WILDLIFE SOCIETY

Gray Wolf Populations in the Conterminous U.S.



Western Great Lakes gray wolves were delisted in 2011 but will be monitored for five years to ensure recovery is sustained (Credit: USFWS).

Human-Wolf Conflict

Human-wolf conflicts continue to occur as both populations expand, particularly between wolves and livestock farmers. Social constraints must be carefully considered when developing management plans for any wolf population, including those recently delisted.¹ Compensation programs that cover a portion of wolf depredation damages and lethal management of problem wolves both aim to decrease human animosity towards wolves and aid in their recovery.

Wolves are apex predators on top of the food chain with no natural predators of their own. They play a critical role in maintaining the balance and structure of an ecological community.

North American wolf numbers plummeted in the 1800's and early 1900's due to decreased availability of prey, habitat loss and increased extermination efforts to reduce predation on livestock and game animals. Gray wolves (*Canis lupus*) were listed as endangered under the Endangered Species Act (ESA) in 1974. Although wolves today occupy only a fraction of their historic range, conservation efforts have helped some populations to meet recovery goals.

The U.S. Fish and Wildlife Service (FWS) proposed removing protections for gray wolves throughout the U.S. and Mexico in 2013 – a final decision is pending.

Western Great Lakes Population

Gray wolves of the Western Great Lakes region are mainly found throughout northern Minnesota and Wisconsin, Michigan's Upper Peninsula, and Ontario.¹ In the 1800s and early 1900s, unregulated hunting, government bounties, and diminished prey availability nearly eliminated the wolves in the Great Lakes region.^{2, 3, 4}

The Western Great Lakes wolf population has rebounded and undergone range expansion due to a combination of state management, federal protections, increasing prey populations, and natural re-colonization.^{5, 6} As of 2015 there are an estimated 3,600 individuals within the Western Great Lakes.⁵ The FWS published a final rule at the end of 2014 to relist wolves in Minnesota, Wisconsin, Michigan, and portions of adjoining states.



Reintroduced Mexican gray wolves and their offspring are a "non-essential, experimental population," which is treated as "threatened" under the ESA when on federal lands, but has no special protections elsewhere (Credit: USFWS).

Northern Rocky Mountain Population

Gray wolves were extirpated from the northern rocky mountains of the United States by the 1930s, largely due to extermination efforts. Wolves began returning naturally to the northern rocky mountains from Canada in the late 1970s. Reintroductions began in 1995 when the U.S. Fish and Wildlife Service (FWS) released 31 wolves from Jasper National Park, Canada into Yellowstone National Park and central Idaho, followed by an additional 35 wolves in 1996.^{7, 8}

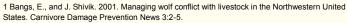
The Northern Rocky Mountains Wolf Recovery Plan set a goal of sustaining a metapopulation of 300 wolves with 30 breeding pairs for three successive years in the northern rocky mountains.^{9, 10} This goal has been satisfied since 2002.

The northern rocky mountains region had at least 1,650 wolves in 244 packs, with 110 successful breeding pairs (one adult male, one adult female, and two surviving pups) by 2010.⁸ Wolves in Idaho and Montana were delisted and management returned to the states in early 2011, with Wyoming following in September 2012.

Mexican Wolf Population

The Mexican wolf (*Canis lupus baileyi*) historically ranged across portions of Texas, New Mexico, Arizona, and Mexico and was listed in 1976.^{5, 11} This subspecies of gray wolf was effectively eliminated from the U.S. by 1970 as a result of prey and habitat loss combined with extermination efforts.¹²

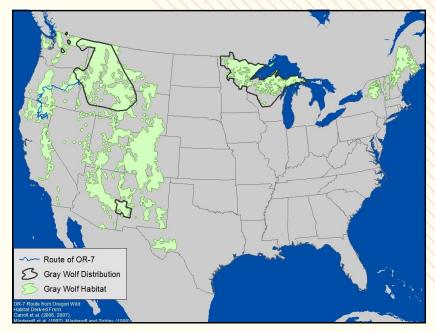
A bi-national captive breeding program began in 1981 using the last remaining wild wolves in Mexico and the Mexican Gray Wolf Recovery Plan was developed in 1982.



2 Beyer, D. E. Jr., R. O. Peterson, J. A. Vucetich, and J. H. Hammill. 2009. Wolf population changes in Michigan. pp. 65-85 in A.P. Wydeven, T.R. Van Deelen, and E.J. Heske, editors. Recovery of gray wolves in the Great Lakes region of the United States: an endangered species success story. Springer, New York, USA.

