. He even made an open records request and was denied.

Finally, again I will say that my only concern in all of this is that as an elected official and health care professional I want to eliminate a potential risk to the health of the community. Animal Control must abide by the *EVIDENCE BASED* regulations of the CDC.

If you feel uncomfortable with these activities Animal Control is conducting, contact your district councilor and both Judy Thomas and Skip Henderson, who are your at-large councilors.

Fred Grimm: Miami-Dade's trap-neuter-release program utterly ignores science

March 9, 2014, Editorial, Miami Herald, FL

Statistics hardly matter. When it comes to feral cats, emotion trumps science.

It hardly matters that peer-reviewed science indicates Miami-Dade County's official policy of releasing hordes of free-roaming cats into the community amounts to songbird annihilation, a government-sanctioned massacre of birds, lizards and small animals.

"Un-owned and owned free-ranging domestic cats kill between 1.4 and 3.7 billion birds and between 6.9 and 20.7 billion small mammals each year in the contiguous United States," the Smithsonian Conservation Biology Institute scientists reported last year in Nature Communications.

The Smithsonian study said, "Our findings suggest that free-ranging cats cause substantially greater wildlife mortality than previously thought and are likely the single greatest source of anthropogenic mortality for U.S. birds and mammals."

So it was nearly shocking to read a Miami Herald report last week by Douglas Hanks that said Miami-Dade animal control workers, following the tenets of the County Commission, had released 3,138 feral cats into the community in 2013.

I suppose I knew that it would be difficult — more like impossible — persuading private citizens to refrain from feeding feral cat colonies and running unofficial Trap-Neuter-Return programs. People believe what they want to believe. But a government agency?

And not some podunk North Florida backwater county commission that disparages the science behind evolution and global warming and fluoride. No, this is Miami-Dade County … and Broward County … and Hillsborough County. Urban, sophisticated, progressive government entities? Choosing to ignore the darker implications their humane-sounding policies mean for wildlife?

Epidemiologists get no more respect than wildlife biologists when it comes to feral cats. It hardly matters that in 2012, the Florida Department of Health issued a report on rabies prevention, warning that "The concept of managing free-roaming/feral domestic cats is not tenable on public health grounds because of the persistent threat posed to communities from injury and disease."

In 2010, public health officials blamed an outbreak of hookworm along the northern reaches of Miami Beach on a colony of feral cats. City officials posted signs along the sand — tourism officials must have been appalled — warning beachgoers to watch out for cat feces. Cat droppings, they warned, are also a source of toxoplasmosis, another virulent parasite that can cause neurological impairment, blindness and birth defects.

Nor does it matter that Miami-Dade, by releasing its own officially sanctioned free-ranging cat colonies back into the community, has assumed the legal liabilities associated with those various pathologies. As Eric Draper, executive director of the Florida Audubon Society, warned, when some kid gets rabies or some tourist contracts hookworm or a strain of toxoplasmosis that can be traced back to one of the county's caught-and-marked-and-released feral cats, there will be expensive repercussions. There will be lawsuits.

The county risks other legal problems associated with an official trap-neuter-release policy. In 2003, the University of Florida Law School's Conservation Clinic reviewed the legal ramifications of feral cat colonies

and found that "a local government could find itself liable under the ESA [Endangered Species Act] for authorizing cat colonies that result in the illegal take by feral cats of an endangered species."

The law review warned that "persons who release cats into the wild or who maintain feral cat colonies could be found liable for a take under Section 9 of the ESA if maintenance of feral cats in the wild is found to kill or injure wildlife by degrading habitat."

In this case, the "persons" violating Section 9 of the federal law happen to be Miami-Dade County employees.

Then there's a small problem with Florida law, which declares: "It is unlawful to import for sale or use, or to release within this state, any species of the animal kingdom not native to Florida unless authorized by the Fish and Wildlife Conservation Commission."

Cats, as Robert Johns of the American Bird Conservancy noted, aren't native. "In 1492, there were no house cats in North America."

State law also warns: "Any person who is the owner or possessor, or has charge or custody, of any animal who abandons such animal to suffer injury or malnutrition or abandons any animal in a street, road, or public place without providing for the care, sustenance, protection, and shelter of such animal is guilty of a misdemeanor of the first degree, punishable as provided."

Miami-Dade violated this statute 3,138 times in 2013.

None of this matters, of course. Scads of scientific studies issued before the Smithsonian findings also warned that feral cat populations were wreaking havoc on wildlife. Other studies found little to support claims of trap-neuter-release advocates that their efforts have reduced the population of wild cat colonies. Nor are the health concerns new.

Audubon Florida, the Florida Defenders of Wildlife and the Florida Veterinary Medical Association opposes the programs. So, too, does People for the Ethical Treatment of Animals, or PETA, which argues that the release of these animals brings them a shortened and miserable life on the streets. These are not animal-hating organizations.

But none of these groups can match the passion that feral cat supporters can bring to a city or county commission meeting. Last year, faced with so many angry cat advocates, Hillsborough County commissioners ignored the veterinarian chairman of their own animal advisory committee and initiated a trap-neuter-release program that promised to drastically reduce the number of unadopted cats euthanized at county shelters. Nor did the commissioners heed the executive director of the county's veterinarian hospital association, who begged them to require a 1,000-foot zone between feral cat colonies and schools, parks and playgrounds. Just a few months before, a 2-year-old Hillsborough girl had been bitten by a rabid feral cat.

The commissioners simply withered before the cat zealots. "The cat people put elected officials into the position of either voting to support cats or kill the cats," said Robert Johns of the American Bird Conservancy. "What's amazing to me, there's such sympathy for the plight of feral cats and absolutely zero sympathy for animals they obliterate — each cat kills 150 to 300 animals in a 12-month period."

Trap-neuter-release champions seem convinced that vets, biologists, wildlife conservation groups are joined in some cruel anti-cat conspiracy. They simply refuse to accept data that do not support their position. And they conjure up what Julie Wraithmell, wildlife conservation director for Audubon Florida, calls boutique science — studies that have never withstood peer review critiques.

In 2010, PetSmart Charities, a major supporter of trap-neuter-release programs, funded a study that claimed they are a cost- effective method for governments to reduce feral cat colonies. Dr. David A. Jessup, a senior wildlife veterinarian with the California Department of Fish and Game, responded that the study "appears to be one whose design was determined by the conclusion desired. If you attach even a few dollars in value to the wildlife killed and considered the costs of trying to recover sensitive species, environmental cleanup, and human health impacts associated with outdoor feral cats, any hypothetical savings disappear and TNR becomes more expensive."

But it hardly matters what veterinarians say. Or wildlife biologists. Eric Draper admitted that while plenty of the scientific research undermines TNR, policy decisions have been going in the opposite direction. Dozens of towns and counties across the country have sanctioned TNR. The fervor (and money) of feral cat advocates has beaten down the science. "Once someone's locked into a belief or a point of view, it's very difficult, almost impossible, to change their minds," Draper lamented. He said it has become almost like talking someone out of their religion.

The feral cat debate has a vague resemblance to the national argument over climate change, in which the scientific consensus has gone one direction while public polling has gone another. But the cat's hold on American hearts makes this an even tougher sell for science. Everyone would like to embrace a policy that ended the mass euthanization of unwanted cats at county shelters. No politician wants to face an emotional crowd and explain a complex ecology that values endangered but not particularly popular animals like wood rats or marsh rabbits or scrub jays over America's most beloved pets. Even if those pets aren't domestic house pets at all, but a pack of free-ranging skilled predators.

In the debate over TNR, wildlife biologists and public health officials lost out to political reality. Feral cat advocates lobbied government officials with something like religious zeal. Data never really mattered.

Article source: http://www.miamiherald.com/2014/03/08/3983391/fred-grimm-miami-dades-trap-neuter.html

Featured Article

Reprinted with permission, from *The Stethoscope*, a quarterly publication of the Volusia County Medical Society, Daytona Beach, FL. www.vcms.org

By Judith A. Milcarsky, DVM

Acknowledging the associations between Toxoplasma gondii infections - and Miscarriage and Blindness and Suicide and Schizophrenia - in a society where feral cats are being fed by school teachers and eaten by the homeless

REALITY

In Volusia County, Florida where I live, the homeless people are eating the feral cats. I know this because someone who had been homeless and who had been eating the feral cats told me so. And he told me at the same time that he told a group of students at Mainland High School, for whose science class I was the Business Partner in the spring of 2013. He told the students that the cats were a recognizable form on a grill. And as we were walking out of the auditorium, he turned to me and said, "I know that sounded horrible, but I want to assure you that the days when we could find hamburgers in the dumpsters, we didn't eat the cats on those days."

