



THE HUMANE SOCIETY
OF THE UNITED STATES

Testimony in Support of LD 814
An Act to Restrict the Daytime and Nighttime Killing of Coyotes
Committee on Inland Fisheries and Wildlife
April 3, 2023

Senator LaFountain, Representative Landry and members of the Committee on Inland Fisheries & Wildlife:

My name is Katie Hansberry and I am the Maine State Director of The Humane Society of the United States. On behalf of the Humane Society of the United States and our Maine supporters, thank you for the opportunity to submit testimony sharing our strong support of LD 814, which would put in place some much needed restrictions on coyote hunting. Indiscriminate coyote hunting and trapping is not supported by the best available science, is ineffective at mitigating conflicts, does not increase game species numbers, and can lead to an increase in coyote numbers.

The indiscriminate killing of coyotes will not control their populations. The evidence is clear: more than 100 years of coyote exploitation has not reduced their populations. In fact, since 1850 when mass killings of coyotes began, coyotes' range has tripled in the United States.ⁱ As the University of Illinois points out, "...coyote population reduction (removing some or all of the coyotes in an area) is usually unrealistic and always temporary."ⁱⁱ

The indiscriminate killing of coyotes reaps only short-term population reductions and 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.ⁱⁱⁱ 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.^{iv}

Removal of coyotes harms sensitive ecosystems. Coyotes are an integral part of healthy ecosystems and provide 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, 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.^v

The indiscriminate killing of coyotes will not reduce conflicts—and by disrupting the coyote family structure, it may actually increase them. Exploited coyote populations tend to have younger, less experienced coyotes, increased numbers of yearlings reproducing, and larger litters. Feeding pups is a significant motivation for coyotes to switch from killing small and medium-sized prey to pursuing livestock animals.^{vi}

Open hunts and killing contests do not target specific, problem-causing coyotes.^{vii} 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. 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 electric fences, guard animals, and prompt removal of dead livestock) are more effective.^{viii}

The indiscriminate killing of coyotes will not increase game populations. The best available science demonstrates that killing wild carnivores to increase 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 predation.^{ix}

Comprehensive studies, including those conducted in Colorado^x and Idaho,^{xi} 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.^{xii}

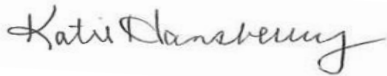
In response to hunters' concerns about the effects of species like coyotes on game animals, the Pennsylvania Game Commission made the following statements in 2016:^{xiii}

- 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[.]” Further, it stated that the focus must be based on “...science, not anecdotal comments stemming from theory or supposition.”

Further, 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 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.”^{xiv}

In a North Carolina study researchers 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, and that coyote removal programs will do little to increase regional deer numbers.^{xv} And the new North Carolina Wildlife Resources Commission’s Coyote Management Plan adds, “Bounties and harvest incentive programs are prone to corruption, expensive, do not increase harvest, and do not target problem animals...these methods are ineffective at reducing conflicts with coyotes or impacting coyote populations.”^{xvi}

For the above stated reasons, we ask you vote ought to pass on LD 814 to make important changes to the laws regarding the hunting of coyotes. Thank you for your time and consideration.



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ⁱ Robert Crabtree and Jennifer Sheldon, "Coyotes and Canid Coexistence in Yellowstone," in *Carnivores in Ecosystems: The Yellowstone Experience*, ed. T. Clark et al. (New Haven [Conn.]: Yale University Press, 1999)

ⁱⁱ University of Illinois Extension. *Living with Wildlife in Illinois: Coyote*. University of Illinois at Urbana-Champaign, http://web.extension.illinois.edu/wildlife/directory_show.cfm?species=coyote.

ⁱⁱⁱ F. F. Knowlton, E. M. Gese, and M. M. Jaeger, "Coyote Depredation Control: An Interface between Biology and Management," *Journal of Range Management* 52, no. 5 (1999); Robert Crabtree and Jennifer Sheldon, "Coyotes and Canid Coexistence in Yellowstone," in *Carnivores in Ecosystems: The Yellowstone Experience*, ed. T. Clark et al. (New Haven [Conn.]: Yale University Press, 1999); J. M. Goodrich and S. W. Buskirk, "Control of Abundant Native Vertebrates for Conservation of Endangered Species," *Conservation Biology* 9, no. 6 (1995).

^{iv} Knowlton, F.F. 1972. Preliminary interpretations of coyote population mechanics with some management implications. *J. Wildl. Manage.* 36:369-382.

^v S. E. Henke and F. C. Bryant, "Effects of Coyote Removal on the Faunal Community in Western Texas," *Journal of Wildlife Management* 63, no. 4 (1999); K. R. Crooks and M. E. Soule, "Mesopredator Release and Avifaunal Extinctions in a Fragmented System," *Nature* 400, no. 6744 (1999); E. T. Mezquida, S. J. Slater, and C. W. Benkman, "Sage-Grouse and Indirect Interactions: Potential Implications of Coyote Control on Sage-Grouse Populations," *Condor* 108, no. 4 (2006); N. M. Waser et al., "Coyotes, Deer, and Wildflowers: Diverse Evidence Points to a Trophic Cascade," *Naturwissenschaften* 101, no. 5 (2014).

