

Feral Cat Activist



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Building the Body of Scientific Evidence that TNR Works

Feral cat advocates, animal control and public health officers, and public officials depend heavily upon statistics compiled by the larger feral cat groups and by some animal control agencies for evidence that nonlethal feline population control, including **Trap-Neuter-Return (TNR)**, is effective. These statistics include numbers of cats neutered and returned or adopted, and reductions in complaints. Statistics continue to be vital, but now we can also draw on results from structured scientific studies.

Since March 2002, the *Journal of the American Veterinary Medical Association (JAVMA)* has published four articles reporting aspects of TNR. These articles present findings about feral cats, feral cat caretakers, and TNR that can help jurisdictions develop policies and procedures that protect feral cats and establish nonlethal control methods. The studies were conducted by Julie K. Levy, DVM, PhD, DACVIM, and other veterinarians, scientists, and students, and were structured on scientific principles.

MYTH: Feral cats are unhealthy and carry infectious diseases that threaten owned cats and each other.

FACT: Feral cats are generally in good health. The incidence of disease in feral cat colonies is no higher than among owned cats.

GENERAL HEALTH OF FERAL CATS

"Characteristics of free-roaming cats evaluated in a trap-neuter-return program," Karen C. Scott, PhD; Julie K. Levy, DVM, PhD, DACVIM; P. Cynda Crawford, DVM, PhD. *JAVMA*, Vol 221, No. 8, October 15, 2002.

This study reports the characteristics of feral cats in TNR programs to identify common health problems that veterinarians can expect to encounter when treating feral cats in spay/neuter clinics. The information may help them make more efficient use of their time, thereby increasing the number of cats treated during each spay/neuter clinic.

The study included 5,323 cats over a forty-month period (July 1998 through December 2001) at a spay/neuter clinic located in Florida. Cats were trapped and brought to the clinic in the morning and retrieved later the same day. All cats were anesthetized, spayed or neutered, and vaccinated for

Dr. Julie K. Levy graduated from the School of Veterinary Medicine at the University of California at Davis in 1989. She completed an internship at Angell Memorial Animal Hospital (1990) and a residency in small animal internal medicine at North Carolina State University (1993), where she also completed a PhD in the immunopathogenesis of FIV infection in cats (1997). Dr. Levy is currently assigned to the small animal medicine service at the University of Florida.

Dr. Levy's research and clinical interests center on feline infectious diseases, neonatal kitten health, and humane alternatives for cat population control. She is the founder of two university-based feral cat spay/neuter programs that have sterilized more than 15,000 cats since 1997. These programs form the basis for research on a variety of feral cat issues, including infectious diseases, caretaker characteristics, colony dynamics, and anesthesia protocols. Dr. Levy also maintains an active program investigating vaccines for potential immunocontraception in cats.

rabies and other diseases. They were not tested for FeLV or FIV (see next section).

The study gathered data on gender balance (57% female, 43% male), pregnancy rate (19%, seasonally adjusted), and general health characteristics. Of 5,323 cats, only twenty cats (0.4%) had to be euthanized due to illness or debilitating conditions. Another fourteen cats (0.3%) died unexpectedly from undetected underlying conditions such as surgical complications, cardiomyopathy, or heartworms.

Very few cats (1.9%) had already been neutered. This low percentage is similar to findings in other spay/neuter clinics such as Feral Cat Coalition, San Diego (3%). Because several reports have suggested that feral cats are the largest source of feline overpopulation^{2,3,6,7} this underscores the need for widely available and affordable spay/neuter facilities.

Conclusion: “Although free-roaming cats brought to the TNR clinic...were homeless, their general body condition was adequate, and the euthanasia rate for humane reasons was quite low. Fatal complications occurred at approximately the same rate as reported for pet cats undergoing anesthesia and surgery.”⁸

PREVALENCE OF FELV AND FIV AMONG FERAL CATS

“Prevalence of feline leukemia virus infection and serum antibodies against feline immunodeficiency virus in unowned free-roaming cats,” Irene T. Lee, BS; Julie K. Levy, DVM, PhD, DACVIM; Shawn P. Gorman, MS; P. Cynda Crawford, DVM, PhD; Margaret R. Slater, DVM, PhD. JAVMA, Vol 200, No. 5, March 1, 2002.

