

ISSUE BRIEFING PAPER

ISSUE: Management of feral cat colonies & Trap, Neuter, and Release (TNR) Programs

Last updated: June 2014

STAFF CONTACT: Richard Heilbrun, TPWD Conservation Outreach Program Coordinator (210) 688-6447, Richard.Heilbrun@tpwd.texas.gov

COMMUNICATION GUIDANCE: This document is intended to provide information to the public, municipal or governing organizations, and Texas Parks and Wildlife Department (TPWD) staff regarding the management of local feral cat populations and the efficacy of Trap, Neuter, and Release (TNR) programs.

BACKGROUND: Municipalities are often asked to mediate public debate on the issue of managing feral cat populations and provide solutions to address the conflicting priorities of different stakeholders within a community. TNR programs are sometimes suggested as a humane way to address public concerns about the threats feral and free-roaming cats pose. TPWD provides this objective, science-based statement to organizations and governments tasked with balancing the needs of feral and free-roaming cats, public health, and local ecosystem health.

TPWD POSITION: Feral (non-owned) and free-roaming cats pose a direct threat to the health of our natural resources. Feral cat colonies negatively impact songbirds, small mammals, amphibians, and other native wildlife populations. Feeding programs are not recommended because they concentrate cats and wild animals into single areas, which can increase disease transmission and pose greater threats to native wildlife in the area. Neither intentional feeding of free-roaming cats or the sanctioning of managed cat colonies addresses ecological, animal health, or public health concerns, nor does it address population control.^{1,2} Additionally, TNR programs are not effective at alleviating the threats of feral and free-roaming cat colonies on feline health, human health or native wildlife populations. Sterilization programs are ineffective in managing feral and free-roaming cat populations,³ and do not address the ecological impacts that these cat populations can have on our natural resources.^{4,1} For these reasons, which are explained in detail below, TPWD does not support the creation or perpetuation of feral or free-roaming cat colonies or feeding, sterilization, or Trap, Neuter, and Release programs.

KEY INFORMATION:

- **ECOLOGICAL EFFECTS ON WILDLIFE:** Because hunting is a deeply instinctive behavior of cats, even well-fed cats will prey on native wildlife.⁵ They prey on native species, especially impacting declining, rare, or sensitive populations, including birds, reptiles, and mammals. Domestic and feral cats are not native predators in Texas, and their hunting behaviors disrupt natural ecological processes. Feral and free-roaming cats alter the ecological balance of a region, as does any other feral non-native (exotic) animal. Feral cats' diets have been shown to consist of 69 percent mammal (including native voles, rabbits, and mice), 24 percent birds, and around 5 percent reptiles/amphibians.⁶ Scientific research shows that free-roaming domestic cats kill between 1.4–3.7 billion birds and 6.9–20.7 billion mammals annually and that free-roaming cats are likely the single greatest source of anthropogenic

(human caused) mortality for US birds and mammals.^{7,8} Studies have also shown that food provisions from colonies attract immigrating cats and other wildlife species,^{9,10} and that native wildlife closest to feeding stations are at the greatest risk of depredation by feral cats.¹¹ This is of particular concern when managed cat colonies are located in sensitive or particularly diverse natural areas.

- **PUBLIC HEALTH EFFECTS.** Rabies in cats is more than twice as common as in dogs or cattle,¹² and cats are the domestic animal most commonly reported rabid.¹⁰ Zoonotic diseases and their agents known to be associated with cats include rabies, toxoplasmosis (*Toxoplasma gondii*), cat scratch disease (*Bartonella spp.*), roundworm (*Toxocara cati*), ringworm (*Microsporium canis*), cryptosporidiosis (*Cryptosporidium spp.*), campylobacteriosis (*Campylobacter spp.*), plague (*Yersina pestis*), *Cheyletiella* mites, and tularemia (*Francisella tularensis*).¹³ Feeding stations intended for cats actually attract a variety of animals such as rats, raccoons, skunks, opossums, and foxes, putting these animals in unusually close contact with humans, cats, and each other. This close contact increases the risk of contracting and spreading diseases, including rabies, to other wildlife, cats, and humans.^{14,2}
- **HEALTH OF INDIVIDUAL CATS.** Wild and free-roaming cats lead a stressful life. Diseases, depredation, and accidental or intentional injuries significantly decrease the quality of life for feral and free-roaming cats, even if municipal staff or volunteers have the resources to intensively manage a colony. In addition to the zoonotic diseases listed above, several diseases commonly found in cat colonies impact the health of cats, including rabies, feline leukemia, feline immunodeficiency virus, roundworm, ringworm, fleas, ticks, ear mites, abscesses, respiratory infections, urinary tract infections, and eye infections. Some of these maladies are incurable, and others require multiple treatments or vaccinations. Cats that have been previously trapped to administer medical treatment often become shy of traps and are difficult to trap again for immunization or continued treatment for illness or injury. Feral cats are also particularly vulnerable to vehicle impacts, injury, and depredation by native wildlife.² Cat colonies lead to a stressful, painful and unhealthy existence for individual cats within a colony.
- **EFFICACY OF TNR PROGRAMS.** TNR programs are ineffective. Managers of these programs cannot prevent new cats from being added to a population, and they cannot neuter the vast majority (70% to 90%) of the population, both of which are required assumptions for population reduction.^{9,15} TNR programs repeatedly fail to eliminate or control cat colonies due to ongoing cat immigration from surrounding areas.⁹ Scientifically vetted studies have demonstrated that TNR programs do not prevent overpopulation of feral cats, reduce population size over time, prevent losses to native wildlife, or prevent disease transmission.^{15,16,17,18,19,20, 21,22}

¹ Guttilla DA and P Stapp. 2010. Effects of sterilization on movements of feral cats at a wildland–urban interface, *Journal of Mammalogy*, 91(2):482–489.

