
# A call to end wolf trophy hunting in Wisconsin

Data show that the February 2021 wolf hunt was excessive and the state vastly undercounted illegally killed wolves

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# Executive Summary

After wolves in the Great Lakes and most of the lower 48 states lost their federal protections under the Endangered Species Act in November 2020, a Kansas-based group sued to force the Wisconsin Department of Natural Resources to hold a rushed, unplanned hunt that began on Feb. 22, 2021, coinciding with wolves' breeding season and the state's annual wolf count. The hunt ended in less than 60 hours on Feb. 24 with hunters and trappers exceeding the quota of 119 wolves by 83%. It was the second deadliest wolf hunt in Wisconsin's recorded history with 218 wolves recorded dead, and the best-available science indicates that poachers and others may have killed at least 100 additional wolves that would have survived if federal delisting had not occurred.

Imposing more than 1,500 trophy hunters onto a quota of 119 wolves amounted to a gold-rush mentality of 13 trophy hunters for each wolf. The end result: an ambush, with hunters and trappers killing wolves using packs of hounds, predator calls, traps, snares, night-vision goggles and snowmobiles. Compounding the problem, an emergency rule enacted in 2014 allowed trophy hunters a leisurely 24 hours to report kills. This time lag resulted in a quota that was exceeded by 83% with 99 additional wolves killed. (Hunters even exceeded the 81 tags allocated to Wisconsin's Ojibwe tribes.)

The DNR had reported that most of the dead wolves were subadult males, with 38 adult females reported killed. Many of those adult females most likely were pregnant, but the exact number will remain a mystery because of the DNR's decision not to collect all carcasses. That decision means the ages and sexes of all animals killed went undocumented and unverified. A similar hunt in Minnesota in 2013 showed that 1 in 4 animals killed were breeding females and another quarter were adult-breeding males. Therefore, it's plausible the DNR likely undercounted both the numbers of breeding animals lost and unborn pups. This excessive killing has significant ramifications for wolves' ability to replace lost members and maintain their family groups and would subject them to significant jeopardy should the state hold another wolf-hunting season, as is planned for November 2021.

The DNR also likely under-reported the number of wolves who were poached: Its report found only four illegally killed wolves, yet the DNR's own 2012 publication suggests that poaching in Wisconsin results in losses of 9% to 19% of the wolf population annually. The latest, best estimate for Wisconsin puts the proportion of radio-collared wolves dying from poaching and all causes at approximately 40% to 60% over the period those radio-collars were monitored. Factoring in these high rates, independent wolf biologists estimate that the wolf population declined 27% to 33% since April 2020 (the last time the population size was estimated).

According to a June 2021 poll, majorities of likely 2022 Wisconsin voters oppose the trophy hunting and trapping of wolves, believing that the February 2021 hunt was recklessly mismanaged, that hunters' practices were unusually cruel upon these ecologically important wolves and these much-appreciated native carnivores do not pose a serious threat to Wisconsin's livestock operations.

Wisconsin is poised to hold another wolf hunt in November 2021 before it can count its remaining wolf population, condemning any attempts to conserve this rare, iconic species. For these reasons, the Humane Society of the United States calls upon Wisconsin public officials to set the November 2021 trophy hunting and trapping of wolves to a quota of zero and to repeal Wisconsin's law that mandates wolf hunting. We also call upon the U.S. Fish and Wildlife Service to relist wolves under the Endangered Species Act.

# Introduction

On Nov. 3, 2020, the U.S. Fish and Wildlife Service removed gray wolves (*Canis lupus*) living in most of the U.S. from the Endangered Species Act (known as "delisting").[1] The U.S. Fish and Wildlife Service then ceded its management authority of those wolves over to the states, including Michigan, Minnesota and Wisconsin in the Great Lakes region. Only Mexican gray wolves and a small population of red wolves were not delisted. Most populations of wolves living in the Northern Rocky Mountains had previously been delisted through Congressional acts and court rulings.

*Photo by Glenn Nagel/Alamy Stock Photo*

At a September 2020 meeting of the Wisconsin Natural Resources Board, a governor-appointed body that sets policy for the state's Department of Natural Resources, members pushed for a wolf hunt to occur immediately upon delisting and recommended bypassing the normal public input process. On Nov. 19, 2020, the Humane Society of the United States submitted a letter to the Wisconsin Natural Resources Board and the DNR stating that opening a trophy hunting[a] season for wolves in January or February would violate state law, because the law required that a wolf hunt must open in November and Wisconsin's hunting regulations had never been reconciled with state statutes. After receiving our letter, Wisconsin backed down on its plan to hold a late winter wolf hunt in January or February.[2]

In February 2021, however, a Wisconsin district court ordered that a wolf hunt start immediately in the remaining weeks of February, after a Kansas-based trophy hunting group, Hunter Nation, sued and won in Jefferson County court. The Humane Society of the United States joined with Sierra Club and the Center for Biological Diversity to file an *amicus curiae* brief with the court, explaining that Wisconsin law does not require the state to rush into an immediate hunt without regard to science, public values or consultation with sovereign tribes.[3] Unfortunately, the court rejected our arguments and ordered the trophy hunt to proceed with haste. When the DNR appealed its case and the Humane Society of the United States filed an amicus brief thereafter, the appellate court declined to hear the case, allowing the lower court's order to stand.

