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The Honorable Senator Feldman, Chair  
The Honorable Senator Kagan, Vice Chair  
Education, Energy, and Environment Committee  
Annapolis, MD

March 10th, 2026

**SB750: Local Government - Trap-Neuter-Return Policies for Community Cats -  
Requirements and Restrictions (Ash's Law)**

Chair Feldman, Vice Chair Kagan, and esteemed members of this committee,

SB750 protects those engaged in Trap-Neuter-Return (TNR) efforts, such as caring for a community cat, from being charged with animal abandonment. These efforts are a key part of our community safety and animal control that cannot be accomplished if organizations and individuals are not legally protected.

Trap-Neuter-Return is the process of humanely trapping a cat, neutering, addressing medical needs including vaccinations, eartipping (the universal sign that a cat has been helped through a TNR program), and returning the cat to the place where it was captured. Trap-Neuter-Return is a humane and ethical form of animal control, especially compared to the common practice of euthanizing healthy cats in shelters. TNR is found to be immensely effective in decreasing the population and fertility rate of community cats. Unfortunately, not all parts of the State protect this practice.

Local ordinances on Trap-Neuter-Return in Maryland's counties differ widely. Currently, eight counties with active TNR programs offer no protection against prosecution for animal abandonment. In contrast, seven counties ensure individuals and organizations that practice TNR are covered under law. This bill would create consistent and standardized regulations across the state.

TNR provides Maryland with a humane and effective solution to decreasing community and feral cat populations in our State. Senate Bill 750 further protects the community members who provide this service from unnecessary penalties. For these reasons, I urge a favorable report.

Sincerely,

A handwritten signature in blue ink that reads "Karen Lewis Young".

Senator Karen Lewis Young



Richard Lewis, founder of the Lycoming Animal Protection Society, a no-kill cat shelter, and father of Senator Karen Lewis Young

# General TNR Success Research

## The Impact of Targeted Trap–Neuter–Return Efforts in the San Francisco Bay Area

Year: 2020

Location: San Francisco Bay Area

Author(s): Daniel D Spehar, Peter J Wolf

### Summary:

In 2004, approximately 175 community cats were living along a trail in Foster City, California. The city, the Homeless Cat Network, and the community joined forces to humanely stabilize this colony of cats, and Project Bay Cat was formed. The Homeless Cat Network’s volunteers undertook an intensive TNR effort, with two private veterinary hospitals providing spaying or neutering and vaccinations for the cats. As of 2020, “an initial population of 175 cats declined by 99.4% over the 16-year program period. Of the 258 total cats enrolled between 2004 and 2020, only one remained at the end of the program period.”

Findings: When communities come together to support TNR, cats are protected and colonies are effectively stabilized and reduced.

Topics: Community Cats, TNR

Citation: Daniel D. Spehar and Peter J. Wolf. “The Impact of Targeted Trap-Neuter-Return Efforts in the San Francisco Bay Area” *Animals* 2020, 10(11), 2089 (2020).

## Four Years of Promising Trap–Neuter–Return (TNR) in Córdoba, Spain: A Scalable Model for Urban Feline Management

Year: 2025

Location: Córdoba, Spain

Author(s): Octavio P. Luzardo, Mercedes Vara-Rascón, Agnès Dufau, Emma Infante, María del Mar Travieso-Aja

### Summary:

Starting in 2020, the City of Córdoba, Spain, implemented a TNR program and created a database with information on 225 cat colonies. Over the course of the time period evaluated, from 2020 to 2024, the City achieved a 95% “sterilization rate” of the “free-roaming cat population,” and the authors observed a reduction of 2.7% in the overall population size of community cats in Córdoba across all colonies.

In addition to the presentation of descriptive statistics, the authors perform a population viability analysis (PVA) to estimate the size of population changes over time. Based on the PVA analysis, the authors conclude that the City was able to achieve “the prevention of an estimated 70% population growth without intervention” and the authors

estimate a “potential 55% population reduction by 2028, contingent on sustained efforts.”

