Gray Wolf Recovery in Minnesota, Wisconsin, and Michigan

Corel Corp.

Minnesota, Wisconsin, Michigan and adjacent states were once home to gray wolves. Killing by humans and declining numbers of prey - bison, elk, and white-tailed deer in the south and moose, deer, caribou, and beaver in the north - caused wolf declines early on. By 1838, wolves were eliminated from the southern portion of the Lower Peninsula of Michigan. Bounties paid for dead wolves began during the 1800s and by the early 1900s wolves were also gone from southern Minnesota and Wisconsin. By 1960 wolves were nearly eliminated from Wisconsin, Michigan (except Isle Royale), and most of Minnesota.

Wisconsin protected the wolf in 1957, after the species was extirpated from the state. Michigan followed suit in 1965 with endangered species protection for the gray wolf. At that time only a few lone wolves remained in the Upper Peninsula, and an isolated population existed on Isle Royale.

In Minnesota, a bounty on all predators, including wolves, continued until 1965. Between 1965 and 1974, Minnesota had an open season on wolves and a Directed Predator Control Program. During this time, about 250 wolves were taken each year and the wolf population was estimated at 350 to 700 animals. The state's control program and open season continued until May 1974 when the gray wolf gained protection under the Endangered Species Act (ESA).

Wolf Recovery

Perhaps the most important factor leading to wolf recovery in the Midwest was the ESA's legal protection against killing or harming wolves. Another factor was the ESA requirement that a Recovery Plan be prepared. That Plan focused time, money, and energy on priority conservation actions. Also, wolves rebounded because their primary prey, white-tailed deer, were doing well. Deer herds in Minnesota, Wisconsin, and Michigan increased through the 1980s and early 1990s because of mild winters and timber harvests that created prime habitat.

Recovery criteria established in the Recovery Plan includes the assured survival of the gray wolf in Minnesota and a population of 100 or more wolves in Wisconsin/Michigan for a minimum of five consecutive years. The Recovery Plan identified 1,250 to 1,400 as a population goal for Minnesota. The state's wolf population has been at or above that level since the late 1970s. The Wisconsin/ Michigan wolf population has been above 100 since the winter of 1993-1994, achieving the latter numerical goal in the Recovery Plan.

With this consistent expansion in numbers and range, the gray wolf is healthy and has recovered in the western Great Lakes region.

Minnesota

During the mid- to late 1970s, the Minnesota Department of Natural Resources (DNR) estimated their wolf population at about 1,000 to 1,200. Then, in the 1980s researchers documented areas that wolves had recently colonized. This suggested that wolf numbers and their range were increasing. The DNR conducted a 1988-89 winter survey that resulted in estimates of 1,500 to 1,750 wolves. Two subseqent surveys in 1997-1998 and 2003-2004 estimated the wolf population at about 2,450 and 3,020 animals, respectively. DNR's most recent survey in 2007-2008 estimated the state's wolf population at about 2,922 animals. Due to the uncertainty inherent in this type of survey, however, DNR concluded that there had been no significant change in wolf distribution or abundance between 1998 and 2008.

Over the last three decades wolves increased their range into north central and central Minnesota. This expansion was due to ESA protection from unregulated killing, high deer numbers, and dispersal of individuals from existing packs. Telemetry studies documented wolves dispersing from the major wolf range in northeastern Minnesota to recolonize new areas and wolves dispersing from the few

packs in north central Minnesota that had survived the "bounty era."

Today, wolves live in areas with higher road and human densities than previously believed could be suitable for wolf survival, although these two factors still limit the areas suitable for wolf packs. Wolves continue to disperse to areas in west-central and east-central Minnesota (just north of Minneapolis/St. Paul), North and South Dakota, and Wisconsin.

In May of 2000 the Minnesota Legislature passed a bill that set up a framework for wolf management. Using that guidance, the Minnesota DNR, in consultation with the Minnesota Department of Agriculture, completed the Minnesota Wolf Management Plan in early 2001. It delineates two wolf management zones and provides different levels of protection in the two zones. The Plan also establishes a minimum state population goal of 1,600 wolves and defers any action on allowing a general public taking of wolves for five years following federal delisting.