In just one week's time, the Wisconsin DNR set up a wolf trophy hunt with a quota of 200 wolves, with 119 wolves on state lands and 81 on tribal lands[4] (which the tribes do not use because of cultural and

[a] The Humane Society of the United States defines trophy hunting as a hunt in which the primary motivation is to display an animal's body parts, to obtain a photo with the dead animal (usually for posting on social media) and for bragging rights. Trophy hunters primarily kill wildlife for bragging rights, but not for food. The HSUS does not include hunters of ungulates such as deer and elk in our definition of trophy hunting. While ungulate hunters may collect body parts and pose with the dead animal, their primary motivation to hunt is for food.

ecological reasons).[5] The DNR had received 27,151 applications for wolf tags from both resident and non-resident hunters and trappers.[6] Using a lottery system, the DNR awarded 2,380 wolf licenses,[7] and of that figure, 65% or 1,548 trophy hunters and trappers purchased one.


*Photo by John Pitcher/iStock*

Trophy hunters were permitted to use some of the most egregious and cruel methods to kill highly-sentient wolves,[8] including leghold traps, neck snares, packs of radio-collared trailing hounds, night-vision equipment, snowmobiles and other vehicles, bait and predator calls.[9] Most Americans do not consider these methods "fair chase" hunting, because the animal does not have an equal chance to escape from being killed.[10] Moreover, most Wisconsinites, and indeed most Americans, oppose wolf trophy hunting.[11] Both of these groups also oppose the lethal removal of wolves by states for livestock-protection reasons.[12]

The wolf hunt started on Feb. 22, 2021, and ended less than 60 hours later.[13] The public wolf-hunting quota was exceeded by 83% (99 wolves) for a total of 218 dead. That number also exceeded the 81-wolf quota the sovereign tribes declared they would protect. Of the 214 wolves killed legally, plus the four wolves killed illegally, 53% were male, 47% were female, and 53% were subadults who had been born only the previous spring. Perhaps most important, at the very least 38 breeding-age females were killed.[14]

The Wisconsin DNR believes as many as 50% of the breeding-age females could have been pregnant,[15] but again, it will never know. Although the DNR required hunters to present the pelts and skinned carcasses of the wolves they killed, the agency did not collect the bodies to determine whether adult females—wolves who are 2.5 years old or more—were pregnant.[16] Only 22 carcasses were turned into the DNR.

Moreover, because of its failure to examine every wolf killed as part of the February 2021 season, the DNR cannot claim that it knows the ages of the wolves killed. Based on a data from a fall hunt in Minnesota in 2013, one could surmise that one-half of all adults killed were breeders, about 25% each male and female and those authors reported breeding females less than one and two years old.[17] Therefore, Wisconsin's February wolf hunt would have killed even more breeding-age animals.

Wisconsin's February 2021 wolf hunt was an outright slaughter. Even its own state agents complained that it was an "embarrassment" and an "abomination,"[18] and it drew national and international media attention. Wisconsin will not have time to assess the damage to its remaining wolf population before a looming, proposed November 2021 hunt because most of the wolf count occurs in the winter season when their tracks on snow are counted. The Humane Society of the United States' new poll of Wisconsin voters show that majorities feel that the February 2021 hunt was "mismanaged and reckless" and 62% oppose the trophy hunting and trapping of the state's wolves.[19] (*See* discussion below.)

# Comparing wolf-season mortalities

In contrast to the three previous trophy wolf hunts, in which trapping resulted in the greatest numbers of wolf mortalities (between 52% and 80% of all wolves killed), 86% of the February 2021 wolf mortality came from a practice called "hounding," in which trophy hunters send packs of radio-collared hounds to locate wolves (Figs. 1, 2). The GPS radio collars on the hounds then alert the hunters, who can be many miles away, that they have cornered their panicked prey. Domestic dogs are likely trained to trek through deep snow to locate and engage with wolves in spite of their innate predator-avoidance instincts.[20] In the February Wisconsin wolf hunt, trophy hunters reported to the DNR only one wolf with canine bites as a result of altercations with hounds—likely a woeful undercount of the strife that occurred between wild and domestic canids.[21] Because nearly 90% of wolves killed in February were tracked, chased and ambushed by packs of dogs, we have reason to believe that many more wolves were mauled than the DNR reported. Most Wisconsin voters are convinced this is nothing more than legalized dogfighting, pursuant to a recent poll.[22]

**Wisconsin DNR's February 2021 wolf season was the second deadliest in recorded history. The quota was exceeded by 83% in less than 60 hours, a record time.**

Trophy hunters and trappers are permitted in Wisconsin to use other unfair methods, including predator calls, leghold traps and strangling neck snares. In February, many hunted at night and some used snowmobiles. The hunt was mayhem, but while the DNR logged more than 100 law enforcement complaints, it issued a mere 14 citations.[23] A woman testifying before the Wisconsin Wolf Harvest Committee on April 8, 2021, stated that she came home on Feb. 23, 2021, to find six hunters with hounds trespassing on her farm. She and her partner stayed up all night with a campfire to discourage other would-be trespassers.[24]