This article reports a study of the rate of FeLV infection and FIV exposure among 1,876 feral cats evaluated at two spay/neuter clinic locations (Raleigh, NC, from January 1995 to September 1996 and Gainesville, FL, from August 1998 to April 2000).

At the Raleigh clinic, FeLV was detected in 5.3% of 733 cats; FIV in 2.3% of those cats. In Gainesville, FeLV was detected in 3.7% of 1,143 cats; FIV in 4.3%. These geographic differences illustrate that local or regional conditions affect the health of feral cats and other wild animals.

The combined results from both locations were FeLV detected in 4.3% of cats; FIV in 3.5%. FeLV infection was not significantly different between males (4.9%) and females (3.8%), but FIV was significantly higher in males (6.3%) than females (1.5%).

(Editor’s note: A higher incidence of FIV in unneutered male cats is not surprising because FIV is transmitted through biting and aggressive behavior often associated with mating—behavior that is greatly reduced or eliminated through TNR.)

Conclusion: Discussing the results of several surveys on owned cats in the United States and abroad, this study concludes that the prevalence rates of FeLV and FIV “in unowned free-roaming cats in Raleigh and Gainesville are similar to prevalence rates reported for owned cats in the United States.”

MYTH: Community TNR programs won’t work because volunteers are not available and are not reliable in the long-term.

FACT: As many as one in five households feeds stray and feral cats. Feral cat caretakers develop strong and long-lasting bonds with the cats they care for.

“Characteristics of free-roaming cats and their caretakers,” Lisa A. Centonze, BA, and Julie K. Levy, DVM, PhD, DACVIM. JAVMA, Vol 200, No. 11, June 1, 2002.

Other studies have already determined that from 9 to 22% of households feed stray and feral cats.¹⁻⁵ This study created a profile of feral cat caretakers through surveys of 101 individuals or couples caring for 920 stray and feral cats in 138 colonies in north central Florida. The purpose was twofold: to define the commitment that caretakers feel for unowned cats and thereby to help public agencies develop acceptable feral cat policies; and, because stray and feral cats are an underserved market, to inform veterinary professionals about the people who will present feral cats for treatment.

Caretakers ranged from nineteen to seventy-four years of age, with just over half (51.6%) from forty to fifty-nine years. Four out of five (79.6%) live in households of two or more people. The median household income was from \$20,000 to \$40,000 per year. Most (84.6%)

are women, more than half (52.6%) are married, 18% are students, and 73.3% get help caring for the cats from at least one other person.

Most respondents (87.5%) reported owning pets, with two-thirds (66%) owning cats. Most (87%) pet-owning caretakers had neutered all their pets; 11.1% had neutered some of their pets. Only 1.6% had not neutered their pets.

Caretakers reported they cared for from one to five colonies, and most (81.6%) had done so for from seven months to five years. Almost all (97.6%) provided cat food at least daily (or two or three times daily). Three quarters (75%) provided the cats with shelter (e.g., porch, deck, shed, barn), while more than one-third (37%) had provided or said they would provide veterinary care beyond spay/neuter (e.g., vaccinations, deworming, medication, flea treatment). Three quarters (74.1%) of the caretakers spent from \$3 to \$15 per week to care for the cats.

More than nine out of ten caretakers (92.4%) said they began feeding out of sympathy for hungry cats and/or a general love and concern for animals. Many caretakers said they consider the cats to be like pets, even though they cannot touch them.

When caretakers were asked why they brought the cats to be neutered rather than calling animal control or just doing nothing, the most frequent response (85%) was that they didn't want the cats killed, and/or TNR sounded like a good idea.

(Editor's note: TNR is the only method of feral cat control that can work because caretakers won't help animal control to trap and kill the cats. There isn't enough money or manpower in any community to exterminate all the cats if the public will not support the extermination campaign.)

Conclusion: "Recognition of the human-animal bond that exists between caretakers and the feral cats they feed may facilitate the development of effective control programs for feral cat populations."

