



**THE HUMANE SOCIETY
OF THE UNITED STATES**

1255 23rd St. NW
Suite 450
Washington, DC 20037
P 202-452-1100
F 202-778-6132
humanesociety.org

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House Natural Resources and Outdoor Recreation Committee
Room 307, House Office Building
Lansing, MI
mwingrove@house.mi.gov

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Dear Chair Howell, Vice Chair Markkanen, Vice Chair Sowerby, and members of the House Natural Resources and Outdoor Recreation Committee,

On behalf of the Humane Society of the United States and our supporters in Michigan, I am writing to urge the House Natural Resources and Outdoor Recreation Committee to oppose Senate Concurrent Resolution 7, which would encourage the Michigan Natural Resources Commission (NRC) to authorize a hunting and trapping season for Michigan's gray wolves. The claims made in this resolution are not based in science and in many cases serve to spread misinformation and ignore public values. The Department of Natural Resources is currently taking steps to update Michigan's Wolf Management Plan—a necessary process to ensure that Michigan's wolf management is based on the best available science and Traditional Ecological Knowledge, consultation with sovereign tribes, and all Michigander values.

Michigan residents do not support the trophy hunting¹ or trapping of wolves. Even before that was confirmed by a wide margin in the 2014 general election referendum ballot vote, a Michigan State University (MSU) poll stated, "Michiganders do not support consumptive uses of wolves."² An analysis of another MSU survey noted, "Most residents, including hunters, Northern Lower Peninsula (NLP) residents and minorities, highly value wolves, are not interested in hunting them and support the role of science in making decisions."³ That same survey found that 82% of participants (including 61% of participants residing in the UP) agreed that wolves have value. Just 14% of those surveyed said they would hunt or trap wolves if such activities were legal.⁴ In the November 2014 general election, Michigan voters soundly rejected two laws authorizing a wolf hunt.

Last week's meeting of the Wolf Management Advisory Committee included a presentation of the preliminary results of the recent public attitude survey commissioned by the DNR. The presentation made it clear that the data in their current form are not representative of the general population, and that the views expressed were almost entirely drawn from a population of white men over the age of 60. The survey also singled out three sub-populations: UP livestock producers, deer license buyers, and fur harvester license buyers. These consumptive users represent only a tiny minority of Michigan's population. The social science that is relied upon to inform wolf management decisions must be reflective of all state residents

There are no scientific, ethical, or economic justifications for a wolf season. Such a season could have dire consequences, as scientific research shows that killing single adult wolves can result in the loss of *entire packs*, by causing the loss of dependent pups and disrupting the pack's social structure.⁵ Randomly killing wolves through



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trophy hunting and trapping does not resolve already rare conflicts with livestock, nor does it boost ungulate populations. Allowing wolf hunting and trapping will not increase social tolerance for wolves but could actually decrease social tolerance and cause an increase in wolf poaching. A recent study entitled, “A review of the effects of liberalizing the killing of wolves” addresses and debunks the most common justifications for killing wolves by reviewing science, and we would encourage this committee to review it.⁶

For these and other reasons described herein, we urge the Committee to oppose Senate Concurrent Resolution 7.

1. Establishing wolf trophy hunting and trapping seasons is reckless and goes against the best available science

- a. The best available science, including Traditional Ecological Knowledge, and ethics must be the foundation for all wolf management decisions*

Wolf management decisions must be rooted in sound science. The best available science is that which is current, measurable, consistent, peer-reviewed, and evidence-based, together with Traditional Ecological Knowledge.⁷ Traditional Ecological Knowledge must be considered alongside Western science. The two share many similarities, including a focus on empirical observation, pattern recognition, knowledge organization, and many other commonalities.⁸ Decision-makers should draw on the combined strengths of both Western science and Traditional Ecological Knowledge to effectively conserve wolves and educate the public.⁹

Additionally, science does not exist in a vacuum, and decisions about wolf conservation and management cannot be made by looking at science alone. Instead, we also have to examine our value judgements and systems of thinking. We know that Americans, including most Michiganders, value wolves and favor coexistence over killing.¹⁰ These values align with the best available science, which demonstrates that wolves play a key role in keeping our ecosystem healthy and biologically diverse.¹¹ Ethical considerations are complementary to the use of the best available science and must be considered in wolf management decisions.

