Testimony in Support of Canyon's Law (H.R. 4951)

Submitted to the House Committee on Natural Resources
Subcommittee on Water, Oceans and Wildlife

August 3, 2022

The International Fund for Animal Welfare[1] and Project Coyote[2] thank Chairman Huffman, Ranking Member Bentz, and the members of the Water, Oceans and Wildlife Subcommittee for conducting a hearing on Canyon's Law (H.R. 4951/S. 4584). We appreciate the opportunity to provide testimony in support of this important legislation, which would prohibit the use of deadly M-44 sodium cyanide ejectors across our nation's public lands.

Background

M-44 sodium cyanide ejectors, also known as "cyanide bombs," are spring-loaded devices that are implanted (pushed or screwed) into the ground, often resembling lawn sprinklers. An M-44 is laced with scented bait to attract canids and encourage the animals to bite and pull on the device. When an animal tugs on the baited capsule holder, the spring ejects a pellet of sodium cyanide into the animal's mouth and nostrils; once the sodium cyanide reacts with moisture, hydrogen cyanide gas is released. As a chemical asphyxiant that deprives the body of oxygen, hydrogen cyanide exposure leads to an agonizing death. The U.S. Department of Agriculture's (USDA) Wildlife Services program, which places M-44s, maintains that death by sodium cyanide is "very quick,"[3] but there have been countless stories of pets who have suffered for hours before dying from exposure.

The U.S. Centers for Disease Control and Prevention state that people who are exposed to even a small amount of cyanide can experience some or all of the following signs and symptoms within minutes of exposure: dizziness, headache, nausea and vomiting, rapid breathing, rapid heart rate, restlessness, and weakness.[4] Exposure to a large amount of cyanide may cause convulsions, loss of consciousness, low blood pressure, lung injury, slow heart rate, or respiratory failure leading to death.[5] According to the U.S. Environmental Protection Agency (EPA), sodium cyanide is highly toxic to warm-blooded animals, and is considered a Category I toxin, indicating the greatest degree of acute toxicity, for oral, dermal and inhalation effects.[6]

Although M-44s are intended to target canids like foxes and coyotes, these cyanide bombs are indiscriminate, with deadly results for companion animals, imperiled species, and people. Since the 1970s, more than 10,000 non-target animals, including family dogs, bald eagles, marmots, hawks, black bears, wolves, mountain lions and bobcats have been poisoned. M-44s harm native

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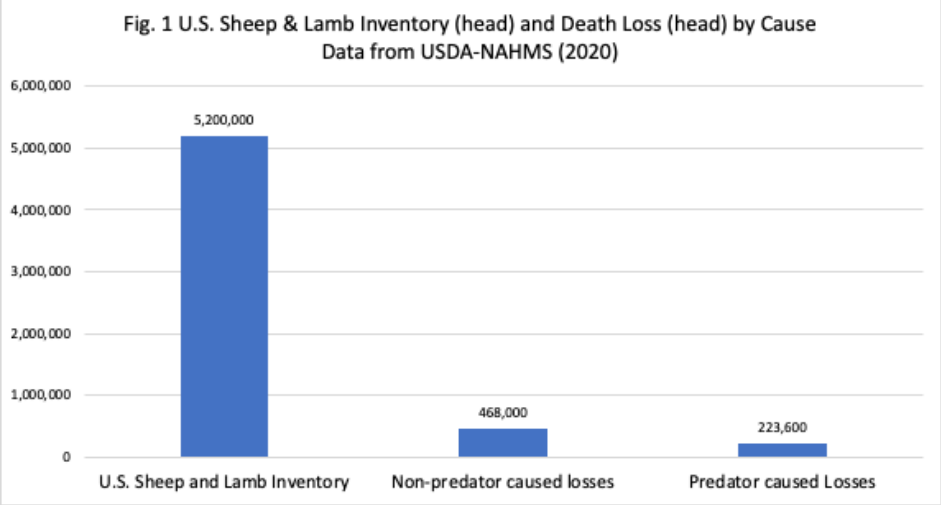
[3] USDA Wildlife Services. (2019). Factsheet: M-44 Device for Predator Control.
[4] Center for Disease Control and Prevention. (April 4, 2018). Facts About Cyanide. Centers for Disease Control and Prevention. Retrieved August 2, 2022, from https://emergency.cdc.gov/agent/cyanide/basics/facts.asp.
[5] *Id.*
[6] U.S. Environmental Protection Agency, Reregistration Eligibility Decision (R.E.D.) (1994). Facts: Sodium Cyanide. Retrieved August 2, 2022, from https://archive.epa.gov/pesticides/reregistration/web/pdf/3086fact.pdf.