REACTION

There are over twenty-five different agencies in Volusia County that provide services for the homeless. A few of them gave me a "Gung ho!" response and the rest were extremely wary; none were in-between. I've learned that a segment of society regards the homeless people as "icky" (I'm paraphrasing here – nobody actually used that term) and the eating of feral cats is an "icky thing." Icky people doing an icky thing is "icky squared". And things that are icky squared risk getting your funding cut.

This was sobering. Here I thought I'd stumbled on an issue so significant that society could not possibly turn its back. But the reality was that the plight of the homeless was so dire that the mere contemplation of it could result in withdrawal of the very financial support that might help to alleviate it.

In the presence of law enforcement, I have seen nine homeless camps, eight of which were associated with feral cats. I know of eight additional camps, of which six reportedly have feral cats (we do not know about the other two).

Next, one of four recently-evacuated campsites at the homeless camp in the woods across from Halifax Medical Center in Daytona Beach (behind K-Mart).

Below, the two feral cat feeding stations, approximately ten yards from the (above) human encampment; 80 cats reportedly remained on this property at the time these photographs were taken in March 2013.

Are the chronically homeless descending into madness because they're getting infected with a parasite?

CONCERN

There is an epidemiological link between the parasite Toxoplasma gondii and the serious mental illness that is schizophrenia. This may well be the most significant One Health concern of our lifetime. Having toxoplasmosis increases the chance of developing schizophrenia 2.73 times. Researchers worldwide have been addressing this association for over a decade. Johns Hopkins physicians, E. Fuller Torrey, MD and Robert Yolken, MD, have an entire website dedicated to it. *www.stanleyresearch.org/dnn/LaboratoryofDevelopmentalNeurovirology/ToxoplasmosisSchizophreniaResearch*.

SCHIZOPHRENIA

Statistically, if you know 110 people, then you know someone who has schizophrenia. Some people who have a parent, sibling, or child with this serious mental illness have told me that in many cases, it is a fate worse than death - for the mentally ill are punished twice: first with their disease and then again because of it.

Consider that the word "insane" carries two meanings: 1. "Out of one's mind" and 2. "Absurd." If the second definition for "insane" instead was "cancer," society would find its use (to describe everything from car sales to lasagna) unpalatable. Unless and until society regards diseases of the brain with same respect and concern as diseases of the body, we're not going to be able to diagnose and treat serious mental illness. While malignancies involving the brain can manifest with symptoms similar to those of schizophrenia, a diagnosis of cancer is met with empathy while a diagnosis of schizophrenia is met with shame. How many people would seek treatment for cancer if stigma accompanied the diagnosis?

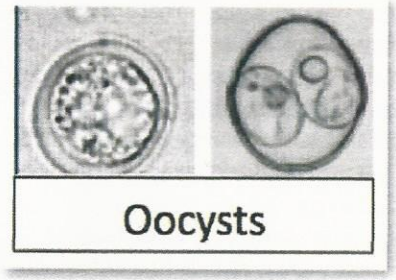
TRUST

My clients share their lives, including their medical problems, with me. Cancer and heart disease – I know about those when they call for their pets' medication refills. I know who has diabetes and who has hypoglycemia; I know who is hypothyroid and who is hyperthyroid; I know which fathers have prostate disease, which mothers are going through menopause, and which teenage daughters are 'PMSing'; and I am informed of these maladies as soon after the diagnosis is made as I have an appointment with the animals. I am told this because when

I work, I am kneeling on their kitchen floor; I am told this because I am 'sort of medical;' and I am told this because I am trusted. But mental illness – I'm not told about that until I've been in and out of their house for at least six years - and not until I'm treating the second set of animals, the first set having died of old age.

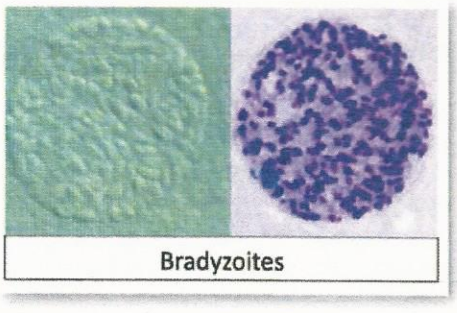
PARASITE

Toxoplasma gondii is a microscopic, single-celled organism that can infect the tissues of any warm-blooded animal - and people. One way to get infected is to eat something that has been contaminated with cat feces containing T. gondii oocysts. The sexual phase of this parasite reproduces in cat intestines. All felids, from bobcats to house cats, can serve as the definitive host. Most people know this parasite as the reason that pregnant women shouldn't clean litter boxes. The infectious dose is a single oocyst.



Stages of T. gondii found in cat feces:
Left as it appears immediately after being defecated into the environment;
Right as it appears three-five days after sporulating. This stage remains infectious in the environment for at least eighteen months.
From: Companion Animal Parasite Council

Eating rare meat that is infected with bradyzoite cysts is another way to get toxoplasmosis. Depending on the region, 7-20% of people in the United States have antibodies to T. gondii. Positive serology indicates that a person has been infected and has bradyzoites in their tissues. It was previously thought that these cysts were inert and did not create a problem for the host; it is now recognized that these cysts are biologically active.



Previous photo: Cyst stage of T. gondii found in the tissues of animals and humans (unstained on left; stained on right)
From: Companion Animal Parasite Council

CATS

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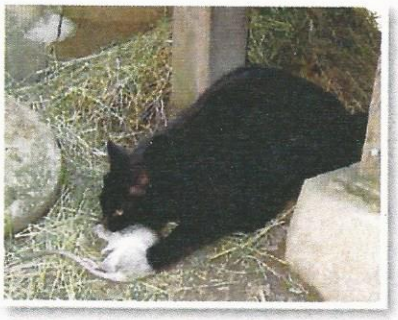


hoofcare.blogspot

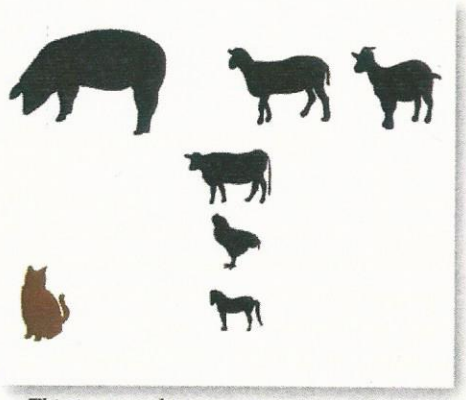
Cats get infected with Toxoplasma when they prey on intermediate hosts: birds and small mammals.

Substrate preferences for feline elimination
Most people know Toxoplasma as the reason that pregnant women should not clean cat boxes. The amount of dirt retained under a single fingernail from gardening without gloves in areas contaminated with infected feline feces can contain 100 oocysts.
To a feral cat, a golf-course sand trap is the world's greatest litter box.

HUMAN INFECTION

Half of the people who get infected with T. gondii do not have symptoms when they initially encounter the parasite. 25% may have a low-grade fever, with joint aches or muscle pains for several days, symptoms that might suggest flu. Only 25% of humans get sick enough after initial infection to seek medical services.

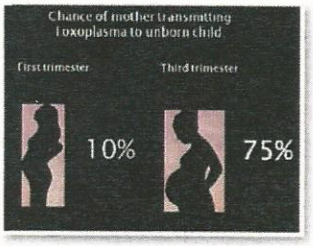
While both oocysts (sporozoites) and tissue cysts (bradyzoites) can cause infection, it is generally understood that in the USA, more than half of infections are from oocysts (feline fecal contamination) and those infections tend to be more severe than those acquired from eating undercooked meat.



This is a graphic representation of the likelihood of getting infected with T. gondii in the United States from eating undercooked meat containing bradyzoites. (Please note the "poop brown" kitty in the lower left corner. While cats do catch and eat barn rodents, they also defecate in the hay; humans eat the animals that eat the cat-poop contaminated hay.)

If a pregnant woman gets infected with T. gondii – either from eating undercooked meat, or by eating something contaminated with fecal oocysts - she can pass the infection on to her unborn child. While the chance of infection increases with the duration of pregnancy, the earlier the infection, the more likely that she will suffer a miscarriage or that the child will die shortly after birth. A cardiologist recently commented to me that when a mamma loses her baby through miscarriage, we pat her on the shoulder and tell her that we hope things go better in the future; we don't know how many babies are lost through miscarriage from T. gondii because we don't test for it.

