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Ms. Hallie Zimmers, Stakeholder Liaison
Legislative and Public Affairs
APHIS, Room 1153
1400 Independence Avenue SW.
Washington, DC 20250

RE: recommendations for redirection of management operations by Wildlife Services

Dear Ms Zimmers:

The American Society of Mammalogists (ASM, hereafter “The Society”) is a non-profit, professional, scientific, and educational Society consisting of nearly 3,000 members from all 50 United States and 60 other countries worldwide. The ASM was founded in 1919 and is the world’s oldest and largest organization devoted to the study of mammals. We strongly support the conservation and responsible use of wild mammals based on current, sound, and accurate scientific knowledge. The Society has a long history of reviewing issues related to mammalian conservation, and where appropriate, adopting positions on issues concerning the conservation and responsible management of mammals and their habitats based upon our scientific expertise.

We write to you to urge the redirection of management operations of an agency of USDA’s Animal and Plant Health Inspection Services known as Wildlife Services (WS) and specifically to substantially reduce its funding for lethal control of native wildlife species, especially native wild mammals. Below we explain our reasons, and we cite many statistics on lethal control of native mammals by WS since 2000, found on the agency’s own website at, starting at: http://www.aphis.usda.gov/wildlife_damage/annual%20tables/00table10t.pdf.

We begin by stating our strong belief that a federal agency with capable and experienced wildlife professionals should oversee if not be directly involved in ameliorating and mitigating conflicts between wildlife and human activities. Perhaps the primary emphasis of such an agency should be to control invasive exotic species, a rapidly worsening threat to rare native species and ecosystems (Stachowitz and Tilman 2005). Beyond that, when native species cause conflicts these should first be addressed by prevention, avoidance, public education and non-lethal control. And throughout, there must be ongoing research into the efficacy and costs vs. benefits of any control programs. Instead, with particular reference to certain native species of mammals, especially native carnivores and rodents, we see from WS a heavy and inflexible emphasis on lethal control and a lack of scientific self-assessment of the effects of WS’s lethal control programs on native mammals and ecosystems.

We see little evidence that the focus or practices of WS regarding native mammals have changed substantially from its progenitor agencies in the Bureau of Biological Survey 100 years ago, which were responsible for

reducing prairie dog populations to the point that the black-footed ferret became critically endangered (Belant et al. 2008) and for extirpating the gray wolf from almost all of its former range in the lower 48 states. The Society's first resolution (1927) called for science, not politics, to inform government policy on predator control. Aldo Leopold, legendary conservationist and founding member of ASM, famously and poignantly regretted his role in lethal wolf control for the federal government after recognizing the central role of top predators in ecosystem integrity (Leopold 1949). The Society passed a resolution in 1998 and wrote a letter in 2004 to oppose the USDA's plan to shoot and poison prairie dogs, including within the most important recovery area for North America's rarest mammal—the black-footed ferret—which is dependent on prairie dogs for 90% of its prey. Ecosystem science has progressed a great deal since Leopold's 1949 essay and has only bolstered his epiphany on the integral value of intact ecosystems with their apex predators, and the pervasive ecological damage done by removing them from natural systems (Estes et al. 2011). WS's ongoing record of lethal control stands in stark contrast to this growing consensus among ecologists.

Using WS's own reported kill data from fiscal years 2000 through 2010, WS agents have killed more than 2 million native wild mammals in the United States in those 11 years, including 915,868 coyotes, 321,051 beavers, 126,257 raccoons, 83,606 skunks, nearly 70,000 ground squirrels, 50,682 red and gray foxes, 43,640 prairie dogs, 29,484 opossums, 25,336 marmots and woodchucks, 19,111 muskrats, 4,559 bears, 4,052 mountain lions, and 3,066 endangered gray wolves, nearly all of these intentionally.

