

Feral Cat Colonies in Florida: The Fur and Feathers are Flying

- **Author:** Pamela Jo Hatley
- **Place of Publication:** Journal of Land Use and Environmental Law
- **Publish Year:** 2003
- **Primary Citation:** 18 J. Land Use & Envtl. L. 441 (2003)

Summary:

An enormous and growing population of free-roaming cats exists in Florida, posing a threat to the state's native animal species, and creating a serious public health concern. Proponents of trap-neuter-release (TNR) and maintenance of cat colonies have been pressing local governments to enact ordinances to permit establishment and registration of cat colonies in local jurisdictions. But TNR and managing large numbers of cats in colonies does not effectively control cat overpopulation. Additionally, federal and state wildlife laws designed to protect endangered and threatened species conflict with the practice of releasing non-indigenous predators into the wild. An intense public education campaign, together with licensing incentives, animal control laws that enforce high penalties against violators, and other methods of reducing the flow of non-indigenous species into the wild, are essential components to a long-term solution to pet over-population in general, and particularly to cat over-population and the resulting predation on wildlife.

II. MAGNITUDE OF FREE-ROAMING CAT POPULATIONS

A. In the United States

Though considered a separate species, *Felis catus*, the domestic cat, originated from a wild ancestral species, *Felis silvestris*, the African wild cat. In many ways, the domestic cat is an intriguing replica of its wild ancestor. It is similar in appearance, but most interestingly, its hunting behavior and other activity patterns remain essentially unchanged from the ancestral wild cat. [FN2]

Domesticated in Egypt about 4,000 years ago, the *Felis catus* has become America's favorite pet. The Humane Society of the United States (HSUS) estimates there are approximately 73 million owned cats in the United States. [FN3] Unfortunately, their popularity as a companion species to humans has led to many millions of this efficient mesopredator roaming free in the U.S., either because their owners allow them to or because they are homeless. A poll by the American Bird Conservancy (ABC) shows that only about 35 percent of owned cats are kept exclusively indoors, leaving some 47 million owned cats free to prey on wildlife all or part of the time. [FN4] In addition, the number of free-roaming unowned, or feral, [FN5] cats probably falls in the range of 40 to 60 million. [FN6] Thus the number of cats in the United States spending all or part of their time outdoors is likely well over 100 million.

B. In Florida

The Florida Fish and Wildlife Conservation Commission (FWCC) estimates that the population of owned cats in Florida is about 9.6 million, and the feral cat population may be 6.3 to 9.6 million. [FN7] Based on ABC's poll showing an average of 35 percent of owned cats are kept exclusively indoors, the number of owned and feral cats, combined, that are outdoors and potentially preying on wildlife in Florida is in the neighborhood of 12.5 to 15.8 million.

III. ENVIRONMENTAL IMPACT OF FREE-ROAMING CATS

So what is the harm in allowing cats to roam free outdoors? First, allowing cats to roam free places the cats themselves in danger of harm. The HSUS explains that free-roaming cats often are hit by cars or fall victim to disease, starvation, poisons, attacks by other animals, and mistreatment by humans. [FN8] Second, free-roaming cats take a tremendous toll on native wildlife populations by direct predation and by competition. Cats are instinctive predators that are able to hunt as effectively as their wild ancestors, and feeding does not suppress the cat's instinct to hunt and kill. [FN9] It is estimated that nationwide, cats kill over a billion small mammals and hundreds of millions of birds each year. [FN10] Third, free-roaming cats are vulnerable to contracting and spreading disease among themselves, other wildlife, and even people. The Centers for Disease Control and Prevention (CDC) reports that rabies cases in cats are more than twice as numerous as those in dogs or cattle. [FN11] Additionally, cat scratch fever, hookworms, roundworms and toxoplasmosis may be transmitted to other animals and people through scratches, bites and fecal contamination by cats. [FN12]