3 Erb, J. and M.W. Don Carlos. 2009. An overview of the legal history and population status of wolves in Minnesota. pp. 49-65 in A. P. Wydeven, T. R. Van Deelen, and E. J. Heske, editors. Recovery of gray wolves in the Great Lakes region of the United States: an endangered species success story. Springer, New York, USA.

4 Wydeven, A. P., J. E. Wiedenhoeft, R. N. Schultz, R. P. Thiel, R. L. Jurewicz, B. E. Kohn, and T. R. Van Deelen. 2009. History, population growth, and management of wolves in Wisconsin. pp. 87-105 in A. P. Wydeven, T. R. Van Deelen, and E. J. Heske, editors. Recovery of gray wolves in the Great Lakes region of the United States: an endangered species success story. Springer, New York, USA. 5 U.S. Fish and Wildlife Service. 2016. Gray Wold (Canis lupus): Current population in the United States. U.S. Fish and Wildlife Service, Midwest Regional Office, Bloomington, Minnesota, USA. 6 Hammill, J. 2007. Policy issues regarding wolves in the Great Lakes region. Pages 378-390 *in* Proceedings of the 72nd North American wildlife and natural resources conference. Portland, Oregon, USA. 7 U.S. FWS. 2009. Final rule: identify the Northern Rocky Mountain population of gray wolf as a distinct population segment and to revise the list of endangered



The map above depicts the current conterminous U.S. Gray wolf distribution, potential habitat areas, and the route taken by OR-7, a gray wolf tagged in Oregon in 2011 who has since dispersed to California (Credit: Center for Biological Diversity).

Captive bred Mexican wolves were reintroduced into eastern Arizona in 1998, with the primary goal of establishing a self-sustaining population of at least 100 individuals.^{13, 14} All wild Mexican wolves currently found in the southwestern U.S. are the product of the reintroduction program.

The current population of Mexican wolves remains small despite reintroduction efforts. With a current minimum population of 83 wild wolves and an estimated five breeding pairs, the risk of extinction remains high.¹⁵

FWS convened a recovery team that expects to approve and release a revised Mexican Wolf Recovery Plan in 2014.¹⁶ Currently, the greatest cause of decline among wild Mexican wolves is direct mortality by humans, despite broad public support for their recovery.

 Ream, R. R., M. W. Fairchild, and D. K. Boyd. 1989. First wolf den in western US in recent history. Northwestern Naturalist 70:39-40.
U.S. FWS. 1987. Northern Rocky Mountain wolf recovery plan. U.S. Fish and Wildlife Service, Den-

ver, Colorado, USA. 10 Murray, D. L., D. W. Smith, E. E. Bangs, C. Mack, J. K. Oakleaf, J. Fontaine, D. Boyd, M. Jiminez,

10 Murray, D. L., D. W. Smith, E. E. Bangs, C. Mack, J. K. Oakleaf, J. Fontaine, D. Boyd, M. Jiminez, C. Niemeyer, T. J. Meier, D. Stahler, J. Holyan, and V. J. Asher. 2010. Death from anthropogenic causes is partially compensatory in recovering wolf populations. Biological Conservation 143:2514-2524.

12 Brown, D., editor. 1983. The wolf in the Southwest. University of Arizona Press, Tucson, USA. 13 U.S. Fish and Wildlife Service. 2010. Mexican Wolf Conservation Assessment. U.S. Fish and Wildlife Service. Southwest Regional Office. Albuquerque, New Mexico, USA.

14 Pacquet, P. C., J. A. Vucetich, M. K. Phillips, and L. M. Vucetich. 2001. Mexican wolf recovery: three year program review and assessment. Prepared by the Conservation Breeding Specialist Group for the U.S. Fish and Wildlife Service, Southwest Regional Office, Albuquerque, New Mexico, USA. 15 U.S. Fish and Wildlife Service, Southwest Regional Office, Albuquerque, New Mexico, USA.

16 U.S. Fish and Wildlife Service. 2011. Fish and wildlife convenes Mexican wolf recovery plan team. U.S. Fish and Wildlife Service. Southwest Regional Office, Albuquerque, New Mexico, USA. 23 Feb 2011.



The Wildlife Society Government Affairs & Partnerships 425 Barlow Place, Suite 200 Bethesda, Maryland 20814 policy@wildlife.org

See our complete Fact Sheet Series at wildlife.org/policy

¹¹ Garcia-Moreno, J., M. D. Matocq, M. S. Roy, E. Geffen, and R. K. Wayne. 1996. Relationships and genetic purity of the endangered Mexican wolf based on analysis of microsatellite loci. Conservation Biology 10:376-389.