



U.S. Fish & Wildlife Service

# Wolf Recovery in North America

## About Wolves

Wolves are highly social animals that live in groups, called packs, which typically include a breeding pair, their offspring, and other non-breeding adults. Wolves are capable of mating by age one or two and sometimes form a lifelong bond. On average, four to five pups are born in early spring and are cared for by the entire pack. For the first six weeks, pups are reared in dens. Dens are often used year after year, but wolves may also dig new ones or use some other type of shelter, such as a cave.

Pups depend on their mother's milk for the first month, then are gradually weaned and fed regurgitated meat brought by pack members. By the time pups are five to six months old they are big enough to begin traveling with the adults. After a year or two, young wolves often leave their packs to try to find a mate and form a pack or join other existing packs. In the Northern Rocky Mountains, lone dispersing wolves travel on average 60-70 miles, but have traveled as far as 600 miles in search of a mate or territory.

Wolf packs live within territories, which they defend from other wolves. Their territories range in size from less than 50 square miles to more than 1,000 square miles, depending on habitat and seasonal movements of available prey. Wolves travel over large areas to hunt, as far as 30 miles in a day. Although they usually trot along at five miles per hour, wolves can run as fast as 40 miles per hour for short distances.

Wolves play an important role as top predators in the ecosystem they in-



*Gray wolf.*  
Gary Kramer / USFWS

habit. Studies at Yellowstone National Park found that reintroducing wolves back into their historic ecosystem cascaded throughout the landscape. Ravens, foxes, wolverines, coyotes, bald eagles, and even bears benefit because they feed on carcasses of animals killed by wolves. Coyote density

in some areas has declined because wolves view them as competitors and often kill them within their territories; which may be responsible, in part, for an increase in small rodents in some areas. Declines in the elk population have allowed willow, aspen, and cottonwood regrowth. This,

in turn, provided food for beavers and habitat for songbirds.

Wolves use their distinctive howl to communicate. Biologists have identified a few of the reasons wolves howl: to reinforce social bonds within the pack, to announce the beginning or end of a hunt, sound an alarm, locate members of the pack, or warn other wolves to stay out of their territory. Wolves howl more frequently during winter breeding season and at rendezvous sites used in pup-rearing.

### **The Decline of Wolves**

Before the arrival of European settlers, gray wolves in the lower 48 states once ranged throughout the central and western United States.

Settlers moving westward depleted most populations of bison, deer, elk, and moose – animals that were important prey for wolves. Wolves then turned to sheep and cattle as a replacement for their natural prey. To protect livestock, ranchers and government agencies began an eradication campaign. Bounty programs initiated in the 19th century continued as late as 1965, offering \$20 to \$50 per wolf. Wolves were trapped, shot, dug from their dens, and hunted with dogs. Poisoned animal carcasses were left out for wolves, a practice that also killed eagles, ravens, foxes, bears, and other animals that fed on the tainted carrion. By the middle of the 20th century, wolves were hunted nearly to extinction in the lower 48 states.

When wolves were protected by the Endangered Species Act of 1973, only a few hundred remained in extreme northeastern Minnesota and a small number on Isle Royale, Michigan. Gray wolves were listed as endangered in the contiguous 48 States and in Mexico. In 1978, wolves in Minnesota were reclassified as threatened. Alaska wolf populations number 7,000 to 11,000 and were never considered endangered or threatened.

### **Wolf Recovery**

#### *Gray Wolves*

The wolf's comeback nationwide is due to its listing under the Endangered Species Act, which provided protection from unregulated killing and resulted in increased scientific research, along with reintroduction and management programs, and education efforts that increased public understanding of wolf biology and behavior.

Thanks to Endangered Species Act protection and recovery programs, more than 5000 gray wolves now live in the lower 48 States. Partners such as State and Tribal wildlife agencies, universities, and conservation organizations have worked for decades to restore the species to a secure status in the wild as a functioning member of its ecosystem.

Today about 2,211 wolves live in Minnesota, 8 on Lake Superior's Isle Royale, about 658 in Michigan's Upper Peninsula, and at least 809 in Wisconsin.

Probably the best known wolf recovery effort was the reintroduction of wolves into Yellowstone National Park and central Idaho in 1995 and 1996. After an absence of more than 50 years, the U.S. Fish and Wildlife Service and our partners brought wild gray wolves from Canada to the park and the reintroduction program was extremely successful. By December 2012 there were at least 625 wolves in Montana, 683 in Idaho, 277 in Wyoming, 46 in Oregon, and 53 in Washington.

Special features of the Endangered Species Act have been used in parts of the wolf range to allow the removal of wolves that prey on livestock. There are programs to compensate for the loss of livestock and pets in most of the recovery areas.

#### *Mexican Wolves*

The Mexican wolf, a subspecies of gray wolf, *Canis lupus baileyi*, has

also been reintroduced into Arizona and New Mexico. Native to the Southwest, the wolves existed only in zoos until 1998, when 13 of the animals were released in Arizona. By the end of 2012, there were a minimum of 75 Mexican wolves in the wild in Arizona and New Mexico and close to 300 Mexican wolves in zoos and other facilities. These Mexican wolves are designated as non-essential, experimental populations under the Endangered Species Act. This designation allows more management flexibility while contributing to recovery.

#### *Red Wolves*

As red wolf numbers continued to decline during the 20th Century, the remaining animals in the wild were removed to zoos and other captive facilities in an effort to save the species. By 1980, the red wolf existed only in captivity, with a founder population of 14 animals. Captive breeding efforts proved to be successful, allowing the Service to restore the red wolf to the wild in 1987 on Alligator River National Wildlife Refuge in North Carolina. Today, about 100 wild red wolves roam more than 1.5 million acres in five counties in northeastern North Carolina. Captive management efforts at about 40 zoos and nature centers throughout the United States house nearly 200 wolves. The captive management program remains vital to maximizing the genetic diversity of the species. Recovery goals are 550 red wolves, including at least 220 in the wild.

Wolf recovery efforts have restored a top predator to its ecosystem, and improved our understanding of the complex interactions among species in their natural environments.

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