

In wildlife killing contests, participants vie for cash and prizes for killing a variety of species including coyotes, bobcats, foxes, squirrels, and even crows and other birds. Judging criteria may be based on the largest, smallest, or heaviest animals killed, or on a system of points assigned to each species. Raffle tickets may be sold for drawings to win rifles and other hunting equipment, and non-participants may even be able to bet on the outcome of the contest. Following the weighing or measuring of the animals and the awarding of the prizes, participants may celebrate with a banquet or party at a local bar or restaurant.

Americans have already determined, with strong laws and penalties in all 50 states, that blood sports like animal fighting will no longer be tolerated by modern society. Wildlife killing contests face this same national public condemnation because participants flout the ethics of sportsmanship, fair chase, and respect for wildlife.

State wildlife agencies hold and manage wildlife in the public's trust, and those that allow wildlife killing contests risk besmirching all hunting, even ethical hunters. Vermont's Fish & Wildlife department has noted, "Coyote hunting contests are not only ineffective at controlling coyote populations, but these kinds of competitive coyote hunts are raising concerns on the part of the public and could possibly jeopardize the future of hunting and affect access to private lands for all hunters."



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- VERMONT FISH & WILDLIFE

At a time when hunting numbers are declining and hunter recruitment and education are a priority focus for most state agencies, wildlife management agencies must recognize that these types of cruel, wasteful, and ineffective killing contests must become a thing of the past.



### Ineffective and damaging to the reputation of sportsmen and sportswomen.

Randomly killing coyotes, such as in wildlife killing contests, does not reduce their populations. In fact, since 1850 when mass killings of coyotes began, the range of coyotes has tripled in the United States.<sup>3</sup> The University of Illinois Extension report *Living with Wildlife in Illinois: Coyote* points out, "...coyote population reduction (removing some or all of the coyotes in an area) is usually unrealistic and always temporary."<sup>4</sup>

That is because culling coyotes reaps only short-term population reductions, but stimulates pup recruitment and immigration. Persecution of coyotes disrupts their social structure, which, ironically, encourages more breeding and migration, and ultimately results in more coyotes.<sup>5</sup>

The alpha pair, often the parents of different aged offspring, are the pack's only reproducers. When one or both members of the alpha pair are killed, the survivor will find a new mate, and the remaining members of the pack, who had been behaviorally sterile, will now also mate, increasing the number of breeding pairs. At the same time, lone coyotes will move in to mate, young coyotes will start having offspring sooner, and litter sizes will grow.<sup>6</sup>

With some carnivores such as coyotes, lethal predator controls are ineffective over the long term. Biologist Bradley Bergstrom of Georgia's Valdosta State University writes:

There are 3 reasons that predator removal is likely to have no long-term effect—or even adverse effects—on depredation of livestock: vacant territories are quickly recolonized (Knowlton et al. 1999; Treves and Naughton-Treves 2005); immigration rate of breeding pairs into the area experiencing lethal control can increase (Sacks et al. 1999); and immigrants are more likely to be subadults, which have a greater propensity for livestock depredation than older adults (Peebles et al. 2013).<sup>7</sup>



While widespread killing may temporarily reduce coyote numbers, coyotes bounce back quickly. Therefore, it makes more sense for livestock growers and urban municipalities to focus on non-lethal strategies. Non-lethal controls are often cheaper, more socially acceptable, and result in longer-term prevention of livestock losses because the social order of native carnivores is not disrupted leading to social strife and exploitation of easy prey. Predator control is only acceptable to the public if it removes the individuals who prey on livestock, damage crops or cause economic losses, but is less acceptable for use in protecting other wildlife (e.g., ungulates or protected species). 10



It's almost impossible to completely eradicate coyotes from an area.<sup>11</sup> New coyotes will quickly replace coyotes that were removed. Coyote pairs hold territories, which leaves single coyotes ("floaters") continually looking for new places to call home.<sup>12</sup>

In a recent report, the Vermont Fish & Wildlife department said about wildlife killing contests, "...we do not believe such short-term hunts will have any measurable impact on regulating coyote populations, nor will they bolster populations of deer or other game species." 13