The number killed per year of many of the primary targets of WS lethal control and of certain other carnivores is remarkably constant, with coyote numbers always between 72,000 and 90,000; beavers between 25,000 and 32,000; raccoons between 9,700 and 15,000; red foxes between 2,000 and 3,000; cougars between 330 and 462. The consistency of these numbers, year after year, implies either that the killing is creating population sinks that quickly fill, or that reproduction is compensating for the increased mortality. However, we have no real data on the effects of this lethal control on the populations of target or non-target species because there is very little monitoring being done. Nevertheless, it is clear that the ongoing slaughter has not brought about any long-term solution to the perceived problem; instead, it is estimated that at least 5 taxpayer dollars are expended to kill every coyote that is deemed responsible for the loss of one dollar's worth of livestock, and this figure does not count the damage to the range and lost forage for the livestock caused by any compensatory increases in jackrabbits when coyotes are removed (Alcock 1990).

In contrast to the constant numbers of kills of the long-running staples of WS's extermination business, the number of gray wolves killed has actually *increased* steadily over this same time period, reaching 480 in FY2009. This number has increased much faster than even the claims of cattle depredations by wolves in the recovery area; in Wyoming, for example, confirmed wolf depredations of cattle and number of packs depredating has declined steadily since 2006 (USFWS 2012). Cattle losses to all predators account for only 5.5% of total mortality (USDA 2012) and even in the northern Rocky Mountain wolf recovery zone, wolf predation accounts for only a small fraction of predator losses (USFWS 2012). Seventy-seven percent (33,608) of prairie dogs killed during 2000-2010 were killed in 2009 and 2010. In 2010, a wolverine was unintentionally killed in a WS trap; the USFWS service ruled that year that wolverines warranted protection under the Endangered Species Act, but listing was precluded, ironically, due to limited resources and higher priorities. In times when fiscal constraint is demanded, we believe programs that carelessly kill rare species and indiscriminately kill a great diversity of non-target species should be defunded and discontinued, especially given that those programs work at cross purposes to federal and state programs (e.g., endangered species recovery) starved for funds to restore these same species and ecosystems.

It occurs to us, as mammalian biologists, that killing large numbers of carnivores of many species may be a reciprocally self-canceling action. For example, reducing wolf populations causes "mesopredator release" and increases coyote predation (Prugh et al. 2009). A massive campaign to exterminate wolves and coyotes across the West was begun in the early 1900s; by the 1920s, rabbits had so overpopulated the region that another massive campaign was begun to reduce their numbers (600,000 rabbits were killed in one year in Idaho by government hunters; Hawthorne et al. 1999). Apparently WS never did make the obvious connection

between coyote control efforts and rabbit population numbers. Mass extermination programs to eliminate prairie dogs also began in the early 1900s and their loss has had cascading effects on the quality of grassland ecosystems. Not only have species associated with prairie dogs declined, but their loss has resulted in the invasion of desert shrubs into North America's grasslands (Jones 2000, Weltzin et al. 1997). These and other examples suggest to us a somewhat blind approach by WS, with slaughter of wildlife as the end and not the means to any scientifically justified goal. The majority of this killing is complaint-driven, not science-driven. There is an obvious emphasis on mammalian carnivores and other perceived pests of agriculture, including especially, ranching interests. Prairie dogs, ground squirrels, and beavers are major targeted species. In effect, much of the annual \$85 million (FY2012) budget of WS represents another federal taxpayer subsidy of an already heavily taxpayer-subsidized industry (Ketcham 2012).

More recently, there has been evidence that WS sees another role for itself, and that is to increase the population density of certain favored game species such as elk, ostensibly by targeting entire wolf packs for extermination by aerial gunning in areas where sport hunting groups, without scientific basis, argue that their quarry is not abundant enough (and that the only reason for a perceived but unproven paucity is "too many wolves"; Robbins 2011). As much as we oppose the wastage of our native wild mammals to benefit a relatively few ranchers (especially those grazing at well-below-market fees on our federal public lands), we feel this new perceived obligation by WS sets a dangerous precedent. We adamantly oppose this new direction by a federal agency that appears to be picking winners and losers among the wildlife-consuming public, and in so doing the agency is unscientifically, and perhaps unintentionally, picking winners and losers among species of native wildlife, themselves. The U.S. public, which WS and other agencies should serve, is extremely diverse in its interests, and millions of citizens generate over \$100 billion in economic activity to observe native wildlife in its native habitats (Leonard 2008), especially on our federal public lands, where much of WS's work is conducted. Wolf watching alone has been estimated to generate \$70 million annual economic impact on the Greater Yellowstone Area (Stark 2006).