IV. FREE-ROAMING CATS IN FLORIDA

For decades the accepted method of managing the exploding population of homeless and unwanted pets has been simply to trap and destroy them humanely. Pet shelters attempt to find homes for the animals they deem suitable as human companions, but a far greater number of animals taken to pet shelters end up with the death sentence than with a loving home. A paradox of this tragic state of affairs is that humans perpetuate it, and at the same time are distressed by it. Hence, a growing trend in the U.S., and particularly in the states of Florida and California, is to attempt to manage populations of feral cats by trapping, sterilizing and vaccinating them, and then releasing them back into the wild. In some cases these feral cats congregate in "colonies" that are looked after by volunteers who feed them and provide TNR to new strays that find their way to the group. Feral cat advocates see the TNR method as a more humane solution to the sad consequence of so many perfectly healthy animals being put to death just because they are, through no fault of their own, homeless.

There are known feral cat colonies in at least 17 Florida counties. [FN13] The largest of these known colonies is the ORCat colony located at the Ocean Reef Club residential resort in Key Largo, which has an estimated 1,000 cats. [FN14] The ORCat colony is well organized and operates on an annual \$100,000 budget supplied by donations from residents and the local community association. [FN15] The operating budget is used to purchase cat food, retain a local veterinarian's services, and pay salaries for a full-time and a part-time employee. [FN16] Ironically, the Ocean Reef Club ORCat colony is located next to the Key Largo Hammocks State Botanical Site, which contains habitat that supports the federal endangered Key Largo woodrat and the Key Largo cotton mouse. [FN17]

In Brevard County, volunteers associated with the Space Coast Feline Network, Inc. (SCFN), a Florida not-for-profit organization, feed feral cats and conduct TNR clinics countywide. [FN18] The organization was formed in 1996 when workers at Kennedy Space Center began caring for feral cats in an abandoned building. [FN19] Within the first three years, the group had rescued more than 100 cats by caring for the adults and adopting out the kittens. [FN20] In the past two and a half years, the group has treated nearly 4,000 cats through their TNR clinics. [FN21] SCFN recently purchased 10 acres of land in Mims, Florida, on which the organization plans to place a colony of feral cats, and build an office, a veterinarian facility, and caretaker residence. [FN22] SCFN plans to shelter cats at its Mims facility in four modules that will house up to 25 cats each, and that have indoor and outdoor areas which are fenced and screened to prevent the cats from roaming and keep other animals out. [FN23]

In recent years, local governments have begun to sanction and regulate TNR and feral cat colonies. For example, a Brevard County ordinance allows feral cat colonies to be established and maintained by care givers as long as the colonies are registered with the county and meet certain requirements. [FN24] The ordinance requires care givers to assure the cats will be fed regularly, sterilized and vaccinated. [FN25] The county even provides funds and services to help offset the costs of TNR. [FN26] Some three years after Brevard County's feral cat colony ordinance was passed, the county had spent almost \$100,000 on the program, had 244 registered colonies, and had sanctioned the release of more than 2,300 cats into the wild. [FN27]

But not all feral cat colonies are organized and maintained by volunteer associations of care givers. The number of feral cats in Brevard County is estimated to be over 100,000. [FN28] Lee County is home to possibly more than 200,000 feral cats, some of which are fed by sympathetic residents. [FN29] Most colonies are simply a group of cats congregated around a food supply, such as a dumpster. New individuals regularly enter the colonies when irresponsible owners release their unwanted pets into the wild, or when kittens are born in the wild to intact females. [FN30] Because cats are not strictly territorial, new ones are freely allowed to join existing colonies. [FN31] As new cats arrive, older ones disappear by falling victim to one of the many perils that feral cats face, or simply wandering away to a different food source. Thus, despite the policy intent to have feral cat colonies dwindle away through attrition, this result apparently rarely occurs. [FN32]