A baby infected with T. gondii during the last trimester will likely survive, but with serious sequela: varying levels of mental retardation and/or deafness and/or blindness – and the deafness and blindness may not manifest until 24 years of age [from an in-utero infection]. It is estimated that between 400 and 4,000 babies are born every year in the USA with toxoplasmosis.



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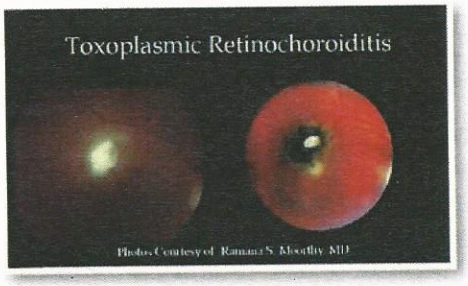
It is estimated that each year in the United States, 21,000 people develop retinochoroiditis from T. gondii infections – and 4,800 of those cases result in blindness. Visual loss results in a 35.6% decrease in quality of life among children aged 3 to 16. And the blindness is permanent; 60% of blind people age 18-69 are unemployed.

There are three strains of T. gondii in the United States, and retinal lesions occur in 2-3% of Toxoplasma infections. By contrast, in South America there are over twenty strains of the parasite which coexist in multiple localities, and blindness results in 20-30% of infections. There is concern that due to Florida's geographic proximity, if Toxoplasma-related blindness becomes more prevalent in the United States, Florida may be the first state for this to occur.



***Left** Acquired disease (probably) with active retinochoroiditis without adjacent pigmented scar and minimal vitreous inflammation.*
***Right** Reactivation of toxoplasmic retinochoroiditis adjacent to an old scar.*

SOCIETAL ASSESSMENT

After learning that the homeless people in Volusia County were eating the feral cats, I sought direction from the people in my world, most of them my clients; their responses spanned the breadth of human experience. After learning that the homeless people in Volusia County were eating the feral cats, a government analyst remarked, "In this country?"

A very intelligent client from England told me that, "Sometimes it's not very nice to know things."

The owner of ten pit-bull mixes looked at me and said, "So the homeless people are eating the homeless cats - Hey – solves two problems!"

Two unrelated clients, who admit to feeding the feral cats, (and admit to feeding the raccoons while they're feeding the feral cats) said, "It would be better to humanely euthanize a feral cat than to allow a homeless person to eat him."

A cardiology nurse pointed out that, "This isn't a matter of depravity, but rather one of desperation."

A fire chief looked at me and said, "Well of course the homeless people are eating the feral cats. Why does that surprise you?"

A stay-at-home mom asked, "Which problem do you fix first, the cats who may be carrying a serious parasite, or the homeless people who have nothing else to eat?"

An attorney who has worked as a public defender, said that for him, this was "an a-ha moment."

Ten years earlier, he noticed that homeless people, who he'd initially assisted with minor issues (such as trespass), within three to four years had to be Baker Acted. He acknowledged that, "While mental illness may have been what got them on the street in the first place; there was obvious decline over time." So he invested himself in psychiatric literature, interviewed a number of the area's psychiatrists, and there still remained a big question mark – until he learned about the feral cats. "This," he said, "Connects the dots."

A UPS driver could not even articulate a response in words - could only moan, "Ohhh."

An OB-GYN gave me a two-word response, "Oh Lord!"

A restaurant owner offered a three-word response, "Shut the door!"

A Family Practice physician (from Arkansas) asked, "What temperature do you have to cook – meat – in order to kill Toxoplasma?" [It's 160F or about 70C.]

A client who has worked in the prison ministry asked, "What's the awareness color for schizophrenia? You know, like breast cancer is pink?"

Silver is the awareness color for schizophrenia. Silver is a precious metal, something that most people want, and I've never known anyone who wanted to have a mental illness. The thinking behind silver was that therapy and medication provide a "silver lining," a chance for a normal life. [Now I wear a silver pin.]

A minister, whose church is on the circuit when the homeless people make their rounds asking for hand-outs, reminded me that, "Homelessness is a choice."

A priest whose church runs a food pantry said that, "We need to get to the root-cause of homelessness and we need to get to the root-cause of mental illness." He asked me if I realized that, "If we could study this, and if the study yielded results, the ramifications would extend beyond the United States."

A psychiatric nurse who works with our county's adolescents, pointed a finger at me and said, "You – and I mean you veterinarians – need to prove that there is no association between toxoplasmosis and schizophrenia before one more feral cat gets put on one more elementary school campus."

The homeless people are not the only vulnerable segment of society when it comes to feral cats; so too are the school children. The "First Official Feral Cat Colony of the City of Port Orange" is at Horizon Elementary School; that colony has been there for well over a decade.

A police officer informed me that, "Some members of law enforcement have known that the homeless people were eating the feral cats since fiscal year 2009-2010."

The officer and I discussed that most people with a serious mental illness have a much greater chance being a crime victim than they do being a crime perpetrator. That said, if we consider the Gabrielle Gifford's incident, the Batman movie incident, and the Navy Shipyard incident, which were all committed by young men who had been diagnosed with schizophrenia, while they may be outliers, when an incident happens, innocent people are affected.

I said to the officer, "If Dr. Torrey and Dr. Yolken from Johns Hopkins are right, and if there really is an association between toxoplasmosis and schizophrenia, then by placing feral cats on elementary school campuses . . ." The officer cut me off and finished the sentence, "This won't be a matter of gun control: This will be a matter of animal control."

SCHOOL CHILDREN

The City of Port Orange has provided tens of thousands of dollars of taxpayer money to fund the feral cat initiative. The initial feeder of the colony at Horizon Elementary was a teacher. While this is an "official" colony, many other schools - elementary, middle, and high schools - throughout Volusia County have unofficial colonies where teachers are typically the feeders.

An argument has been made that since a child can get infected with Toxoplasma from eating undercooked meat in his own home (and possibly get Toxoplasma-associated schizophrenia from that route), that the feral cats should not have to be removed from school properties. Another Public Health example applies: Teachers are not permitted to smoke in the classroom, even though a student might be exposed to cigarette smoke from the time he enters his parent's car at the end of the school day until he returns to

school the following morning.

School attendance is mandated by the State and designated by the district; parents have no control over their children attending a school where feral cats are harbored. Volusia County has had numerous custodial concerns over the last two years: While the School Board has addressed sanitation in the classrooms, the children are literally playing in and on feline fecal-contaminated playgrounds.

School is supposed to be where children go to prepare for life. If the children are getting infected with a parasite that causes them to develop schizophrenia, then is the life that school is preparing them for life on the street?

A feral cat next to the driveway of Horizon Elementary School, May 2015

Horizon Elementary School's sandy playground as seen, from the contiguous City park where 9 out of 11 feline fecal piles tested positive for zoonotic parasites in December 2011.

T. GONDII AND RODENTS AND CAT PEE – AND CAT LADIES

When a normal rodent smells cat urine, it flees in fear. This is mediated through neurons originating in the accessory olfactory bulb. Cat urine should increase neuronal activity to "defensive" mode, as mediated by the hypothalamus. This tract runs parallel to the neurons coursing between the olfactory bulb and the amygdyla. The presence of Toxoplasma bradyzoite cysts perturbs the system, so the signal intended for the hypothalamus is redirected to the amygdyla, which the rodent interprets as a "reproductive" response.

What if the whole point of Toxoplasma was for the cat to get a meal? If Toxoplasma-infected rodents are drawn to cat urine, might the same be occurring with people who feed feral cats?

Let us use the term ailurophilia [From the Greek ailouros "cat" + philien to love] -a morbid or inordinate fondness for cats – to describe feral cat feeders, and let us forgo use of the derogatory term, "Crazy." Ailurophilia is accurate, scientific, and descriptive, and its use returns the possibility of mental issues back to the mental health professionals, whose job is difficult enough without the influence of maligning language; there is no simple blood test for schizophrenia.

The act of feeding of the feral cats gives the feeders an intensely positive emotional response that nothing else in their life provides.

The influence of T. gondii on a rodent's response to cat urine is exclusive to felids: The fear response to the urine of other carnivores remains intact. A rodent brain infected with T. gondii contains 15% more dopamine than that of a normal rodent. When treated with anti-dopaminergic compounds, a T.gondii-infected rodent regains its fear of cats.

There are an estimated 9.6 million owned cats in Florida – and an equal number of feral cats in the state. Each feral cat will contaminate the environment with 32 pounds [dry weight] of feces each year. Statistically, 1% of feral cats are shedding T. gondii oocysts at any point in time. Each infected cat sheds an average of 20 million oocysts over approximately two weeks; oocysts remain infectious in the environment for at least eighteen months. Re-shedding is possible five years after initial infection; re-shedding is unlikely in feral cats since their life expectancy is only three years.