- b. Wolf trophy hunting and trapping is super-additive*

Scientific research demonstrates that trophy hunting and trapping wolves causes a cascade of harms resulting in death and disruption beyond that individual.¹² The best available science describes this as “additive” and “super-additive” mortality.¹³ Killing single adult wolves can result in the loss of *entire packs*, by causing the loss of dependent offspring and disrupting the pack’s social structure.¹⁴

Studies show that killing wolves causes especially severe additive-mortality effects, because their complex pack structure makes them particularly susceptible to social disruption.¹⁵ The human-caused death of individual wolves harms their family group cohesion.¹⁶ Wolves exposed to heavy hunting also experience increased stress and reproductive hormone imbalance.¹⁷ The human-caused loss of breeding females has been shown to cause complete dissolution of social groups and abandonment of territory.¹⁸

Trophy hunting also causes artificial selection pressure on the hunted population, adversely altering a population’s genetic fitness.¹⁹ Studies show that trophy hunting forces rapid evolutionary shifts in both



the behavior and body size of mammalian populations,²⁰ and this response may change a species' ability to adapt, particularly when added to the burdens of habitat loss and climate change.²¹

Numerous studies have detailed the realized and potential effects of slashing wildlife populations through legal trophy hunting and predator control on population genetics.²² Population genetics, particularly genetic diversity and genetic effective population size, play a critical role in both short-term and long-term population viability.²³ As a result, the genetic changes caused by trophy hunting and predator control can have harmful consequences that ultimately elevate extinction risks and impede recovery.²⁴ These changes include reduced gene flow and elevated structuring among populations, loss of genetic diversity and reduced fitness, and overrepresentation of heritable and sometimes maladaptive phenotypes due to exploitative selection.²⁵

The genetic consequences of hunting and trapping were documented in Minnesota wolves just one year after a trophy-hunting season was implemented in 2012.²⁶ The observed effects included a significant increase in structuring and differentiation among subpopulations, decreased dispersal and gene flow among subpopulations, and elevated mortality of dispersing wolves.²⁷ These results are corroborated by similar findings in a wolf population in Alaska.²⁸ It is clear that even low to moderate rates of legal wolf killing are not genetically neutral and invoke harmful population-wide genetic and demographic changes that can dramatically reduce population viability, elevate extinction risk, and require multiple generations for wolf populations to recover from.²⁹

c. Establishing hunting and trapping seasons will not increase social tolerance for wolves and could increase wolf poaching

Scientific studies demonstrate that killing wolves does not increase social tolerance, or "social carrying capacity," for them. Hogberg et al. (2015) measured attitudes before and after a wolf hunting and trapping season in Wisconsin.³⁰ Their results indicated a negative trend in attitudes toward wolves among male respondents and hunters living in wolf range both before and after the state's first legal wolf hunt, suggesting that hunting was not associated with an increase in social tolerance for the species after one year. The authors state, "There is no clear indication as of yet that hunters newly permitted to hunt wolves will hold more positive attitudes toward wolves, much less feel a sense of stewardship for the species."³¹

Recent scholarship out of Wisconsin has shown that liberalizing legal killing (through hunts or predation removals) is likely to *increase* the incidence of illegal poaching of the same population.³² The authors concluded, "[W]hen considering all the evidence, we infer that the policy of liberalizing wolf killing in Wisconsin from 2003 onward resulted in more cryptic poaching."³³ Researchers also proved systemic bias in the methods employed by State managers to estimate the incidence of illegal killing. Treves et al. (2017) analyzed gray wolf mortality data in Wisconsin for the years 1979 through 2012 and found that uncertainty and systematic underreporting resulted in consistent underestimates of poaching incidents.³⁴

Other studies have similarly suggested that poaching increases during periods when wolf killing is liberalized in the form of allowing trophy hunting and trapping.³⁵ It has been suggested that would-be poachers respond to such policy changes as an indication to increase their activities, possibly due to a decline in the perceived value of wolves, a perceived increase in the acceptability of poaching, or a perception that they are helping authorities by killing wolves.³⁶



2. Killing wolves will not reduce already rare conflicts with livestock

Livestock losses to wolves are already rare in Michigan and in every jurisdiction in which they live.³⁷ According to data from the U.S. Department of Agriculture (USDA), livestock producers in Michigan lose 188 times more cattle to maladies such as disease, respiratory problems, and bad weather than to wolves.³⁸ Of the more than 900 livestock farms in the Upper Peninsula, only seven reported conflicts with wolves in 2020. Michigan livestock owners are compensated for the market value of livestock confirmed to have been killed—or even reported missing and suspected to have been killed, if they had a prior verified predation—by wolves or coyotes.