MYTH: Feral cats cannot be eliminated using nonlethal methods.

FACT: An established, long-term TNR program can reduce feral cat populations in both the short and long terms.

"Evaluation of the effect of a long-term trap-neuter-return and adoption program on a free-roaming cat population," Julie K. Levy, DVM, PhD, DACVIM; David W. Gale; Leslie A. Gale, BS. JAVMA, Vol 222, No. 1, January 1, 2003.

The purpose of TNR is to reduce feral cat populations by halting reproduction without causing harm to the cats. TNR is endorsed by the AVMA and several state veterinary associations, and there are thousands of active TNR programs in North America alone. Many, if not most, of those programs have been in place for no more than a few years. This article presents the results of an eleven-year TNR project involving 155 cats in eleven discrete colonies on the University of Central Florida campus.

When the study began in January 1991, colony size ranged from three to twenty-five cats. By its conclusion in April 2002, every colony was reduced in number, with final populations ranging from one to five cats. Three colonies of seven to nine years duration had disbanded altogether and were not reestablished by new cats, despite the continued existence of a food source.

Between 1991 and 1995, volunteers trapped all but one of the original study cats for evaluation and sterilization. No kittens were known to be born on campus after 1995, and an aggressive adoption program resulted in removal of almost half (47%) of the original cats and kittens.

Cats were often adopted into homes after residing in colonies for several years, possibly because feral cats often develop a friendlier attitude toward their feeders after neutering. One female feral cat was adopted 10.5 years into the study at the estimated age of fourteen years.

Membership in a colony was not fixed. Cats relocated among colonies or roamed without a colony for periods during the study. Twenty-four cats moved at least once; seventeen spent time in another colony, then returned; eleven cats never joined a colony; and ten cats moved to woods outside the observation area. Cats often relocated after living in a colony for several years.

The cats' physical conditions were generally good. In eleven years, ten cats were found dead (six deaths were attributed to cars). Severe illness

required euthanasia of six cats; eleven cats tested positive for FeLV or FIV and were euthanized.

Twenty-three cats disappeared from the study area and could not be tracked. Like adoptions, the deaths and disappearances often occurred after many years at a site. At the end of the study, most (83%) of the cats still on site had been present for more than six years.

This long-term TNR program achieved a dramatic reduction in the feral cat population through sterilization, attrition, and an aggressive adoption

program. Resident cats generally enjoyed good health and lifespans favorable to those of pet cats. Although no kittens were observed after 1995, new stray or abandoned cats took up residence in the study area and were quickly neutered or adopted. Because new arrivals can severely compromise a TNR program's success, ongoing monitoring and neutering of newcomers is essential.

Conclusion: "A comprehensive long-term program of neutering followed by adoption or return to the resident colony can result in reduction of free-roaming cat populations in urban areas." ■

NOTES

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²Johnson K, Lewellyn L. San Diego County survey and analysis of the pet population. Available at: www.fanciers.com/npa. Accessed March 13, 2003.

³Johnson KJ, Lewellyn L, Lewellyn J. National Pet Alliance survey report on Santa Clara County's pet population. *Cat Fanciers' Almanac* 1994; Jan:71-77.

⁴Handy FL. Measuring your community's pet population, owner attitudes. *Shelter Sense* 1993; 16(May):3-12.

⁵Clifton M. Seeking the truth about feral cats and the people who help them. *Animal People* 1992; Nov:1, 7-10.

⁶Johnson K. A report on trap/alter/release programs. National Pet Alliance. Available at: www.fanciers.com/npa. Accessed March 17, 2003.

⁷Levy JK, Gale DW, Gale LA. Control of an urban free-roaming cat population by trap-neuter-return and adoption (abstr), in *Proceedings*. Int Symp Nonsurgical Contraceptive Methods Pet Popul Control, 2002.

⁸Williams LS, Levy JK, Roberston SA, et. al Use of anesthetic combination of tiletamine, zolazepam, ketamine, and xylazine for neutering feral cats. *J Am Vet Med Assoc* 2002; 220: 1491-1495