**Figure 1. Comparison of wolves killed by year and method in Wisconsin**

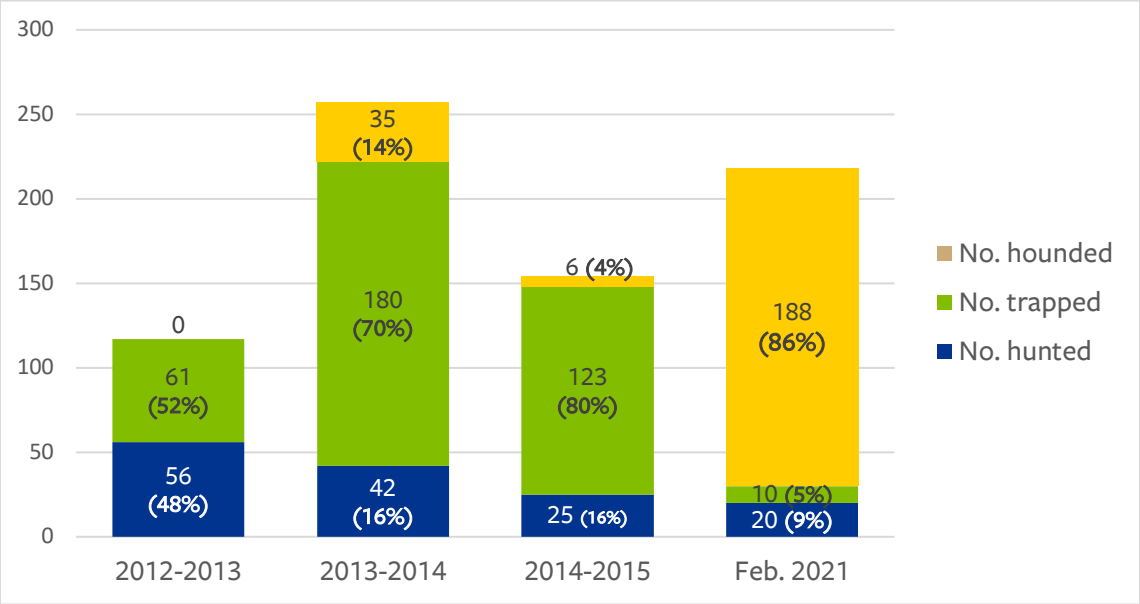
| Season | Hunted | Trapped | Hounded | Total |
|---|---|---|---|---|
| 2012-2013 | 56 (48%) | 61 (52%) | 0 (0%) | 117 |
| 2013-2014 | 42 (16%) | 180 (70%) | 35 (14%) | 257 |
| 2014-2015 | 25 (16%) | 123 (80%) | 6 (4%) | 154 |
| 2015-Feb 2021 | No hunt | No hunt | No hunt | No hunt |
| Feb. 2021 | 20 (9%) | 10 (5%) | 188 (86%) | 218 |
| **Total** | 143 (19%) | 374 (50%) | 229 (31%) | **746** |

**Wolves in Wisconsin were protected under the ESA from Dec. 2014 to Jan. 4, 2021.*

The February 2021 hunt lasting less than 60 hours resulted in at least 218 dead wolves and was the state's second deadliest. Wisconsin's deadliest wolf hunt was in its 2013-14 season (Figs. 1, 2). That winter, the DNR recorded 257 dead wolves and the loss of 17 entire wolf families, or "packs." Using the DNR's most conservative estimate that illegal hunting ranged between 9% and 19% of the population, we can surmise that poachers killed at least an additional 59 wolves that year, bringing the

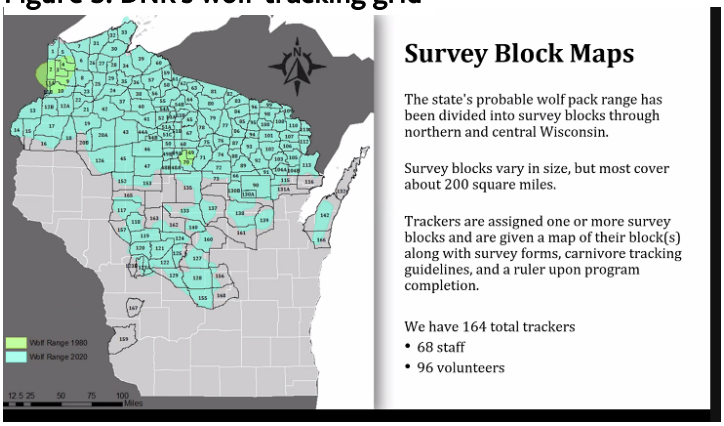
total number of wolves killed by humans to 145 including from trophy hunting and all other causes (59 poached, 65 due to livestock conflicts and 21 by vehicle collisions).

