## Do trap-neuter-return programs for cats work?

By Mark Hostetler, Steve Johnson, Marty Main and Grant Sizemore

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This opinion piece is written in response to a Sun article on the use of trapneuter-return (TNR) as a strategy to manage stray and feral cat populations. We acknowledge that humanely dealing with stray and feral cat populations is extremely difficult. However, TNR may not be the best strategy, and we believe the article misrepresented key facts regarding the science of TNR and effective cat management.

First, the article called attention to a recent publication of a hypothetical model of at-large cats. This publication did not study real cats in Alachua County or anywhere else. Instead, authors estimated population parameters under hypothetical management strategies, such as TNR at low and high intensities.

With this model, at the end of 10 years, outputs were population size and preventable deaths. The study found that high-intensity TNR (50% of cats sterilized every six months) was the best solution for minimizing preventable deaths.

However, the Sun article misreported that high intensity TNR also reduced the cat population the most, when actually it was 50% removal of cats that did the best. Further, the model is only as good as its data inputs, (e.g., birth rate, immigration rate, death rate).

Were they "real" estimates? After reviewing the model, one of the biggest shortcomings was the use of an immigration rate (i.e., movement of cats from the



A feral cat waits to be fixed by a trap-neuter-return program.
[GAINESVILLE SUN/FILE]

surrounding area into the target population) of 2%. The authors admit this was a contrived number — thus, they should have tried the scenarios at different immigration rates, yet they did not.

Also, they assumed the carrying capacity for a cat colony was equal to the starting population size. TNR programs typically feed cats and the carrying capacity would probably increase.

Second, the conclusions of this publication are at odds with previously published studies on TNR. One study in Florida found that two TNR colonies failed to decrease over time due to immigration of cats (despite sterilizations).

Another long-term study of TNR, including analyses of Operation Catnip in Gainesville and efforts in San Diego, California, found "no indications of a significant reduction" in cat population growth and that "any population-level effects were minimal." This study acknowledged that feeding cats may reduce cat

territoriality, resulting in more cats in a given area.

Third, TNR programs and the model study do not report how cats died. Stray and feral cats live shorter, harsher lives than their indoor counterparts. Feral cats often die in pain from a variety of injuries, poison, vehicle collisions and human cruelty. Studies have found that TNR cats are infected by many parasites (internal and external) and have higher rates of infectious diseases such as feline immunodeficiency virus (FIV).

Several animal welfare organizations have come out and stated that TNR strategies are inhumane. A painless injection resulting in euthanasia may be preferable to systematic abandonment.

Fourth, keeping stray and feral cats can be a human health risk. Stray and feral cats carry diseases that can be transmitted to other pets and humans. Studies have indicated high incidence of toxoplasmosis, hookworms and roundworms that could

be transmitted to humans in the same area. For these reasons, the National Association of State Public Health Veterinarians opposes TNR and recommends that "stray dogs, cats, and ferrets should be removed from the community."

Finally, stray and feral cats are a very serious risk to wildlife. We do not have room in this article to address studies on the impacts on wildlife. Suffice it to say, fed and non-fed cats kill a variety of wildlife species.

We understand there is no silver bullet to solve the feral cat population problem and prevention is better than the cure. It is not the cats' fault that they are forced to live homeless. As such, we all need to be responsible pet owners and support responsible pet ownership of others.

All cat owners should keep cats indoors (see American Bird Conservancy's Cats Indoors Campaign), sterilize all cats, do not feed outdoor cats, support funding for local animal shelters and increase public education for the adoption of cats.

We (the authors) love cats and hope more funding is directed towards prevention; we maintain, based on the best available science, that TNR is not a viable solution. Overall, we view TNR strategies as inhumane to the cats themselves and potentially dangerous to humans, pets and wildlife.

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