

# Why Ecosystems Need Healthy Populations Of Apex Predators To Be Restored



*Jimmy Videle ~ Source: YouTube*

20-02-2024 ~ *Wolves benefit the entire ecosystem they inhabit. So why hunt them?*

What if restoring ecosystems was as easy as letting nature do what she intends? From the microscopic level, which constantly churns and builds the “living soil”—from where all life originates—to the massive ungulates that wander the plains and forests, like bison, moose, and wapiti.

Top predators like wolves are integral to maintaining the natural balance and for the ecosystem to thrive.

People tend to believe that wolves are vicious and dangerous. Perhaps this myth originates from the fables we learned as children, like “Little Red Riding Hood” and “The Three Little Pigs.” Yet, between 2002 and 2020, there were [only 26 deaths from wolf attacks worldwide](#).

For the most part, wolves tend to run at the first sight of a human. They have evolved to understand that humans are dangerous. Around 40,000 people have died due to gun violence in the U.S. as of December 7, 2023, [according](#) to the Gun Violence Archive. Considering these fatalities, which species should we be more wary of: wolves or humans?

I live in southern Québec, where eastern wolves (*Canis lupus lycaon*) patrol the

forests. Historically, they could be found throughout the deciduous forests of the eastern United States and southeastern Canada.

According to Parks Canada, their range has [shrunk dramatically](#), and [less than 1,000 eastern wolves](#) could be found in south-central Ontario and south-central Quebec in 2015. Eastern wolves have been “listed as a species of special concern” under the [Canadian Species at Risk Act](#) and “threatened” under [Ontario’s Endangered Species Act, 2007](#).

Québec has an annual [hunting season](#) for all wolves from October to April—five months when these animals need to look over their shoulders. They have become so cautious of humans that they [avoid](#) areas where hunters are present.

When the wolves leave, it significantly impacts the ecosystem. But it is not just in Québec. Hunting the gray wolf (a larger cousin of the eastern wolf) is legal in every Canadian province and territory.

The gray wolf (*Canis lupus*) once ranged over most of the northern hemisphere. Following a steep decline of the gray wolf population—starting with colonization, as expansion destroyed habitat and game and livestock were [threatened](#)—they were extirpated from the contiguous 48 United States, except for a few hundred in Minnesota and Isle Royale National Park, Michigan.

The gray wolves were listed for protection under the U.S. [Endangered Species Act \(ESA\)](#) in 1978 when efforts arose to [reintroduce them to some of their historic range](#). The [culling of gray wolves was previously allowed](#) to protect livestock in Arizona, Idaho, Michigan, Minnesota, Montana, New Mexico, Wisconsin, and Wyoming. As of 2022, following a [court order](#), they are once again protected under the ESA, except in Alaska, Idaho, Montana, and Wyoming.

“Throughout their range, wolves are keystone predators and have a profound effect on the ecosystems they inhabit. The wide range of habitats in which wolves can thrive reflects their adaptability as a species,” said Stephen Guertin, the deputy director for policy at the U.S. Fish and Wildlife Service, in [testimony](#) before the U.S. House of Representatives in 2016.

“In his essay titled, ‘[Thinking Like a Mountain](#) ,’ the great American conservationist Aldo Leopold described the cascading effect of losing wolves in a forested mountain ecosystem—the resulting increase of deer, followed by

overgrazing, deforestation, and erosion, and then the collapse of deer [populations] after having eaten themselves out of house and home,” [added](#) Guertin.

In a [research article](#) published in August 2023 in the journal Science Advances, a team of scientists from Michigan Technological University and Arizona State University pointed out how the changes in the genetics of gray wolves in Isle Royale National Park, Michigan, affected the prey population (moose) as well as the insect and flora populations, which are all associated to each other.

In conclusion, the researchers [assessed](#) that “forest dynamics can be traced back to changes in the genetic characteristics (processes) of a predator population.”

Extrapolating on the study, Anaissa Ruiz-Tejada, a graduate science writer at the School of Life Sciences at Arizona State University, [concluded](#) in a September 2023 article that the research “emphasizes the interconnectedness of species in ecosystems and how one species’ well-being can affect others.”

“It underscores the necessity of holistic conservation strategies that consider genetic diversity to ensure the robustness and health of intricate ecosystems.”

Wolves benefit the entire ecosystem they inhabit.

So why hunt them?

### *Hunting Wolves Is Big Business*

Humans are disrupting the balance of the ecosystem to increase profits and generate more income from hunting elk, moose, and white-tailed deer—species that are primary food sources for wolves—and from big game hunting outfitters.

Outfitters in Alberta, Canada, charge anything from \$6,000 to \$10,000 for an almost guaranteed taking of a moose or a white-tailed deer. Companies in Idaho, meanwhile, charge up to \$10,000 for the opportunity to take a “trophy” elk. Wealthy people from cities invade remote locations to “kill” the largest species of any kind they can find for sport and bragging rights.

According to the International Wolf Center, one adult wolf [requires](#) at least “15 to 19 adult-sized deer per wolf per year” to sustain itself. Considering [around 1,000 eastern wolves remain](#) in Canada, they need at least 15,000 deer.