Even if there were a proven benefit of the targeted killings of mammals by WS, their 2000-2010 kill data reveal several striking examples of waste and inefficiency in WS's lethal control efforts. Badgers are targeted in most states where they occur, but fully a third (185 per year) of those killed during the period were, by WS's own statistics, killed unintentionally. Ninety-five percent of the kit foxes killed during this period (316) were killed unintentionally—having been caught in a neck snare or leghold trap or killed by M-44 cyanide capsules set for coyotes—as were 99.5% of the swift foxes killed (198). The latter is particularly unfortunate as the swift fox was nearly driven to extinction by the 1930s as a result of non-target mortality from federal coyote and wolf control programs. Pronghorn are almost never targeted by WS, but an average of 3 per year are accidentally killed by WS neck snares.

Eighty-six percent of the 33 ringtails killed over this period were killed unintentionally, as were 97.8% of the 2,179 collared peccaries killed. Perhaps the most glaring example of waste in the WS data is that 80% of the 5,643 river otters killed by WS from 2000-2010 were killed unintentionally, most likely by conibear traps set for beavers and snares set for muskrats. The image of the federal government accidentally killing hundreds of river otters each and every year is especially unfortunate in light of the money and effort expended in at least 21 states in recent years to reintroduce this member of their native mammal fauna, which had become extirpated or severely reduced due to trapping, pollution and habitat degradation (Raesly 2001). Including the abovementioned examples, in all, we have found that 13 species of carnivores and several species of non-carnivore mammals killed by WS are state-listed (as endangered, threatened, rare, or special concern) in one or more U.S. states, and that 10 species of mammalian carnivores killed by WS are on the federal list of endangered and threatened species (S.R. Sheffield, unpubl. data).

Finally, WS has a poor record of safety of its agents and pilots, with several deaths and injuries from its aerial gunning actions—which are often conducted against carnivores in federal wilderness areas remote from any livestock issues (Ketcham 2008)—and of safeguarding the many toxic chemicals it deploys across the country (see Public Employees for Environmental Responsibility, Press Release, 27 July 2006). The Society has

previously (2002) strongly urged the U.S. EPA to withdraw USDA's permit for the use of the extremely lethal and highly non-selective sodium cyanide in M-44's. We continue to be adamantly opposed to its use, and to that of other poisons, because of the widespread lethality to non-target mammals and birds, some of which are state or federally threatened or endangered.

In summary, we believe that current science does not support much of WS's lethal control of native mammals, that it is wasteful and often counterproductive (e.g., inducing various forms of predator release, and causing increased densities and disease prevalence in prey populations, resulting in habitat degradation). And both target and non-target lethal control by WS often works at cross-purposes to taxpayer-supported efforts by other state and federal agencies to conserve and enhance the very same species that WS kills. For example, USFWS's program to recover the critically endangered black-footed ferret is currently hindered by the lack of reintroduction sites, which consist of large colony complexes of prairie dogs; the latter are extremely rare, in part due to government-funded extermination programs (Davidson et al. 2012). Another case in point is the gray wolf, on which the federal government has spent in excess of \$43 million since 1974 in its highly successful effort to reintroduce and conserve the species (USFWS 2011). WS's collaboration with the State of Idaho in its excessive zeal to remove most of those wolves that the government has restored, for reasons that are not scientifically supported, is perhaps the most troubling of all. We believe an agency of the federal government should not be in the business of helping any state (or private entity) achieve such a politically motivated and scientifically unsupported goal.

