



National Headquarters

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August 4, 2021

RE: Fall 2021 Wolf Harvest Season Comments

Dear members of the Wisconsin Natural Resources Board:

Defenders of Wildlife (Defenders) submits the following comments regarding the proposed Fall 2021 wolf harvest season in Wisconsin and the Wisconsin Department of Natural Resources' (WDNR) request for a statewide harvest quota of 130 wolves.

Defenders is a national non-profit science-based conservation organization with over 2 million members and supporters nationwide, including more than 28,000 in Wisconsin. Defenders was founded in 1947 and is focused on conserving and restoring imperiled species and the habitat upon which they depend. We advocate for restoration of wolf populations to ecologically and evolutionarily effective levels and distribution so that they may fulfill their natural keystone role of ecosystem regulation, supporting the diversity and health of native flora and fauna. As such, Defenders strongly supports restoration of sustainable, well distributed wolf populations in suitable habitat across the United States, including the Western Great Lakes region.

Over the last four decades, Defenders has played a leading role in the recovery of wolves across the country. We work directly with livestock owners, Native American Tribes, and government agencies to implement proactive tools and strategies that minimize losses of livestock to predators. These methods include sharing the cost of range riders, livestock guarding dogs, predator deterrent fencing, alternative grazing, and more. We have seen the use of proactive strategies work time and time again, saving the lives of wolves and livestock. We have also seen that it is easier to learn the behavior and movements of stable packs, which increases the odds of avoiding conflicts.

We are therefore deeply concerned about the health of the wolf population in Wisconsin following the appalling outcome of the February hunt and WDNR's request for a statewide harvest quota of 130 wolves for the planned November 2021 hunt.

Inaccurate post-hunt population estimate

In June, the WDNR released its over-winter wolf population estimate. The estimated population range was from 944 to 1,377 wolves. However, numerous concerns were raised with this population estimate during the June 22 Wolf Harvest Advisory Committee meeting in June, which were not adequately addressed by WDNR. These concerns include the omission of the number of pregnant females killed, number of poached wolves, and other human-caused mortality from the population estimate.

As you are aware, WDNR used the Adams et al. (2008) model to evaluate the potential impacts of various quotas on the wolf population. The two pieces of information required to run this model are 1) the population size and 2) an estimate of non-harvest human caused mortality. Defenders strongly

disagrees with how WDNR reached these two inputs. A figure of 13% for the estimate of non-harvest human-caused mortality was arbitrarily selected during the Wolf Harvest Advisory Committee meeting, despite significant objections (Ozbenian, pers. obs.). This estimate is questionable, and we believe that WDNR significantly underestimated unreported wolf kills and cryptic poaching. As for the starting population size, there are many unknowns from the February hunt, and therefore significant uncertainty around the wolf population size. Critical data on pack disruption, pup survival, number of illegal kills and number of wolves killed but not recovered is missing. Though it is currently unknown how many pregnant wolves were killed in the February hunt because hunters were not required to submit carcasses for inspection, killing pregnant wolves generally eliminates any spring pup production in their respective packs. It has been projected that 60-100 of Wisconsin's wolf packs may lose all pup production based on the loss of bred females and alpha males in the February hunt though it's important to note that this estimate does not include poached animals¹.

A peer-reviewed study conducted by University of Wisconsin researchers² and published in July sheds more light on the potential impact of the February hunt on the wolf population, concluding that the population of gray wolves in Wisconsin is significantly lower and the number of wolves killed is much higher than estimated by WDNR. Using official state figures for wolves killed by hunters, population estimates from April 2017–2020, and the latest peer-reviewed model of individual wolf survival to estimate additional deaths, the authors estimate a maximum projected population of 695–751 in Wisconsin by April 15, 2021. This represents a minimum of a 27–33% decline in one year and is significantly lower than WDNR's estimate.

WDNR failed to consider reliable estimates of unregistered kills during the February hunt into their post-hunt population estimate. Recommending such a high quota without considering accurate estimates of mortality and without accurate population estimates risks unsustainable mortality and raises the probability of a population crash. This is precisely what occurred in Wisconsin when high wolf-hunting quotas were issued from 2012 to 2014. This strategy ultimately led to wolves once again being managed federally under the Endangered Species Act.

High level of uncertainty

In their own wolf harvest quota proposal³, WDNR raises some serious concerns about the status of the wolf population that is important for the you to consider:

- The timing of the winter 2021 hunt truncated the Department's winter wolf track survey before its normal completion.
- Hunting during the breeding season leads to uncertainty in terms of the impacts to reproduction and overall population response.
- WDNR does not have post hunt population monitoring data available to evaluate the response of the wolf population to the February 2021 hunt prior to setting the next harvest quota.

