



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. Its circumpolar distribution extends south to mountainous areas of the western U.S., including the greater Yellowstone area where they use high-elevation islands of boreal and alpine habitat. Wolverines have low reproductive rates, and their ability to disperse among these islands is critical to the population's viability. Climate change models predict that by 2050, the spring snowpack 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 population. Wolverines are so rarely seen and inhabit such remote terrain at low densities that assessing population trends is difficult sudden declines could go unnoticed for years.



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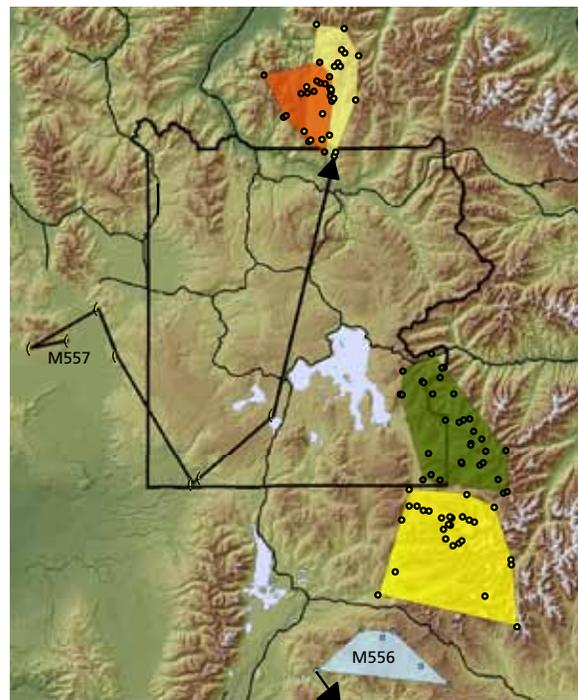
Status and Trend

Commercial trapping and predator control efforts substantially reduced wolverine distribution in the lower 48 states by the 1930s. Some population recovery has occurred, but the species has not been documented recently in major portions of its historical range. In the GYA, wolverines have been studied using live traps, telemetry, and aerial surveys. A group sponsored by the Wildlife Conservation Society has documented ranges that extend into Yellowstone National Park along the northwest and southwest boundaries. A second group, which included researchers from the National Park Service, the U.S. Forest Service, and the Northern Rockies Conservation Cooperative, which surveyed the eastern part of the park and adjoining national forest from 2006 to 2009, documented seven wolverines. The average annual range (100% minimum convex polygons) for the two monitored females was 447 km²; for three males, 908 km². The other two males, both originally captured by the Wildlife Conservation Society, dispersed from west and south of the park: M557 established a home range north of the park in 2009; M556 became the first confirmed wolverine in Colorado in 90 years. But to create a breeding population there, he will need to find a female.

habitat in the Yellowstone area would support too few females to maintain viability without genetic exchange with peripheral populations. The rugged terrain that comprises a single wolverine home range often overlaps several 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. The wolverine has been petitioned for federal listing as an endangered species. In Montana, which has the largest wolverine population of the lower 48 states, about 10 wolverines are harvested annually by licensed trappers.

Discussion

Wolverine populations in the U.S. Rockies are likely to be genetically interdependent. Even at full capacity, wolverine



Home ranges of five wolverines documented in 2009.