**Figure 2. Comparison of wolves killed by year and method in Wisconsin, 2012 to 2021**




# Counting Wisconsin's wolf population

**Figure 3. DNR's wolf-tracking grid**

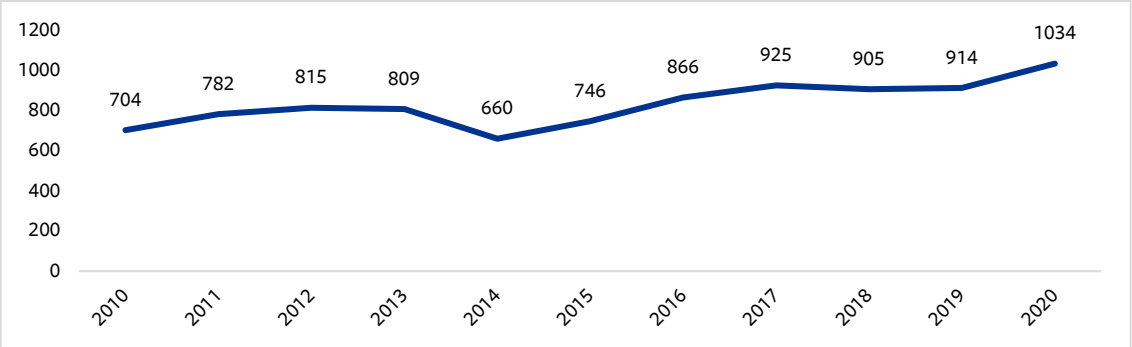



The size of a species population determines the amount of hunting a state permits. Yet population counts of a shy species such as wolves are difficult to achieve with accuracy.

Some of Wisconsin's wolf population counts are conducted by DNR staff, but 59% are done by volunteer citizen scientists ("trackers"), who photograph and track wolves and conduct howling surveys.[25] The DNR employs a grid system with each citizen tracker responsible for 200 square miles (Fig. 3).[26] The DNR also employs a minimal mark, capture and recapture population monitoring program. According to a webinar given by the DNR at the time of the February 2021 hunt, 43 Wisconsin wolves had been fitted with GPS radio collars, of which only 16 were functioning, 17 were "missing" and four were working intermittently.[27] An additional six wolves wore VHF radio collars. Of the 49 collared wolves, trophy hunters killed seven, or 14% of all radio-collared wolves, during the February 2021 hunt.[28]

The DNR uses both the wolf track and radio-collar figures to inform its population models. These may or may not be accurate, but they have recently produced population figures, based upon their "occupancy approach," that exceeded their own previous minimum population counts (Fig. 4 ).

**Figure 4. DNR's wolf population estimate by year**




It seems unlikely that wolf population numbers would remain the same in years with and without hunts. For instance, between 2010 and 2013, the DNR suggests that the wolf population remained unchanged, despite two wolf hunts conducted in 2012 and 2013 when Wisconsin's wolves were delisted from the Endangered Species Act (between 2012 and 2014) (Fig. 4).

# Quota overruns are common and poaching undercounted

Quota overruns were prominent in both the 2013-2014 and the February 2021 hunts (Figs. 5, 6). In the October-December 2014 hunt, the DNR issued 1,500 permits for 150 wolves. A few days into the hunt, four of the six zones closed, with half exceeding their quota. In Zone 2, the quota overrun was 93%, while in Zone 1 it was 13%. The DNR closed Zones 4 and 5 early to mitigate these excesses after the Humane Society of the United States requested emergency actions from the state. (On Dec. 19, 2014, in response to legal action by the HSUS and other organizations, a federal judge issued an order to immediately halt all wolf hunting and trapping in the Great Lakes region and return wolves to federal protection, and an appellate court upheld that order on Aug. 1, 2017.) In the February 2021 wolf hunt, trophy hunters and trappers exceeded the state's quota of 119 by 83%. Trophy hunters and trappers killed 99 wolves over the number the DNR had permitted under its six-zone quota system (Fig. 6).

**Figure 5. Comparison of quota overruns by season**

| Season | Quota on state not tribal lands | No. wolves killed | No. wolves in excess of the quota |
|---|---|---|---|
| 2012-2013 | 116 | 117 | 1 |
| 2013-2014 | 251 | 257 | 6 |
| Oct.-Dec. 2014 | 150 | 154 | 4 |
| Feb. 2021 | 119 | 218 | 99 |

**Figure 6. The February 2021 wolf-season, quota excesses by zone**

| Zone | Quota on state, not Tribal lands | No. wolves killed | No. wolves killed in excess of the quota |
|---|---|---|---|
| 1 | 31 | 53 | 22 |
| 2 | 18 | 43 | 25 |
| 3 | 20 | 42 | 22 |
| 4 | 6 | 4 | -2 |
| 5 | 27 | 31 | 4 |
| 6 | 17 | 45 | 28 |
| **Total** | 119 | 218 | 99 |

The 218 figure represents 214 legally killed wolves and four illegally killed wolves.[29] However, the number of wolves killed illegally was likely woefully undercounted, based upon statements by the DNR itself and from academics at the University of Wisconsin. The DNR (2012) writes:

> In analysis conducted by Jen Stenglein (UW-Madison PhD candidate), approximately 9% of wolves are killed each year according to radio-collar records . . . . Jen analyzed DNR data to estimate the number of lost radio-collared wolves which could be attributed to illegal kill. This analysis indicated true illegal kill rates may be as high as 19% (Jen Stenglein pers. comm). **Thus a functional "harvest" of 9% to 19% of the wolf population is already occurring.**[30]

