U.S. Fish & Wildlife Service

Gray wolf

Canis lupus

Historically, most Native Americans revered gray wolves, trying to emulate their cunning and hunting abilities. However, wolves became nearly extinct in the lower 48 states in the early part of the 20th century because settlers believed wolves caused widespread livestock losses. Constantly persecuted and targeted by large scale predator eradication programs sponsored by the federal government, wolves have been pursued with more passion and determination than any other animal in U.S. history. By the time wolves were finally protected by the Endangered Species Act of 1973, they had been exterminated from the lower 48 states, except for a few hundred that inhabited extreme northeastern Minnesota.

Second only to humans in their adaption to climate extremes throughout the world, gray wolves were equally at home in the deserts of Israel, the deciduous forests of Virginia and the frozen Arctic of Siberia. Within the continental United States, gray wolves once ranged from coast to coast and from Canada to Mexico.

Wolf groups, or *packs*, usually consist of a set of parents (*alpha pair*), their offspring and other non-breeding adults. Wolves begin mating when they are 2 to 3 years old, sometimes establishing lifelong mates. Wolves usually rear their pups in dens for the first six weeks. Dens are often used year after year, but wolves may also dig new dens or use some other type of shelter, such as a cave. An average of five pups are born in early spring and are cared for by the entire pack. They depend on their mother's milk for the first month, then they are gradually weaned and fed regurgitated meat brought by other pack members. By 7 to 8 months of age, when they are almost fully grown, the pups begin traveling with the adults. Often, after 1 or 2 years of age, a young wolf leaves and tries to find a mate and form its own pack. Lone dispersing wolves have traveled as far as 500 miles in search of a new home.

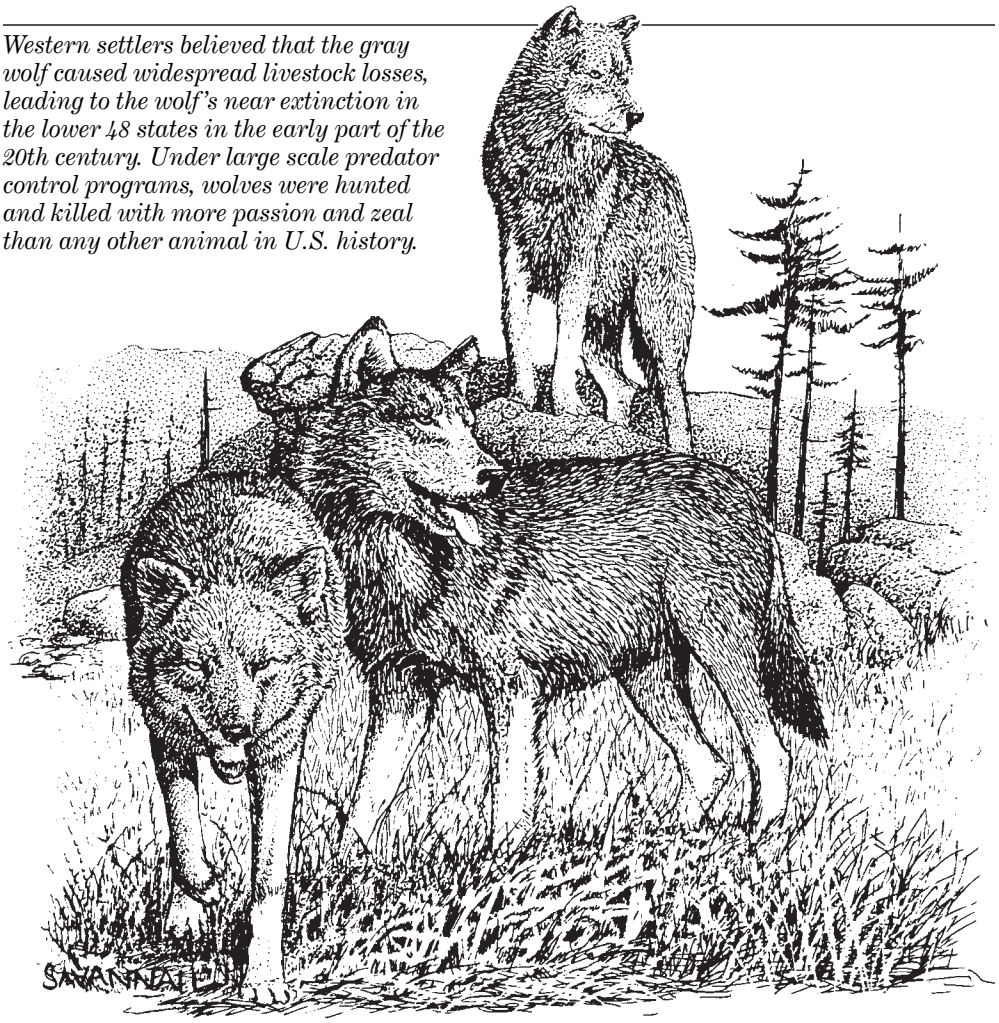
Wolf packs usually live within a specific territory. Territories range in size from 50 square miles to more than 1,000 square miles depending on how much prey is available and seasonal prey movements. Packs use a traditional area and defend it from strange wolves. Their ability to travel over large areas to seek out vulnerable prey makes wolves good hunters. Wolves may travel as far as 30 miles in a day. Although they usually trot along at 5 m.p.h., wolves can attain speeds as high as 45 m.p.h for short distances.