Findings: Committed, sustained, city-supported TNR programs can achieve incredible spay and neuter rates that could have an impact on community cat populations in just a few years.

Citation: Luzardo et al. “Four Years of Promising Trap-Neuter-Return (TNR) in Córdoba, Spain: A Scalable Model for Urban Feline Management” *Animals (Basel)* 2025 Feb 8;15(4): 482

## Trap-Neuter-Return at Atlantic City Boardwalk Reduces Colony Size Over Time

Year: 2018

Location: Atlantic City, New Jersey

Author(s): Alley Cat Allies

Summary:

In 2000, Alley Cat Allies launched the Boardwalk Cats Project, a TNR program for the community cats living around the boardwalk in Atlantic City, New Jersey. Alley Cat Allies teamed up with Atlantic City’s Health Department, the Humane Society of Atlantic City, and local advocates to begin the model TNR program that stabilized these colonies. Many of the cats trapped were young kittens or cats socialized enough to be put up for adoption. The rest were returned to the boardwalk, after being spayed or neutered, vaccinated, and eartipped. When the program started, there were approximately 275 cats living around the boardwalk. As a result of TNR, no kittens have been born at the boardwalk in over a decade, and the population size has significantly decreased through natural attrition and adoption. As of 2018, census reports that the number of cats has decreased to 87.

The Boardwalk Cats Project receives outspoken support from Atlantic City’s local government, as well as many local businesses along the boardwalk. The public has responded positively to the program, which attracts tourists year-round.

Findings: When people learn how positive TNR is for cats and communities, the programs receive widespread support.

## Trap-Neuter-Return Case Study: 55% Reduction in Outdoor Colony Cats Since 2007

Year: 2013

Location: Chicago, Illinois

Author(s): Cats in My Yard Blog

Summary:

In 2007, Chicago group, Cats In My Yard, began carefully tracking its TNR efforts, and the number of cats living in 19 colonies. Between 2007 and 2013, 153 cats

in all the colonies went through TNR. By 2013, 70 cats remained. In these seven years, the community cat population in this neighborhood decreased by 55%.

Findings: From small groups of volunteers to citywide TNR programs, TNR is the only effective method for stabilizing and reducing community cat colonies.

Citation: "Trap-Neuter-Return Case Study: 55% Reduction in Outdoor Colony Cats Since 2007." Cats in My Yard. 8 Jan. 2014. Web. 9 Jan. 2014.

## Cook County Managed Care of Feral Cats Ordinance Sponsors Update

Year: 2013

Location: Chicago, Illinois

Author(s): David Defuniak, Rochelle Michalek

Summary:

A countywide TNR program in Cook County, Illinois reduced the size of community cat colonies in 23 zip codes by 41% in just five years. In 2007, Cook County passed legislation that created a formal structure for a countywide TNR program, with a coalition of private nonprofit organizations assuming the responsibility for managing community cat colonies. From 2008 to 2012, more than 17,538 community cats in Cook County were spayed or neutered, vaccinated, eartipped, and returned to their outdoor homes through this program. The coalition compared the number of cats in those zip codes before they started TNR, and the number five years after.

In November 2007, there were 1,329 cats. At the end of 2012, there were only 788. The nonprofit coalition estimates that the program has prevented the births of tens of thousands of kittens.

Findings: Even in large-scale TNR programs that span multiple zip codes, neighborhoods, and colonies, TNR reduces colony size across the board.

Citation: Schlueter, J. E-mail message to writer. 16 Jan. 2014.

Funiak, D. and R. Michalek. "Cook County Managed Care of Feral Cats Ordinance Sponsors Update." □ Presentation. Tree House Humane Society and PAWS Chicago. 2013.