We call on USDA-APHIS to end the use of toxic chemicals left in the environment by WS (e.g. laced carcasses and M-44s); to cease aerial gunning activities in wilderness areas; to substantially reduce Wildlife Services' budget for lethal control of native wild mammals, except in rare circumstances such as bona fide disease control, and where temporary predator control is necessary for another endangered species to become established and secured; and for WS to redirect its efforts at: 1) lethal control and eradication of invasive exotic species (including feral domestic species); 2) development, enhancement and public education in non-lethal remedies to avoid native wildlife conflict (e.g., <http://www.beardogs.org/programs/index.html>); and 3) research into holistic management, especially non-lethal methods, which acknowledges current ecosystem science and the value of top-down control by apex predators (Estes et al. 2011).

Thank you for your careful consideration of our comments.

Respectfully,



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References

- Alcock, J. 1990. The cost of coyote meat. Los Angeles Times, 25 March 1990.
- Belant, J., P. Gober, and D. Biggins. 2008. *Mustela nigripes*. In IUCN 2011. IUCN Red List of Threatened Species. Version 2011.2. www.iucnredlist.org.
- Estes, J.A., J. Terborgh, J.S. Brashares, et al. 2011. Trophic downgrading of Planet Earth. *Science* 333: 301-306.
- Davidson, A.D., J.K. Detling, and J.H. Brown. 2012. Ecological roles and conservation challenges of social, burrowing, herbivorous mammals in the world's grasslands. *Front. Ecol. Environ.* In Press.
- Hawthorne, D.W., G.L. Nunley, and V. Prothro. 1999. A history of the Wildlife Services program. The Probe (Newsletter of the National Animal Damage Control Association) 197:1-7. <http://digitalcommons.unl.edu/icwdmprobe/43>.
- Jones, A. 2000. Effects of cattle grazing on North American arid ecosystems: A quantitative review. *Western North American Naturalist* 60: 155-164.
- Ketcham, C. 2008. America's secret war on wildlife. *Men's Journal*, January 2008, pp. 49-51.
- Ketcham, C. 2012. Wolves to the slaughter. *The American Prospect*, 13 March 2012.
- Leonard, J. 2008. Wildlife watching in the United States: The economic impacts on national and state economies in 2006. *Wildlife and Sport Fish Restoration Programs*, U.S. Fish and Wildlife Service, Arlington, VA.
- Leopold, A.S. 1949. Thinking like a mountain, pp. 129-130 *In* A Sand County almanac and sketches here and there. New York, Oxford University Press.
- Prugh L.R., Stoner C.J., Epps C.W., W.T. Bean, W.J. Ripple, A.S. Laliberte, J.S. Brashares. 2009. The rise of the mesopredator. *BioScience* 59: 779-791.
- Raesly, E.J. 2001. Progress and status of river otter reintroduction programs in the United States. *Wildlife Soc. Bull.* 29: 856-862.
- Robbins, J. 2011. Hunting wolves out West: More, Less? *New York Times*, Green Blog, 16 December 2011.
- Stachowicz, J.J., and D. Tilman. 2005. Species invasions and the relationships between species diversity, community saturation, and ecosystem functioning. In D.F. Sax, J.J. Stachowicz, and S.D. Gaines. *Species Invasions: Insights into Ecology, Evolution, and Biogeography*. Sunderland, Massachusetts, Sinauer Associates.
- Stark, J. 2006. UM economist: Wolves a big moneymaker; Yellowstone Park survey finds animals have \$70M effect. *Billings Gazette*, 7 April 2006.
- [USDA] United States Department of Agriculture. 2012. Cattle death loss. USDA National Agricultural Statistics Service, Agricultural Statistics Board, released 12 May 2011.
- [USFWS] U.S. Fish and Wildlife Service. 2011. Northern Rocky Mountains Wolf Recovery Program Update 2011 (M.D. Jimenez and S.A. Becker, eds.). USFWS Ecological Services, Helena, MT, 50 pp.

[USFWS] U.S. Fish and Wildlife Service. 2012. Gray wolves in the northern Rocky Mountains; www.fws.gov/mountain-prairie/species/mammals/wolf/.

Weltzin, J.F., et al. 1997. Small-mammal regulation of vegetation structure in a temperate savanna. *Ecology* 78: 751-763.