

Is euthanasia at animal shelters an effective tool to decrease the impact of cat predation in the continental United States?

- The fact of cat predation has been well-documented across a number of regions and environments. A recent review combined estimates from multiple studies to conclude that cats kill between 1.4-3.7 billion birds and 6.9-20.7 billion mammals in the United States annually (Loss, Will et al. 2013).
- While the exact numbers may continue to be debated, the individual impact of cat predation on their prey is unarguable. The negative population impact of cat predation is less predictable. In some cases, eradication of cats from focal areas has had a detrimental effect as it allowed other more harmful species, such as rats and rabbits, to flourish; in other cases, cat eradication benefited vulnerable native species (Nogales, Martin et al. 2007; Rayner, Hauber et al. 2007; Bergstrom, Lucieer et al. 2009; Hanna and Cardillo 2013).
- Although the impact of cat removal is variable, the certainty of predation by cats has led many to argue that free-roaming cat populations should be reduced or eradicated on a continental as well as local scale (Jessup 2004).
- Programs attempting to reduce or eradicate predators of various species in the United States have been well documented. The success of these programs is variable – in many cases, both non-lethal and lethal methods have failed to result in long term reduction in predator populations protection or increase in prey populations (Bergstrom, Arias et al. 2013). There is an increasing call for scientific evaluation of predator control efforts prior to further investment (Knudson 2012).
- In the United States, Trap/Neuter/Return (TNR) and euthanasia at animal shelters are the two commonly advocated methods for large scale reduction or eradication of free-roaming cat populations (Jessup 2004; Levy and Crawford 2004; Tantillo 2006; Longcore, Rich et al. 2009; Waters 2013).
- Trap/neuter/return has been the subject of intense debate and scrutiny, with a number of scientists and conservationists advocating that it should not be used, and potentially even be prohibited, unless and until it can be proven effective at meaningfully reducing cat populations (Longcore, Rich et al. 2009).
- The literature on TNR is variable with some reports of success, usually as a result of intensive efforts combining TNR with adoption of some cats from a geographically limited region (Hughes and Slater 2002; Levy, Gale et al. 2003). Limited or no success has been described in reducing populations across larger regions (Foley, Foley et al. 2005; Natoli, Maragliano et al. 2006). Mathematical models predict success in controlling populations on a larger scale via TNR provided such programs reach 75% or more of cats (Andersen, Martin et al. 2004; Foley, Foley et al. 2005; McCarthy, Levine et al. 2013); however, it has also been suggested that programs on this scale are unrealistic (Foley, Foley et al. 2005).
- Although euthanasia at animal shelters is the primary alternative to TNR for reduction of feral cats in the United States, there has been virtually no scientific debate or scrutiny regarding the success of this strategy.

- The success of lethal strategies to control feral cat populations has been variable. Where successful, multiple, intensive strategies have been used in geographically limited regions, most often including leg-hold traps, hunting, and poisoning(Campbell, Harper et al. 2011).
- Mathematical models predict success in controlling populations on a larger scale via lethal methods, provided such programs reach 50% or more of cats(Andersen, Martin et al. 2004); however, no shelter euthanasia program has been documented to reach this level. Nationally, the estimated rate of euthanasia is only between 3-7% of the total un-owned cat population (based on an estimated 2 million cats euthanized annually(Clifton 2012) and an un-owned cat population between 30-80 million(Loss, Will et al. 2013)). This represents an even smaller fraction of the total free-roaming cat population, which includes pet cats allowed outdoors, and is far short of the 50% needed to achieve meaningful population reduction.
- The vast majority of shelter euthanasia in the United States is citizen-initiated and is untargeted in regards to space, time or risk posed to wildlife by the individual cat, and is substantially more costly than the lethal methods used in reported successful programs.
- No published reports exist of successful control of feral cat populations via shelter euthanasia.
- Neither untargeted shelter euthanasia nor TNR is well-supported as a method to protect wildlife by eradicating or significantly reducing cat populations on a broad scale. TNR, however, has potential benefits for cat welfare, public health (if vaccination for rabies is included), and nuisance abatement which may still justify its use. Shelter euthanasia of healthy cats has no such benefits: it does not benefit the welfare of the individual cat nor enhance the possibility that the cat will be reunited with its owner or adopted. While it may alleviate a nuisance situation short term, it does not result in long term resolution if the precipitating circumstances are unchanged (such as the presence of food or shelter in the area).
- Given the lack of evidence for untargeted shelter euthanasia as a strategy to achieve positive goals for wildlife, cats or communities, this activity should be discontinued and resources currently invested in this activity redirected more productively.
- Discontinuing reliance on either TNR or shelter euthanasia to protect wildlife on a continental scale will allow a refocusing of energies on methods with greater possibilities of success, whether that be adequately targeted and intensive non-lethal or lethal control strategies directed at un-owned cats; educational or other initiatives to mitigate pet cat impact; or strategies independent of cats.

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