## Management of feral domestic cats in the urban environment of Rome (Italy)

Year: 2006

Location: Rome, Italy

Author(s): Eugenia Natoli, Laura Maragliano, Giuseppe Cariola, Anna Faini, Roberto Bonanni, Simona Cafazzo, Claudio Fantini

Summary:

Examining a well-established TNR program in Italy over 10 years showed that a

long-term program significantly reduces community cat colony size. Colony size consistently decreased over the time period, ranging from a 16% decline in colonies spayed or neutered three years into the program, to a 32% decrease in colonies spayed or neutered six years in. As the program became more visible, the number of registered colonies increased from 76 to 965. Furthermore, community education, the authors write, is crucial to preventing intact pet cats from joining the community cat population.

Findings: Community education is crucial to developing long-term TNR programs and caring for colonies.

Citation: Natoli, Eugenia, et. al. "Management of Feral Domestic Cats in the Urban Environment of Rome (Italy)." *Preventative Veterinary Medicine* 77 (2006): 180-185.

## Analyzing approaches to feral cat management—One size does not fit all

Year: 2004

Location: North Carolina

Author(s): Michael K Stoskopf, Felicia Nutter

Summary:

In this study, researchers observed spayed or neutered community cat colonies and intact colonies in North Carolina. They found that TNR stabilizes colonies and causes population decline over time. All six spayed or neutered colonies decreased in population during the first two years of study, with an average decrease of 36%, and continued to decline. During the same two years, the three intact colonies significantly increased in size, with an average increase of 47%.

Findings: Community cat colonies who go through TNR decrease in size, while colonies that are not spayed or neutered increase.

Citation: Stoskopf, M. and F. Nutter. "Analyzing approaches to feral cat management – one size does not fit all." *Journal of American Veterinary Medical Association* 225, no. 9 (2004): 1361-1364

## Washington, D.C. Cat Colony Stabilized and Eventually Reduced to Zero

Year: 2007

Location: Washington, DC

Author(s): Alley Cat Allies

Summary:

A TNR program in the Adams Morgan neighborhood of Washington, D.C. reduced a colony of 54 community cats to zero cats. This colony resulted in the founding of Alley Cat Allies in 1990, just a few months after the co-founders began helping the caregivers carry out a formal program to help the 54 cats. Caregivers and

volunteers placed socialized kittens in homes, and implemented TNR for the rest of the colony. In addition to stabilizing the population, TNR also reduced mating-related behaviors, such as fighting and roaming, making the cats less noticeable. Furthermore, the health of the cats also improved. By November 1997, seven years after the TNR program started, only six cats remained in the alley. The last cat from the colony died in 2007 at age 17.

Findings: TNR allows cats to live out happy, healthy lives in their outdoor home, eventually reducing colonies size.

## **TNR and Legislative Change Research**

### **Playing the Cards You're Dealt: Implementing Feline Lifesaving Programs and Practices Despite Restrictive Ordinance Provisions.**

Year: 2024

Location: St. Tammany Parish, Louisiana

Author(s): Kailey A Mauro and Peter J Wolf

#### **Summary:**

The impact of Trap-Neuter-Return (TNR) in St. Tammany Parish, Louisiana's shelter's Live Release Rate (LRR) over eight years was analyzed and compared with the barriers imposed by local ordinances before they were amended. St. Tammany Parish's LRR increased from 26.4 to 95.4%, and euthanasia decreased from 71.1 to 3%.

While an amendment to the Parish's ordinances removed obstacles to maintain the colonies, it was not found to be as critical to the success of the program as community engagement and education.

Findings: Collaboration between caregivers and local agencies and elected officials is critical for successful community cat colony management and to turn around the local shelter's live release rates (LRR).

Citation: Mauro KA, Wolf PJ. Playing the Cards You're Dealt: Implementing Feline Lifesaving Programs and Practices Despite Restrictive Ordinance Provisions. JSMCAH. 2024;3(1)

# **TNR in Animal Shelters and Animal Control Research**

## **Guidance for management of free-roaming community cats: a bioeconomic analysis.**

Year: 2021

Location: Computer Model

Author(s): Valerie A Benka, John D Boone, Philip S Miller, Joyce R Briggs, Aaron M Anderson, Christopher Sloomaker, Margaret Slater, Julie K Levy, Felicia B Nutter, Stephen Zawistowski

### Summary:

Municipalities around the United States (and the world!) share the same concern: will implementing TNR mean higher costs? This study compares the estimated dollar-to-dollar breakdown of mainstream animal control approaches to community cats in realistic scenarios, utilizing data from over 2,000 shelters.