Indirectly, wolves support a wide variety of other animals. Ravens, foxes, wolverines, vultures and even bears feed on the remains of animals killed by wolves. In some areas, bald eagles routinely feed on the carcasses of animals killed by wolves during the winter. Antelope are swift, elk are alert, and mountain goats can climb steep cliffs because of the long term evolutionary effect of wolf predation. Wolves also help regulate the balance between these *ungulates* (hoofed animals) and their food supply, making room for smaller plant-eaters such as beaver and small rodents.

Wolves are noted for their distinctive howl, which they use as a form of communication. Biologists do not know all of the reasons why wolves howl, but they may do so before and after a hunt, to sound an alarm and to locate other members of the pack when separated. Wolves howl more frequently in the evening and early morning, especially during winter-breeding and pup rearing. Howling is also one way that packs warn other wolves to stay out their territory.

Early settlers moving westward severely depleted most populations of bison, deer, elk and moose—animals that were important prey for wolves. With little alternative, wolves turned to sheep and cattle that had replaced their natural prey. To protect livestock, ranchers and government agencies

Western settlers believed that the gray wolf caused widespread livestock losses, leading to the wolf's near extinction in the lower 48 states in the early part of the 20th century. Under large scale predator control programs, wolves were hunted and killed with more passion and zeal than any other animal in U.S. history.



began a campaign to eliminate wolves. Bounty programs initiated in the 19th century continued as late as 1965, offering $20 to $50 per wolf. Wolves were trapped, shot from planes and snowmobiles, dug from their dens, and hunted with dogs. Animal carcasses salted with strychnine were left out for wolves to eat. Unfortunately this practice also indiscriminately killed eagles, ravens, foxes, bears and other animals which fed on the poisoned carrion.

Today about 2,200 wolves live in the wild in Minnesota, fewer than twenty on Lake Superior's Isle Royale, about 120 in Michigan's Upper Peninsula, 120 in Wisconsin, and about 240 in the northern Rocky Mountains of Montana, Idaho and Wyoming. Wolves currently are being reintroduced to Arizona and New Mexico. An occasional wolf is seen in Washington State, North Dakota or South Dakota. Populations fluctuate with food availability and strife within packs, and, primarily, due to killing by people.

Gray wolves are listed under the Endangered Species Act as threatened species in Minnesota and as endangered species elsewhere in the lower 48 states. *Endangered* means a species is considered in danger of extinction throughout all or a significant portion of its range, and *threatened* means a species may become endangered. In Alaska, wolf populations number 5,900 to 7,200 and are not considered endangered or threatened.

