CITIZEN-PROPOSED ISSUE PAPER

Date: November 22, 2019

ISSUE: Request for Ban on all Wildlife Killing Contests

DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE): Wildlife killing contests are organized events in which participants kill animals within a certain timeframe for entertainment, prizes, cash, or other inducements. The length of the contests can range from one day to an entire month, but many follow the traditional model of sign-in and registration on a Friday night or Saturday morning, and pursuing and killing wildlife through the weekend. The contest typically culminates with a check-in or weigh-in of the animals at a local restaurant, bar, or sportsmen's club, followed by a celebratory banquet or party where contest prizes are awarded.¹

In 1997, the Colorado Wildlife Commission led all other states in the nation when it limited the number of animals that could be taken during wildlife killing contests targeting small game and furbearers. The 1997 regulation allowed up to five animals of each species targeted by the contest to be killed by each participant. In Colorado, recent contests encouraged participants to target coyotes, swift foxes, bobcats, and prairie dogs. For a list of wildlife killing contests held in Colorado in the past five years, see Appendix I, attached.

As discussed in greater detail below, Colorado should follow the lead of other states by fully banning wildlife killing contests for all small game and furbearer species because these events: (1) undermine modern, science-based wildlife management principles and are not an effective wildlife management tool; (2) do not increase populations of game animals; (3) do not prevent conflicts with humans, pets, or livestock—and may increase them; (4) violate fundamental principles of ethical hunting, which damages the reputation of Colorado sportsmen and sportswomen; (5) may put threatened or endangered wildlife species in peril; (6) are not in accord with the legislative directives of the Colorado Assembly; and (7) have been banned in an increasing number of states due to growing public concern.

To better reflect modern scientific understanding of natural ecosystems and to better align with the view of Colorado residents that animals—including wildlife—should be treated humanely,² we respectfully urge the Commission to adopt a full ban on killing contests for all small game and furbearer species by modifying Wildlife Regulation $\S 303(A)(1)(a)(1)$ as follows:

A. Special Conditions

1. Contests Involving Small Game or Furbearers are allowed except:

a. No person shall advertise, conduct, offer to conduct, promote or participate in any competitive event which involves:

¹ Judging categories for wildlife killing contests may focus on the number of animals killed, the weight or the sex of animals killed, a tiered point system by species killed, or the smallest or largest body or body part size of animals killed. Prizes are often a cash pot, in addition to raffles and drawings for prizes including high-powered rifles and other hunting equipment. In some events, "Calcutta" betting is allowed on the contestants themselves.

² A. M. Dietsch et al., "State Report for Colorado from the Research Project Entitled, "America's Wildlife Values"," *Colorado State University, Department of Natural Resources* https://content.warnercnr.colostate.edu/AWV/CO-WildlifeValuesReport.pdf (2018); M. J. Manfredo et al., "America's Wildlife Values: The Social Context of Wildlife Management in the U.S.," ed. National Report from the research project entitled "America's Wildlife Values" (Fort Collins, Colorado: Colorado State University, Department of Natural Resources, 2018).

- The taking of any small game or furbearer species for which the daily bag or possession is unlimited, including but not limited to coyotes and prairie dogs. Provided, however, that such events are allowed if no more than five (5) of each species are taken by each participant during the entire event.
- The taking of marked or tagged small game released as part of such contest and where money or other valuable prizes are awarded for the taking of such small game and game birds. "Valuable prizes" shall not include certificates or other similar tokens of recognition not having any significant monetary value.
- b. Commercial and noncommercial wildlife parks and field trials licensed by the Division are exempt from these provisions.

Specifically, this would strike the exemptions for small game and furbearer species "for which the daily bag or possession is unlimited," therefore prohibiting killing contests for all small game and furbearer species. It also strikes the exemption, "Provided, however, that such events are allowed if no more than five (5) of each species are taken by each participant during the entire event," which has allowed killing contests for these species to continue unabated in Colorado.

The remainder of this petition is dedicated to further explaining why wildlife killing contests should be fully banned in Colorado.

1. Wildlife killing contests undermine modern, science-based wildlife management principles and are not an effective wildlife management tool.

The indiscriminate killing promoted by wildlife killing contests is counterproductive to effective wildlife population management. To demonstrate this, we have attached a statement signed by more than 70 prominent conservation scientists that refutes the notion that wildlife killing contests are an effective method for managing native carnivore populations. Citing peer-reviewed literature, the statement demonstrates that there is no documented scientific evidence supporting common claims that wildlife killing contests permanently reduce abundance of targeted species, increase populations of deer or other game species, or prevent conflicts between native carnivores, humans, and livestock.

Scientific studies have shown that wildlife populations that are depleted by unnatural means simply reproduce more quickly due to the sudden drop in competition for resources.³ This effect is well documented in the case of coyote populations in particular, which are common targets of wildlife killing contests in Colorado. Indiscriminate killing of coyotes stimulates increases in their populations because it disrupts their social structure, thereby encouraging more breeding and migration, which ultimately results in more coyotes.⁴ Unexploited coyote populations are self-regulating based on the availability of food and habitat and territorial defense by resident family groups. Typically, only the dominant pair in a pack of coyotes reproduces, which behaviorally suppresses reproduction among subordinate members of the group. But when one or both members of the alpha pair are killed, other pairs will form and

³ 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).