Not only are livestock losses to wolves rare and far less lethal to livestock than health, weather and birthing problems,³⁹ but many studies have called into question the efficacy of killing wolves to reduce conflicts between wolves and livestock.⁴⁰ Non-lethal methods to protect livestock and *prevent* conflicts are more effective, economical, and humane than killing wolves. New studies show that the best remedies for protecting cattle, sheep and other domestic animals come from non-lethal measures, such as sanitary carcass removal (as required under Michigan law), human presence, fladry and/or turbo fladry, spotlights, airhorns, guard animals, electric fencing and Foxlights™.⁴¹

Studies demonstrate that killing wolves does not improve livestock safety. For example, wildlife biologists reviewed a 17-year data set that involved Michigan wolves and livestock losses. They discovered that killing wolves for livestock protection reasons on one farm increased future wolf predation on their neighbors' livestock.⁴² Studies show that the random killing of wolves (“predator control”) by government officials or individuals does little to protect livestock.⁴³ Similarly, a 2018 Montana study also indicated that the trophy hunting of wolves does little-to-nothing to protect livestock.⁴⁴ Most predator control programs kill wolves randomly and fail to prevent livestock losses but are overly lethal to wolves.⁴⁵

Killing wolves can actually exacerbate conflicts with livestock by disrupting the stable social structures that wolves rely on. For instance, Bryan et al. (2014) write: “Hunting can decrease pack size, which results in altered predation patterns, increased time spent defending kill sites from scavengers, and may lead to increased conflict with humans and livestock.”⁴⁶ Several additional scientific reviews have questioned the scientific merit and efficacy of killing wolves for livestock protection purposes.⁴⁷

3. Wolves benefit ungulate species

Recent research suggests that while native carnivores like wolves can accelerate declines in prey populations and dampen increases, predation alone does not cause these cycles in populations. Weather, disease, and habitat play a much greater role in determining deer and other ungulate population sizes.⁴⁸ Killing native carnivores fails to address the underlying environmental issues—such as habitat loss, loss of migration corridors and inadequate nutrition—that harm prey populations.⁴⁹

The scientific consensus for the last several decades has generally concluded that coursing predators like wolves and coyotes balance prey populations and make them more robust,⁵⁰ including removing the sick and weak animals who would die of other natural causes anyway.⁵¹ Predator-control schemes, including expanding hunting, are an unreliable way to increase the abundance of deer and other ungulates.⁵²



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Wolves are very good at identifying vulnerable prey, and tend to target individuals that are old, young, sick, or otherwise weakened.⁵³ They prefer to prey upon deer who are already in poor health or otherwise compromised. Wolves and other native carnivores also play a critical role in suppressing and limiting the prevalence of disease in prey species, including chronic wasting disease (CWD), an epidemic plaguing cervids that continues to spread across North America, including in the Upper and Lower peninsulas.⁵⁴ Wolf predation can limit or even prevent transmission of CWD and other diseases by reducing host densities and contact rates or by lowering the total number of infected individuals in a host population.⁵⁵

Moreover, deer numbers in Michigan remain high. In fact, in its 2020 Michigan Deer Season Preview, the DNR expressed concern about an “abundant and resilient deer herd that continues to grow” in light of declining hunter numbers.⁵⁶ And in the 2021 Michigan Deer Season Preview, the DNR stated that, “our deer population is thriving throughout much of the state.”⁵⁷ Additionally, the DNR said “Population trends seem to be on the upswing this year for the U.P.”⁵⁸

4. Climate change threatens wolves

Wolves also face threats posed by a warming climate that accelerates habitat loss and fragmentation, diminishes prey availability, and exposes wolves to novel and deadly parasites and diseases.

