With the onset (eventually) of Spring here in the Northeast, trap, neuter, and return programs will soon be ramping up to help address the issue of too many free-roaming cats! Cats have lived with humans for thousands of years, so why the fuss? Well there are just too many of them – estimates exceed 40 million nationwide and those numbers are probably climbing in areas where large scale TNR efforts are not underway.

Why? Cats are notoriously good at reproducing. They are seasonally polyestrus, can come into heat while still nursing, ovulate when bred, and can become sexually active as early as 4 months of age. And if some form of TNR is not practiced, the percentage of free-roaming cats that are neutered hovers around 1-2%.

We know from numerous studies that owned cats (both males and females) are more likely to be neutered than dogs in the U.S.. Yet, the single largest age group of cats entering shelters is still kittens, even in areas where puppies are in short supply. This certainly suggests that our free-roaming cats are an important source of shelter kittens every year. Lots of issues swirl around free-roaming cats – their welfare, the welfare of other species, public health concerns, public complaints and more. So, we’ve attempted to address some of these issues in brief form in this issue, but we strongly encourage you to educate yourself and others about free roaming cats in your community, as it an issue that is unlikely to go away any time soon.
Tips On Trapping: Dr. Kate Gollon

Trapping feral cats can sometimes be a tricky endeavor, especially when dealing with clever cats that refuse to enter unknown territory. Below is a list of suggestions that will hopefully increase your efficiency in trapping, thus making your organization’s TNR program more successful.

1. **It’s all about the food.** This applies both to withholding food beforehand and providing the tastiest meal within the trap. Twenty-four hours before traps will be set, make sure to remove the cats’ food source (and remind neighbors to do the same!). This will help to ensure that they are hungry enough to enter the trap. As far as what food to put in the trap, the smellier the better, like canned tuna, sardines, or jack mackerel work well (remember to wear gloves when handling sardines and mackerel, or else your hands will smell for days!). Make a trail of small piles of this food all the way to the very back of the trap, so that the cat is sure to set off the trigger.

2. **Location, location, location.** Traps should **not** be set in noisy, high-traffic areas that are stressful to cats. This also protects the traps and cats from unwanted attention (people that might steal the traps or let the cats out). Traps must be set on a surface that is not wobbly or on an incline, as cats will not enter. When possible, avoid setting them out in the open. Instead, place traps along the edges of a building or row of bushes.

3. **Trap Accessories.** Always line the bottom of the trap with folded newspaper; cats do not like to walk on gridded wire material. Newspaper should be dull (they seem to prefer this), not shiny, as is common with newspaper advertisements. It is very important to cover the trap with a sheet or large blanket. An exposed cat in a trap is more likely to panic and thrash around, which can cause serious injury. You should also label traps with your organization’s phone number, and a short explanation of TNR.

4. **Dealing with the trap-savvy cat.** Trapping stubborn cats can be frustrating and takes patience. Start by feeding them the same smelly food at the same time on a daily basis. Then, in the same place, begin to put that food at the entrance of an unset trap. Over the course of a week, move a food trail further into the trap, so that the cat becomes comfortable. Then, withhold food as described previously and set the trap. At times cats will refuse to go into a trap if it is too small, so using a larger trap might be the key, especially with larger Toms. In some cases, it might be necessary to withhold food for 48 hours before trapping so that the cat is even more motivated to enter.

Addition resources can be found on the websites for Alley Cat Allies (http://www.alleycat.org/), Indy Feral (http://www.indyferal.org/) and Urban Cat League (http://www.urbancatleague.org/).

Expanded TNR (repost): Dr. Mike Greenberg

Redemption rates are notoriously low for stray cats, and a high percentage are euthanized. “Expanded” TNR, extending TNR to include stray cats brought to shelters, has been adopted by some shelters to save lives. Expanded TNR programs challenge the notion that “nothing is worse than living on the street” for stray, as well as feral cats.

To read the complete article on Expanded TNR, please visit our website: http://www.sheltermedicine.vet.cornell.edu/feralcats/ExpandedTNR.cfm
Before addressing this question, what is the definition of early age neutering? Unfortunately, the available studies have defined the age at neutering of cats (or dogs) in different ways. Most commonly, early neutering has been described as taking place before 6 months of age and comparisons have been made to the frequency of risks and benefits observed in animals neutered at, or after, 6 months of age. Beware, however, that some people use the terminology “pediatric neutering” to pertain to a younger age group (e.g., animals 6 to 14 weeks of age) or speak about cats neutered before their first heat cycle. So when talking to others or reading pertinent studies always determine what age groups are being discussed.

Despite the widespread use of early neutering in the sheltering community, questions still arise regarding the possible risks of early age neutering. Interestingly, there is now more information regarding the effects of neutering at 6 months or older than there was at the time that it became the standard age range for neutering. This is the result of the recent studies comparing the effects of early to traditional age neutering.