From the DNR's own favored analysis of poaching of radio-collared wolves,[31] one would predict that 9.7% (100) of the 1,034 adults counted in April 2020 would die of poaching if poaching patterns from 1980 to 2012 held in 2020.[32] But stronger and more recent studies have proven the rate of poaching is much higher when one considers that the majority of radio-collared wolves disappeared under suspicious circumstances, and that non-radio-collared wolves die at higher rates than collared wolves, possibly twice as high.[33] Moreover, starting on Nov. 3 2020, with federal delisting of the wolves, illegal killing would have increased as shown by independent analyses replicated independently for four populations of wolves.[34] Therefore, the DNR should have taken into account a much higher background mortality rate in the winter of 2020-2021 than the gross under-estimate of 14% advocated by Dr. D. MacFarland in the Natural Resource Board meeting Feb. 15, 2021, that set the quota for the wolf hunt. The DNR should have noted the more recent, stronger research and acknowledged its prior under-estimates of all mortality, and particularly the egregious under-estimation of poaching. At the least, the DNR should anticipate that after the 218 wolves killed by trophy hunters there was substantially more wolves killed because of vehicle collisions, predator control agents and other human causes, including the additional 98 to 105 more wolves poached since November 2020, as researchers have found that some poachers go to extraordinary lengths to hide their illegal activities from governmental officials and poaching is far more pervasive than the DNR has admitted.[35]

Therefore, total poaching would equal or exceed legal killing during the February wolf hunt. With more than 212 wolves already dead since April 2020, the DNR's claim that hunters killed only 20% of the wolf population ignores the best available science. Given the likely extensive poaching that has occurred since wolves were delisted, the DNR should not hold a November 2021 wolf hunt, and in fact, should consider supporting the relisting of wolves under either state or federal endangered species act

laws. Research indicates that one-third of Wisconsin's wolf population could have disappeared already because of the combined effects of trophy hunt and poaching.[36]

The DNR and academic researchers agree that dozens of wolves are poached annually in Wisconsin. Yet it appears that few poachers have been caught, and even fewer held to account. As part of the February 2021 hunt, the DNR conducted 101 wolf-related law enforcement investigations (the DNR received 84 wolf-hunting complaints and 10 wolf-trapping complaints); yet it issued only 13 hunting-related citations and one trapping-related citation.[37]

According to hunter self-reports to the DNR, most of the wolves killed were males (53%) and 110, or 51%, of the total killed were subadults. The DNR estimates that only one-half of adult females killed were pregnant.[38] By its own estimation, that would mean 19 adult females were pregnant (Fig. 7). Unfortunately, though, the DNR conducted no inspection of adult females, so the true number of adult or pregnant females who were killed will never be known. Even worse, the DNR relied on hunter self-reports, unsubstantiated and anecdotal (not scientific) data, that likely underestimated the numbers of breeding animals killed.

**Figure 7. The February 2021 wolf season: Ages and sexes of wolves killed**

| Age | Sex | | Total | % of total by age |
|---|---|---|---|---|
| | Male | Female | | |
| Pups[39] (<1 year) | 10 | 10 | 20 | 9% |
| Subadults (~1.5 year) | 57 | 53 | 110 | 51% |
| Adults (~2.5 years or more) | 47 | 38 | 85 | 39% |
| No age data | 2 | 1 | 3 | 1% |
| **Total** | **116** | **102** | **218** | |
| **% of total by sex** | **53%** | **47%** | | |

Wolves are particularly susceptible to social disruption from high mortality because their complex social structure affects many aspects of wolf population dynamics.[40] Wolves can suffer physical, psychological and emotional trauma.[41] Social disruption can cause packs to disband, and elimination of the breeding pair can lead to the loss of pups from starvation.[42] Hunting wolves has a detrimental effect on the fitness of individuals, changes packs' evolutionary potential and increases the risk for local population extinction.[43] 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 (Hayes et al. 2000; Wydeven et al. 2004; Zimmerman 2014)."[44] Santiago-Ávila et al. (2018) showed that risk for cattle conflicts tripled after the state of Michigan killed one or more wolves in retataliation for cattle predation. Wisconsin can anticipate growing livestock conflicts as a result of disrupting wolf pack structure.[45]

The Wisconsin DNR's February 2021 wolf hunt and its excesses resulted in widespread criticism in national and even international news coverage.[46] But despite that earned notoriety, Wisconsin is poised to hold another wolf hunt beginning November 2021—even though it has not adequately assessed the damage to the wolf population from the last hunt because most of the count occurs in winter while snow is on the ground.

In the face of so much persecution, wolves are not resilient.[47] After hunts, entire family packs disappear. That is because trophy hunting causes other deaths indirectly, including the young wolves left on their own without adults to help them to survive. After the February 2021 hunt of this rare and iconic species, both decisionmakers and the public have no idea how battered the wolf population is. The DNR has failed to include other human-caused mortalities, such as the high rates of poaching, into the calculus of its February 2021 wolf hunt report. Yet the state is poised to hold a wolf hunt again in November 2021. This could doom Wisconsin's wolves.

# Wisconsin's cruel, unfair killing methods

## Hound hunting wolves is dangerous and inhumane

Wisconsin is the *only* Midwestern state to permit the use of hounds to hunt wolves, in a practice commonly called "hounding."[48] In the February 2021 hunt, most of the wolves killed had been hounded. Yet wolves are intolerant of other canids in their territories and will attack and kill hunting hounds.[49] Sending hounds into wolves' territories during their breeding season must have been chaotic for both species. And because research shows that domestic dogs avoid other predators, those hounds may have been fearful of hunting wolves.[50] Samuel et al. (2020) write: "We conclude that dogs can innately sense predator scents of brown bear and lynx and elicit fear towards these odours, as shown through behavioural and physiological changes."[51] Because almost 90% of all wolves killed in the February 2021 season were tracked, cornered and ambushed by packs of hounds, we have reason to believe that far more than one wolf was mauled, despite the DNR's claim of only one individual.