This study validates Alley Cat Allies' stance that TNR is not only the most humane approach, but also the most effective, in cost and beyond. Local governments and shelters should see TNR as a smart investment of taxpayer or donor dollars.

When compared side by side with other approaches that have proven ineffective over time, TNR stands out as the only approach that holistically addresses the needs of the community while prioritizing the compassionate treatment of community cats, setting up local agencies and caregivers for success.

Findings: TNR can be twice as cheap as removing cats from their outdoor homes and fosters community participation that drives costs down. It saves shelter space and resources for better purposes than housing unadoptable community cats or "euthanasia."

Citation: Benka VA, Boone JD, Miller PS, et al. Guidance for management of free-roaming community cats: a bioeconomic analysis. *J Feline Med Surg.* 2022;24(10):975-985. Doi:10.1177/1098612X211055685

## **Integrated Return-To-Field and Targeted Trap-Neuter-Vaccinate-Return Programs Result in Reductions of Feline Intake and Euthanasia at Six Municipal Animal Shelters**

Year: 2019

Location: Albuquerque, New Mexico; San Antonio, Texas; Baltimore, Maryland; Philadelphia, Pennsylvania; Tucson, Arizona; Columbus, Georgia.

Author(s): Daniel D Spehar, Peter J Wolf

### Summary:

Community cat caregivers, when collaborating with their local shelters, prove to help two-fold: stabilizing and eventually reducing the number of community cats in a colony and lowering the intake and euthanasia rates in animal shelters. In this study, the

TNR programs of six US cities were studied over three years, and their intake, euthanasia, and return-to-field rates of cats, among other data, were studied.

In two of the cities, to effect the most change, the focus was on TNR for cats in “areas from which the highest frequency or most serious resident complaints were generated.” Other cities utilized varied community service-centered approaches where there was the most need or concern.

In total, a median decline of 32% of cat intake and 83% in cat euthanasia over three years was observed, with one city tracking a whopping 91% decline in cat euthanasia.

Findings: Collaboration between caregivers, TNR groups, and municipal shelters resulted in better outcomes for all cats, lowering shelters’ euthanasia rates and intake numbers so their resources were focused on better serving the community.

Citation: Spehar DD, Wolf PJ. Integrated return-to-field and targeted trap-neuter-vaccinate-return programs result in reductions of feline intake and euthanasia at six municipal animal shelters. *Front Vet Sci* 2019; 6: 77. DOI: 10.3389/fvets.2019.00077.

## A Long-Term Lens: Cumulative Impacts of Free-Roaming Cat Management Strategy and Intensity on Preventable Cat Mortalities

Year: 2019

Location: Computer Model

Author(s): John D Boone, Philip S Miller, Joyce R Briggs, Valerie A W Benka, Dennis F Lawler, Margaret Slater, Julie K Levy, Stephen Zawistowski

Summary:

Utilizing technologies modeling the flow and behavior of community cat colonies in real time, the rate at which TNR is implemented, and the outcomes—specifically, preventable deaths—is compared with outdated methods of animal control or doing nothing at all.

A focused approach to TNR proved 31 times more efficient in preventing the death of community cats than inaction in a projected 10-year span.

Low-rate TNR (where 25% of the cats are sterilized in a six-month period) showed better results than high-intensity killing efforts (where 50% of the cats are removed from the colony and killed in the same timeframe); evidencing TNR as not only a more compassionate approach, but also a more efficient use of manpower and resources.

Findings: When looking at long-term success in stabilizing community cat colonies, especially regarding deaths that could be prevented, TNR stands out as the best approach.