⁴ *Id.*; see also S.D. Gehrt. 2004. Chicago Coyotes part II. Wildlife Control Technologies 11(4):20-21, 38-9, 42.

reproduce, lone coyotes will move in to find mates, coyotes will breed at younger ages, litters are larger, and pup survival has been documented to be higher. These factors work synergistically to increase coyote populations following exploitation events.⁵

In 2018, the North Carolina Wildlife Resources Commission ("North Carolina Commission") published its Coyote Management Plan ("Plan"). The Plan, which was developed using a large body of scientific and peer-reviewed literature, concluded that indiscriminate, lethal methods of controlling coyotes—including bounty programs, which are similar to wildlife killing contests—are ineffective and counterproductive, that coyotes provide benefits to humans and ecosystems (even outside of their historic range), and that non-lethal measures are the best way to address conflicts with coyotes. The North Carolina Commission stated that, "numerous bounty program case studies have led to conclusions that bounties are ineffective in achieving real declines of predators (including coyotes), at addressing livestock depredation, or at positively affecting populations of species targeted for protection." It further noted that killing predators in bounty programs may have undesirable effects, such as increasing prey species viewed as pests and killing non-offending coyotes, which creates a niche vacancy for coyotes that have learned to prey on livestock. The North Carolina Wildlife Resources Commission reached the following conclusions:

- a. Intensive removal of coyotes is time-consuming and expensive, and research has yet to show it to be effective.⁹
- b. Coyotes rapidly increase their populations when large numbers of coyotes are removed from an area. 10
- c. A review of 34 studies that undertook intensive coyote removal found no reduction of coyote numbers over the long term.¹¹
- d. Intensive hunting and trapping efforts aimed at lowering coyote numbers either maintained or increased coyote populations.¹²
- e. A coyote population can rebound in less than five years even when 90 percent of the population is eliminated from an area.¹³

Indiscriminate killing of coyotes also harms sensitive ecosystems. Coyotes are an integral part of healthy ecosystems, providing a number of free, natural ecological services. ¹⁴ For example, coyotes help to control disease transmission by keeping rodent populations in check, which curtails hantavirus, a rodent-borne illness that can kill humans. In addition, coyotes consume carrion, increase biodiversity, remove sick animals from the gene pool, and disperse seeds. Coyotes have trophic cascade effects such as indirectly protecting

⁹ *Id.* at 20.

⁵ F.F. Knowlton. 1972. Preliminary interpretations of coyote population mechanics with some management implications. *J. Wildlife Management*. 36:369-382.

⁶ Coyote Management Plan. (Mar. 1, 2018). North Carolina Wildlife Resources Commission: 11, 21-28, at:

https://www.ncwildlife.org/Portals/0/Learning/documents/Species/Coyote%20Management%20Plan F INAL 030118.pdf.

⁷ *Id.* 11-17.

⁸ *Id.*

¹⁰ *Id.*

¹¹ *Id*.

¹² *Id*.

¹³ *Id*.

¹⁴ Fox, C.H. and C.M. Papouchis. 2005. Coyotes in Our Midst: Coexisting with an Adaptable and Resilient Carnivore. Animal Protection Institute, Sacramento, California.

ground-nesting birds from smaller carnivores and increasing the biological diversity of plant and wildlife communities.¹⁵

2. Wildlife killing contests do not increase populations of game animals.

The best available science indicates that indiscriminately killing native carnivores is not an effective method for increasing game species abundance, including populations of ungulates, small game animals, and game birds. In response to hunters' concerns that wild carnivores are diminishing populations of small game animals, the Pennsylvania Game Commission issued a statement refuting this argument in 2016:¹⁶

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 To truly serve sportsmen, we must focus on proven means to restore small game hunting. And we do this by improving the habitat. . . . You can't manage wildlife based on what makes intuitive sense, or based on anecdotal information Practices such as forestry and farming dictate the abundance of small game, not predators. To pretend that predator control can return small game hunting to the state is a false prophecy [Predators] don't compete with our hunters for game. The limiting factor is habitat – we must focus our efforts on habitat. (Emphasis added.)

Regarding the impact of coyotes specifically on small game populations, the North Carolina Commission, citing a long list of studies, found that coyotes are beneficial to a wide array of game bird species, including ducks and quail, because they suppress populations of smaller mammals, including feral cats, opossums, raccoons, red foxes, and skunks, and lessen their effects on other species, including birds. The North Carolina Commission also found that "most coyote diet studies document low to no prevalence of wild turkey or other gamebirds in diets." ¹⁷

Killing predators also is ineffective in protecting larger game animals such as deer. The best available science demonstrates that killing native carnivores to increase ungulate populations is unlikely to produce positive results because the key to ungulate survival is access to adequate nutrition through habitat protection, not reducing predation.¹⁸

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¹⁵ 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).

¹⁶ B. Frye. (July 25, 2016). "Habitat, not predators, seen as key to wildlife populations," *Trib Live*, http://triblive.com/sports/outdoors/10756490-74/game-predator-predators.

 ¹⁷ Coyote Management Plan. (Mar. 1, 2018). North Carolina Wildlife Resources Commission: 16.
 ¹⁸ C.J. Bishop, 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.; T.D. Forrester, 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.; K.L. Monteith, V. C. Bleich, T. R. Stephenson, B. M.