Hounds also harm non-target wildlife.[52] Grignolio et al. (2011) found hounding was highly costly to "non-target" deer.[53] Hounding changed deer behaviors, including those of cervids located inside a protected refuge.[54] While the hounds were chasing other species, they caused non-target deer—especially younger individuals—to panic and huddle in an inferior habitat where foraging was difficult. Hounds also significantly increased deer home-range sizes—meaning deer had to expend extra energy to distance themselves from the hounds.[55] Furthermore, Grignolio et al. (2011) citing several others indicated that hounding highly disturbs deer, likely reducing individual fitness and reproductive success while harming deer populations on the whole.[56] Grignolio et al. (2011) write: "There is empirical evidence that hunting with high numbers of men and dogs may have a strong impact on cull intensity as well as on animal disturbance (Sforzi and Lovari, 2000)." Therefore, one could conclude that using hounds to hunt wolves harms the resiliency of Wisconsin's deer herds, too. Many Wisconsinites have criticized the use of hounds to hunt wolves as a state-sanctioned form of dogfighting, which is now banned in all 50 U.S. states. Our new poll shows that Wisconsin voters unequivocally want hound hunting for wolves banned by two-thirds margins.[57]

## Snowmobile hunting is unfair and disturbs wildlife

As part of its free-for-all, the DNR permitted trophy wolf hunters to use snowmobiles, notoriously noisy and polluting vehicles that cause harm to wildlife and the environment. Biologists measured stress hormones, or glucocorticoids, in groups of wolves who were exposed to snowmobiles in northern Minnesota's Voyageurs National Park against wolves who were rarely exposed to snowmobiles in nearby Isle Royale National Park. They also measured stress hormones in elk exposed

to snowmobiles in Yellowstone National Park. Wolves in Voyageurs experienced higher levels of stress hormones than the control group, and their stress hormones decreased during a period when snowmobiling was used less.[58] The researchers found that "stress-hormone levels correlate with snowmobile usage on both short (daily) and long (annual) time scales."[59] Elevated stress hormones can harm wildlife individuals and populations because it affects survival and reproduction.[60] The harms are not just to wolves, but to all other wildlife in the vicinity of these disturbances, including ungulates.

## Trapping wolves is inhumane and indiscriminate

By their design, traps and snares do not distinguish between species. Many non-target species are caught in them, including pet dogs, deer, bald eagles and bears. Bears, especially cubs, suffer immensely when captured in snares as they struggle vigorously to escape.[61] Trapped bears and other animals experience pain, shock and dehydration until they are killed.[62] Injuries include broken limbs, broken teeth, dislocated shoulders, hemorrhage, claw removal, tendon or ligament lacerations, fractures, joint dislocation, amputation of digits and/or limbs, physiological stress and/or pain, dehydration and exposure to weather.[63] Proulx et al. (2015) investigated how trapping affects wolves. Their results are disturbing:

> Killing neck snares are inadequate for consistently and quickly rendering canids unconscious. Because of collateral blood circulation, it is almost impossible to stop blood flow to and from the brain by tightening a snare around the neck. Also, it is difficult to collapse the trachea due to its rigid cartilaginous rings and adjacent musculature. Furthermore, weather conditions impact the function of snares, and the animals' stride and posture when entering the loop affect capture location on the body. Also, in an attempt to escape, animals frequently chew the snare, and cut their mouths and break their teeth. If they do not escape, they then suffer a slow death with the snare embedded in their neck. Animals may develop a water or jelly head when not killed quickly, i.e., an extreme case of edema due to watery fluid collecting in the tissues of the cervical region. If they escape with the snare still closed on their neck, they may suffer for many days or weeks and eventually die with the snare cable cutting into their skin and muscles.[64]

Restraining or body-crushing traps or snares that are improperly set and not checked frequently can cause enormous animal suffering. Trapped animals exert themselves vigorously to escape[65] and can sustain debilitating injuries such as broken bones and teeth, cuts to the mouth and gums, dislocated shoulders, lacerations, fractures, amputation of digits, paws or whole legs, physiological stress and/or pain, dehydration and exposure to weather.[66] Restraining traps are designed to hold animals until the trapper comes to kill them.[67] When they do, trappers are concerned with undamaged pelts, but not quick and humane deaths.[68]

Animals who escape or are released from restraining traps or snares may still later die from injuries and/or reduced ability to hunt or forage for food.[69] Several researchers found that their small-sized study animals who had been caught in traps (or immobilized by drugs) were cannibalized by larger ones.[70]

Trapped animals suffer from exposure, thirst, hunger, anxiety, fear, pain and distress.[71] Most

Americans do not consider trapping "fair chase" hunting.[72] As Batavia et al. (2018) write: "...collecting bodies or body parts as 'trophies' is an ethically inappropriate way to interact with individual animals, regardless of the beneficial outcomes that do or do not follow."[73] While trapping animals and selling their furs and body parts may provide a marginal financial benefit to one trapper, it harms the public's trust in wildlife management, inflicts grievous suffering on individual animals and damages social bonds between animals and, ultimately, ecosystems themselves.[74]