What do we know? It appears that neutering (early and traditional) will delay closure of the growth plate of long bones (e.g., radius, femur) in cats where they have not already closed. This delay may increase height slightly (fractions of a cm) compared to intact cats, but there is no difference in long bone length between early and traditionally neutered cats. If the growth plate is slow to close, are neutered kittens more likely to experience growth plate fractures? It is not clear, but probably not. A case series of cats with growth plate fractures from a referral center suggested that early neutered cats might be over-represented in this group. Unfortunately the study lacked a control group to confirm this. Two long-term cohort studies (comparing risks of multiple outcomes between early and traditionally neutered cats) failed to demonstrate a difference in the rates of growth plate fractures between the two groups.

People often ask, will early neutered male cats be more likely to get urinary obstructions? The answer seems clear to this question. The penile urethral diameters of cats neutered early, at traditional ages and left intact, were equal in two well designed studies. Also, the two long-term cohort studies found no difference in the rates of urethral obstruction in male cats neutered early compared to those neutered at traditional ages. Neutered male cats do lose their penile barbs, regardless of the age at neutering, but no clinical significance has been attributed to this change. Similarly, because the lack of male hormones can influence the formation of adhesions between the penis and the prepuce, it can be more difficult to extrude the penis of a higher proportion of early neutered males than traditionally neutered cats. While some veterinarians have worried that this might make it more difficult to pass a urinary catheter if a cat became obstructed, this has not become a problem of any importance.

What about obesity? Neutering does reduce the basal metabolic rate of altered cats compared to intact animals. The age at neutering, however, does not seem to matter and owners (including animal shelters) of neutered cats must adjust the caloric intake to reflect the lower need for calories in neutered cats.

Increased risks for other medical conditions (e.g., immune dysfunction, hypothyroidism) have not been identified and overall, current studies have failed to identify any serious medical risks associated with neutering cats before 6 months of age. Results from these investigations have prompted numerous organizations (e.g., the American Veterinary Medical Association, the American Animal Hospital Association) to endorse early neutering as a means to reduce the numbers of homeless pets and reduce the number of owned pets that have litters before being neutered. Shelters, spay/neuter clinics and TNR programs should continue to practice early neutering to improve the welfare of our cats!
Incorporation of a vaccination protocol into your TNR program is an important consideration. However, questions from your volunteers or the community may arise regarding the safety and efficacy of administering vaccinations at the time of spay/neuter surgery. Fortunately, some research has been done to help address some of these concerns.

**Isn’t it too stressful to administer vaccines on the same days as surgery?**

It has been common in private veterinary practice to schedule vaccinations separate from spay/neuter surgery due to concerns that vaccination will not be as effective or could even be detrimental if given on the same day as surgery. Although this may make sense in theory, research has shown that protective levels of antibodies are generated from vaccinating at the time of surgery in feral cat populations, particularly against deadly diseases such as panleukopenia and rabies. There is always the rare possibility of a vaccine reaction whether under anesthesia or not, but the alert veterinarian can treat these successfully. In general, negative side effects have not been documented to occur more often in animals getting vaccinated at the time of surgery versus at another date.

**Will one vaccine be enough to be protective?**

Although boosters are typically recommended for adults with an unknown vaccination history (and always for kittens), studies have shown that a single vaccination in adult feral cats was enough to produce protective immunity against panleukopenia and rabies in 90% and 98% of cases, respectively. These studies showed immunity in feral cats 10 weeks after a single vaccination with either a modified live or killed virus FVRCP (feline viral rhinotracheitis, calicivirus and panleukopenia). Although there was no significant difference between these two types of vaccines in regards to antibody levels 10 weeks post-vaccine, we always recommend modified live virus (MLV) vaccines for their faster onset of action.

**Should all cats be vaccinated before they are released? Why is this so important?**

Vaccination before release of feral cats is important to maintaining herd immunity. Herd immunity describes a form of immunity that occurs when the vaccination of a significant portion of a population (or herd) provides a measure of protection for individuals who have not developed immunity. That is, the fewer susceptible individuals there are in a herd, the less chance pathogens have of spreading to those who do not have immunity. Herd immunity is a very important tool of infectious disease control, both in the shelter and in feral cat colonies. All cats should be vaccinated without exception, unless illness or injury is so severe that euthanasia or treatment is warranted.

**References:**


I recently attended a lecture given by Dr. Margaret Slater from the ASPCA where she discussed the research they are conducting on how to determine whether a cat that enters the shelter is feral or just a very frightened socialized cat. While they have not yet come up with any definitive things we can do to really determine the difference, they are trying and what an amazing tool that would be. But until we have such a tool we will be faced with making decisions about these cats. It is imperative to remember that regardless of its life history, a frightened cat who is placed inside a tiny, cold stainless steal cage is suffering and its welfare needs to be considered paramount.

It is critically important that we implement strategies to reduce stress in our shelter cats upon intake. I cannot overstate the importance of giving all of the incoming cats, especially the freaked out ones, a place to hide. I have written about this simple yet very important step before (http://www.sheltermedicine.vet.cornell.edu/documents/ShelterWatchVol1Iss1.pdf) but I felt it was worth reiterating. It is also extremely important that when a cat comes into your shelter in a trap – that the trap is immediately covered. Hiding is the best strategy that cats have to deal with stress and fear, and if we do not provide them with this ability we are prolonging the stress response and increasing their susceptibility to disease. In my travels around the country consulting with shelters I am amazed how few understand this about cats. Whether it is a feral cat or a really scared socialized cats – please give them a place to hide!