IS TOXOPLASMA GONDII IN VOLUSIA COUNTY?

The Volusia County Health Department informed us veterinarians that we had to prove that T. gondii was in the animals before they would start testing people. And if we found it in the animals, the Health Department would address the homeless people with the same level of concern as the school children: A citizen is a citizen regardless if they are on a playground or on the street.

FELINE STUDY

In July 2013, a study was proposed to determine if feral cats in Volusia County, which were impounded and euthanized through traditional means, could have necropsy samples sent to the USDA to be tested for Toxoplasma. Note that these cats would not have been euthanized for the purpose of testing; the study would have been incidental to these animals. The study was denied by the county's largest impoundment facility.

Consider these two cost concerns:

1. Volusia County Animal Services is worried about a $200 thousand annual impoundment budget.
2. The total lifetime cost for a single diagnosis of Schizophrenia in Volusia County exceeds $900 thousand *[taking into account age at diagnosis, life expectancy, unemployment and medical costs].*

What if Dr. Torrey and Dr. Yolken from Johns Hopkins are wrong? (That is a very uncomfortable thought for a house-call veterinarian to have.) What if there really is no association between Toxoplasma and Schizophrenia? What if the association ends up being something else related to the cats? Or something else in the soil? Or another parasite which is yet undiscovered?

What if they're wrong and we pursue this? And what if they're right and we don't?

CANINE STUDY

At the November 2013 meeting of the National Animal Interest Alliance (NAIA), the question was posed: "Can dogs get toxoplasmosis?" The question was intriguing, since no self-respecting dog turns down cat poop.

Any warm-blooded animal can get toxoplasmosis. At this time, we do not usually recognize toxoplasmosis in dogs, unless the dog is also immune-suppressed, as from canine distemper virus, and the animal succumbs to a combined infection. Since veterinarians typically deal with owned dogs that have been vaccinated against canine distemper, we're not diagnosing toxoplasmosis.

Testing dogs for T.gondii is different than testing cats; since the parasite doesn't replicate in dog intestines, we can only look for antibodies in the blood. But nobody had looked for antibodies to T. gondii in owned dogs in the United States before.

Expert Jitender Dubey, MVSC, PhD, is the world's leading expert on toxoplasmosis. It was his research - published in 1970 - that completed the understanding of the sexual phase of T.gondii in cat intestines. He is the world's leading authority on toxoplasmosis and is the most cited veterinary scientist with over 1,200 publications to his name. And he thought that the NAIA query merited pursuit.

We tested fifty-one dogs from five Florida counties [Oscceola, Marion, Sumter, Citrus, and Hillsborough], where the only criteria was that the owners knew that the dogs were eating (outside) cat feces. 37% of these dogs had antibodies to Toxoplasma.

Yet somebody could reasonably argue that

we didn't know that those dogs weren't also stealing raw meat from off of their owners' counter-tops.

In July 2014, a study was launched to determine if owned dogs could be a sentinel for environmental contamination with T. gondii. We dubbed this the Silver Leash Project acknowledging silver as the awareness color for Schizophrenia, and recognizing that dogs are contributing to science, as man's best friend.

This is a controlled study: Every dog that the owners know is eating (outside) cat feces will be matched with a dog of the same breed, age, gender, and geographic proximity that has not been known to "snack."

THE SILVER Leash PROJECT

This is a blinded study: Dr. Dubey will only know a dog by its number; he won't know the "cases" from the "controls;" the only thing he'll know about the samples is that they came from dogs.

If owned dogs can be a sentinel for environmental contamination with T. gondii, then we won't have to get permission from the impoundment facilities to test deceased, unowned cats.

Our study won't give us direct information about schizophrenia – it will be up to physicians in human medicine to make that correlation

VETERINARIANS – AND SUICIDE

A web-based survey, a collaborative effort between the National Association of State Public Health Veterinarians, Auburn University, and the CDC, addressed the statistic that veterinarians have a suicide rate that is four times that of the general population, and twice that of the other health professions.

Results reported in February 2015 MMWR indicated that 10% of the nation's veterinarians suffer from psychological distress and as many as 1 in 6 have had suicidal ideation since graduation.

And there are research publications linking Toxoplasma gondii to suicide.

And veterinarians handle cat poop as part of their job description.

HUMAN STUDY

Announced in the May 1, 2015 issue of the Journal of the American Veterinary Association, "The research study known as the Silver Band Project, intends to add data to the growing body of evidence on the public health implications of T gondii infection. Specifically, the purpose is to determine the prevalence of T gondii IgG antibodies in veterinarians and their staff, both those assisting with laboratory fecal analyses and those with receptionist duties only. The prevalence in that population will be compared with the prevalence in physicians and their respective staff members, both those with hands-on patient contact and those with strictly clerical duties, as well as with the prevalence in members of the general public.

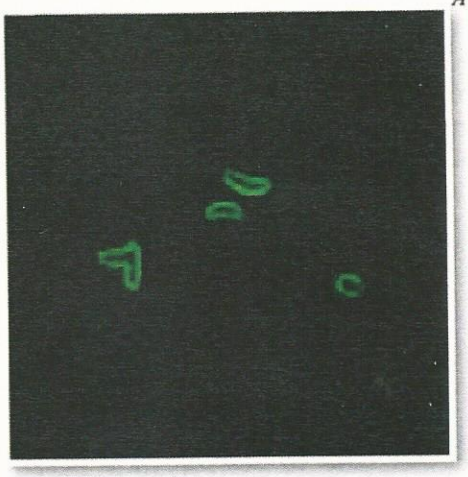
No grant money was required to launch the study. Collaborating veterinarians will donate their time, and the USDA will test the samples at no charge. The only potential cost to participants is a physician visit for the blood draw.

Participants will be matched on the basis of gender, age, race, and geography. Physicians and their staff members, and members of the general public who would be interested in participating in this study as controls can contact Dr. Milcarsky who is coordinating samples originating east of the Mississippi River and can be reached at jamvet@cfl.rr.com." A specific protocol was developed for this study to assure the anonymity of control volunteers.

Participant names and contact information will be known only to the collaborating veterinarians, who will provide the participants with their test results.

A QUESTION OF PUBLIC HEALTH

Public conversations regarding feral cats tend to be prickly. The impossible question posed to elected officials is, "Do you want to kill the feral cats?" This veterinarian doesn't ever want any animal to die – I spend my entire existence trying to keep animals alive. But the real question facing society is not do we want the feral cats to die, but rather: Is it better that the feral cats die by humane injection of barbiturate overdose, or that the school children become infected with a parasite that may cause them to develop the most devestating – incurable - mental illness?



Toxoplasma-positive reaction, stained by immunofluorescence (IFA). (CDC Photo)

I'll end with a quote from a client who was trained as a concert pianist: "Mental illness is still a dark box and we need to let in a little bit of light. If nothing comes of these 'Silver projects,' there will have been nothing wrong with a veterinary attempt to strike a match."

ABOUT THE AUTHOR

Judith Milcarsky was raised in Orlando, FL, earned a Bachelor of Science degree in Laboratory Technology from Auburn University in 1982, and a Doctor of Veterinary Medicine degree from the University of Florida in 1986. She is married to Edward Milcarsky, MD, who completed his Family Practice residency at Halifax Medical Center in 1992. She has had a small animal, house-call practice in Daytona Beach since 1994. For over a decade, she has addressed the association between feral cats and the fatal disease that is rabies. The information in this report came from presentations Judith has made to the National Animal Interest Alliance, the Family Practice Residency Program at Halifax Medical Center, the Daytona State College [STEMinar series] https://youtu.be/00RwYykLR2k and the Florida Public Health Association Continuing Education Conference. It is rare for a practicing veterinarian to be given the opportunity to share public health information with physicians: The author is grateful for this honor.

Cats as Carriers of Disease

THE POTENTIAL TO SPREAD A HOST OF DISEASES TO HUMANS AND WILDLIFE

By Rick Gerhold, DVM, Ph.D.

Credit: Kevin Keel

Rick Gerhold, DVM, Ph.D., is a post-doctoral associate at the Center for Wildlife Health, Department of Forestry, Wildlife, and Fisheries at the University of Tennessee.

A day at the beach was anything but soothing for several Miami beachgoers last summer and fall. Along Miami Beach, at least seven people developed unsightly rashes caused by hookworms crawling under their skin. People affected in the outbreak contracted the parasites from the feces of feral cats that use beach pathways and dunes as litter boxes (Smiley 2010). With seven confirmed and eight suspected cases of hookworm dermatitis, Miami-Dade public health officials responded to the outbreak by combing the beach to remove cat feces and educating beachgoers about how to avoid cat feces and treat hookworm infections.