Citation: Boone JD, Miller PS, Briggs JR, et al. A Long-Term Lens: Cumulative Impacts of Free-Roaming Cat Management Strategy and Intensity on Preventable Cat

Mortalities. Front Vet Sci. 2019;6:238. Published 2019 Jul 26.  
Doi:10.3389/fvets.2019.00238

## Implementing Nonlethal Solutions for Free-Roaming Cat Management in a County in the Southeastern United States

Year: 2019

Location: Hillsborough County, FL

Author(s): Francis Hamilton

### Summary:

Three nonlethal approaches to community cats, “low-income spay/neuter vouchers; small- and large-scale trap, neuter, vaccinate, and return (TNVR); and return to field (RTF),” were successfully implemented in the public shelter of Hillsborough County, Florida. This paper states that the nonlethal solutions “assisted in achieving a 51% decrease in intake since 2007 and increased the live-release rate to 81.8% of cats taken in at the Pet Resources Center in 2017.”

Findings: Nonlethal approaches to community cat population management, including TNVR and a focus on spay and neuter, are effective in reducing both shelter intake and in-shelter killing of cats.

Citation: Francis Hamilton. “Implementing Nonlethal Solutions for Free-Roaming Cat Management in a County in the Southeastern United States” *Frontiers in Veterinary Science* 6 (2019): 259.

## Association between a shelter-neuter-return program and cat health at a large municipal animal shelter

Year: 2016

Location: San José, California

Author(s): Charlotte H Edinboro, Heather N Watson, Anne Fairbrother

### Summary:

Initiation of a Shelter-Neuter-Return (SNR) program decreased the number of cats admitted to the shelter, as well as the number that were killed. Resources to care for cats with Upper Respiratory Infection (URI) increased, and due to positive changes in the URI treatment protocol, fewer cats were euthanized for URI, and more cats were treated at lower cost with a shorter shelter stay.

OBJECTIVE To determine effects of a shelter-neuter-return (SNR) program on cat admissions and health at a large municipal animal shelter in Northern California.

ANIMALS 117,383 cats for which data were recorded in the San Jose Animal Care Center database between January 1, 2006, and December 31, 2013.

Findings: SNR programs help shelters save more cats.

Citation: Edinboro, Charlotte H, Watson, Heather N and Anne Fairbrother. "Association between a shelter-neuter-return program and cat health at a large municipal animal shelter" Journal of the American Veterinary Medical Association, 238, no. 3 (2016): 298-308.

## The effects of implementing a feral cat spay/neuter program in a Florida county animal control service

Year: 2002

Location: Orange County, Florida

Author(s): Kathy L Hughes, Margaret R Slater, Linda Haller

### Summary:

The authors analyzed data from a community cat spay and neuter program in which volunteers cared for colonies in Orange County, Florida. They also studied the population of the county in the six years before the program began, to compare it with the first six years of the program. They found that the number of calls to animal control about cats, and the number of cats killed by animal control decreased in the six years after these programs were initiated, even while the human population grew significantly. In addition, they reported that the morale of those involved improved, and the residents who participated in the program felt empowered to help community cats in their neighborhoods.

Findings: TNR reduces the number of calls to animal control, cats killed by animal control, and improves morale.

Citation: Hughes, Kathy L., Margaret R. Slater, and Linda Haller. "The Effects of Implementing a Feral Cat Spay/Neuter Program in a Florida County Animal Control Service." Journal of Applied Animal Welfare Science 5 (2002): 285-289.

## **TNR and Community Cat Health Research**

### Behavioral Differences between Urban Feeding Groups of Neutered and Sexually Intact Free-Roaming Cats Following a Trap-Neuter-Return Procedure

Year: 2011

Location: Israel

Author(s): Hilit Finkler, Idit Gunther, Joseph Terkel

### Summary:

Researchers compared data from four community cat colonies: two that were cared for through Trap-Neuter-Return (TNR), and two that were not. They found a reduction in yowling and fighting, behaviors that are associated particularly with mating,

in the colonies that had been spayed or neutered. Outdoor cats and communities are better able to coexist when these behaviors aren't present.