Comprehensive studies, including those conducted in Colorado¹⁹ and Idaho,²⁰ show that killing native carnivores fails to increase deer herds. In recent studies that involved predator removal, those removals had no beneficial impact on mule deer populations.²¹ In recommending against a year-round hunting season on coyotes, the New York State Department of Environmental Conservation based its 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."²² The Vermont Fish & Wildlife Department made a similar finding, stating that, "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."²³

3. Wildlife killing contests do not prevent conflicts with humans, pets, or livestock—and may increase them.

Disrupting the family structure of predators may increase attacks. For example, exploited coyote populations tend to have younger, less experienced coyotes that have not been taught appropriate hunting behaviors. These coyotes are more likely to prey on easy targets like livestock or pets. Additionally, exploited coyote packs are more likely to have increased numbers of yearlings reproducing and higher pup survival. Feeding pups is a significant motivation for coyotes to switch from killing small and medium-sized prey to killing sheep.²⁴ Killing contests do not target specific, problem-causing coyotes. Most killing contests target coyotes in woodlands and grasslands where conflicts with humans, livestock, and pets are minimal—not coyotes who have become habituated by human-provided attractants such as unsecured garbage, pet food, or livestock carcasses.

Furthermore, common arguments regarding the impact of predator-livestock conflict are exaggerated. According to U.S. Department of Agriculture ("USDA") data, livestock losses to wild carnivores are minuscule. In 2015, U.S. cattle and sheep inventories (including calves and lambs) numbered approximately 118.8 million animals.²⁵ Of that total, 474,965 cattle and sheep (including lambs and calves) were lost to all carnivores combined

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.

¹⁹ C.J. Bishop, 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.

²⁰ M.A. Hurley, 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.

²¹ T.D. Forrester 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.

²² New York State Department of Environmental Conservation. (June 1991). *The Status and Impact of Eastern Coyotes in Northern New York,* http://www.dec.ny.gov/docs/wildlife_pdf/coystatnny91.pdf.

²³ "Eastern Coyote Issues – A Closer Look," Vermont Fish & Wildlife, January 2017 at www.vtfishandwildlife.com/UserFiles/Servers/Server_73079/File/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf.

²⁴ 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).

²⁵ See USDA. 2015. "Cattle and Calves Death Loss in the United States Due to Predator and Nonpredator Causes, 2015." USDA-APHIS-VS-CEAH, available at:

https://www.aphis.usda.gov/animal_health/nahms/general/downloads/cattle_calves_deathloss_2015. pdf; USDA. 2015. "Sheep and Lamb Predator and Nonpredator Death Loss in the United States, 2015." USDA-APHIS-VS-CEAH-NAHMS, available at

https://www.aphis.usda.gov/animal_health/nahms/sheep/downloads/sheepdeath/SheepDeathLoss2015.pdf.

(including coyotes, unknown predators, and dogs), or 0.39 percent of the inventory.²⁶ The predominant sources of mortality to livestock, by far, are non-predator causes including disease, illness, birthing problems, and weather.²⁷ The North Carolina Commission has noted that, based on USDA data, dogs are an equal or greater risk to sheep, goats, and cattle as compared to coyotes.²⁸

4. Wildlife killing contests contravene hunting ethics.

Wildlife killing contests violate fundamental principles of ethical hunting, which damages the reputation of Colorado sportsmen and sportswomen. The very nature of these events— where participants are motivated by financial rewards to kill as many animals as allowed over a designated time period—increases the likelihood that participants will fail to abide by the rules and values embraced by ethical sportsmen and sportswomen. The concept of fair chase is frequently disregarded in these events, with participants using bait and electronic calling devices to attract animals into rifle range with sounds that mimic prey or distress calls of wounded young. Manipulating animals' natural curiosity or compassion to lure them in for an easy kill is a reprehensible practice that disregards traditional hunting ethics. Furthermore, the carcasses of the animals killed in such contests are usually wasted.

These contests promote gratuitous violence, and send the message that killing is fun, animals are disposable, and life is cheap, as demonstrated by the behavior of participants. In early 2018, investigators with the Humane Society of the United States ("HSUS") attended the weighing in and judging portions of wildlife killing contests in New York State and New Jersey.²⁹ Investigation video footage showed contest participants slinging dead coyotes and foxes into piles to be weighed and judged, joking about the methods used to lure and kill the animals, and laughing and posing for photos in front of a row of foxes strung up by their feet. In January of 2019, the HSUS revealed the results of a second undercover investigation of a similar contest in Oregon.³⁰ In many contests, youth are encouraged to participate, and hunting equipment and high-powered rifles—including AR-15s—are awarded as raffle prizes. Betting and gambling add another unsavory dimension to the events. Such behaviors demonstrate a lack of respect for wildlife and serve to undermine the reputation of responsible hunters.

State agencies and officials have recognized the damage that wildlife killing contests do to the tradition of hunting. The Vermont Fish and Wildlife Department has stated that killing contests "could possibly jeopardize the future of hunting and affect access to private lands for all hunters." Ray Powell, the former New Mexico Commissioner of State Lands, has said, "The non-specific, indiscriminate killing methods used in this commercial and unrestricted coyote killing contest are not about hunting or sound land management. These

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²⁶ *Id*.

²⁷ For an in-depth discussion, see: Wendy Keefover, "Northern Rocky Mountain Wolves: A Public Policy Process Failure: How Two Special Interest Groups Hijacked Wolf Conservation in America," *WildEarth Guardians www.wildearthguardians.org/site/DocServer/Wolf_Report_20120503.pdf* 1, no. 1 (2012). ²⁸ Coyote Management Plan. (Mar. 1, 2018). North Carolina Wildlife Resources Commission: 10.

²⁹ Kitty Block - Humane Society of the United States, "Undercover Video Takes Viewers into Grisly World of Wildlife Killing Contests," https://blog.humanesociety.org/2018/05/undercover-video-takes-viewers-into-grisly-world-of-wildlife-killing-contests.html. (2018).