Particularly, in the U.S. large-bodied carnivores like wolves and grizzly bears face an unprecedented extinction crisis, called the *Anthropocene*.⁵⁹ For wolves, the harms are indirect. Climate change affects temperatures and moisture, affecting precipitation amounts and thus plant growth.⁶⁰ Those changes in vegetation will cause shifts in the herbivore community, and *those* changes probably have the largest effects on wolves. Wolves are affected by changes in the trophic structure (plants-> herbivores-> wolves), but most of the effects on wolves are associated with herbivore dynamics.⁶¹

Climate change, with its warmer winters and extended fall and springs season, will drive the expansion of ticks and tick-borne diseases to more northern latitudes and to higher altitudes.⁶² Increases in temperature facilitate the proliferation of parasites.⁶³ For instance, Lyme disease has tracked to northern climes, including into Canada, as a result of climate change.⁶⁴

a. Wolves can also help mitigate the effects of climate change

By curbing deer over-browsing in the Great Lakes region, wolves have re-enlivened the understory of plant communities, increasing flora and fauna biological diversity including bird life.⁶⁵ Wolf presence in the Great Lakes region affects soil nutrients, soil microbes, and plant quality because decomposing prey carcasses enrich soils.⁶⁶ Elevated Great Lakes deer populations not only destroy forest ecosystems, but are also involved in numerous vehicle collisions and carry Lyme, a zoonotic disease.⁶⁷ Wolves can reduce deer-vehicle collisions, saving millions in social costs.⁶⁸

In Great Lakes forest communities, wolves have increased biological diversity, reduced vehicle-deer collisions and Lyme disease. They have also constrained mesopredators, increasing biological diversity.

5. Conclusion

Thank you for the opportunity to submit comments opposing Senate Concurrent Resolution 7. Setting a trophy hunting and trapping season for wolves is in direct contradiction to two certified votes in a



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Michigan general election, goes against Michigan values, is unsupported by the best available science, and will not resolve already rare conflicts with livestock or boost ungulate populations. I urge you to vote no on SCR 7.

Sincerely,

Molly Tamulevich
Michigan State Director
The Humane Society of the United States
mtamulevich@humanesociety.org

¹ The Humane Society of the United States defines a “trophy hunt” as a hunt where a hunter’s *primary motivation* is to kill an animal to display its parts (that is, their heads, hides or claws and even the whole stuffed animal); and for bragging rights (trophy hunters pose over the dead animal with their weapons for a portrait often for social media). Their primary motivation is not subsistence.

² Mertig, A. G., “Attitudes about wolves in Michigan, 2002. Final report to Michigan Department of Natural Resources,” Michigan State University, 2004.

³ Lute, M., Nelson, M., Gore, M., Vucetich, J., “Toward Improving the Effectiveness of Wolf Management Approaches in Michigan: insights from a 2010 statewide survey,” Michigan State University, February 2012.

⁴ Id.

⁵ A. D. Wallach et al., “What Is an Apex Predator?,” *Oikos* 124, no. 11 (2015); Scott Creel and Jay Rotella, “Meta-Analysis of Relationships between Human Offtake, Total Mortality and Population Dynamics of Gray Wolves (*Canis Lupus*),” *PLoS ONE* 5, no. 9 (2010); D. E. Ausband et al., “Recruitment in a Social Carnivore before and after Harvest,” *Animal Conservation* 18, no. 5 (2015); Bridget L. Borg et al., “Implications of Harvest on the Boundaries of Protected Areas for Large Carnivore Viewing Opportunities,” *PLoS ONE* 11, no. 4 (2016); Schmidt, Burch, and MacCluskie, “Effects of Control on the Dynamics of an Adjacent Protected Wolf Population in Interior Alaska.”; Douglas W. Smith et al., “Survival of Colonizing Wolves in the Northern Rocky Mountains of the United States, 1982–2004,” *The Journal of Wildlife Management* 74, no. 4 (2010).

⁶ Treves, A., Bruskotter, J.T. (2021). A review of the effects of liberalizing the killing of wolves. Pre-print at <http://faculty.nelson.wisc.edu/treves/publications.php>.

⁷ See the resources available at www.wolfplanning.org.

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