However, humans hunt these deer, generating revenue for the government instead of letting them be food for wolves. This prioritizes economics over the environment and puts humans out of sync with the natural world.

The more plentiful the deer, the more enthusiastic hunters become. The total revenue from hunting licenses, permits, and tags in the United States in the four states where wolves are killed (Alaska, Idaho, Montana, and Wyoming) was nearly \$90 million in 2020, 10 percent of the total U.S. revenue of [\\$902 million](#) from these activities. Spending on hunting in all of Canada exceeded [\\$5.9 billion in 2018](#). Hunting is a huge business.

### *Is There Justification for Wolf Hunting?*

According to a September 2023 NPR [article](#) , 23 cows and calves and 62 sheep were killed by wolves in Idaho in the past year. In response, the state Department of Fish and Game has allowed for the “harvesting” of 500 wolves over the past few years and would like to see the wolf population decline from 1,300 to 500.

In Montana, the state’s Fish, Wildlife, and Parks Department [reported](#) that 58 cattle and 41 sheep were killed by wolves in 2022. Of the 1,087 estimated wolf population, 248 were harvested during that year. Meanwhile, Montana [passed](#) regulations in 2021 that allow the hunting and trapping of [450 wolves per year](#) with an extended season.

In 2022, 46 cattle and 46 sheep were either injured or killed by wolves in Wyoming, and humans killed 95 wolves during the period. The Wyoming Game and Fish Department implemented an objective hunting plan for wolves in 2022 to diminish the population from approximately [338 to 160](#).

Effectively, the three state governments want to see the wolf population cut down by more than 1,400 per year.

When it has been determined that a wolf has killed a rancher’s livestock, the rancher is [compensated](#) at fair market value. They may lose the animal, but they don’t lose income. Since this causes a payout by the respective governments, wolves take away from the potential of big game hunting and directly diminish game and fish department budgets.

But far from causing economic loss, wolves are beneficial to humans. According to a 2021 [research article](#) published in Proceedings of the National Academy of Sciences, the existence of wolves leads to economic benefits to humans that are

“63 times greater than the costs of verified wolf predation on livestock.”

I have heard firsthand from ministry biologists in Canada and even the Nature Conservancy, a nonprofit environmental group, that we *must* kill deer because they destroy the forests. What if we allowed wolves to return to the ranges they once inhabited and help naturally restore the balance in the ecosystem instead?

### *Letting the Wolves Come Home*

Wolves are selective hunters. They target young, sick, or infirmed animals. The fastest, strongest, and wisest of the prey escape to continue the genetic line.

“New research shows that by reducing populations and thinning out weak and sick animals, wolves are helping create more resilient elk herds,” [pointed out](#) a 2020 article in National Geographic.

The winters in the north are harsh, and the snow can be deep. Those deer, elk, and moose that survive their predators and the harsh weather conditions will become more adaptive to these factors.

Going deeper into the issue, my understanding from personal observations is that wolves know their terrain. They follow trails, scents, and scat, and will feed on those animals that do the least damage to the herd.

For example, if the wolf pack kills the strongest male or the most fertile female, there is a possibility that the herd will be depleted to the point of dying off over time. There are no wolves if there are no deer, elk, or moose. The wolves understand this.

Referring to research from Yellowstone National Park, the 2020 National Geographic article explained how the return of the gray wolf to the park after 25 years has resulted in the wolves being a “[stabilizing force](#)” there. “[T]hey would rather kill an undernourished 750-pound bull versus a 450-pound cow. So by targeting bulls during years of scarce food, they give the cows a chance to reproduce, thus keeping the population afloat.”

Emphasizing the importance of wolves in maintaining a healthy ecosystem and biodiversity, Joseph Bump, an ecologist at the University of Minnesota, [explained](#) in a 2022 Discover magazine article that wolves influence not only the populations of the prey they consume but also the populations of the food sources for their

prey.

The forests and mountains where wolves live know their howling. Leopold expressed how it feels to live in their world in his essay, "[Thinking Like a Mountain](#)":

"Only the mountain has lived long enough to listen objectively to the howl of the wolf. Those unable to decipher the hidden meaning know nevertheless that they are there, for it is felt in all wolf country, and distinguishes that country from all other lands. It tingles in the spine of all who hear wolves by night, or who see their tracks by day."

As modern humans, we lead different lives from our ancestors, who depended entirely on the natural world for their regional survival.

When the resources kept the tribes alive, it was apparent that if they depleted them, it would put their lives in jeopardy. This is learned behavior, and every other living being besides humans knows how to live in harmony with nature.

If we stop being manipulated by the almighty dollar, there is a wealth of information we can learn from, especially if we pay attention to the flora and fauna surrounding us. When we read between the lines of the Game and Fish Department propaganda, we will realize that tax revenue from hunting is blurring the focus of what should be their entire mission: the protection of species and the ecosystems in which they all live.

As a concerted naturalist and citizen scientist, I witness the interactions between plant and animal communities and their integral relationship to each other every day.

We need to veer away from our human desire to exploit nature through competition and greed. Instead, we must embrace social and natural harmony and cooperation for the benefit of all. Among the multitude of lessons that we can learn from wolves, this may be the most important.

*By Jimmy Videle*

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