The concepts of fairness in hunting and the public's values and attitudes toward wildlife have been well studied and reported.[75] For instance, in a survey of more than 3,000 wildlife-management professionals regarding trapping, most respondents indicated they favored a ban on trapping.[76] They cited pain, stress and harm to non-target species as the primary reason for their decision, but wildlife professionals were also concerned about trapping's unsporting nature, conflicts with public values and a lack of need.[77] A 2019 survey by the National Shooting Sports Foundation and Responsive Management found that trapping for money, fur clothing or recreation is highly unpopular and more controversial than other methods used to kill wildlife that they surveyed.[78]

# DNR's mismanagement could trigger a "relisting" to prevent jeopardy to wolves

Wolves in Minnesota were listed as "threatened," and in Wisconsin and Michigan as "endangered," under the Endangered Species Act until the U.S. Fish and Wildlife Service removed federal protections for all gray wolves in the continental U.S. in November 2020.[79] However, according to the U.S. Fish and Wildlife Service, relisting wolves could be warranted under certain conditions, including:

- The combined wolf population in Wisconsin and Michigan is reduced to 200 or fewer individuals in late winter (excluding wolves on Isle Royale or the Lower Peninsula).
- Wolf populations in either Wisconsin or Michigan decline to 100 or fewer wolves (excluding wolves on Isle Royale or the Lower Peninsula).
- Minnesota's wolf population declines to 1,500 or fewer wolves.[80]

Additionally, the agency indicated that several additional occurrences could cause it to reevaluate the status of the species, including:

- Wisconsin or Michigan experience "a rapid and large decline (for example, 25 percent or more from the previous year)" in their late winter wolf counts.
- Wolves experience a "substantial" increase in mortality.[81]

According to Wisconsin's wolf management plan, reduction of the state's wolf population past certain thresholds could additionally trigger listing of wolves under *state* endangered species laws (Fig. 8).

**Figure 8. Wisconsin's criteria for relisting wolves to its state endangered species laws**

| Wolf population | State listing[82] |
|---|---|
| Decline to <250 for 3 years | Reclassify as Threatened |
| Decline to <80 for 1 year | Endangered |

According to the DNR, much of its winter 2020-21 tracking effort occurred before the February 2021 wolf hunt, with some occurring after the hunt.[83] This means that the counting done before the hunt, with all of the uncertainty surrounding the actual number of mortalities, is already outdated. Additionally, as hunting wolves—especially with hounds—greatly disturbs wolf packs and wolves' distributions, tracking data taken during and immediately after the hunt is necessarily inaccurate.

With the excessive trophy hunt that included breeding-age animals, illegal hunting activities, vehicle collisions and wolf killing by the U.S. Department of Agriculture's Wildlife Services program and others, the Wisconsin wolf population has been weakened—although by how much remains uncertain. Yet Wisconsin's public officials are keen to hold another hunt this year, using the same harmful hunting and trapping methods as before. Such a hunt could cause significant harm to the remaining population, especially when compounded with the imperilment to the population as a result of the February 2021 hunt, and could trigger a relisting of wolves under the federal Endangered Species Act or state endangered species laws. It is a reckless maneuver that is as unpopular as it is damaging.

# Public's values ignored by officials

Wisconsin's Natural Resources Board and the DNR that it governs have decision-making authority over the rules and regulations governing the conservation, management and permissible killing levels of wild animals such as wolves.[84] These Natural Resources Board members, who are appointed by Wisconsin's governor with confirmation from the state legislature, are unaccountable to the majority of the public. Because these officials are appointed but not elected, they frequently ignore the majority public who value wolves. Also, they also frequently lack the scientific knowledge needed to inform the development of policy alternatives and tend to be biased toward particular interests (e.g., hunting, trapping and agriculture).[85]

Newer surveys show a reverse in trend: According to a 2019 survey by the National Shooting Sports Foundation and Responsive Management, a majority of Americans oppose trophy hunting and trapping, and in the Midwest, only 34% approve of hunting wildlife for trophies. This survey also found that trapping is more controversial than other hunting activities in the U.S. And across the nation, public approval of trapping is low—especially when it's conducted to make money, to make fur clothing or for recreation.[86]

In June 2021, the Humane Society of the United States commissioned a poll by Remington Research Group,[87] which found that:

- A majority of voters, 62%, oppose the trophy hunting and trapping of Wisconsin's wolves, and 58% felt the February 2021 hunt was "mismanaged and reckless."

- A supermajority of voters, 67%, were convinced that excessive numbers of wolves were killed, causing family groups of wolves to split apart leaving young wolves to starve to death, or to seek out domestic livestock as easy prey just to survive.
- A supermajority, 67%, are convinced that allowing trophy hunters to use packs of GPS radio-collared hounds to hunt wolves is objectionable because such actions are akin to legalized dogfighting. Voters are convinced that using hounds to track and ambush wolves only to corner them in deep snow to await their fate is objectionable.
- A supermajority, 68%, said they were opposed to the use of hounds to hunt wolves.
- A supermajority, 68%, are convinced that using steel-jawed, leghold traps or strangling neck snares on sentient wolves who then suffer from painful injuries, distress and exposure to severe weather while awaiting their deaths for hours or days is intolerable.
- A supermajority, 68%, believe that Wisconsin's wolves are highly evolved individuals who maintain social bonds with their pack mates, they increase ecosystems' biological diversity, and help curb sick and weak deer preventing chronic wasting disease.
- Finally, a majority of voters, 58%, are not convinced that wolves pose a serious threat to Wisconsin's cattle operations because they killed only 41 cattle of 3.5 million in 2020, or 0.001% of Wisconsin's cattle inventory.