Wolf recovery under the Endangered Species Act has been so successful that in June 1998 the U.S. Fish and Wildlife Service announced that it would review the species' status and consider delisting or reclassifying specific wolf populations where appropriate. The wolf's comeback has been attributed to a combination of scientific research, conservation and management programs, and education efforts that helped to increase public understanding of wolves.

Successful reintroduction and management programs have greatly accelerated wolf recovery in the Rocky Mountains. Gray wolves have greatly expanded their numbers thanks to science-based wolf and wolf habitat management; restoration of wolf prey species such as deer, elk and moose; and habitat and legal protection.

In Minnesota, where the largest wolf population in the lower 48 states resides, a state program provides compensation for livestock confirmed to be killed by wolves, and a federal program provides for trapping of individual wolves guilty of depredation. In other areas a private compensation program run by an organization that supports wolf restoration, the Defenders of Wildlife, pays for livestock killed by wolves.

Wolf recovery and management are very polarized, controversial, and emotional issues often stemming from people's attitudes, fears and misunderstandings more than wolves themselves. Attitudes are often based on inaccurate information, making wolf management perhaps more difficult than any other wildlife management program.

For example, some people continue to carry the unfounded fear that wolves attack people or threaten outdoor activities. In fact, wolves generally avoid humans. While wolves certainly have the ability to kill people, there has never been a verified report of a healthy wild wolf deliberately attacking or seriously injuring a human in North America. Wolves can be very tolerant of human activity if they are not deliberately persecuted so there is rarely a reason to restrict human activity, including logging and mining, simply because wolves live in the area.

For the past twenty years, Yellowstone National Park has been at the center of debates over the wolf. By about 1930, wolves had been deliberately extirpated from the western United States, including Yellowstone. After years of comprehensive study and planning, the U.S. Fish and Wildlife Service reintroduced gray wolves into Yellowstone and U.S. Forest Service lands in central Idaho. In 1995 and 1996, 31 wolves from Canada were temporarily held in pens before being released in Yellowstone National Park. At the same time 35 wolves were released on remote Forest Service lands in Idaho. All of the reintroduced wolves were fitted with radio collars and monitored by biologists from the Fish and Wildlife Service and other cooperating agencies. The reintroduction has been very successful and by December 1997 about 80 wolves lived in each area.

The Yellowstone and Idaho wolves are designated as *non-essential, experimental* under the Endangered Species Act. This designation allows federal, state and tribal agencies and private citizens more flexibility in managing these populations. Wolves that prey on livestock will be removed and, if necessary, destroyed. Ranchers may kill wolves they catch in the act of preying on their livestock on private lands. They may be issued a permit to do the same on public lands after certain conditions are met. The experimental program has worked so well in the northwestern United States that a similar effort is being used to restore Mexican wolves to their historic range in the southwestern United States.

Mexican gray wolves are the southernmost occurring, rarest and most genetically distinct type of gray wolf in North America. They once lived in the mountainous regions of the Southwest from central Mexico throughout portions of southern Arizona, New Mexico and Texas. Mexican wolves, or *lobos* as they were called by the Spanish-speaking people, were extirpated by aggressive predator control programs.

Until recently Mexican wolves only existed in captivity. In March 1998, the U.S. Fish and Wildlife Service released three Mexican wolf packs into the Apache National Forest in eastern Arizona. These wolves are the first to exist in the wild in the United States since 1970, when the last Mexican wolf was killed. Reintroductions will continue for 3 to 5 years with the goal of establishing 100 wolves in eastern Arizona and western New Mexico. Like the Yellowstone and Idaho wolves, the reintroduced Mexican wolf population has been designated a non-essential, experimental population, providing for greater management flexibility to address the concerns of local residents.

Wolf recovery efforts represent an opportunity to redress past mistakes and enhance our understanding not only of wolves themselves, but also the complex interactions among species in their natural environments.

After years of comprehensive study and planning, an effort is now underway to reintroduce gray wolves from Canada into Yellowstone National Park and central Idaho as part of recovery actions for the animal. The U.S. Fish and Wildlife Service is considering delisting or reclassifying populations of wolves that have been sufficiently recovered.

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