

Testimony of Brian S. Bean

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to the

**The United States House of Representatives
Committee on Natural Resources
Subcommittee on Oversight and Investigations**

“The Status of the Federal Government’s Management of Wolves”

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About the Witness

I co-founded and co-own Lava Lake Land & Livestock, which raises sheep and cattle on 875,000 acres of public and private rangeland in south-central Idaho near Craters of the Moon. I co-founded and co-own Lava Lake Lamb, which sells 100% grass-fed and grass-finished lamb nationally. I serve as President of the Lava Lake Institute for Science & Conservation, an Idaho 501(c)(3) which serves as the fiscal agent for the Wood River Wolf Project, a collaborative whose mission is to reduce or eliminate wolf depredation on sheep and consequently reduce or eliminate lethal control requests on wolves in our Project Area.

Wood River Wolf Project

Collaborative approaches to preventing wolf depredation on livestock, like the Wood River Wolf Project (a sheep-centric project in south-central Idaho), reduce the effort and cost attendant to protecting livestock from apex predators.

To date, there have been few landscape-scale trials of nonlethal deterrents in overlapping wolf and livestock range, and none that involved thousands of sheep in rugged national forest conditions. Because wolves kill nearly double the number of sheep than any other type of livestock in the northern Rockies, including in Idaho ([USFWS 2015](#)), the goal of the Wood River Wolf Project was to determine if we could proactively and adaptively use nonlethal tools and techniques to significantly reduce losses of sheep to wolves while reducing lethal control of wolves across a large, rugged and primarily forested landscape. Based on data generated by the Project, we compared the rate of sheep lost to wolf depredation in a project area where nonlethal preventative measures were implemented, and a non-protected area, over 7 years starting in 2008. The Project Area and adjacent Non-Protected Area were comparable in that both were on National Forest lands in areas occupied by wolves and with a history of wolf depredation on sheep.

Our goal was not to evaluate any single tool but rather to evaluate the holistic strategy of increasing the presence of humans, more diligent management of sheep and utilizing a variety of non-lethal techniques in a proactive and adaptive fashion. As such, we used a range of common sense nonlethal deterrents including multiple livestock guardian dogs, temporary fencing, lighting, sound devices and more, depending on the situation.

Over the 7-year study period, of the 10,000 to 20,000 sheep grazed annually in the Demonstration Project Area, on average fewer than 5 sheep were killed by wolves per year – less than 30 sheep in total. Furthermore, sheep depredation losses to wolves were 3.5 times higher in the Non-Protected Area than in the Project Area. In addition, no wolves were lethally controlled within the Project Area and sheep depredation losses to wolves were just 0.02 % of the total number of sheep present, the lowest loss rate among sheep grazing areas in wolf range statewide.

The Wood River Wolf Project provides evidence that proactive use of a variety of inexpensive non-lethal techniques used adaptively can help significantly minimize livestock losses on large open rangeland operations. As such, the Project has been endorsed by Blaine County and is ongoing today (the ninth season) under the fiscal agency of the Lava Lake Institute for Science & Conservation.

If a coalition consisting of local sheep producers, county commissioners, wildlife conservation organizations, federal land managers, the state wildlife management agency and federal biologists working collaboratively with limited resources can produce these results on the ground, then I believe similar outcomes are possible in other states where wolf and livestock conflicts exist.

Sheep

Clearly, based on the results of the Wood River Wolf Project as outlined above, nonlethal preventive measures, including tools and behaviors, can be effective in western states to prevent or reduce wolf depredation on sheep.

Cattle

Figuring out how to prevent wolf depredation on cattle on western rangelands has proven more difficult and has taken longer than similar efforts with sheep. Nevertheless, much progress has been made over the last four or five years.

Sheep exhibit a banding instinct and are typically accompanied by herders on western rangelands. Cattle do not have the same banding instinct and are typically pastured, not herded. Over the course of 80 years or so of raising cattle in country that no longer supported

wolves, cattle largely lost their defensive behaviors when confronted by that re-introduced or re-colonizing predator. In addition, polled (hornless) cattle breeds are preferred by most producers today, reducing the ability of cattle to defend themselves against wolves.

“Re-wilding” cattle refers to the reinforcement of defensive behaviors, including bunching, in the face of wolf depredation. In addition, range riding has proven effective in the Tom Miner Basin and Centennial Valley in Montana. (In the latter location, range riding also involves protecting cattle from depredation by grizzly bears.) As with sheep, the costs per head associated with nonlethal control may be reduced through collaborations involving several producers.

Range riding is yielding an unexpected additional economic benefit: sick or injured cattle, including calves, are typically found and treated earlier, reducing normal death loss. In addition, range riders, if properly trained, are able to move cattle and make better use of forage resources, resulting in fewer “hot spots” and more even range utilization.