³⁰ "Undercover Investigation Exposes Grisly Cruelty at Oregon Wildlife Killing Contest; Lawmakers Move to Ban Such Events in the State," https://blog.humanesociety.org/2019/01/undercover-investigation-exposes-grisly-cruelty-at-oregon-wildlife-killing-contest-lawmakers-move-to-ban-such-events-in-the-state.html?credit=blog_post_013019_id10370 (2019).

³¹ Eastern Coyote Issues – A Closer Look," Vermont Fish & Wildlife, January 2017 at https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf.

contests are about personal profit, animal cruelty It is time to outlaw this highly destructive activity." 32

Furthermore, an untold number of animals are orphaned or injured during these events. Killing adult bobcats, coyotes, foxes, and other species will inevitably leave dependent pups to die from thirst, starvation, predation or exposure, which is cruel and goes against the values of Coloradoans. The majority of Coloradoans are likely to view enthusiasm for the mass killing of animals as barbaric, sadistic, cruel, and wasteful, which could gravely taint the image of sportsmen and sportswomen across the state.

5. Wildlife killing contests may put threatened or endangered wildlife species in peril.

Wildlife killing contests in Colorado have targeted bobcats, which are commonly mistaken for Canadian lynx due to morphological similarities. Canadian lynx, which are present in Colorado, are listed as threatened under the federal Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.* The listing of a species as endangered or threatened under the ESA triggers prohibitions under Section 9 of the Act, 16 U.S.C. § 1538, including the prohibition on the "take" of species, which is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19). Section 9 of the ESA also prohibits the "incidental take" of endangered species, *i.e.*, a take that is not a direct goal of the proposed action. 16 U.S.C. § 1536(b)(4)(C). Section 10 of the ESA extends the regulation of incidental take to cover the actions of private entities. 16 U.S.C. § 1539(a)(1)(B). Killing contests that target bobcats within lynx habitat in Colorado may result in the incidental take of lynx, which would be a violation of the ESA.

6. Wildlife killing contests are not in accord with the legislative directives of the Colorado Assembly.

CPW's and the Commission's management of wildlife is constrained by various directives. The legislature has declared that: "[i]t is the policy of the state of Colorado that the wildlife and their environment are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and its visitors." C.R.S. § 33-1-101(1). The legislature has further declared that: "[a]ll wildlife within this state not lawfully acquired and held by private ownership is declared to be the property of this state." C.R.S. § 33-1-101(2). Additionally, pursuant to C.R.S. § 33-1-106(1), the Commission must "maintain adequate and proper populations of wildlife species." In recognition of these responsibilities, CPW's mission includes "to perpetuate the wildlife resources of the state..."

Implicit in these directives is the mandate that CPW and the Commission must retain control over management of natural assets, rather than relinquish oversight to non-state or private parties.

Although wildlife belongs to all citizens in Colorado,³⁴ a small segment of the population is allowed to kill large numbers of animals in killing contests with virtually no oversight from state wildlife agencies. Most Americans are non-consumptive users of wildlife, preferring to see wild animals in nature, and to "shoot" them with a camera rather than with a gun.

³⁴ COLO. REV. STAT. § 33-1-101(1) ("It is the policy of the state of Colorado that the wildlife and their environment are to be protected, preserved, enhanced, and managed for the use, benefit, and

³² Powell, Ray: Letter to Mark Chavez, owner of Gunhawk Firearms, November 15, 2012.

³³ Colorado Parks and Wildlife, 2015 Strategic Plan, at: https://cpw.state.co.us/Documents/About/StrategicPlan/DraftStrategicPlan081415.pdf.

environment are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and its visitors."); (2) ("All wildlife within this state not lawfully acquired and held by private ownership is declared to be the property of this state.").

Indeed, in 2016, an estimated 75.9 billion US dollars was spent by individuals engaged in watching wildlife compared to 26.2 billion spent by hunters.³⁵ Allowing wildlife killing contests to continue—especially on public lands—is antithetical to the directives issued by the Colorado Assembly.

7. Four states have banned wildlife killing contests.

In 2014, the California Fish and Game Commission banned predator killing contests, making it illegal to offer a prize, inducement, or reward for killing native carnivores, including bobcats, coyotes and foxes. Vermont followed with a ban on coyote killing contests in 2018. New Mexico banned coyote killing contests in early 2019, and the Arizona Game and Fish Commission's statewide ban on killing contests for predator and furbearer species went into effect in November 2019. Two of these states – New Mexico and Arizona – enacted the ban via rulemaking. By following suit, Colorado would demonstrate its alignment with the growing national outrage against these events. Such contests are antithetical to the respectful, ethical, and pro-conservation message that we should all be advancing to ensure the long-term protection of our wildlife heritage in the United States and in Colorado.

WHO MIGHT BE INTERESTED IN THIS ISSUE? HAVE YOU COMMUNICATED WITH ANY OTHER INTERESTED PARTIES? WHAT INPUT HAVE YOU RECEIVED?

Wildlife advocates, wildlife professionals, scientists, ethical hunters, and concerned citizens in Colorado and across the United States are interested in this issue and are increasingly speaking out against wildlife killing contests. Additionally, many wildlife management professionals and ethical hunters have issued statements and testimony in which they oppose wildlife killing contests because they are pointless, ineffective, unscientific, and do not represent the values of sportsmanship, fair chase, and respect for wildlife.³⁶ A recent statement in opposition to wildlife killing contests was signed by more than 70 prominent conservation scientists.³⁷

ALTERNATIVES: PLEASE INDICATE THE PROBABLE OUTCOME IF THIS PETITION IS ACCEPTED, AS WELL AS THE IMPACT OF ALTERNATIVES TO THIS PETITION:

If this petition is accepted, Colorado would join the states of California, Vermont, New Mexico, and Arizona in banning cruel, wasteful, and unsporting wildlife killing contests. Banning these wildlife killing contests would bolster CPW's image and ensure that the practices it endorses are supported by principles of sound scientific management of wildlife populations.