Findings: TNR virtually eliminates undesirable mating behaviors.

Citation: Finkler, Hilit, Idit Gunther, and Joseph Terkel. "Behavioral differences between urban feeding groups of neutered and sexually intact free-roaming cats following a trap-neuter-return procedure." *Journal of the American Veterinary Medical Association* 238, no. 9 (2011):1141-1149.

## The Impact of Anthropogenic Factors on the Behavior, Reproduction, Management and Welfare of Urban, Free-Roaming Cat Populations

Year: 2015

Location: Tel Aviv, Israel

Author(s): Hilit Finkler, Erez Hatna, Joseph Terkel

Summary:

The research in this article indicates that TNR and colony care improve cats' lives by reducing their stress levels. While looking at the correlation between the level of care provided by cat caregivers and the economic status of the area in which the cats lived, the authors observed that neutered male cats were less aggressive than intact males. By testing the levels of stress hormone in their hair, they confirmed the neutered cats' lower stress levels. They also found that spayed female cats living in well-maintained colonies experienced less stress than those living in colonies that received less care.

Findings: Being spayed, neutered, and living in well-maintained colonies lessens cats' stress.

Citation: Finkler, Hilit, Erez Hatna, and Joseph Terkel. "The impact of anthropogenic factors on the behavior, reproduction, management and welfare of urban, free-roaming cat populations." *Anthrozoös* 24, no. 1(2011):31-49.

## Effect of neutering on two groups of feral cats

Year: 1984

Location: Regent's Park, London, UK

Author(s): P F Neville, J Remfry

Summary:

Researchers studied two colonies in Regent's Park, London, to determine whether spaying or neutering had any negative effects on the social structure of the colony, or on individual cats. No negative health effects were observed, and the social bond between members of the colony strengthened after the cats were spayed or

neutered. Cats spent more time in groups, showed fewer aggressive behaviors toward one another, and fought less. During the course of the study, no new litters were born.

Findings: TNR has positive effects on the social structure of cat colonies.

Citation: Neville, P.F. and J. Remfry. "Effect of Neutering on Two Groups of Feral Cats." *The Veterinary Record* 114 (1984): 447-450.

## Body Condition of Feral Cats and the Effect of Neutering

Year: 2002

Location: Alachua County, FL

Author(s): Karen C. Scott, Julie K. Levy, Susan M. Newell, Shawn P. Gorman.

Summary:

This study examined the effects of spaying or neutering on community cat health by measuring the body conditions of cats upon trapping, and again one year later. The cats who were trapped initially were lean but not emaciated. 14 cats were retrapped one year after spaying or neutering, and they showed significant increases in weight and improvements in body condition. In addition, caregivers reported that the cats had a decreased tendency to roam after being spayed or neutered.

Findings: TNR improves weight and body condition of cats.

Citation: Scott, Karen C., Julie K. Levy, and Shawn P. Gorman. "Body Condition of Feral Cats and the Effect of Neutering." *Journal of Applied Animal Welfare Science* 5, no. 3 (2002): 203-213.

## **Campus Cat Program Research**

### Implementation of a feral cat management program on a university campus

Year: 2002

Location: College Station, Texas

Author(s): Kathy L Hughes, Margaret R Slater

Summary:

In the first year of a TNR program on the campus of Texas A&M University, 123 cats were trapped. In the second year, that number decreased to 35. In addition to that, only three kittens were found in the second year, and researchers determined that these were either lost or abandoned, as no litters or nursing mothers were seen that year. In just two years, 32 cats and kittens were adopted. Furthermore, there was a decrease in the number of calls about cats on college property.

Findings: TNR has proven to stabilize large colonies of community cats quickly.

Citation: Hughes, Kathy L. and Margaret R. Slater. "Implementation of a Feral Cat Management Program on a University Campus." Journal of Applied Animal Welfare Science 5, no. 1 (2002): 15-28.