Behavioral Economics

Generally speaking, livestock production is a low margin business. Participants in low margin businesses typically have limited capacity to assume incremental risk and are therefore more risk averse, generally, than participants in high margin businesses. Producers perceive changes in production protocol to be inherently risky. Learning how to effectively deploy nonlethal deterrents to wolf depredation is clearly a change in protocol. As a consequence, nonlethal buy-in is seen as risky and is resisted by many producers as a consequence.

Why should a producer be interested in learning about nonlethal techniques, training his herders, or cowboys (including range riders), investing in equipment and deploying tools in the field? Why, indeed. The phone call to request a lethal control action is essentially free to the producer. The costs of lethal control are considerable but are not borne by the producer, but by federal and, in at least one case, state taxpayers. Although there are disturbing exceptions, a lethal control request is legitimized if livestock have been killed. Hasn't the producer then incurred an economic loss? Certainly. But federal funding, typically administered by state agencies, is available to compensate the producer for those livestock losses. If fully compensated, the producer *has not incurred a net economic loss for livestock killed by wolves, and has not participated at all in the cost of lethal control.*

In essence, then, from the producer's perspective, it is *low-risk, easy and free* to request lethal control.

Emphasis on Lethal Control

After federal (legislative) delisting (under ESA) of the northern Rockies' (tri-state) "experimental, non-essential" (reintroduced) gray wolf population, the emphasis on "managing wolves" has been a *de facto* emphasis on killing wolves – as opposed to the implementation of nonlethal control measures. For example, in Idaho, the Wolf Depredation Control Fund, administered by a Board consisting largely of members appointed by Idaho's Governor or by those appointed by the Governor, expressly stipulates that every dollar of this \$2,000,000 appropriation (involving \$400,000 authorized by the state legislature every year for five years) must be used to kill wolves. In other words, the Wolf Depredation Control Fund can not be used to support the use of nonlethal measures.

There are several sources of funding for the Wolf Depredation Control Fund; I note that some funding comes from producers' livestock and wool sales, so that even those operators who have found nonlethal deterrents to be effective, and prefer to use them, such as Lava Lake Land & Livestock, for economic or ecological reasons, find that they do in fact economically support killing wolves in response to depredation events whether they wish to or not.

Notwithstanding the above, some states recently colonized by gray wolves do place more emphasis on the implementation of nonlethal measures to reduce or prevent wolf depredation on livestock.

Oregon has been among the most progressive states in wolf conservation and management in the U.S. "Under the Oregon Wolf Plan, in all phases of wolf management, non-lethal preventive measures to prevent wolf-livestock conflict remain the first choice of Oregon wildlife managers. These non-lethal preventive measures are required in all phases of wolf management before ODFW [Oregon Department of Fish and Wildlife] would consider lethal control of wolves due to livestock depredation." See: <http://www.dfw.state.or.us/wolves/faq.asp>

The Oregon Wolf Plan "mandates focusing on non-lethal efforts before lethal removal is considered. Though the wolf population has increased significantly over the last 7 years, depredation events and livestock losses have stayed relatively stable." The 2015 Oregon Wolf Annual Report states: "Overall, confirmed incidents of depredation decreased in 2015 from the previous year (9 vs. 11), and the number of losses also decreased... Confirmed losses in 2015 were 3 cattle, 10 sheep, and 1 livestock working dog..." (2015 Oregon Wolf Annual Report).

The Department's dedication, hard work and genuine transparency have demonstrated that wolves and livestock can coexist with minimal losses when nonlethal methods and strategies are effectively implemented.

Lethal Control on Public Lands

In my experience, sheep and cattle producers that operate on public lands believe two things

that are relevant to this testimony: (i) that their federal congressional delegations have been largely successful over many decades in protecting their grazing preferences on public lands and *are likely to continue to be effective* and (ii) they needn't be concerned about economic backlash from consumers of their products if they request lethal control.

The latter is true, in my opinion; despite USDA's Source Verification program, which theoretically allows a consumer or FSIS (USDA's Food Safety and Inspection Service) to retrace a T-bone steak back to the rancher who raised the steer, this is usually quite difficult, at least for the consumer. Ask yourself, "How would I go about finding out where the cut steak in the meat case in my local market or butcher shop came from?" It's one thing for Michael Pollan to trace steer No. 534 downstream, quite another to swim back upstream and finger the producer that raised the animal. As a consequence, it would in most circumstances be exceedingly difficult and time consuming for the concerned consumer to boycott protein products derived from livestock raised by producers who elect to request lethal control actions on wolves – unless those producers are publically associated with a particular brand, which would likely be economic suicide.

The former, however, bears closer examination. It is true that the congressional delegations of western states have been largely effective in protecting the interests of public lands grazers since the Taylor Grazing Act was passed in 1934, or earlier. In my opinion, it is not necessarily the case that that support will continue to be as effective. At the end of the day, public lands grazers operate on the public domain at the discretion of the public. This isn't the early 19th century when most Americans lived on the farm, nor the early 20th century when 30% of Americans were still tied to agricultural pursuits. Today, in the early 21st century, fewer than 2% of Americans are farmers or ranchers.