This recent case is just one illustration of the potential for outdoor cats to transmit disease to humans. Through feces, fleas, bites, or scratches, cats can pass a variety of parasitic, bacterial, and viral illnesses including rabies, toxoplasmosis, typhus, and plague. With the number of feral cats at epic proportions, the need for cat control programs is increasingly a matter of public health.

Historically, animal control programs have been paramount in minimizing zoonotic risk in the United States. A rabies control program that began in the 1950s required mandatory rabies vaccination in dogs and launched programs aimed at removing stray and feral dogs to minimize human contact with potentially rabid animals. These efforts significantly reduced the incidence of human rabies in the U.S. Today, however, reports of domestic cat-associated rabies exposure and other zoonotic diseases are warranting increased attention and concern.

Credit: Timothy Roth

Pellets of dry food scattered for cats attract a raccoon to a feeding site in the Florida Keys. The top vector for rabies in the wild, raccoons can pass the virus to outdoor cats, which are increasingly the source of human exposure to this dangerous disease.

Cat Rabies on the Rise

Since 1988, rabies has been detected more frequently in cats than in dogs in the U.S. (Rupprecht 2002). By 2008, the number of rabies cases in cats was approximately four times the number of cases in dogs (Blanton *et al.* 2009). Although rabies infection is detected most frequently in wildlife such as raccoons, multiple recent studies show that human exposure to rabies is increasingly associated with domestic cats, primarily because people are more likely to come in contact with cats than wildlife (Cole and Atkins 2007, Roseveare *et al.* 2009, Eidson and Bingman 2010). A few examples illustrate the trend:

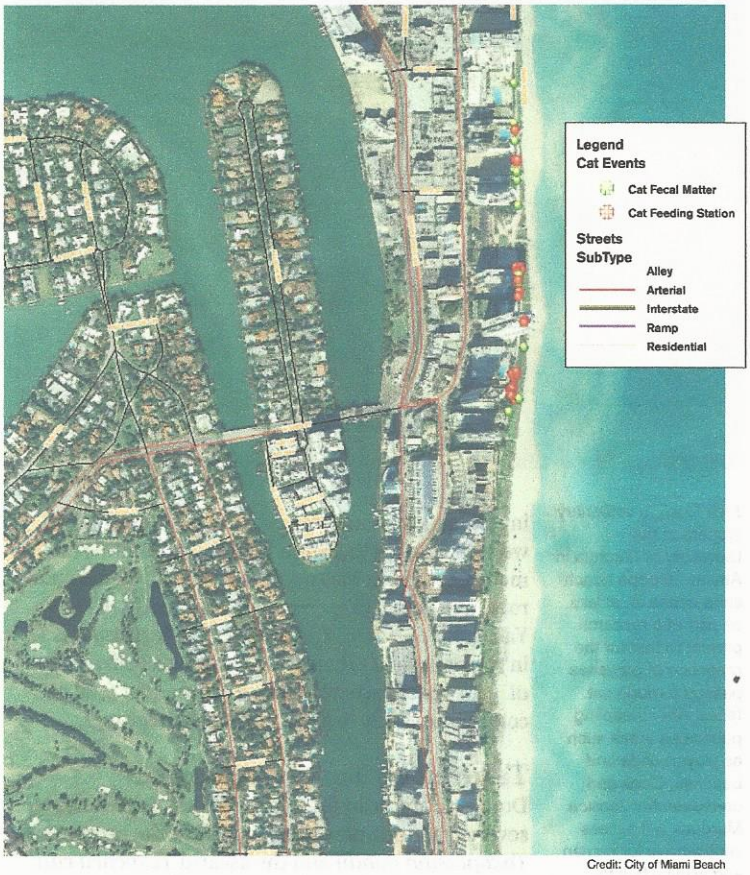
- From 2002 to 2006 in Georgia, 70 cats tested positive for rabies, and the virus was detected more frequently in cats than any other domestic animal (Cole and Atkins 2007). Moreover, from 2004 to 2006, 17 percent of all confirmed human rabies exposures in Georgia were due to cat bites, whereas domestic dogs comprised 5 percent of all confirmed human rabies cases in Georgia during the same time period.
- An investigation of rabies exposure in domestic animals in South Carolina showed that stray cats were disproportionately associated with potential human rabies exposure and were the species most frequently reported rabid among domestic animals exposed to rabies (Roseveare *et al.* 2009).
- Similarly, in New York from 1993 to 2010, cats were most frequently associated with human rabies exposure incidents (32.8 percent) and post-exposure prophylaxis (PEP) treatments (31.8 percent) (Eidson and Bingman 2010).

Rabies virus is transmitted via saliva from one host to another primarily from bites. The virus replicates in neurons and disseminates through the nervous system. Later in the infection, the virus can be found in highly innervated organs including the cornea, skin, and salivary glands (Iwasaki 1991). If left untreated, rabies leads to inflammation and destruction of brain tissue and an almost certain and difficult death. Fortunately, prophylactic treatment is highly effective—but costly: A course of treatment runs $5,000 to $8,000 per individual, with costs often borne by public health agencies (Recuanco *et al.* 2007). Today, cat exposures to rabies account for approximately one-third of all PEP treatments in the U.S. In addition to the cost of PEP, skin infections due to numerous bacteria (including *Pasteurella multocida*, *Staphylococcus* spp., and *Streptococcus* spp.) are often associated with cat bite wounds and often require antibiotic treatment and possible hospitalization (Talan *et al.* 1999).

Cats maintained in trap-neuter-release (TNR) colonies—supported in many places across the nation—may receive vaccinations against rabies. However, this does not decrease the need for PEP treatments because it is impossible to know when and how feral cats may have been exposed, and difficult to determine their vaccination status or to confine them for observation (Jessup and Stone 2010). Furthermore, one study found 22 reported rabies cases in cats that had been vaccinated, including in two cats classified as currently vaccinated, indicating that vaccine failures can occur (Murray *et al.* 2009).

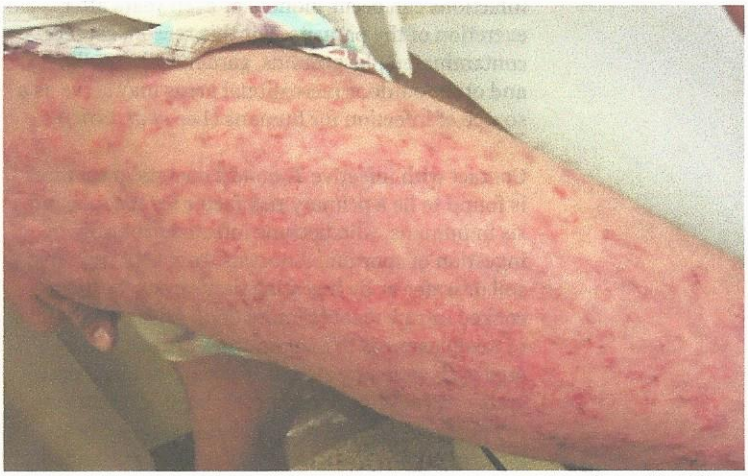
Wild mesocarnivores such as raccoons, skunks, and foxes—the wildlife species most frequently infected with rabies in the U.S. (Rupprecht *et al.* 2001)—are often attracted to the abundant food at cat colony feeding stations. These outdoor feeding stations may therefore increase the concentrations of wildlife and the interface between humans, mesocarnivores, and cats, leading to an even greater public health threat due to rabies and other disease agents associated with wild animals.