wildlife and the ecosystems they inhabit—while also posing serious risks to the public, as highlighted by Dr. Mark Mansfield's testimony to this Subcommittee on July 21, 2022.

Livestock Impacts

In 2019, when the EPA announced a revised interim decision concerning M-44s and declined to ban their use for predator control—despite widespread public and scientific support for eliminating the deadly devices—livestock industry voices defended the decision, claiming that depredation was a significant challenge for producers and suggesting that M-44s could help reduce losses. However, the M-44 proponents' grisly claims about predation and impacts on livestock are misleading, as they ignore the major causes of loss within the industry.[7]

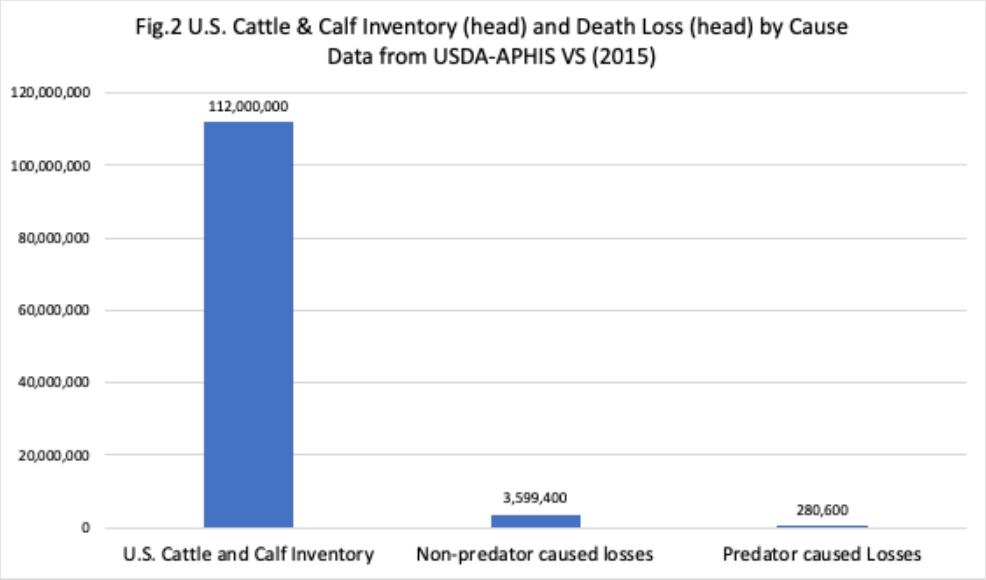
According to the most recent USDA report on sheep and lamb death loss, which reflects figures from 2019, there were a total of 5,200,000 heads of sheep and lambs in the U.S. at the end of that year.[8] The majority of sheep and lamb losses in 2019 were attributable to *nonpredator* causes, accounting for 67.4 percent of total losses.[9] As demonstrated in Fig.1, wildlife species like canids and other predators impacted just 4.3 percent of the nation's total sheep and lamb inventory. In comparison, 9 percent of the total sheep and lamb inventory were killed by nonpredator causes, especially due to digestive problems, old age, internal parasites, and weather-related causes.[10] Indeed, disease alone killed more of these livestock than did predation.[11]



With respect to cattle losses in the U.S., the impacts of predation are even more limited. According to the most recent available USDA report on cattle and calf death loss, "nonpredator