V. IMPACT OF FREE-ROAMING CATS ON WILDLIFE IN FLORIDA

Cats are known to prey on small mammals, birds, and even sea-turtle hatchlings, frogs and toads, snakes, lizards, and insects. As stated above, there are some 15 million cats, both feral and owned, spending all or part of their time outdoors in Florida. This large number of free-roaming cats takes a devastating toll on native Florida wildlife. Based on extrapolated data from a Wisconsin study, the FWCC has estimated that free-roaming cats in Florida may kill as many as 271 million small mammals and 68 million birds each year. [FN33] However, the actual number may be much higher since FWCC also reports that a single free-roaming cat may kill as many as 100 or more birds and mammals per year. [FN34] To make matters worse, many of the animals preyed upon by cats are federal and state listed threatened and endangered species. In Florida, domestic cats have been recognized as predators and a serious threat to the Key Largo cotton mouse, rice rat, Key Largo woodrat, Lower Keys marsh rabbit, Choctawhatchee beach mouse, Perdido Key beach mouse, Anastasia Island beach mouse, Southeastern beach mouse, green sea turtle, roseate tern, least tern, and Florida scrub-jay, all federal listed species. [FN35]

The Lower Keys marsh rabbit is a federal endangered species with a population estimated to be about 100 to 300 individuals. [FN36] The species could go extinct within 2 or 3 decades if current mortality rates continue, and the greatest threat to the Lower Keys marsh rabbit now appears to be predation. [FN37] A 1999 study of management options for the Lower Keys marsh rabbit reported that free-roaming cats were responsible for 53% of all marsh rabbit deaths, both juvenile and adult. [FN38] The researchers recommended that management efforts to save the species from extinction should be centered on developing a plan to reduce cat use of marsh rabbit habitat, and they suggested that intensive public education on the effects of cat predation would not only help save the marsh rabbit, but would also have a positive effect on other rare native species, such as the Key ringneck snake, silver rice rats, and white-crowned pigeon. [FN39]

There are several subspecies of beach mice in Florida, six of which are federal listed as endangered or threatened. Beach mice are found only in the southeastern U.S., and are an important beacon of dune ecosystem health. [FN40] However, scientists believe that cat predation poses a major threat to the continued existence of beach mice in some areas. [FN41] Dr. Michael Wooten, an associate professor in the Department of Biological Sciences at Auburn University, has conducted extensive research on beach mice, and concluded that domestic cats played a major role in the extinction of the Florida Point population of Perdido Key beach mice. [FN42] Dr. Wooten advises that beach mice, while they appear to be able to escape native predators such as fox, raccoons, birds and snakes, do not survive well against non-native predators such as cats. [FN43]

Coincidentally, a study conducted by a graduate student at Auburn University confirmed scientists' suspicions that domestic cats prey on beach mice. During fieldwork conducted in 1999 and 2000, researchers fitted radio transmitters on a number of Choctawhatchee beach mice at Grayton Beach State Recreation Area in Walton County, and tracked the mice for several days. [FN44] The researchers soon found themselves tracking a feral cat, which had killed and ingested one of the mice fitted with a radio transmitter. The cat was followed for several days as it roamed throughout the recreation area and a local village. [FN45]

In addition to small mammals, free-roaming domestic cat predation detrimentally impacts the populations of many bird and possibly turtle species in Florida. For example, cats have preyed on piping plover, young and adult Florida scrub-jay, and least tern, all federal listed bird species, as well as black skimmer, painted bunting, and oystercatcher. [FN46] A report on the ecology and management of the Florida scrub-jay warns that "a population of domestic cats supported by human food offerings could eliminate a small, local population of Florida scrub-jays." [FN47] A graduate student conducting a study of feral cat colonies in two Miami-Dade County parks witnessed cats stalk and kill a juvenile common yellowthroat and a blue jay, and found the carcass of a gray catbird in the colony feeding area. [FN48] Outside of Florida, there are documented cases of cat predation on sea turtle hatchlings. [FN49] Although there are no studies revealing the extent to which cats prey on sea turtles in Florida, since free roaming cats are known to visit the state's beach areas, and since cats prey on turtles in other parts of the world, it is likely that turtle hatchlings in Florida are also taken by cats.