¹ Wisconsin Green Fire report: The February 2021 Wisconsin Wolf Hunt: A Preliminary Assessment <https://wigreenfire.org/the-february-2021-wisconsin-wolf-hunt-a-preliminary-assessment/>

² Treves A, Santiago-Ávila FJ, Putrevu K. 2021. Quantifying the effects of delisting wolves after the first state began lethal management. *PeerJ* 9:e11666 <https://doi.org/10.7717/peerj.11666>

³ Wisconsin Department of Natural Resources' Fall 2021 Wolf Season Harvest Quota Recommendation <https://widnr.widen.net/view/pdf/isocryvdt4/2021-08-4H-Approval-Wolf-quota.pdf>

- Models used to determine a quota recommendation were not built using data from harvest seasons like the one that occurred in February of this year. Populations may respond differently to harvest in February, therefore the models' ability to accurately predict outcomes of the most recent season is unknown.
- There is no population management experience with a second hunt in the same calendar year (February 2021 and November 2021).
- Although currently at a secure level, in order to maintain a sustainable population, the management approach requires conservatism and caution in this fall's quota.

Given the significant uncertainty and gaps in data surrounding the impacts of the February hunt, we strongly disagree with the high quota proposed by WDNR. A quota of 130 is irresponsible and simply not conservative enough to ensure no change in the wolf population, which is WDNR's stated objective.

Though it won't be possible to fully assess the impact of the breeding season hunt on the distribution and abundance of the wolves until annual surveys are completed, the conservative yet alarming estimates from researchers indicate that severe harm was done to the wolf population. A quota must take into account the serious impact on the wolf population of a disorganized hunt in the middle of the breeding season. All anthropogenic mortality must be considered in order to set a quota that is accurate and science-based. Recent reports of heartworm in 38% of wolves necropsied from the February hunt is an additional cause for concern and should also be considered when setting the quota.

Impacts of killing wolves

The negative impacts of killing wolves must also be considered and communicated to the public when setting the quota. Hunting of stable and established wolf packs can disrupt the social cohesion of the pack and that may lead to increased conflicts with people and livestock. As WDNR data shows, there was a notable uptick in depredations following the February hunt. Stable wolf packs in Wisconsin must be protected. Multiple studies have concluded that large-scale wolf removal through public hunting does not substantially reduce livestock losses to wolves. Only non-lethal interventions and targeted wolf removal are proven to significantly reduce depredation reoccurrence.

Furthermore, wolves are an asset, and it is widely recognized that predators play a key role in restoring and maintaining ecosystem health and function. Though there are myths and concerns that wolves negatively impact ungulate populations, that is not supported by the science. In fact, wolves cull old, young, sick, and injured individuals from prey populations, contributing to healthier, viable prey populations.

In addition, a new paper by Raynor, et. al.⁴ found that wolves provide positive impacts for human safety and property:

We quantify the effects of restoring wolf populations by evaluating their influence on deer-vehicle collisions (DVCs) in Wisconsin. We show that, for the average county, wolf entry reduced

⁴ Raynor JL, Grainger CA, Parker DP. Wolves make roadways safer, generating large economic returns to predator conservation. Proc Natl Acad Sci U S A. 2021 Jun 1;118(22):e2023251118. doi: [10.1073/pnas.2023251118](https://doi.org/10.1073/pnas.2023251118). PMID: [34031245](https://pubmed.ncbi.nlm.nih.gov/34031245/); PMCID: [PMC8179214](https://pubmed.ncbi.nlm.nih.gov/PMC8179214/).

DVCs by 24%, yielding an economic benefit that is 63 times greater than the costs of verified wolf predation on livestock. Most of the reduction is due to a behavioral response of deer to wolves rather than through a deer population decline from wolf predation. This finding supports ecological research emphasizing the role of predators in creating a “landscape of fear.” It suggests wolves control economic damages from overabundant deer in ways that human deer hunters cannot.

NRB must exercise the precautionary principle

While we understand that current state law requires a fall wolf hunting and trapping season in Wisconsin when wolves are not federally listed, we urge the NRB to exercise the precautionary principle when setting the quota to prevent more harm to Wisconsin’s wolf population.

At least 218 wolves, at least 20 percent of the state’s estimated 1,000-plus wolves, were killed in just three days in February (most within the first 24 hours). It is reasonable and prudent and supported by recent research to assume that high numbers of wolves were poached and unreported during the February hunt and that this will likely occur again during the November hunt.

As mentioned earlier, overhunting wolves significantly threatens the wolf population’s reproductive capacity. It is estimated that at least 60-100 of Wisconsin’s wolf packs will not produce pups this year, which will make it difficult for the population to rebound and even more difficult if another significant hunt is held so soon.

Proponents of wolf hunting in Wisconsin frequently point to a purported state management goal of 350 wolves, mentioned in the current wolf management plan. This figure has been frequently misrepresented as a population cap rather than a threshold level above which certain management activities could be considered. It is important that management decisions not be swayed by this misrepresentation. The goal of the quota should not be to find an acceptable middle ground between the various opinions but rather to manage Wisconsin’s wolf population in keeping with best science to ensure a healthy wolf population and minimal conflicts with people.

We urge the NRB to take critical steps to prevent a repeat of the highly destructive and chaotic February hunt and to minimize the damage already done to the wolf population by setting a conservative quota that won’t do any further damage to the population.

Thank you for your consideration.

Sincerely,



Serda Ozbenian
Field Conservation Senior Manager
Defenders of Wildlife