[7] Oregon Wild. (March 10, 2017). Wolves are not a serious threat to humans. Retrieved August 3, 2022, from https://www.oregonwild.org/wildlife/wolves-come-home-oregon/wolves-misunderstood#Wolves%20are%20not%20a%20serious%20threat%20to%20the%20the%20livestock%20industry.
[8] USDA. (2020). Sheep Death Loss in the United States 2020 – NAHMS. Retrieved August 2, 2022, from https://www.aphis.usda.gov/aphis/dashboards/tableau/sheep-death-dashboard.
[9] *Id.*
[10] *Id.*
[11] *Id.*

causes accounted for almost 98 percent of all deaths in adult cattle and almost 89 percent of all deaths in calves."[12] Predators are not a key contributor to cattle and calf death losses. As shown in Fig.2, an estimated 0.025 percent of the total cattle and calf inventory was impacted by predation in 2015, whereas nonpredator factors killed 3.2 percent of the cattle and calf inventory—12.8 times the loss attributed to predation.[13] Respiratory problems, old age, reproduction problems, and digestive problems were the top causes of cattle and calf death loss,[14] causing 10.6 times the loss associated with predation.[15]



Wild carnivores have long been demonized by some the livestock industry, and even by some government agencies; in turn, their threat to livestock has been greatly exaggerated, even in the face of contrary data. Behind many livestock loss claims are untold stories of poor animal husbandry that goes unaddressed by producers.[16] Yet wildlife is treated as such a glaring challenge to livestock that a federal agency places deadly and nonselective poison ejectors on U.S. federal lands, making those shared spaces unsafe for families on hikes, sportsmen enjoying the outdoors, and even children playing alongside their dogs.

Ecology

By indiscriminately killing native carnivores and other predators (in addition to many non-target species), M-44 use undermines apex predators' critical roles in maintaining healthy ecosystems. In just one of many studies highlighting the ecological value of carnivores, Henke and Bryant

[12] USDA. (2015). Death Loss in U.S. Cattle and Calves Due to Predator and Nonpredator Causes, 2015. USDA-APHIS-VS-CEAH. Ford Collins, CO.
[13] *Id.*
[14] *Id.*
[15] *Id.*
[16] Oregon Wild. (March 10, 2017). Wolves are not a serious threat to the livestock industry. Retrieved August 3, 2022, from https://www.oregonwild.org/wildlife/wolves-come-home-oregon/wolves-misunderstood#Wolves%20are%20not%20a%20serious%20threat%20to%20the%20the%20livestock%20industry.

(1999) examining the impacts of coyotes on prey species in Texas. The researchers concluded that removing coyotes adversely impacts the richness and diversity of other regional wildlife, including prey species.[17] For instance, coyote removals resulted in the Ord's Kangaroo rat becoming the dominant rodent species, which both elevated the level of interspecific competition and reduced the overall richness of rodent species.[18] Such changes in the prey base can create cascading, disruptive effects within ecosystems.[19]

Healthy native predator populations benefit species throughout their range.[20,21] Declining ecological health and stability resulting from predator control is not an isolated risk; rather, the phenomenon has been observed around the world.[22] The presence of predators like wolves, bears and coyotes in the Yellowstone ecosystem, for instance, encourages ungulates to shift their grazing sites more frequently than they otherwise would, reducing overgrazing and enabling riparian plants and other native flora to recover.[23,24] The restored plant cover provides far-reaching environmental services, protecting water quality, preventing erosion and providing forage and habitat for diverse species.[25] This same predator-induced behavior change in prey also means that ungulates spend less time in roads, thereby increasing human health and safety through reduced wildlife-vehicle collisions.[26,27,28]

Alternatives

In addition to being unjustifiable with respect to human safety, ecology, and livestock impacts, lethal approaches to predator control, like USDA's ongoing use of M-44s, are in many cases ineffective. Indeed, "government-subsidized predator control has failed to prevent the decline in