## Evaluation of the effect of a long-term trap-neuter-return and adoption program on a free-roaming cat population

Year: 2003

Location: University, Florida

Author(s): Julie K Levy, David W Gale, Leslie A Gale

### Summary:

This study tracked a TNR program on the University of Central Florida campus over the course of 11 years to determine how effective TNR was at stabilizing their community cat population. After just four years, no new kittens were born, and at the end of the study, the overall population of cats had decreased by 66%. Over 80% of the cats had been residents for more than six years, showing that TNR keeps colonies stable and healthy year after year.

Findings: On university campuses, TNR has proven to stabilize community cat populations in the short and long term.

Citation: Levy, Julie K., David W. Gale, and Leslie A. Gale. "Evaluation of the Effect of a Long-Term Trap-Neuter-Return and Adoption Program on a Free-Roaming Cat Population." Journal of the American Veterinary Medical Association 222, no. 1 (2003): 42-46.

## Managing feral cats on a university's campuses: how many are there and is sterilization having an effect?

Year: 2011

Location: University of KwaZulu-Natal, South Africa

Author(s): Amanda L Jones, Colleen T Downs

### Summary:

The study provides a snapshot of community cat colonies at eight sites across five campuses of a South African university. These colonies had different levels of sterilization and colony management. The researchers provide projections as to what would happen to the population over the course of five years, depending on the percentage of the cats who were spayed or neutered. If none were spayed or neutered, the population would double. If 100% were spayed or neutered, the population would be cut in half. The population would stabilize with 55% spayed or neutered. As this research demonstrates, it is not necessary to have 75% or more cats spayed or neutered to have an effect on a population of community cats.

Findings: Even if you can't spay or neuter every community cat right away, you can still make a difference.

Citation: Jones, A. and C. Downs. "Managing feral cats on a university's campuses: How many are there and is sterilization having an effect?" *Journal of Applied Animal Welfare Science* 14 no. 4 (2011): 304-320.

## **TNR and the Vacuum Effect Research**

### Simulating free-roaming cat population management options in open demographic environments.

Year: 2014

Location: Computer Model

Author(s): Philip S Miller, John D Boone, Joyce R Briggs, Dennis F Lawler, Julie K Levy, Felicia B Nutter, Margaret Slater, Stephen Zawistowsky

Summary:

One of the most thorough and realistic models of the impact of TNR as a means of approaching community cat colonies to date.

This study considers the realities of how colonies shift in urban and rural landscapes and is the first to include the reality of pet abandonment.

A systemic and aggressive approach to TNR (~40% of the colony per six-month period), complemented with emergent technology such as temporary contraception, proves to be the most humane and effective method to stabilize community cat colonies.

Findings: Short- and long-term impact on colony reduction is achieved by TNRing 40% of the colony's unaltered cats within a six-month period.

Citation: Miller PS, Boone JD, Briggs JR, et al. Simulating free-roaming cat population management options in open demographic environments. *PLoS One*. 2014;9(11):e113553. Published 2014 Nov 26. doi:10.1371/journal.pone.0113553

### Advocates Report Success with Trap, Neuter, Return Approach to Stray Cats

Year: 2009

Location: Newburyport, Massachusetts

Author(s): Associated Press

Summary:

More than 300 community cats lived along the Merrimack River in Newburyport, Massachusetts in 1990. Thirty cats were killed by a private trapping company commissioned by the city, but within two years, 30 new cats joined the colony. This is a natural phenomenon known as the "vacuum effect." □ When cats are removed from an

area, other cats move in to take advantage of the newly available resources. In 1992, the Merrimack River Feline Rescue Society started a TNR program that stabilized the colony and resulted in a population decline. Zorro, the last remaining cat from the colony, passed away in 2009 at age 16. Natural attrition is the normal evolution of TNR.

Findings: TNR is the only effective method for stabilizing and reducing community cat colonies, even for large, long-standing colonies.

Citation: "Advocates report success with trap, neuter, return approach to stray cats." LA Times N.p. 29 Sept. 2009. Web. 9 Jan. 2014.