For example, some raccoons harbor raccoon roundworm (*Baylisascaris procyonis*), an intestinal nematode parasite that has caused morbidity and death in humans, especially children (Kazacos 2001). Infections occur after exposure to contaminated raccoon feces followed by accidental ingestion of the microscopic roundworm eggs from the feces. The geographical distribution of *B. procyonis* is expand-

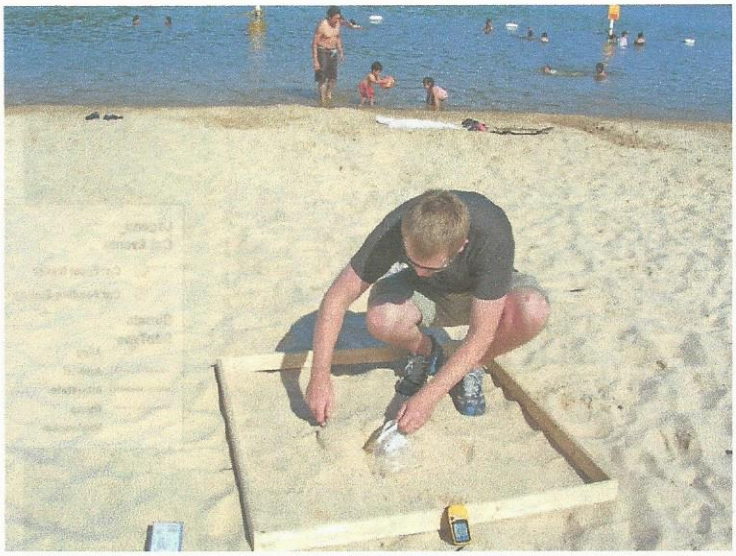


Credit: City of Miami Beach

A satellite map of part of Miami Beach shows GPS data points indicating cat fecal matter (green dots) located near cat feeding stations (red dots). City leaders commissioned the map to pinpoint cat-use areas after beachgoers began contracting hookworm parasites from cat feces in the sand. Unsightly lesions typical of hookworm dermatitis (below) covered the leg of a patient who developed symptoms after a Florida vacation.



Courtesy of Scott C. Sherman



Credit: Jessica Murdock

Josh Cook, a veterinary student at the University of Georgia in Athens, scoops beach sand near a local lake as part of a research project to test for the presence of parasites passed through cat feces. After sampling public-use areas such as playgrounds and beaches, Cook and co-researcher Jessica Murdock will assess implications for human and wildlife health.

ing from its historical range of the midwestern, western, and northeastern U.S. (Kazacos 2001) to multiple states in the southeastern U. S., Canada, Europe, and Japan (Kazacos 2001, Blizzard *et al.* 2010, Yabsley *et al.* 2010). The discovery of *B. procyonis* in raccoons near urban areas in Georgia (Blizzard *et al.* 2010) is of particular concern given that feral cat colonies are likely to be found in urban settings.

Tainted by Toxoplasmosis

Domestic and wild felids are the definitive hosts for several zoonotic parasites, including the protozoan *Toxoplasma gondii* and the ascarid *Toxocara cati*. One study found that the seroprevalence of *T. gondii* is higher in feral cats than in pet cats, with the lowest prevalence in cats kept indoors (Nutter *et al.* 2004). Because *T. gondii* oocysts are extremely environmentally resistant (Long 1990, Kazacos 2001), infections can occur months or even years after excretion of the parasite. For this reason, cat feces-contaminated playgrounds, garden soil, sandboxes, and other outdoor recreational areas may serve as a source of infection for humans (Lee *et al.* 2010).

Contact with infective *T. gondii* oocysts in cat feces is found to be a primary risk factor for toxoplasmosis in humans, who become infected primarily by ingestion of sporulated oocysts from contaminated soil or water or by ingesting tissue cysts in undercooked or raw meat (Elmore *et al.* 2010). Outbreaks of toxoplasmosis in communities are often associated with contaminated water sources. Since tissue cysts can't survive outside their hosts, and cats are the only definitive host that sheds oocysts, these types of outbreaks have to be cat-feces associated.

Consider the following health implications:

- *Toxocara cati* infections have been associated with visceral and ocular larval migration and can result in permanent ocular damage in humans (Holland and Smith 2006, Lee *et al.* 2010).
- *Toxoplasma* infections can cause neurological impairment and can lead to abortions and birth defects such as hydrocephalus in humans (Dubey and Odening 2001).
- Toxoplasmosis is a dangerous disease for individuals receiving immunosuppressive therapy and is a major cause of systemic infection and death for immunosuppressed patients (Elmore *et al.* 2010).
- Increased risk of schizophrenia, autism spectrum disorders, and other neuro-inflammatory diseases has been associated with *T. gondii* infection (Torrey and Yolken 2003, Prandota *et al.* 2010).
- Toxoplasmosis is a major issue for wildlife and has been documented in multiple wild avian and mammalian species, especially marine mammals and Australian marsupials (Dubey and Odening 2001, Dubey 2002, De Thoisy *et al.* 2003).
- Toxoplasmosis is a significant cause of abortion in domestic animals including sheep and goats.

Worms, Fleas, and Other Ills

Humans can become infected by several species of cat-borne hookworms including *Uncinaria stenocephala, Ancylostoma tubaeforme, A. braziliense,* and *A. ceylanicum* (Bowman *et al.* 2010). Deposited in feces, hookworm eggs hatch and their infectious filariform larvae can then penetrate the skin of animals or human hosts. Infective larvae can cause skin lesions known as cutaneous larva migrans (CLM) and less frequently pneumonitis and muscle and ocular infections. Occasionally, *A. ceylanicum* can develop into an adult hookworm in humans and cause abdominal discomfort (Prociv 1998).

The problem is widespread. Several human cases of feline hookworm infections have been reported from soil under houses or on beaches where cats defecate. In Florida alone, one study found that approximately 75 percent of feral cats were positive for *A. tubaeforme* and 33 percent were positive for *A. braziliense* (Anderson *et al.* 2003). In 2006, 22 people were diagnosed with CLM at a Miami-Dade County children's camp. Although feral cats were found in the vicinity of the camp, the source of the infection was not determined (CDC MMWR 2006).

Ectoparasites of domestic cats, especially the cat flea (*Ctenocephalides felis*), are also efficient transmit-

ters of zoonotic diseases. Three major flea-associated diseases of cats in the U.S. include cat-scratch disease (CSD), flea-borne typhus, and plague (McElroy *et al.* 2010). CSD, or bartonellosis, is caused by the gram-negative bacterium *Bartonella henselae.* Though cats are the primary source of the bacteria, they are silent carriers and thus appear healthy. Fleas acquire *B. henselae* from the blood of an infected cat. Infection then passes to an animal or human when *B. henselae*-contaminated flea feces comes into contact with an open wound from a cat scratch or bite. Prevalence of *B. henselae* in cats ranges from 15 to 93 percent (Nutter *et al.* 2004, Case *et al.* 2006, Lappin *et al.* 2006) and feral cats have a significantly higher seroprevalence than pet cats (Nutter *et al.* 2004). Symptoms in humans with CSD include fever, headaches, weakness, joint pain, and lymph node enlargement. Chronic CSD cases have manifestations similar to Lyme disease and can be very debilitating for infected people. In addition, the disease is one of the most frequent diagnoses of benign lymphadenopathy in children and young adults (McElroy *et al.* 2010). Atypical complications including encephalitis, retinitis, and endocarditis occur in 5 to 15 percent of CSD-infected humans (Chomel *et al.* 2004).

In addition to CSD, cat fleas vector rickettsial diseases including murine typhus (*Rickettsia typhi*) and the closely related zoonotic disease agent *Rickettsia felis,* both of which are potential human health threats wherever cat, rat, or flea populations are dense (Case *et al.* 2006). As is the case with CSD, cats are inapparent carriers of *R. typhi*. Outbreaks and potential outbreaks have been associated with feral cat colonies (Kliks 2003). Other reported cases of murine typhus in the U.S. have occurred in central and south-central Texas and the Los Angeles area (Adams *et al.* 1970, Sorvillo *et al.* 1993). In Los Angeles, 90 percent of collected cats were seropositive for *R. typhi* antibodies, whereas no seropositive cats were found in control areas where no human infections were reported (Sorvillo *et al.* 1993). Flea suppression may help protect public health, but failure to control feral cat populations could lead to future outbreaks.

Joining the list of cat-related ills, human bacterial diseases including tularemia, caused by *Francisella tularensis*, and plague, caused by *Yersinia pestis*, are associated with direct contact with cats or cat fleas (Liles and Burger 1993, Gage *et al.* 2000, McElory *et al.* 2010). Approximately 8 percent of plague cases in the U.S. are associated with transmission by cats; cases of plague associated with cat exposure are reported year-round, while flea-associated cases are generally restricted to warmer months (Gage *et al.* 2000). Both tularemia and plague can cause various disease symptoms such as painful lymph node enlargement, fever, and chills, and can potentially lead to fatal respiratory disease. It is suggested that in addition to harboring infected fleas, cats preying on infected rodents can contain the bacterial agents of tularemia and plague in their mouths and potentially transmit the bacteria to humans via bites or scratches (Elliot *et al.* 1985).

The Case for Control

Cats may be implicated in other diseases not historically associated with felines, including H5N1 avian influenza, as evidenced by natural and experimental infection of domestic cats (Kuiken *et al.* 2004, Songserm *et al.* 2006). Experimentally infected cats excreted the virus and transmitted it to H5N1-free cats, demonstrating horizontal transmission and suggesting that cats can be involved in epidemiology and transmission of the virus (Kuiken *et al.* 2004).