[17] Henke, S. E., & Bryant, F. C. (1999). Effects of Coyotes Removal on the Faunal Community in Western Texas. *The Journal of Wildlife Management*, 63(4), 1066-1081.
[18] *Id.*
[19] *Id.*
[20] Beschta, R. L., & Ripple, W. J. (2009). Large Predators and Trophic Cascades in Terrestrial Ecosystems of the Western United States. *Biological Conservation* 142(11), 2401-2414.
[21] Berger, J., Stacey, P. B., Bellis, L., & Johnson, M. P. (2001). A Mammalian Predator-Prey Imbalance: Grizzly Bears and Wolf Extinction Affect Avian Neotropical Migrants. *Ecological Applications*, 11(4), 947-960.
[22] Ripple, W. J., & Beschta R. L. (2012). Large predators limit herbivore densities in northern forest ecosystems. *European Journal of Wildlife Research*, 58(4) 733-742.
[23] *See, e.g.*, Ripple, W. J., & Robert L. Beschta, (2003). Wolf Reintroduction, Predation Risk, and Cottonwood Recovery in Yellowstone National Park. *Forest Ecology and Management* 184(1-3), 299-313.
[24] *See, e.g.*, Ripple, W. J., & Eric J. Larsen, E. J. (2000). Historic Aspen Recruitment, Elk, and Wolves in Northern Yellowstone National Park, USA. *Biological Conservation*, 95(3), 361-370.
[25] *See* Beschta, R. L., & Ripple, W. J. (2009). Large Predators and Trophic Cascades in Terrestrial Ecosystems of the Western United States. *Biological Conservation* 142(11), 2401-2414.
[26] O'Bryan, C. J., Braczkowski, A. R., Beyer, H. L., Carter, N. H., Watson, J. E. M. & McDonald-Madden, E. (2018). The contribution of predators and scavengers to human well-being. *Nature Ecology & Evolution*, 2, 229-236.
[27] Gilbert, S. L., Sivy, K. J., Pozzanghera, C. B., Dubour, A., Overduijn, K., Smith, M. M., Zhou, J., Little, J. M., & Prugh, L R. (2017). Socioeconomic Benefits of Large Carnivore Recolonization Through Reduced Wildlife-Vehicle Collisions. *Conservation Letters*, 10(4), 431-439.
[28] Raynor, J. L., Grainger, C. A., & Parker, D. P. (2021). Wolves make roadways safer, generating large economic returns to predator conservation. *PNAS*, 118, e2023251118.

the sheep industry."[29] An analysis of 13 years of historical data on coyote killing reinforced this point, concluding that "annual, seasonal, or monthly [sheep] depredation losses were not correlated with the number of coyotes removed," and the coyote density was not reduced by the removal efforts.[30] Given the importance of carnivores in ecosystems, the ecological consequences of carnivore removal, and the broader failure of predator control, "taxpayer dollars might be better spent to support sheep producers through...some other form of subsidy" from both economic and public policy perspectives.[31]

Alternatives to lethal predator control are readily available, and a growing body of evidence has proved nonlethal tools to be more effective in terms of loss prevention and costs over time. Through a 7-year case study in Idaho, Stone et al. (2017) demonstrated that proactive and strategic use of nonlethal predator control techniques can reduce depredation on large, open-range operations.[32] Sheep predation losses to wolves were 3.5 times greater in areas where wolves were routinely killed than in protected areas where no wolves were lethally removed.[33] In such protected areas, sheep predation losses were lowest in sheep-grazing areas within wolf-active range in Idaho.[34] The availability and demonstrated efficacy of such wildlife management strategies further reinforce the need to eliminate nonselective and dangerous M-44s.

Public Health and Safety

M-44s are non-selective and harm non-targeted species, household pets, and even humans. As referenced in Dr. Mansfield's testimony before the Subcommittee, these devices have been placed near communities with no warning to residents or authorities in violation of USDA Wildlife Services' own polices and rules. Between 2006 and 2016, Wildlife Services reported that at least 376 domestic dogs were killed by M-44s. Although this is the number reported, it is likely an underestimate, as many such killings go reported and have even been hidden by Wildlife Services.