According to a 2020 economic study by Dr. Cameron Murray, trophy hunters depend largely on funding *provided by others* in order to trophy hunt wildlife.[88] Murray found that federal taxes paid by all Americans support the federal lands (e.g., Bureau of Land Management, U.S. Forest Service and National Park Service) where wildlife live. And most land trusts are maintained by non-profit organizations, such as the Humane Society Wildlife Land Trust, whose purpose is to set aside land to protect wildlife habitat, rather than for hunting and trapping.[89]

Trophy-hunting interests misleadingly claim that state wildlife agencies depend on hunting-related revenue streams to fund wildlife conservation. They point to federal grants under the Pittman-Robertson and Dingell-Johnson Acts, which collect excise taxes on guns, ammunition and boating and fishing equipment. But trophy hunters account for a mere fraction of that revenue: Only about 13.5% of the federal excise tax revenue collected comes from the purchase of equipment that is used for hunting (the rest is for non-hunting purposes). And because trophy hunters are a much smaller percentage of hunters overall—Murray estimates only about 2% of all hunters are trophy hunters—ultimately only about 0.3% of all Pittman-Roberson and Dingell-Johnson revenue comes from trophy hunters.[90] On the other hand, managing hunting and trapping is expensive; paid staff are needed to set regulations, conduct law enforcement and monitor wildlife populations. Therefore, the costs of administering hunting and trapping can exceed the cost of those hunting and trapping license sales.[91]

Americans in general are accepting of native carnivores such as wolves and are concerned about their long-term conservation and welfare.[92] Polling also found that in Wisconsin, even if a wolf is attacking livestock, the majority of Wisconsin residents do not want to see that wolf killed.[93]

Moreover, of the 5.8 million residents in Wisconsin, 680,733 purchased hunting licenses in 2020, or about 12% of the population.[94] That means that 88% of the Wisconsin residents do not hunt. And only a fraction of hunters are wolf hunters. The 27,000 people who applied to trophy hunt wolves represent only 0.46% of Wisconsin's 5.8 million residents.

In addition to measuring values, one can measure outdoor recreation activities' contributions to the Wisconsin economy—the vast majority of which is not tied to hunting and trapping. The National Park Service writes:

Photo by Kenneth R. Whitten/Alamy Stock Photo

> In 2019, 560 thousand park visitors spent an estimated $52.8 million in local gateway regions while visiting National Park Service lands in Wisconsin. These expenditures supported a total of 814 jobs, $23.7 million in labor income, $40.8 million in value added, and $72.7 million in economic output in the Wisconsin economy.[95]

And according to the U.S. Bureau of Economic Analysis, $7.7 billion was spent in 2019 on various outdoor recreational pursuits in Wisconsin, including hiking, camping, kayaking, travel and tourism. Of that figure, only 1% was spent on hunting and trapping. In other words, 99% of outdoor recreational spending in Wisconsin was spent on things *other than* hunting and trapping.[96]

# Wolves hold tremendous intrinsic value

Where wolves can live in ecologically functional numbers, they provide numerous benefits (called "ecological services") to humans, other wildlife and even entire ecosystems.[97] Wolves also hold intrinsic value, meaning they have value in their own right, aside from the benefits they provide to others.[98] The idea that wildlife possess intrinsic value is widely supported by the broader public, signifying the need for current wildlife conservation strategies to incorporate this value as a foundation for action.[99] Allowing a few hunters to kill rare wolves for trophies, or out of hatred or misplaced fears, is not a sound, sustainable conservation strategy.

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.[100] Wolf presence in the Great Lakes region affects soil nutrients, soil microbes and plant quality because decomposing prey carcasses enrich soils.[101] Elevated Great Lakes deer populations not only harm forest ecosystems, but they are involved in numerous vehicle collisions and they are a host for ticks that carry the bacteria that causes Lyme disease, which is zoonotic.[102] Wolves reduce vehicle-deer collisions. In their Wisconsin study, authors found that wolves reduce vehicle-deer collsions by 24% on average by county, an economic benefit that was 63 times greater than verified farm-animal losses to farmers.[103] Wolves also protect other species such as bears, raptors and ravens from climate change by providing a source of carrion for those species.[104]

In more populated areas, one could argue that wolf recovery is even more essential to human health—they literally keep people alive by mitigating vehicle-deer crashes and keeping Lyme disease in check. Great Lakes wolves, now studied *en masse* by wildlife biologists, have also brought new opportunities to learn about their profound influences on ecosystems. They have constrained their mesopredators, increasing biological diversity, and may be buffering the effects of climate change—and for that reason alone should not be trophy hunted or trapped.

# Conclusion

The Humane Society of the United States calls on Wisconsin's elected and appointed public officials to set the November 2021 season to a quota of zero and amend the legislation that mandates a Wisconsin wolf hunt. We also call upon the U.S. Fish and Wildlife Service to relist wolves as states have proven time and again they are incapable of managing these rare, iconic and much-valued species in trust for the public.

The only ones who want these hunts are a tiny minority of trophy hunters and trappers and a few in agribusiness. The Wisconsin public, even those polled in wolf ranges, are opposed to trophy hunting and trapping of wolves. A rush to hold another hunt is antithetical to good public policy process and sound science.

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