## Indiscriminate killing of coyotes will not increase ungulate populations.

The best available science demonstrates that killing native carnivores with the goal of increasing ungulate populations, such as deer, is unlikely to produce positive results because the key to ungulate survival is protecting breeding females and ensuring herds have access to adequate nutrition, not preventing predation.<sup>14</sup>

Comprehensive studies, including those conducted in Colorado<sup>15</sup> and Idaho,<sup>16</sup> show that killing native carnivores fails to grow deer herds. In recent studies that involved predator removal, those removals had no beneficial effect for mule deer.<sup>17</sup>

In response to hunters' concerns that coyotes are diminishing populations of game animals, the Pennsylvania Game Commission made the following statements in 2016:<sup>18</sup>

- "During the late 1800s and early 1900s, the Game Commission focused much of its energy and resources into predator control efforts. During this period, we did not understand the relationship between predators and prey. After decades of using predator control (such as paying bounties) with no effect, and the emergence of wildlife management as a science, the agency finally accepted the reality that predator control does not work."
- "[Predators] don't compete with our hunters for game. The limiting factor is habitat—we must focus our efforts on habitat."
- The Commission called it a "false prophecy" to "pretend that predator control can return small game hunting to the state[.]" It also stated that the focus must be based on "...science, not anecdotal comments stemming from theory or supposition."

"...random removal of coyotes resulting from a year-round hunting season will not: (a) control or reduce coyote populations; (b) reduce or eliminate predation on livestock; or (c) result in an increase in deer densities."

 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION



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— PENNSYLVANIA GAME COMMISSION









"Hunting contest for these species are not necessary to provide an adequate, flexible and coordinated statewide system of wildlife management, or to maintain adequate and proper populations of wildlife species, nor are hunting contest for these species necessary to protect, preserve, enhance and manage wildlife for the use, benefit, or enjoyment of the state or its visitors.

— COLORADO PARKS & WILDLIFE

"To the extent these contests reflect on the overall hunting community, public outrage with these events has the potential to threaten hunting as a legitimate wildlife management function."

ARIZONA GAME AND FISH COMMISSION

A U.S. Department of the Interior biologist has pointed out, "Since 1947 at least, we know that paying out bounties encourages fraudulent behaviors by participants."19 And in recommending against a year-round hunting season on coyotes, the New York State Department of Environmental Conservation based their decision in part on the fact that "...random removal of coyotes resulting from a yearround hunting season will not: (a) control or reduce coyote populations; (b) reduce or eliminate predation on livestock; or (c) result in an increase in deer densities."20 That agency found that on the whole, data indicated that deer numbers were growing in the presence of well-established coyote populations. Further, it found that it is "...only when other factors, such as poor habitat, harsh winters, and other forms of predation are severe and chronic that coyote predation limits the growth of a deer population..." on a localized basis.21

Researchers recently evaluated deer harvest numbers in South Carolina, North Carolina, Ohio, Florida, New Jersey, and New York, and found that coyotes are not limiting deer numbers in those states.<sup>22</sup>

# Indiscriminate killing of coyotes will not reduce conflicts—and may increase them.

Exploited coyote populations tend to have younger, less experienced coyotes, increased numbers of yearlings who are reproducing, and larger litters. Feeding pups is a significant motivation for coyotes to switch from killing small and medium-sized prey to killing sheep.<sup>23</sup>

Open hunts and killing contests do not target specific, problem-causing coyotes. Instead, they target coyotes in woodlands and grasslands who are keeping to themselves—not those who have become habituated to human food sources such as unsecured garbage, pet food, or livestock carcasses (left by humans). Prevention—not lethal control—is the best method for minimizing conflicts with coyotes.<sup>24</sup> Eliminating access to easy food sources, such as pet food and garbage, supervising pets while outside, and keeping cats indoors reduces conflicts with pets and humans. Practicing good animal husbandry and using strategic nonlethal predator



control methods to protect livestock (such as birthing cattle and sheep in barns or sheds and employing electric fences, guard animals, and removing dead livestock) are more effective.<sup>25</sup>