The Mansfield family's experience speaks to the devastating human impacts of M-44s, and their painful ordeal—the poisoning of their son and his beloved dog—was unfortunately not an isolated incident. Families in West Virginia and Texas have lost their pets, and a Wyoming girl was heartbroken as two of her family dogs died upon encountering M-44s while enjoying a day outdoors with her family. Dennis Slaugh of Utah was poisoned by an M-44 device and, after years of suffering, died due to complications from cyanide exposure. Sadly, the list of dangerous

[29] Berger, K. M. (2006). Carnivore-Livestock Conflicts: Effects of Subsidized Predator Control and Economic Correlates on the Sheep Industry. *Society for Conservation Biology*, 20(3), 751-761.
[30] Conner, M. M., Jaeger, M. M., Weller, T. J., & McCullough, D. R. (1998). Effect of Coyote Removal on Sheep Depredation in Northern California. *The Journal of Wildlife Management*, 62(2), 690-699.
[31] Berger, K. M. (2006). Carnivore-Livestock Conflicts: Effects of Subsidized Predator Control and Economic Correlates on the Sheep Industry. *Society for Conservation Biology*, 20(3), 751-761.
[32] Stone, S. A., Breck, S. W., Timberlake, J., Haswell, P. M., Najera, F., Bean, B. S., & Thornhill, D.J. (2017). Adaptive use of nonlethal strategies for minimizing wolf-sheep conflict in Idaho. *Journal of Mammalogy*, 98(1), 33-44.
[33] *Id.*
[34] *Id.*

and deadly encounters with M-44s is far longer, and will continue to grow until Congress takes action.

Public Concern

The use of M-44s is highly unpopular among the American public. Lethal predator control generally has become progressively disfavored,[35] with Americans becoming "increasingly skeptical of the methods employed in the predator control actions."[36] When EPA proposed reauthorizing sodium cyanide in M-44s, more than 99.9 percent of public comments submitted in response opposed the policy and expressed support for a ban on these devices.[37] EPA acknowledged that "an overwhelming majority" of the 20,000 public comments it had received objected to continued use of M-44s.[38] EPA failed to act in accordance with this overwhelming public demand at that time, but Congress now has the opportunity to make meaningful progress.

Conclusion

M-44 sodium cyanide devices do not belong on America's public lands. These ineffective and indiscriminate devices not only fail to prevent livestock loss, but also cause devastating impacts to a wide range of victims, including humans, pets, non-target species, and ecosystems. As Dr. Mansfield explained in his testimony, survivors and victims' families will always carry the deep pain and trauma from these experiences. To ensure no one else endures what the Mansfield family and so many others have experienced, Congress must pass Canyon's Law (H.R. 4951/S. 4584).

On behalf of the International Fund for Animal Welfare and Project Coyote, thank you for the opportunity to provide testimony on this critical public safety and animal welfare matter. We respectfully advance that the Subcommittee advance H.R. 4951.

[35] Manfredo, M. J. et al. (2018). America's Wildlife Values: The Social Context of Wildlife Management in the U.S. Department of Natural Resources, Colorado State University, Fort Collins.
[36] Slagle, K., Bruskotter, J. T., Singh, A. S., & Schmidt, R. H. (2017). Attitudes toward predator control in the United States: 1995 and 2014. *Journal of Mammalogy*, 98 (1), 7-16.
[37] Center for Biological Diversity. (May 8, 2019). Analysis: Public Overwhelmingly Wants EPA Ban on Wildlife-killing 'Cyanide Bombs'. Retrieved August 2, 2022, from https://biologicaldiversity.org/w/news/press-releases/public-overwhelmingly-wants-ban-on-cyanide-bombs-2019-05-08/email_view/.
[38] Vigdor, N. (August 16, 2019). E.P.A. backtracks on use of 'cyanide bombs' to kill wild animals. *The New York Times.* Retrieved August 2, 2022, from https://www.nytimes.com/2019/08/16/us/epa-cyanide-bombs.html