^{vi} F. F. Knowlton, E. M. Gese, and M. M. Jaeger, "Coyote Depredation Control: An Interface between Biology and Management," *Journal of Range Management* 52, no. 5 (1999); B. R. Mitchell, M. M. Jaeger, and R. H. Barrett, "Coyote Depredation Management: Current Methods and Research Needs," *Wildlife Society Bulletin* 32, no. 4 (2004).

^{vii} Gehrt, S.D., Anchor, C., and White, L.A.: "Home Range and Landscape Use of Coyotes in a Metropolitan Landscape: Conflict or Coexistence?" *Journal of Mammalogy* 90(5):1045-1057. 2009, and Poessel, S.A., Breck, S.W., Gese, E.M.: "Spatial ecology of coyotes in the Denver metropolitan area: influence of the urban matrix," *Journal of Mammalogy* 97 (5): 1414-1427, 2016.

^{viii} Adrian Treves et al., "Forecasting Environmental Hazards and the Application of Risk Maps to Predator Attacks on Livestock," *BioScience* 61, no. 6 (2011); Philip J. Baker et al., "Terrestrial Carnivores and Human Food Production: Impact and Management," *Mammal Review* 38, (2008); A. Treves and K. U. Karanth, "Human-Carnivore Conflict and Perspectives on Carnivore Management Worldwide," *Conservation Biology* 17, no. 6 (2003); J. A. Shivik, A. Treves, and P. Callahan, "Nonlethal Techniques for Managing Predation: Primary and Secondary Repellents," *Conservation Biology* 17, no. 6 (2003); N. J. Lance et al., "Biological, Technical, and Social Aspects of Applying Electrified Fladry for Livestock Protection from Wolves (*Canis Lupus*)," *Wildlife Research* 37, no. 8 (2010); Andrea Morehouse and Mark Boyce, "From Venison to Beef: Seasonal Changes in Wolf Diet Composition in a Livestock Grazing Environment," *Frontiers in Ecology and the Environment* 9, no. 8 (2011).

^{ix} Bishop, C. J., G. C. White, D. J. Freddy, B. E. Watkins, and T. R. Stephenson. 2009. Effect of Enhanced Nutrition on Mule Deer Population Rate of Change. *Wildlife Monographs*:1-28; Hurley, M. A., J. W. Unsworth, P. Zager, M. Hebblewhite, E. O. Garton, D. M. Montgomery, J. R. Skalski, and C. L. Maycock. 2011. Demographic Response of Mule Deer to Experimental Reduction of Coyotes and Mountain Lions in Southeastern Idaho. *Wildlife Monographs*:1-33; Forrester, T. D. and H. U. Wittmer. 2013. A review of the population dynamics of mule deer and black-tailed deer *Odocoileus hemionus* in North America. *Mammal Review* 43:292-308; Monteith, K. L., V. C. Bleich, T. R. Stephenson, B. M. Pierce, M. M. Conner, J. G. Kie, and R. T. Bowyer. 2014. Life-history characteristics of mule deer: Effects of nutrition in a variable environment. *Wildlife Monographs* 186:1-62.

^x Bishop, C. J., G. C. White, D. J. Freddy, B. E. Watkins, and T. R. Stephenson. 2009. Effect of Enhanced Nutrition on Mule Deer Population Rate of Change. *Wildlife Monographs*:1-28.

^{xi} Hurley, M. A., J. W. Unsworth, P. Zager, M. Hebblewhite, E. O. Garton, D. M. Montgomery, J. R. Skalski, and C. L. Maycock. 2011. Demographic Response of Mule Deer to Experimental Reduction of Coyotes and Mountain Lions in Southeastern Idaho. *Wildlife Monographs*:1-33.

^{xii} Forrester, T. D. and H. U. Wittmer. 2013. A review of the population dynamics of mule deer and black-tailed deer *Odocoileus hemionus* in North America. *Mammal Review* 43:292-308

^{xiii} Frye, Bob. (July 25, 2016). *Habitat, not predators, seen as key to wildlife populations*, Trib Live, <http://triblive.com/sports/outdoors/10756490-74/game-predator-predators>.

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^{xv} Eugenia V. Bragina, Roland Kays, Allison Hody, Christopher E. Moorman, Christopher S. Deperno, L. Scott Mills. "Effects on white-tailed deer following eastern coyote colonization." *The Journal of Wildlife Management*, March 20, 2019.

^{xvi} North Carolina Wildlife Resources Commission, "Coyote Management Plan," March 1, 2018.