## Removal of coyotes harms sensitive ecosystems.

Coyotes are an integral part of healthy ecosystems, providing a number of free, natural ecological services. For example, coyotes help to control disease transmission, keep rodent populations in check (curtailing hantavirus, a rodent-borne illness that kills humans), clean up carrion (animal carcasses), increase biodiversity, remove sick animals from the gene pool, and protect crops. Coyotes balance their ecosystems and have trophic-cascade effects such as indirectly protecting ground-nesting birds from smaller carnivores and increasing the biological diversity of plant and wildlife communities.<sup>26</sup>

While there is dispute in some states as to whether coyotes are native, in regions such as the eastern United States this species established itself as top predator following the eradication of apex native carnivores like wolves and mountain lions.

# Many non-lethal protection methods have proven effective:

- Protect principal prey herds (e.g., elk and deer) by preventing poaching and limiting legal overkill of wild herds.<sup>27</sup>
- Keep livestock, especially maternity pastures, away from areas where wild cats have access to ambush cover.<sup>28</sup>
- Keep livestock, especially the most vulnerable—young animals, mothers during birthing seasons and hobby-farm animals behind barriers such as electric fencing and/or in barns or pens or kennels with a top.<sup>29</sup> The type of enclosure needs to be specific for the predator to prevent climbing, digging or jumping.<sup>30</sup>
- Move calves from pastures with chronic predation problems and replace them with older, less vulnerable animals.<sup>31</sup>



"While coyote population reduction ("coyote control") is often the first and only management approach that people suggest, it has proven ineffective. There is no silver bullet that will eradicate or permanently reduce free-ranging coyote populations. However, there are strategies that can address specific issues and concerns about covotes that are more effective and cost efficient. Most of these strategies focus on implementing non-lethal techniques or, if necessary, removing individual problem coyotes. Strategies to address impacts of coyotes on other wildlife likely will require management actions directed at the species of interest rather than coyotes (e.g., emphasizing habitat productivity and quality or re-examining harvest season structures)."

— NORTH CAROLINA WILDLIFE RESOURCES

COMMISSION





- Concentrate calving season (i.e., via artificial insemination) to synchronize births with wild ungulate birth periods.<sup>32</sup>
- In large landscapes, use human herders and/or guard animals (i.e., especially a variety of dogs). 33
- Guard dogs work better when sheep and lambs are contained in a fenced enclosure rather than on open range lands where they can wander unrestrained.<sup>34</sup>
- "Range riders," people who are employed to monitor cattle and sheep, monitor wolves or facilitate livestock herding (keeping cattle bunched together); their goal is to reduce livestock losses by wolves. Range riders can more rapidly detect sick or injured cattle, who would otherwise be vulnerable to wolves or to rapidly detect and remove dead cattle, reducing habituation and potential future losses. 36
- Change livestock type. In a study in Norway, a heavy-bodied sheep species, *Dala sheep*, were more vulnerable to wolverine attacks than lighter-bodied sheep species, *Norwegien fur-bearing sheep* and *Rygia* sheep.<sup>37</sup>
- Use a variety of auditory and visual deterrents, such as fladry (strips of plastic tied to a nylon rope and suspended above ground with stakes); turbo fladry (electrified using solar equipment); suspended clothing; LED flashing lights (sold as "Foxlights"); radio alarm boxes set off to make alarm sounds/noises when radio-collared wolves come in proximity of livestock; low-cost sound/visual equipment deters wild cats; spotlights; and air horns.<sup>38</sup>

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Fig. 1. USFWS: Wildlife Recreation Participation & Expenditures: 2011 vs. 2016 data			
	2011	2016	Percent Change
Wildlife Watcher Numbers	71.8M	86.0M	20
Wildlife Watcher Expenditures	\$59.1B	\$75.9B	28
All Hunter Numbers	13.7M	11.5M	-16
Big Game Hunter Numbers	11.6M	9.2M	-21
Hunter Expenditures	\$36.3B	\$25.6B	-29
Hunters	2011	2016	Change
Big Game	11.6M	9.2M	-2.4M
Small Game	4.5M	3.5M	-1M
Migratory Birds	2.6M	2.4M	-0.2M
Other animals	2.2M	1.3M	-0.9M

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