-
- ² Winter, L and G Wallace. 2006 . The impact of free-ranging and feral cats on species of conservation concern. American Bird Conservancy.
- ³ Jewgenow, K, MD Thomas, B Hildebrandt, F Göritz. 2006. Contraception for population control in exotic carnivores. *Theriogenology* V: 66, Issues 6–7, Pages 1525–1529. Basic and Applied Research on Domestic, Exotic and Endangered Carnivores — Proceedings of the 5th International Symposium on Canine and Feline Reproduction. Institute for Zoo Biology and Wildlife Research, PF 601103, D-10252 Berlin, Germany.
- ⁴ Fayer-Hosken, R. 2008. Controlling Animal Populations Using Anti-Fertility Vaccines. *Reproduction in Domestic Animals*, 43:179–185.
- ⁵ Hildreth, A, SM Vantassel, SE Hygnstrom. 2010. *Feral Cats and Their Management*. University of Nebraska Lincoln, EC1781.
- ⁶ Woods, M, RA McDonald, and S Harris. 2003. Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review*, 33:174–188.
- ⁷ Dauphine, N. and RJ Cooper. 2011. Impacts of Free-roaming Domestic Cats (*Felis catus*) on Birds in the United States: A review of Recent Research with Conservation and Management Recommendations. Proceeding From the Forth International Partners in Flight Conference: Tundra to Tropics, 205-219.
- ⁸ Loss, SR, T Will, and PP Marra. 2013. The impact of free-ranging domestic cats on wildlife of the United States, *Nature Communications* 4 (1396).
- ⁹ Dauphine, N. and RJ Cooper. 2011. The fight over managing an invasive predator. *Wildlife Professional*, Spring, pages 50-56.
- ¹⁰ Gerhold, R. 2011. Cats as carriers to disease. *Wildlife Professional*, Spring, pages 58-61.
- ¹¹ Smith, DG, JT Polhemus, and EA VanderWerf. 2002. Comparison of managed and unmanaged Wedge-tailed Shearwater colonies on O’ahu: effects of predation. *Pacific Science*. October.
- ¹² Rupprecht, CE, Smith, JS, Fekadu, M, and Childs, JE. 1995. The ascension of wildlife rabies: a cause for public health concern or intervention? *Emerging infectious diseases* 1 (4):107.
- ¹³ Tuzio, H., D Edwards, T Elston, L Jarboe, S Kudrak, J Richards, & I Rodan. 2005. Feline zoonoses guidelines from the American Association of Feline Practitioners. *Journal of Feline Medicine and Surgery*, 7(4), 243-274.
- ¹⁴ The Wildlife Society’s Final Position Statement on Feral and Free-Ranging Domestic Cats, 2011. <http://joomla.wildlife.org/documents/positionstatements/28-Feral%20&%20Free%20Ranging%20Cats>
- ¹⁵ Schmidt, DM, TM Swannack, RR Lopez, and MR Slater. 2009. Evaluation of euthanasia and trap-neuter-release programs in managing free-roaming cat populations. *Wildlife Research*. 36:117-125.
- ¹⁶ Winter, L. 2004. Trap-Neuter-Release Programs: The Reality and the Impacts. *J. of the American Veterinary Medical Association*, V:225, No. 9.
- ¹⁷ Anderson, MC, BJ Martin, and GW Roemer. 2004. Use of matrix population models to estimate the efficacy of euthanasia versus trap-neuter-return for management of free-roaming cats. *J. of the American Veterinary Medical Association* 225:1871-1876.

¹⁸ Castillo, D and AL Clarke. 2003. Trap/neuter/release methods ineffective in controlling domestic cat “colonies” on public lands. *Natural Areas Journal* 23:247-253.

¹⁹ Foley, P, JE Foley, JK Levy, and T Paik. 2005. Analysis of the impact of trap-neuter-return programs on populations of feral cats. *J. of the American Veterinary Medical Association*, 227: 1775-1781.

²⁰ Longcore, T, C Rich, and LM Sullivan. 2009. Critical Assessment of claims regarding management of feral cats by trap-neuter-return. *Conservation Biology* 23: 887-894.

²¹ Levy, JK, DW Gale, and LA Gale. 2003. Evaluation of the effect of a long-term trap-neuter-return and adoption program on a free-roaming cat population. *J. of the American Veterinary Medical Association* 222:42-46

²² Loyd, KT, and JL DeVore. 2010. An evaluation of feral cat management options using a decision analysis network. *Ecology and Society* 15(4): 10.