



Wolverines

RESOURCE BRIEF

Importance

A mid-size carnivore in the weasel family, the wolverine (*Gulo gulo*) is active throughout the year in cold, snowy environments to which it is well adapted. Wolverines occur at low densities and have low reproductive rates. Their circumpolar distribution extends south to mountainous areas of the western U.S., including Greater Yellowstone, where they use high-elevation islands of boreal and alpine habitat. The ability of young wolverines to disperse among these islands is critical to the population's long-term viability. Although the U.S. Fish and Wildlife Service has rejected previous petitions for listing, the species is likely to eventually receive protection under the Endangered Species Act. Climate change models predict that by 2050, the spring snow-pack needed for wolverine denning and hunting will be limited to portions of the southern Rocky Mountains, the Sierra Nevada Range, and Greater Yellowstone, of which only the latter currently has a wolverine population.



WILDLIFE CONSERVATION SOCIETY/MARK PACKIA

Status and Trend

Commercial trapping and predator control efforts substantially reduced wolverine distribution in the lower 48 states by the early 1900s. Some population recovery has occurred, but wolverines have not been documented recently in major portions of their historical range, much of which is in public ownership, including areas of Colorado and California. Although Greater Yellowstone is the southernmost location where wolverine reproduction has been documented recently, the wolverine is rarely observed, and the low density at which the species exists even in optimum habitat (Fig. 1) makes assessing population trends and distribution difficult. The National Park Service, the U.S. Forest Service, the Wildlife Conservation Society, and state wildlife agencies have cooperated in research that includes radio-collaring wolverines in Greater Yellowstone. One male wolverine moved 280 air miles over a 26-day period. Based on its capture efforts, the Wildlife Conservation Society estimated that the Teton Range has a total population of 4 to 10 wolverines. Research and survey efforts by the Absaroka-Beartooth study indicate that few wolverines are present in the eastern portion of the ecosystem. Licensed hunters may trap or shoot wolverines in Montana, where about five are taken annually. Wolverine trapping is illegal in Idaho and Wyoming.

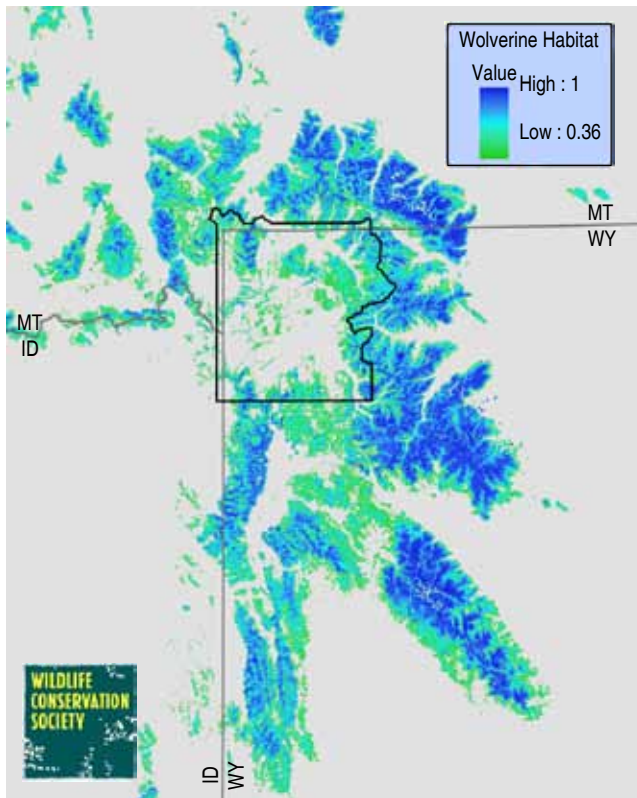


Figure 1. Predicted habitat quality for wolverines in the Greater Yellowstone Ecosystem.

Discussion

Wolverines in Greater Yellowstone require large home ranges (average female = 400 km², male = 1,100 km²). The rugged, high-mountain terrain that comprises a single wolverine home range often overlaps two land management jurisdictions. Collaborative conservation strategies developed across multiple states and jurisdictions are therefore necessary for the persistence of wolverines in the continental United States.