Native predators such as cougars (*Felis concolor*) and other wild felids can contract disease by eating infected domestic cats. Cases of feline leukemia virus (FeLV) transmitted from domestic cats to wild felids have been reported in California and Florida (Jessup *et al.* 1993, Cunningham 2008). Because FeLV is a retrovirus that causes immunosuppression of hosts, infected wild felids have a greater susceptibility to opportunistic disease agents. In one case, genetic analysis of the FeLV virus associated with the deaths of five Florida panthers showed that the virus envelope sequence was nearly identical, indicating that the source of the infection was likely a single domestic cat (Brown *et al.* 2008).

Clearly the existence of millions of feral, stray, and outdoor domestic cats poses a significant health risk for humans, pets, livestock, and wildlife. Wildlife professionals who have difficulty convincing the cat-loving public to control populations of feral cats might have better luck by emphasizing the health consequences of cat-borne diseases. One look at a leg infected with hookworms might be enough to do the trick. ■

This article has been reviewed by subject-matter experts.

For a full bibliography and additional information about cats and disease, go to *www.wildlife.org.*

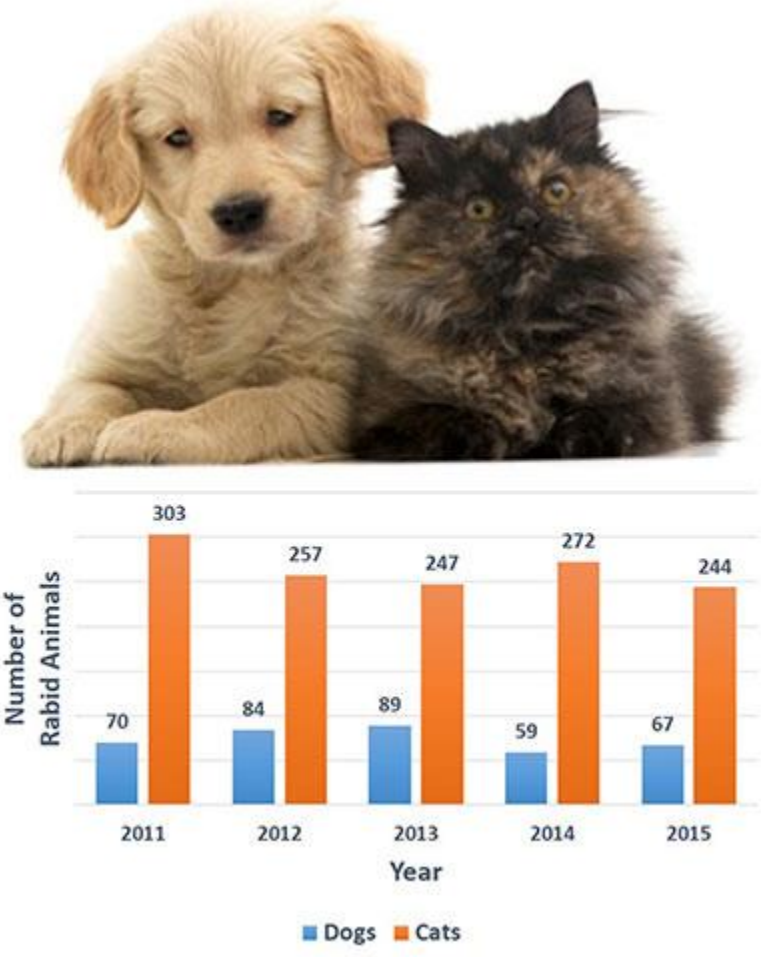
The Burden of Rabies (2017)

Learn how to help prevent rabies, a deadly virus that threatens the health of people and animals.

Rabies is a dangerous virus that is spread through the saliva of animals sick with rabies. Anyone can get it if they handle or get bitten by an animal that has the disease.

Rabies in the U.S.

Rabies continues to be a serious threat to the health of people and animals. Every year, about 40,000 people receive a rabies prevention treatment called **post-exposure prophylaxis (PEP)** because they had contact with potentially rabid animal. More than 90% of all rabid animals reported to CDC each year occur in wildlife. The animals that get rabies the most are raccoons, skunks, foxes, and bats. **However, most people in the U.S. get PEP due to close contact with domestic animals such as cats or dogs..**



Rabies cases among dogs and cats reported in the U.S. from 2011 to 2015.

Rabies in Cats

While dogs have historically been associated with spreading rabies to people, more cats than dogs are reported rabid in the U.S. each year. Cats are often in close contact with both people and wild animals, including those that primarily spread rabies, like raccoons and bats. Thus rabies may be more easily spread to people from cats.

Over the past few years, public health officials saw a small decrease in the number of reported cases of rabid cats. However, in 2014, over four times more rabid cats were reported than rabid dogs. Importantly, cat owners are less likely to visit a veterinarian's office, where they can get their cat shots that can keep it safe from rabies. According to the American Veterinary Medical Association (AVMA), only 55 percent of U.S. cat owners visited a veterinarian in 2011, a significant decrease compared with 64 percent in 2006. This is much less compared to dog owners (81 percent in 2011 and 83 percent in 2006).

Protecting You and Your Family

The best ways to protect yourself and your family from rabies is to:

- **Vaccinate your pets and other domestic animals** (like cows, goats, sheep, and horses)
- **Avoid contact with wild animals** – do not feed or handle them, even if they seem friendly. If you see a wild animal acting strangely, report it to animal control.

If you or someone in your family is exposed to a rabid animal, rabies can be prevented through a series of shots called **rabies post-exposure prophylaxis (PEP)**.

If you are bitten by any animal (domestic or wild):

- Immediately wash the wound well with soap and water and see a healthcare provider
- Contact animal control to assist in capturing the animal for observation or rabies testing

Family pets can get rabies if they are bitten by rabid wild animals.

Cats, dogs, and ferrets that have not gotten their rabies shots and are bitten by an animal may have to be quarantined for six months or euthanized. In general, pets have a higher risk of coming into contact with wild animals that may have rabies than people do. This increases the risk of rabies to us because of our close contact with our pets.

To help reduce this risk:

- Visit your veterinarian with your pet on a regular basis and keep rabies vaccinations up-to-date for all cats, ferrets, and dogs.
- Maintain control of your pets by keeping cats and ferrets indoors and keeping dogs under direct supervision when outdoors.
- Spay or neuter your pets to help reduce the number of unwanted animals that may not be properly cared for or vaccinated regularly.
- Call animal control to remove all stray animals from your neighborhood since these animals may be unvaccinated.
- Do not feed or water your pets outside and keep your garbage securely covered. These items may attract wild or stray animals.

Page last reviewed: September 25, 2017 *Page last updated: September 25, 2017*

Table 2. Response distributions for opinions about feral cats and feral cat colony management among cat colony caretaker (CCC, n = 338) and bird conservation professional (BCP, n = 239) respondents from across the United States during 2011.

Question	Group	Agreement level (%)				
		Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1. Feral cats should be treated as protected wildlife	CCC	3	5	14	20	59
	BCP	94	4	1	1	0
2. Feral cats should be treated as pests	CCC	96	3	1	0	1
	BCP	11	8	4	17	61
3. Feral cats fill a natural role as predators	CCC	5	13	23	32	27
	BCP	88	6	3	2	1
4. Feral cats are a reservoir for disease	CCC	72	14	8	5	1
	BCP	4	8	26	28	35
5. Feral cats ONLY harm wildlife on islands	CCC	39	20	39	2	1
	BCP	90	5	2	0	3
6. Feral cats contribute to decline of native birds	CCC	41	19	19	16	4
	BCP	8	1	5	12	75
7. Feral cats are eventually eliminated by TNR	CCC	12	11	9	29	40
	BCP	61	16	15	6	3
8. Feral cat colonies should be managed using euthanasia	CCC	96	3	0	1	0
	BCP	5	7	13	30	45
9. Feral cat colonies should be managed using TNR	CCC	1	1	1	3	95
	BCP	54	14	9	13	9

doi:10.1371/journal.pone.0044616.t002

Peterson MN, Hartis B, Rodriguez S, Green M, Lepczyk CA (2012) Opinions from the Front Lines of Cat Colony Management Conflict. PLoS ONE 7(9): e44616. doi:10.1371/journal.pone.0044616
http://127.0.0.1:8081/plosone/article?id=info:doi/10.1371/journal.pone.0044616

Bobbie Walthall

From: Lisa Weeks <lisafweeks@gmail.com>
Sent: Tuesday, December 11, 2018 8:24 AM
To: Bobbie Walthall
Subject: City Commission Meeting 12/11/2018

Dear City Commissioners,

Regarding the Community Cats program, please actively solicit input from reputable sources regarding the impact cat colonies have on native wildlife, particularly birds before making a decision.

