# FEDERALLY THREATENED

Gray Wolf (Canis lupus lycaon)



## Description

Few species have raised as much intense controversy and interest over the ages as the wolf. The gray wolf is the largest wild member of the dog family. Adults weigh 46-175 pounds depending on sex and subspecies. The subspecies, C.l. lycaon, found in the Great Lakes region, eastern Canada, and formerly the Northeast, is smaller than subspecies found in the West and northern Canada. The average weight of male wolves in Wisconsin is 77 pounds (range 57-102 pounds), and females average 62 pounds (range 46-75 pounds). Gray wolves superficially resemble coyotes or large domestic dogs, such as German Shepherds or huskies, but can be distinguished by their longer legs, larger feet, wider heads and snouts, and narrower chests. Coyotes (Canis latrans) are smaller (30-60 pounds), and have narrow, pointed noses and shorter legs. The wolf's coat color is variable, grading from pure white to pure black, but the most common color is rusty brown with long black guard hairs on the back and sides. The tail is



usually held straight, in line with the body. The front foot has five toes, and the hindfoot four. Track length (tip of toe to heel) is generally greater than 4<sup>1</sup>/<sub>2</sub> inches.

Canids (members of the dog family) can interbreed. The gray wolf has specialized as a moose and caribou predator, and is now found in boreal areas of North America. The red wolf *(Canis rufus)* is smaller (40-80 pounds), feeds primarily on deer, and was found predominantly in the Southeast. Gray and red wolves interbreed where their populations overlap. Maine probably had a mixture of gray wolves in the north where moose and caribou were the predominant prey and red wolves in the south and along the coast where deer were the predominant prey. These two species may have hybridized in central portions of the state. To add further confusion, some eastern coyotes in Maine have wolf genes acquired during their past range expansion to the East.

## **Range and Habitat**

The gray wolf historically occurred across most of Europe, Asia, and North America, except for parts of California and the Atlantic coastal plain south of Virginia. In the lower 48 states, the gray wolf was extirpated from 95 percent of its historic range. Wolves were extirpated from Maine by the 1890s. Small populations persisted in northeastern Minnesota and northern Michigan. Since the 1980s, populations have greatly expanded in the Great Lakes region and northern Rockies, and gray wolves have been reintroduced into the Yellowstone region, Idaho, Arizona, and New Mexico. Gray wolves persist across Canada, and in eastern Canada are found as far south as the north shore of the St. Lawrence River in Quebec. Although often thought of as a "wilderness" species, the gray wolf occupies many habitats, and in many areas demonstrates tolerance to human activities. In the Northeast, large, relatively unfragmented blocks of forested habitats that support adequate deer and moose populations are considered best suited for wolves.

## Life History and Ecology

Gray wolves are social animals and live in family groups or packs of 2-8 individuals, though some packs contain 20 or more members. Packs usually consist of parents (a single alpha pair), their offspring, and other non-breeding adults. Wolves begin to breed when they are 2-3 years old, sometimes establishing lifelong mates. Depending on latitude, females breed between January and April. The estrous period lasts 5-7 days, and gestation is 63 days. Litters average 6 pups, but may range between 1 and 11. The alpha female remains with the pups while the lead male and other members of the pack hunt and feed them. When the pups are 8-10 weeks old, they are moved from the den to a "rendezvous site," where they remain while pack members hunt. A succession of rendezvous sites are used until the fall, when the pups are almost full grown and begin to accompany adults on hunts.

From late April to late fall, the wolf pack restricts its wanderings to small areas centered on the den and pups. After the pups abandon their rendezvous sites, the pack wanders widely. Summer home ranges in forested areas may be 3-10 square miles, while winter ranges are much larger. Often, after 1-2 years of age, a young wolf may disperse from the pack and travel up to 500 miles in search of a new home.

Wolves can live to be 16 years old in the wild. They are carnivores and prey on large animals such as white-tailed deer, caribou, moose, and beaver. Pack members communicate by howling, especially during winter breeding and pup rearing.

## Threats

Wolves were extirpated from much of their historic range by hunting, trapping, and poisoning. Many wolf eradication programs were government sponsored. Bounties were enacted in Scarborough in 1730. The state enacted wolf bounties from 1832-1903. Early settlers also depleted populations of deer, caribou, and moose and competed with wolves for food. Today, human activity and disturbance are sometimes detrimental, particularly near denning areas. Hunting and trapping are used to manage wolf populations in Alaska and Canada where wolves are still numerous. Hybridization of gray wolves and coyotes could alter the genetic integrity of wolf populations, especially if wolf numbers are low or habitat changes favor coyote populations. Woods roads do not seem to present a barrier to movement, but they increase human access and associated disturbances. High-speed, interstate

highways can be a more significant source of mortality and can act as a barrier to dispersal.

## **Conservation and Management**

In 1969, the U.S. Fish and Wildlife Service listed the gray wolf as endangered (threatened in Minnesota). In 2003, they were downlisted to threatened throughout most of their range, including Maine. Federal recovery plans include restoring populations in the Great Lakes states and possibly the Northeast. Endangered Species Act protection allowed the Great Lakes population to grow to about 2,200 animals, and populations have expanded in Minnesota, Michigan, and Wisconsin. Delisting is being considered. There has been considerable public discussion about reintroducing wolves to the Northeast. Recent reintroductions in the West have been successful, and some biologists believe wolves could be successfully restored to Maine or the Adirondack region in New York. Decisions to restore this predator of deer and moose would require consideration of many biological, public, and political issues. Two wolves were killed in Maine in 1993 and 1996, but their origin was unknown. Tracks and other evidence suggest there may be additional wolf-like canids in the state, but there is no conclusive evidence of reproduction or establishment of packs. Given the physical barrier to dispersal from Quebec posed by the St. Lawrence River, unsuitable agricultural habitat in southern Quebec, and liberal wolf trapping regulations in Quebec, it is highly unlikely that wolves can naturally recolonize Maine. Experience from recovering populations in the Great Lakes and the West demonstrates that dispersing wolves must be protected to establish populations. Uncertainty about which subspecies of wolf occurred in Maine in the past, and whether wolf genes occur in Maine's coyote population, are questions that must be considered before developing plans for wolf recovery.

#### **Recommendations:**

✓ Report all wolf sightings to MDIFW as soon as possible. Sightings can be verified from good photographs, tracks, scat, or hair samples.
✓ Conserve large blocks of unfragmented forest-land to maintain the long-term integrity of habitat for potential recovery. Avoid the construction of new high-volume/high-speed highways in currently undeveloped areas of northern, western, and eastern Maine.

✓ If wolves are documented, avoid disturbing denning areas or rendezvous sites. ➡►