Wisconsin

From 1960 to 1975 there were no breeding wolves in Wisconsin. But after the wolf was listed as federally endangered (May 1974), wolves began returning, apparently dispersing from Minnesota. The Wisconsin DNR started monitoring wolves in 1979. They radio-collared wolves, surveyed winter tracks, and conducted summer howling surveys.

When monitoring began, 25 wolves were documented in the state. During the mid-1980s wolf numbers reached a low of only 15, probably due to an epidemic of canine parvovirus. Wild wolves seemed to develop some degree of natural resistance and wolf numbers increased after 1985. Since that time, the Wisconsin wolf population has steadily increased. Population estimates between 1985 and 2008 increased from 83 wolves to 537 wolves.

Parvovirus seems to be declining, but is still present in Wisconsin wolves. Lyme disease and mange are also present but their impact, particularly on pup survival, is not well known. Wisconsin DNR monitors wolf movements in the Wisconsin-Minnesota border area, as well as the wolf range expansion southward into the central portion of the state.

The Wisconsin DNR developed a state wolf management plan that was approved in October of 1999. That plan sets a management goal of 350 wolves (outside of Indian Reservations). This goal was exceeded and in 2004 Wisconsin changed the wolf's status from "threatened" to "protected wild animal." In 2006 the Wisconsin management plan was updated and approved by the Natural Resources Board. The wolf management goal remains 350 wolves outside of reservations.

Michigan

As wolves began getting a foothold in Wisconsin during the late 1970s, biologists documented increasing numbers of single wolves in the Upper Peninsula of Michigan. Finally, in the late 1980s they documented a pair of wolves traveling together in the central Upper Peninsula. This pair had pups in the spring of 1991. The next year (summer of 1992), Wisconsin and Michigan DNR biologists radio-collared one of the wolves in the only known pack. By the end of 1992, Michigan biologists verified at least 20 wolves in the Upper Peninsula. Since then, except for 1996, numbers have steadily increased.

The end of the 1996-97 winter count found the number of wolves at 112, down from the 116 documented during the previous late winter count. That decline appears to have been due to two consecutive harsh winters and a high incidence of mange. In some areas of the Upper Peninsula, deer numbers were reduced by 80 percent due to record snowfalls and low temperatures during the 1995-96 winter. This provided more prey for wolves during that winter but was followed by another severe winter with unusually deep snow in 1996-97. During that second winter there were few deer for wolves to prey upon and wolf deaths were high. Since then, Michigan DNR trackers estimate that there were at least 174 wolves in 1998-99, increasing to 520 in 2007-2008. Radio-collaring and monitoring Michigan's wolf population continues.

Michigan, through the DNR, completed a Wolf Recovery and Management Plan in December 1997, which was revised in 2008. The Michigan plan recommends managing for a minimum of 200 wolves on the Upper Peninsula. The DNR's goal is to ensure the wolf population remains viable and above a level that would require either federal or state reclassification as a threatened or endangered species.

There have been wolves residing on Isle Royale, Michigan, in Lake Superior, since the winter of 1948-49. Their population has moved up and down with that of their prime prey -moose. Disease is also believed to be an important factor in population fluctuations. Following a peak of 50 wolves in 1979, the population plummeted to the low teens in the late 1980s and early 1990s. They have since rebounded to 23 wolves. Due to their isolation from other wolves, these wolves do not contribute to Federal wolf recovery goals.

Minnesota Wolf Population	
1973	500 to 1,000
1979	1,235
1989	1,500 to 1,750
1998	2,450
2004	3,020
2008	2,922

Wisconsin Wolf Population	
1973	0
1980	25
1995	83
2000	248
2008	537

Michigan Wolf Population	
1973	0
1980	0
1995	80
2000	216
2008	520

March 2009