PETITION PROPOSED BY: Aubyn Royall, Colorado resident and State Director for the Humane Society of the United States, and Wendy Keefover, Colorado resident and Senior Strategist, Native Carnivore Protection for the Humane Society of the United States.

PETITION WRITTEN BY: Jill Fritz, Wildlife Protection Director at the Humane Society of the United States, Wendy Keefover, Colorado resident and Senior Strategist, Native Carnivore Protection for the Humane Society of the United States, and Johanna Hamburger, Colorado resident and Wildlife Attorney for the Animal Welfare Institute.

DATE SENT TO THE COMMISSION: November 22, 2019

U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce,
 U.S. Census Bureau. 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.
 The Wildlife Society, "Position Statement on Wildlife Killing Contests."

³⁷ Project Coyote, "Statement in Opposition to Wildlife Killing Contests: Signed by More Than 70 Conservation Scientists," http://www.projectcoyote.org/wp-content/uploads/2019/05/SAB-Letter-Against-WKCs-2019.05.23-FINAL.pdf (2019).

PETITION SIGNED BY:

Aubyn Royall Colorado State Director The Humane Society of the United States

Camilla Fox Founder and Executive Director Project Coyote

Cathy Liss President Animal Welfare Institute

Lindsay Larris Wildlife Program Director WildEarth Guardians

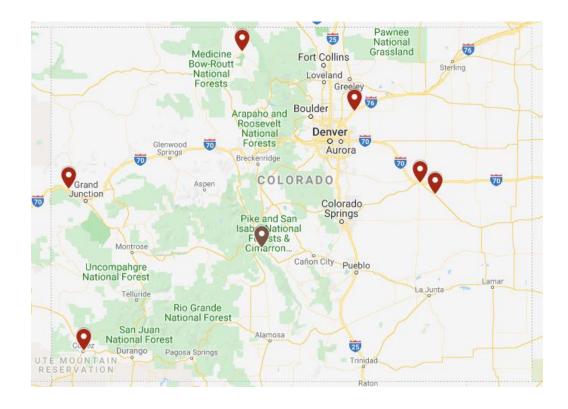
Cristina Stella Senior Staff Attorney Animal Legal Defense Fund

Collette Adkins Carnivore Conservation Director Center for Biological Diversity

Appendix I

List of Killing Contests Held in Colorado Since 2014

- Song Dog Coyote Hunt, December 14-16, 2018, Hudson https://www.facebook.com/songdogcoyotehunt/
- Coyote Calling Contest, November 29-December 1, 2018, Walden Sponsored by North Park Stockgrowers https://www.facebook.com/463551423726099/photos/a.676867122394527/1903486426399251/?type=3&theater
- Prairie Dog Shoot, July 14, 2018, Salida
 Sponsored by the Rocky Mountain Youth Project
 https://www.rmyp.org/events/2018/6/29/prairie-dog-shoot
- **Howlin' for the Heroes,** January 23-24, 2016, Loma https://www.facebook.com/Phcolorado/photos/rpp.465441513594700/61588854188 3329/?type=3&theater
- Four Corners Predator Callers Predator Hunt, January 16, 2016, Cortez \$125 to 1st, 2nd, 3rd, place for most coyotes; \$25 for heaviest and smallest coyotes Please note in this article about the contest, at https://fourcornersfreepress.com/sport-or-slaughter/, a Colorado Parks and Wildlife spokesman says, "We don't sponsor or condone or encourage these sort of things."
- Heart of the Plains Coyote Calling Contest, Hugo (2014), Limon (2015)
 Species targeted: Coyote, bobcat, swift fox
 https://www.facebook.com/Heart-of-the-Plains-Coyote-Calling-Event-155885461104425/



PROJECT COYOTE





Statement in Opposition to Wildlife Killing Contests

Signed by more than 70 conservation scientists

On behalf of Project Coyote's Science Advisory Board and the undersigned scientists, we express our support for the prohibition of wildlife killing contests—events in which participants compete to kill bobcats, coyotes, cougars, foxes, or even wolves for prizes or entertainment. These events are promoted throughout the United States.

The most general reason to prohibit wildlife killing contests is that hunters and wildlife managers believe, as a community, that killing animals without an adequate reason is unjustified and unsportsmanlike. Killing an animal for a prize or trophy constitutes killing without an adequate reason. Insomuch as wildlife killing contests are primarily motivated by killing for a prize or trophy, they are wrong.

Some advocates of killing contests argue that they are important for achieving management objectives for other species, especially game species. There is no credible evidence that indiscriminate killing of coyotes (the most common targets of killing contests) or other predators effectively serves any genuine interest in managing other species. If leaders in the hunting and wildlife management community believe that wildlife killing contests, in general, serve important objectives, then the principles of wildlife management mandate that (1) these objectives be articulated and vetted by the best-available science, and (2) some reasonable, science-based case be made to justify a killing contest as an appropriate means for achieving these objectives. In the absence of such an evaluation, these events should be prohibited.

Advocates of wildlife killing contests might argue that they are an important means for realizing one or both of these objectives: (1) decrease the loss of livestock to depredation, and (2) increase the abundance of prey species in the interest of maximizing hunting success by humans.

