PROJECT COYOTE

FOSTERING COEXISTENCE

February 1, 2022

Natural Resources Subcommittee
House Agriculture, Chesapeake and Natural Resources
House Room 3, Capitol Building
1000 Bank Street,
Richmond, VA, 23218

Via House SPEAK site

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Re: Support for banning coyote and furbearer killing contests (HB 1247)

Dear Chair Edmunds and Board Members:

On behalf of Project Coyote's almost 1,000 Virginia members and supporters, our Science Advisory Board and the undersigned scientists, we express our support for the proposed regulation to prohibit coyote and furbearer killing contests.

The most general reason to prohibit 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 killing contests are primarily motivated by killing for a prize or trophy, they are wrong. Killing contests undermine the reputation of responsible hunters by violating fundamental hunting ethics and disrespecting Virginia's natural legacy. Wildlife agency professionals increasingly recognize that allowing killing contests to continue jeopardizes the social legitimacy of sportsmen and sportswomen. Eight states have enacted bans against wildlife killing contests (AZ, CA, CO, MA, MD, NM, VT, WA) and at least 16 local jurisdictions

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across the nation have passed resolutions condemning the practice and calling on state legislators to ban killing contests.

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 or other predators effectively serves any genuine interest in managing other species. If leaders in the hunting and wildlife management community believe that 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, killing contests should be prohibited.

Advocates of 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 predation, 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 predation, 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 predation on domestic animals. A primary reason for this concern is that only some, often only a few, individual predators participate in predation incidents. Indiscriminate and "pre-emptive" killing of predators associated with killing contests can lead to the disruption of predators' social structure and foraging ecology in ways that increase the likelihood of such predation. 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 prey on livestock.

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

While managing to reduce the loss of livestock is a common goal for all stakeholders, 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 predation on livestock, 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 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.

The Wildlife Society, a respected international organization representing wildlife professionals with hunting/outdoor recreational interests[1], is also concerned about killing contests, their threat to hunter reputations, and lack of justification. In their position on wildlife killing contests (see attached PDF), they state, "When informed about killing contests, a segment of the public, including hunters and groups seeking ethical hunting and humane treatment of wildlife, find these contests offensive." The statement continues, "In some cases, particularly for predators, justification for the killing contests is often based on flawed use of science. For example, coyote killing contests are often justified on the basis that coyotes kill deer or other game; however, that fails to recognize that predation is a proximal cause of mortality, but not necessarily the ultimate cause that limits a species' population."

Thank you for considering our concerns on this important wildlife conservation issue.

Respectfully submitted,

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[1] *See* https://wildlife.org/position-statements/

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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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