But predation is not the only negative impact free-roaming cats have on wildlife in Florida. Cats can also spread disease. The FWCC states that cats can spread rabies to wildlife such as raccoons, skunks, and foxes. [FN50] Castillo reported witnessing dogs, gray foxes, Eastern spotted skunks, raccoons, black vultures, blue jays, European starlings, and Eurasian collared doves feeding on left over cat food at feeding stations in Miami-Dade county parks. [FN51] In addition, park visitors reportedly fed cats on top of the picnic tables, and cats were seen defecating in the picnic areas. [FN52] Domestic cats are likely responsible for spreading feline panleukopenia (FPV) to the endangered Florida panther and feline leukemia virus (FeLV) to the mountain lion, a close relative of the Florida panther. [FN53] But potential for cats to transmit diseases presents a health hazard to humans as well as a threat to wildlife, because rabies, toxoplasmosis, cat scratch fever, encephalitis (from cat scratch fever), plague, hookworms and roundworms can be contracted by humans through contact with infected cats. [FN54]

Not only do cats impact Florida wildlife through predation and spread of disease, but they can outnumber and compete with native predators, such as owls, hawks, and foxes. [FN55] Domestic cats hunt many of the same animals that native predators do, and when present in large numbers, cats can reduce the availability of prey for native predators. [FN56] Because cats benefit from human feeding and vaccination, they are protected from many of the perils that limit the populations of native predators. Therefore, cat populations in the wild reach artificially high numbers and present a serious threat to native predators' ability to feed themselves and their young.

VI. STRATEGIES FOR DEALING WITH FREE-ROAMING CATS

Because of the domestic cat's role in society as a companion animal, any strategy to deal with the problem of free-roaming cats will present challenges. A "round 'em up and kill 'em" approach would undoubtedly be met with intense public outcry. Further, efforts to remove from the wild all free-roaming cats would have to be constantly applied if no steps are taken to stop the introduction of more cats into the wild. But because humans domesticated this animal, and because we tend to love it so much, it is our responsibility to manage it properly. Cats are not indigenous to Florida, or to anywhere in North America. As a non-indigenous species, or "invasive" species, cats have spread throughout and threaten to destabilize native ecosystems.

A. Cat Colonies and TNR

The managed colony and TNR approach is highly controversial and strongly opposed by many conservationists, wildlife biologists, veterinarians, and animal welfare groups. [FN57] Proponents of this method argue that it is a more humane and effective way of controlling the exploding homeless pet population than is the "trap and kill" method. Advocates claim that, by reducing the number of unwanted litters being born, the TNR strategy will help stabilize the population of free-roaming cats over time. [FN58] Supporters also claim that well fed cats will not prey on wildlife, that the territorial behavior of cats living in established colonies will prevent new cats from joining, and thus the number of cats living in managed colonies will stabilize and decrease over time through natural attrition. [FN59]

However, studies have proven that the instinctive hunting and killing behavior in cats is "de-coupled" from their hunger mechanism, so that cats kill impulsively even when they are not hungry. [FN60] Further, Castillo's study of two Miami-Dade County cat colonies found that the colonies did not decline in size over time, partly because people continued to illegally dump their unwanted cats, and also because not all the cats were sterilized, thus litters were born. [FN61] Castillo's study also revealed that the cats were not strictly territorial, and would freely allow new individuals to join the colonies. [FN62] It has also been observed, by Castillo and others, that food set out for cats attracts other wildlife, such as raccoons and skunks, which can facilitate the spread of disease. [FN63] Additionally, some cats become wary of traps and so cannot be caught for re-vaccination. [FN64]

B. Eradication Campaign

As stated above, any effort at eradication would be met with public outcry. In fact, where steps have been taken in some cases to remove feral cats from public or even private lands, there has been strong protest and even sabotage attempts by feral cat advocates. [FN65] Further, eradication would have to be continually applied because of the steady introduction of new cats into the wild from abandonment and new litters. Thus eradication alone would be resource intensive and ineffective as a strategy for dealing with free-roaming cats.