With respect to objective (1), a great deal of science has been developed on how to effectively manage depredations, including both lethal and non-lethal methods. Lessons from that science include:

(i) Indiscriminate killing is ineffective and it is plausible, perhaps likely, that when associated with a killing contest it would lead to increased risk of depredations. A primary reason for this concern is that only some, often only a few, individual predators participate in depredation. Indiscriminate and "pre-emptive" killing of predators associated with these events can lead to the disruption of predators' social structure and foraging ecology in ways that increase the likelihood of depredations. In hunted (exploited) coyote populations, for example, the number of surviving pups that must be fed by the alpha parents and the

number of transient individuals may increase. These factors may predispose more coyotes to depredate livestock.

(ii) The indiscriminate killing associated with a wildlife killing contest does not target: (a) the offending predator, (b) the site where depredation has occurred, and (c) the time when depredation has occurred. This renders the competitions ineffective as a means of depredation control.

While managing to reduce the loss of livestock is a common goal for all stakeholders, wildlife killing contests do not contribute to this goal and may work against it.

With respect to objective (2), a large body of science indicates that killing predators, especially under circumstances associated with killing contests, is not a reliable means of increasing ungulate abundance. The circumstances most likely to result in increased ungulate abundance are also the circumstances most likely to impair important ecosystem benefits and services that predators provide. Even when predators are killed to the point of impairing the ecosystem services, there is still no assurance that ungulate abundance will increase. The reason being is that ungulate abundance is frequently limited by factors other than predators—factors such as habitat and climate.

Beyond objectives (1) and (2), which focus on affecting game populations and livestock depredations, lies a need to better recognize and celebrate the predators' valuable contribution to the health and vitality of our ecosystems. For example, predators serve human interests through beneficial effects such as rodent control and disease prevention and promoting diverse plant communities and soil fertility. Thus, reduction of the distribution and numbers of apex predators can have detrimental ecological effects.

Some advocates of wildlife killing contests might also believe that killing coyotes is vitally important for preventing coyote populations from growing out of control. This concern is unjustified. Science demonstrates that unexploited coyote populations self-regulate their numbers by means of dominant individuals defending non-overlapping territories and suppressing subordinate pack members from breeding.

Opposition to wildlife killing contests is growing rapidly. New Mexico and Vermont abolished coyote killing contests in 2019 and 2018, respectively. The California Fish and Game Commission banned the awarding of prizes for killing furbearing and nongame animas in 2014. Local governments in Arizona, New Mexico and Wisconsin have condemned the events.

In 2018, hunter and Chairman of the Oregon Fish and Wildlife Commission Mike Finley condemned wildlife killing contests as "slaughter fests" and "stomach-turning examples of wanton waste." Former President of the California Fish and Game Commission and waterfowl hunter Mike Sutton denounced the events as "unethical" and "an anachronism [with] no place in modern wildlife management." The Vermont Fish and Wildlife Department stated, "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." The Wildlife Society issued a position statement in 2019 recognizing that "while species killed in contests can be legally killed in most states, making a contest of it may undermine the public's view of ethical hunting" and discouraging "contests that portray hunting in an unethical fashion."

John A. Vucetich, PhD

Houghton, MI

Associate Professor

School of Forest Resources and Environmental Science

Michigan Technological Univ.

Science Advisory Board, Project Coyote

David Parsons, MS

Albuquerque, NM

Carnivore Conservation Biologist, Rewilding Institute

Science Advisory Board, Project Coyote

Robert Crabtree, PhD

Victoria, British Columbia

Founder & Chief Scientist Yellowstone Ecological Research Center

Research Associate Professor, Department of Ecosystem and Conservation Science, University of

Montana

Science Advisory Board, Project Coyote

Michael Paul Nelson, PhD

Corvallis, OR

Professor, and Ruth H. Spaniol Chair of Renewable Resources

Oregon State University

Science Advisory Board, Project Coyote

Michael Soulé, PhD

Paonia, CO

Professor Emeritus

Dept. Environmental Studies, University of California, Santa Cruz

Co-founder, Society for Conservation Biology

Science Advisory Board, Project Coyote

Paul Paquet, PhD

Meacham, Saskatchewan

Senior Scientist Carnivore Specialist, Raincoast Conservation Foundation

Science Advisory Board, Project Coyote

Jeremy T. Bruskotter, PhD

Columbus, Ohio

Associate Professor SEP School of Environment & Natural Resources

The Ohio State University

Science Advisory Board, Project Coyote

Marc Bekoff, PhD

Boulder, CO

Professor Emeritus, University of Colorado, Boulder

Science Advisory Board, Project Coyote

Bradley J. Bergstrom, PhD

Valdosta, GA Professor of Biology, Valdosta State University Science Advisory Board, Project Coyote

Shelley M. Alexander, PhD

Calgary, Alberta Associate Professor, Geography, University of Calgary Science Advisory Board, Project Coyote

Adrian Treves, PhD

Madison, WI Associate Professor University of Wisconsin-Madison Science Advisory Board, Project Coyote

John Hadidian, PhD

Gaithersburg, MD Science Advisory Board, Project Coyote

Rick Hopkins, PhD

San Jose, CA Principal and Senior Conservation Biologist Live Oak Associates, Inc. Science Advisory Board, Project Coyote

Jennifer Wolch, PhD

Berkeley, CA Dean, College of Environmental Design Science Advisory Board, Project Coyote

Becky Weed, MS

Belgrade, MT Thirteen Mile Lamb and Wool Co. Advisory Board, Project Coyote

Chris Schadler, MS, MA

Webster, NH Wild Canid Specialist NH & VT Rep., Project Coyote

William J. Ripple, PhD

Portland, OR Distinguished Professor of Ecology Oregon State University

Paul Beier, PhD

Flagstaff, AZ

Regents' Professor, School of Forestry, Northern Arizona University, Flagstaff AZ Past President, Society for Conservation Biology