Locally, you might find a knowledgeable individual within the Jayhawk Audubon Society (https://www.jayhawkaudubon.org/) or Kansas Ornithological Society (http://ksbirds.org/).

Nationally, sources might include the American Bird Conservancy's "Cats Indoors" program. On their webpage (https://abcbirds.org/program/cats-indoors/), they state:

> *"Our Cats Indoors Program educates the public and policy makers about the many benefits to birds, cats, and people when cats are maintained indoors or under an owner's direct control. In addition to advocating for responsible pet ownership, we also oppose Trap, Neuter, Release (TNR) for feral cats because of the persistent and severe threats posed by feral cat colonies."*

Please also seek out data from cities which have successfully and unsuccessfully launched similar programs to evaluate the costs and benefits – from environmental, financial, and public relations viewpoints.

Thank you for your consideration.

Lisa Weeks

208 Arizona St.

--
Regards,
Lisa Weeks
(913) 485-0949

Lawrence City Commission
6 E 6th Street
Lawrence, KS 66044

Dear Commissioners,

My name is Lee Boyd. I lived within the city of Lawrence for 3 years in the mid-1980s. I then moved to Topeka for 18 years and have spent the past decade on a small farm in SW Douglas County. My Ph.D. is from Cornell University in Behavioral Biology. I taught various Zoology courses at Washburn University for 36 years. I am a lifetime member of the Lawrence Jayhawk Kennel Club, and the current president of Topeka Community Cat Fix. When you read my comments below, you will understand why I am providing these credentials.

I am writing to say that while I feel Ordinance 9615 is a step in the right direction, it needs some work and is certainly not ready for a vote on first reading. Below I divide my comments into errors of fact and then comments that are just my opinion. I have not commented on TNR of community cats, which does not appear in the ordinance, but I would be happy to talk to you about the Topeka program at some point if you are interested.

I hope to be at the meeting on the 11th, but I have a class lasting until after 7 PM, and so I will be late. Also I feel that my comments are more easily understood in written form.

Thank you for reading,

Lee Boyd
738 E 500th Road
Lawrence, KS 66047
leeboyd@att.net

Comments on Ordinance 9615

Factual Errors

3-102 (I) Correct format for this scientific name is *Felis domesticus* or Felis domesticus. (However, *Felis catus* or *Felis silvestris* is the preferred scientific name)

(L) Correct format for this scientific name is *Canis familiaris* or Canis familiaris.

3-104 (A8) Crocodiles are not lizards and, as written, someone could own alligators. The term 'crocodilians' includes crocs, alligators, caiman, etc. I suggest the following: 'Nonvenomous lizards under 50 pounds' (or whatever weight limit you choose) as one bullet point, and 'Crocodilians' as a separate bullet point.

(A11) So would it be okay to have the highly poisonous and invasive lionfish in my saltwater aquarium?

(A19 & 26) Hedgehogs are listed twice; once in each of these bullet points.

Article 2 (E) This section is not congruent with Dangerous Animal [as defined in 3-102(K)], because section 3-202(G) specifies how they are to be kept in the city.

There seems to be two Article 2s.

3-202 (A) This section is not congruent with Dangerous Animal [as defined in 3-102(K)], because section 3-202(G) specifies how they are to be kept in the city.

My Opinions

3-104 My understanding was that there would be some mechanism to appeal the limits on certain species imposed. I don't see one provided. Are you going to grandfather in people who have 5 dogs under the current ordinance? Surely you are not going to make them get rid of one dog?

3-104 (A) I can understand the rationale for limiting the number of dogs, as they must go outside so there are issues of noise and waste. I don't understand the rationale for limiting the number of (indoor) cats. In this proposal, someone could only own 4 cats, but would be permitted to own 1000 gerbils, 25 ferrets, 300 parrots, and 4,500 turtles.

3-104 (A1&2) The 10-week age limit is a problem for many breeders. Reputable breeders often won't place puppies or kittens until they are 12 weeks old. And sometimes a puppy or kitten is returned to the breeder and they need to rehome it. Raising the age cut-off to 4 months would go some way toward ameliorating this issue.

3-202 (A3) I advocate for retaining the electronic collar language. There are many delightful dogs who can be walked safely off-leash under the owner's voice control with an electronic collar as back-up. On the other hand, electronic pet containment systems routinely fail, so I find this addition surprising.

3-202 (A) In my opinion the dangerous animal definition does not make enough distinction between levels of bite, nor consider evidence for bite inhibition. Dangerous includes anything below great bodily harm, while Vicious is any bite causing great bodily harm or worse. A dog delivering one simple puncture as a warning would be treated the same as a dog who grips, shakes, or bites multiple times - short of causing great bodily harm. Those are very different scenarios in my opinion. Multiple punctures versus only extensive bruising indicating good bite inhibition are two vastly different things in my opinion.

3-202A Reckless pet owner: I don't see 4 noise violations, or 4 running at large violations, or 4 failure to pick up waste violations, as equivalent to 4 bite infractions.

3-202A.2 If my dogs have 4 running at large violations you are going to forbid me from owning indoor cats or turtles for 5 years too?

3-208 (1) Why can't the animal be quarantined at home (I know that some cities such as Topeka have this option).

Aliza Bidinger

Subject: RE: Animal ordinance

Dear Mayor Boley,

I am writing to encourage the City Commission to change the local ordinances to allow Trap, Neuter and Release programs in the city.

The current ordinance requires all cats to be under the control of their owners at all times. I fully support your efforts to keep cats inside or on leashes when outside.

Unfortunately, not all cats have owners. As a volunteer at the Lawrence Humane Society I've seen hundreds of cats who were picked up as strays. Many stay at the shelter for several weeks waiting for a forever home.

The shelter's Barn Cat Program does a good job helping find homes for feral cats that are picked up.

I believe a TNR program is a logical next step for the city. It would reduce the number of strays and reduce costs for the shelter.

A TNR program would likely be organized and staffed by volunteers if they were allowed by city ordinance. I would readily volunteer to help establish and run the program.

TNR programs keep cats healthy and fed while allowing them to remain in their neighbors. Cat colonies can and do successfully reside in neighborhoods throughout the country.

Thank you for considering my suggestion.

Sherry Pigg
2509 Ponderosa Dr.

Sent from my iPhone

Collection Law Center, LLC

1031 Vermont St, Ste B
Lawrence, Kansas 66044

Janet L. McKillip*
*Admitted in Kansas and Missouri

(785) 843-3536
(877) 443-4849
(785) 843-2151 fax
info@collectionlawcenter.com

December 7, 2018

Lawrence City Commission
6 E 6th Street
Lawrence, Kansas 66044

Re: Ordinance No. 9615
December 11, 2018 Agenda

Dear Commissioners:

I am writing in regard to the proposed changes to Lawrence City Ordinance 9615. A significant portion of my practice involves the representation of Landlords.

While I applaud the effort to further strengthen the code to protect animals, I am concerned with section 3-105(A)(1)(k) which states it shall be unlawful "as a landlord or property owner to fail to contact an Enforcement Officer with 24 hours to report animals known to be abandoned in a rental property".

On numerous occasions, my clients have discovered animals that have been abandoned by their owners or have been left in the unit during the eviction process. It has commonly been our practice to contact Animal Control to have the animal removed. However, Animal Control can be hesitant to enter the premises and remove the animal.

In one situation several dogs were reportedly barking for days in a unit. The landlord entered the unit and found the dogs without food and water. My client contacted Animal Control then provided the dogs with food and water. Animal Control refused to remove the dogs since the landlord had been provided food and water. My client even asked Animal Control if they were responsible to care for the dogs since the tenant was not. Of course, no guidance was provided by Animal Control. I believe there needs to be more direction in how the calls are to be handled by the enforcement officer.

Further, I would encourage the commission to add language under 3-105(A)(1)(d) to clarify abandonment. Including language that an animal is abandoned if the owner or keeper (a) is not present when a Writ of Restitution or Writ of Eviction that directs the removal of the owner or keeper of the animal from the property is served by a person authorized to serve process under Kansas Law and (b) if a dog is left unattended for more than 24 hours in a residential unit the animal will be determined to be abandoned.

Thank you for your time and attention to these concerns.

Sincerely
Collection Law Center LLC

Janet L. McKillip