Notwithstanding the fact that tens of millions of Americans have never stepped foot on a farm or ranch and some believe that milk comes from a carton, the majority of Americans like wildlife and believe that predators deserve a place on the landscape. These Americans will stand up for wildlife – including wolves and other apex predators -- and vote their beliefs.

The shrewd producer, in my opinion, recognizes the risk of public lands grazing disenfranchisement by a public that in frustration concludes that *the only way to eliminate behaviors they find objectionable is to dismantle the whole shebang* -- politically. The facts that a lethal control request is free to the producer and that producers in many states are compensated for livestock lost to wolves in no way make up for the risk of losing it all, because most public lands grazing operations could not survive solely on their deeded (privately owned) lands.

Depredation and Lethal Control Economics

The Profanity Peak Pack (Washington State) kill order contemplates the lethal control of all 11 wolves in the pack. From July 8th to September 16th, 2016, 13 cattle were killed or injured by wolves (8 confirmed and 5 probable). Six wolves (5 adults and one pup) have so far been killed.

A steer or heifer at a finished slaughter weight of roughly 1,350 lbs on average was worth \$1,553 per hd at \$1.15 per live-weight lb (as of August 25th). The cost of killing a wolf varies. If a USDA APHIS Wildlife Services trapper tasked with executing the kill mandate requested by an affected producer and authorized by the cognizant state wildlife management agency is lucky and kills a wolf on the ground with a rifle, the expense is salary and benefits, fuel, overhead and the cost of a bullet, a few hundred dollars to a few thousand. If, as is often the case, a wolf is killed via aerial gunning, costs would include roughly \$1,500 per hour for the aircraft, plus the cost of the pilot and sharpshooter, etc. The cost of lethal control by aerial gunning can be \$11,000 per wolf. A reasonable estimate of cost is \$7,000 per wolf killed, but can be much higher. \$7,000 (paid by the taxpayer) divided by \$1,553 (when reimbursed, also paid by the taxpayer) is 4.5x. Let's reduce that to 4x.

In practice, depredation events involving wolves that result in the loss of a few head of livestock increasingly result in kill mandates, typically executed by Wildlife Services, that contemplate the removal of entire packs. I refer to this phenomenon as "disproportionate response". To illustrate, if seven sheep are killed by wolves in a single depredation event or multiple events involving the same operator, and those sheep (running-age ewes or lambs, as the case may be) are worth \$200 each, for a total of \$1,400 in economic loss, the kill order may involve all seven wolves in a pack and may cost taxpayers as much as \$50,000 or more. The dollar ratio in this illustration is 35:1.

Continuing the illustration, let's say that the same producer has 10,000 breeding ewes which produce, on average, 1.4 lambs. Thus, the producer is managing about 24,000 animals during the spring and summer grazing season. It is not unreasonable to assume a disappearance loss (lambs only) of 4.5% (630 lambs) during the grazing season, mostly from predators and most of that from coyotes. In this illustration, if 85% of the disappearance loss is due to depredation and 70% of the depredation loss is inflicted by coyotes, that producer has lost 375 lambs to coyotes before weaning. If that producer suffered as many as 20 lambs killed by wolves that same season, the ratio of loss due to coyote depredation to loss due to wolf depredation would be more than 18 to one. The uncomfortable reality is that depredation by coyotes on sheep (including ewes) is a much greater economic issue for most range sheep operators than depredation by wolves.

Pause to consider what producers would do if they were required to pay for lethal control of wolves on public land. Continue to request lethal control? Or try nonlethal and prevent or reduce depredation in the first place? I assume here that producers would still be compensated for livestock lost to wolves.

I raise these questions because a debate is raging in the media today about killing wolves on public land. As is usually the case where the gray wolf is concerned, the debate is dogmatic, polarized and frequently vitriolic. The topics of discussion vary from the rationale and legitimacy of killing wolves in a congressionally-designated wilderness -- to reduce the number of "hunnable" wild ungulates killed by wolves -- to the acceptability of providing expensive predator management services *gratis* to public lands grazers who are seen by many citizens to benefit already from what are assumed to be subsidized grazing fees on federal lands.

I am grateful to be able to provide this testimony. When I return to Idaho, I will doubtless have the results of the forensic analysis conducted by our Wildlife Services trapper on the depredation of one of our slaughter-weight steers at Lava Lake Ranch last weekend. Lion or wolf? For us, whatever the answer, it will be a reminder that we need to maintain vigilance, and that evolving the efficacy of nonlethal control measures will benefit Lava Lake and others committed to the proposition that predator co-existence is not only possible, but also risk mitigating.