David Mattson, PhD

Livingston, MT

Lecturer and Senior Visiting Scientist, Yale School of Forestry & Environmental Studies USGS Colorado Plateau Research Station Leader (retired) USGS Research Wildlife Biologist (retired)

Past Western Field Director, MIT-USGS Science Impact Collaborative

Melissa Savage, PhD

Los Angeles, CA Professor Emerita University of California, Los Angeles

Philip Hedrick PhD

Tempe, AZ Ullman Professor of Conservation Biology Arizona State University

Megan Isadore

Forest Knolls, CA
Co-founder and Executive Director
River Otter Ecology Project
Member, IUCN Otter Specialist Group
Founder, Good Riddance! Wildlife Exclusions, LLC

David Fraser, PhD

Vancouver, Canada Professor University of British Columbia

Bernard E. Rollin, PhD

Fort Collins, CO University Distinguished Professor Professor of Philosophy Professor of Animal Sciences Professor of Biomedical Sciences University Bioethicist

Malcolm R. MacPherson, PhD

Santa Fe, NM Retired Scientist Member AAAS and the Society for Conservation Biology

Bob Ferris, MA

Eugene, OR

Executive Director, Cascadia Wildlands

Simon Gadbois, PhD

Halifax, NS, Canada

Director of the Canid Behaviour Research Team

Dalhousie University, Canada

Zoë Jewell, MA, MSc, Vet. MB, MRCVS

Sydney, Australia

Adjunct Faculty, Nicholas School of the Environment, Duke University

Associate Academic, Center for Compassionate Conservation,

University of Technology, Sydney, Australia

Chris Dairmont, PhD

Victoria, BC

Hakai-Raincoast Professor

University of Victoria

Dale Jamieson, PhD

New York, NY

Professor of Environmental Studies, Philosophy, and Bioethics, Affiliated Professor of Law, Director of the

Animal Studies Initiative

New York University

Kevin Crooks, PhD

Fort Collins, CO

Monfort Professor, Department of Fish, Wildlife, and Conservation Biology

Colorado State University

William Lynn, PhD

Marlborough, MA

Research Scientist

Marsh Institute, Clark University

Jonathan Way, PhD

Osterville, MA

Eastern Coyote Research

Research Scientist, Clark University

Geri T. Vistein, MS

Belfast, Maine

Carnivore Conservation Biologist

Executive Director and Founder, Coyote Center for Carnivore Ecology and Coexistence

Lisa Micheli, PhD

Santa Rosa, CA
Executive Director
Pepperwood's Dwight Center for Conservation Science

Winston Thomas, PhD

Founder and CEO, Canine Genetics, LLC San Mateo, CA

Megan M. Draheim, PhD

Washington, DC Visiting Associate Professor Virginia Tech Center for Leadership in Global Sustainability Director, The District Coyote Project

Stephen F. Stringham, PhD

Soldotna, AK
Predator Biologist
President, WildWatch Consulting
Chair, Advisory Committee, BEAR League

Bonny Laura Schumaker, PhD

La Canada, CA
Physicist & Technical Manager, Retired
(Theoretical Astrophysics and Remote Sensing)
California institute of Technology / Jet Propulsion Laboratory
Founder and President, OnWingsOfCare.org

Rolf Peterson, PhD

Robbins Professor of Sustainable Environmental Management School of Forest Resources and Environmental Science Michigan Technological University

David Johns, PhD

Hatfield School of Government Portland State University Portland, OR

Thomas L. Serfass, PhD

Frostburg, Maryland Professor of Wildlife Ecology and Chair, Department of Biology and Natural Resources North American Coordinator, IUCN Otter Specialist Group Frostburg State University

Robert Schmidt, PhD

Salt Lake City, UT Associate Professor, Dept. Environment and Society Utah State University

Arnold Newman, PhD, Executive Director

Sherman Oaks, CA

The International Society for the Preservation of the Tropical Rainforest

Susan E. Townsend, PhD

Oakland, CA

Wildlife Ecology and Consulting

Ian R. MacDonald, PhD

Tallahassee, FL

Florida State University

Martin B. Main, PhD

Gainesville, FL

Professor, Wildlife Ecology and Conservation

Associate Dean and Program Leader, Natural Resources Extension

University of Florida

Guillaume Chapron, PhD

Sweden

Associate Professor

Grimsö Wildlife Research Station

Swedish University of Agricultural Sciences

Jill Sideman, PhD

Tiburon, California

Environmental Management Consultant

Richard P. Reading, PhD

Denver, CO

Department of Conservation Biology

Denver Zoological Foundation

José Vicente López-Bao, PhD

Spain

Research Unit of Biodiversity (UO/CSIC/PA)

Oviedo University

Francisco J. Santiago-Ávila, MEM, MPP

Madison, WI

Graduate Research Scholar, PhD Candidate

Carnivore Conservation Lab

University of Wisconsin - Madison

Alexandra Pineda Guerrero, MS

PhD Student, Environment & Resources Carnivore Coexistence Lab Nelson Institute For Environmental Studies University of Wisconsin-Madison

Miha Krofel, PhD

Slovenia

Assistant Professor and Wildlife Researcher University of Ljubljana

Biotechnical Faculty, Department for Forestry and Renewable Forest Resources

Brian Schuh, MS

Madison, WI Carnivore Coexistence Lab University of Wisconsin - Madison

Andrés Ordiz, PhD

Norway

Faculty of Environmental Sciences and Natural Resources Management Norweighan University of Life Sciences

Alejandra Zarzo-Arias, PhD

Spain

Research Unit of Biodiversity (UO/CSIC/PA) University of Oviedo

Jennifer A. Leonard, PhD

Seville, Spain Doñana Biological Research Station Spanish National Research Council

Jorge Echegaray, MSc

Spain

Wildlife Researcher for Spanish Conservationist NGOs Director of the Project "Wolf in the Basque Country"

Bridgett M. vonHoldt, PhD

Princeton, NJ Assistant Professor Department of Ecology & Evolutionary Biology Princeton University

Carles Vilà, PhD

Seville, Spain
Doñana Biological Station
Spanish National Research Council (CSIC)

Klaus-Peter Koepfli, PhD

Washington, D.C.
Conservation Biologist
Smithsonian Conservation Biology Institute

Robert Long, PhD

Seattle, WA Senior Conservation Scientist Woodland Park Zoo

Alberto Fernández-Gil, PhD

Estación Biológica de Doñana (CSIC) Spain

Rich Bard

Portland, ME Wildlife Biologist

Franz Camenzind, PhD

Science Advisory Board, Project Coyote

Brad Purcell, PhD

Science Advisory Board, Project Coyote Australia The Dingo Tracker – Wildlife & Ecological Consulting

Chris Mowry, PhD

Mt. Berry, GA Associate Professor of Biology Berry College Department of Biology

Ryan Bell, MA Biology

Phoenix, AZ Miami University

John Miles, PhD

Bellingham, WA Professor Emeritis Huxley School of the Environment Western Washington University

Susan Morgan, PhD

Arroyo Seco, NM President The Rewilding Institute

Omar Ohrens, PhD

Madison, WI Visiting Assistant Professor Carnivore Coexistence Lab University of Wisconsin – Madison

Appendix A. Additional Literature Cited

Here we provide additional scientific explanation (with citations) for two ideas expressed in this letter. (1) Some advocates of wildlife killing contests (WKCs) believe they are necessary or beneficial for effective management of livestock depredation. We indicated that WKCs are unlikely to have this effect. The reason why is that most individual predators do not participate in livestock depredations (Gipson 1975; Knowlton et al. 1999; Sacks et al. 1999a, 1999b; Linnell et al. 1999; Stahl and Vandel 2001; Blejwas et al. 2002; Treves et al. 2002; Treves and Naughton-Treves 2005). Consequently, effective management of depredation requires (1) targeting the offending individual(s), and (2) intervening close to the site where the depredations occurred as well as responding in a timely manner (Gipson 1975; Sacks et al. 1999a, 1999b; Smith et al. 2000; Bangs and Shivik 2001). WKCs do not represent the kind of targeted effort required for effective management of livestock depredations.

Moreover, indiscriminate killing of predators is likely to exacerbate risks to livestock. The reason is that killing social carnivores like coyotes (and wolves) can lead to the disruption of predators' social and foraging ecology in ways that increase the number of transient individuals (Bjorge and Gunson 1985; Haber 1996; Treves and Naughton-Treves 2005; Brainerd et al. 2008). These transient individuals that have not been acculturated (aversively conditioned) to living in areas with livestock may be more likely to kill livestock. Studies by USDA's Wildlife Services clearly indicate that many, if not most, depredations are inflicted by the breeders (i.e., alphas) in coyote social groups (Knowlton et al. 1999; Sacks et al. 1999b). Even if the offending individuals are removed, they can be replaced by other members of the social group or from populations outside the area where the WKC is occurring. In some cases, this can also increase reproductive performance in coyotes (Crabtree and Sheldon 1999; Knowlton et al. 1999). Scientific evidence is increasingly suggesting that harvesting predators can exacerbate losses to livestock (Collins et al. 2002; Treves et al. 2010, Peebles et al. 2013, Wielgus and Peebles 2014).

- (2) Some advocates of wildlife killing contests believe they are necessary or beneficial for increasing the abundance of ungulate populations. We had indicated in our letter that WKCs are unlikely to have that effect. The reason why is two fold:
 - (i) Killing predators cannot result in increased ungulate abundance in cases where the ungulate population is not limited by predators, but is instead limited by other factors, such as climatic conditions or food availability (Sæther 1997; Forchhammer et al. 1998; Coulson et al. 2000; Parker et al 2009). Without careful study, the claim that killing predators will improve wild ungulate populations is simply an unsupported assumption. Moreover, scientists are not good at understanding the conditions that cause a population to be limited by predators as opposed to other factors (Vucetich et al. 2005; Wilmers et al. 2006). For example, an experimental study in Idaho (Hurley et al. 2011) found that annual removal of coyotes was not an effective method to increase mule deer populations because coyote removal increased neonate fawn survival only under particular combinations of prey densities and weather conditions.
 - (ii) Even in cases where predators do limit prey abundance, human-caused mortality (HCM) could only lead to an increase in prey abundance if the rate of HCM was sufficient to result in a significant reduction in predator abundance. Human-caused mortality is not a reliable means of reducing coyote abundance unless the rate of HCM exceeds 70% (Connolly and Lonhurst 1975). It is difficult to

imagine that any set of WKCs would be intense enough or frequent enough to result in that rate of HCM.

Finally, the interest of some advocates of WKCs (i.e., increased ungulate abundance) is antithetical to good natural resource management practices in cases where increased ungulate abundances present a risk of overbrowsing (e.g., Côté et al. 2004).

Thank you for allowing us to further explain ourselves. If additional explanation on this or any other topic would be of value, please let us know. We would be eager to provide any such explanations.

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