

## Wolverine - *Gulo gulo*

Abundance: Rare

Status: NSS3 (Bb)

NatureServe: G4 S2

Population Status: population size and distribution are restricted but extirpation is not imminent; slow population growth limits colonization of previously vacated habitat due to harvest prior to 1973. The IUCN considers the rangewide population to be decreasing.

Limiting Factor: Habitat (incl. Human Activity, Ecology and Climate Change): limiting factors are severe

Comment:

### Introduction

The wolverine has a circumpolar distribution that corresponds with the boreal zone of the northern Hemisphere. Historically, North American wolverines were distributed throughout the northern part of the continent, including Alaska, most of Canada, the northern tier of states, and south along the Rocky Mountains to Arizona and New Mexico, although the current distribution is significantly reduced (Pasitschniak-Arts and Larivière 1995). By the 1920s, it was nearly extirpated from the northern Rocky Mountains, primarily as a result of fur trapping. The wolverine is an opportunistic feeder that preys on carion and ungulates in deep snow. Currently, populations in the Greater Yellowstone Ecosystem, northwestern Montana, and central Idaho are low in density but apparently expanding (WCS 2007). It is a year-round resident in Wyoming, is found the mountain regions of the state, and is considered rare (Orabona et al. 2009); However, dispersing individuals have been documented and may occur in small numbers in other areas of the state. Several petitions to list the species under the federal Endangered Species Act have been filed in recent years. The U.S. Fish and Wildlife Service has ruled against all listing attempts to date.

### Habitat

The wolverine inhabits subalpine coniferous forests, especially dense, continuous stands in remote mountain areas, and alpine habitats (Pasitschniak-Arts and Larivière 1995). It is closely tied to areas that have > 50% snow cover in the spring and traditional hypotheses about the importance of roadless areas and low human densities have recently been questioned as not to being the driving characteristics of suitable habitat for wolverines (Aubry et al. 2007, WCS 2007). Wolverines occupy a wide range of mature alpine forests, including douglas fir and lodgepole stands. Dens primarily in caves, rock crevices, under fallen trees, or in snow (Pasitschniak-Arts and Larivière 1995).

### Problems

- h Existing disagreement about status and distribution of historic populations in Wyoming.
- h Habitat specialist that occurs in a disjunct pattern within a limited portion of the state.
- h Population densities and trends are not well known.
- h Natural history of the species make surveys difficult and costly to implement.
- h Winter recreation is increasing in remote mountain areas and may displace species from denning habitat.
- h Species very vulnerable to trapping, poisoning, and road kill.
- h Although suitable habitat in Wyoming is widely distributed, it is naturally fragmented and very limited. Geographical isolation of existing populations may leave them vulnerable to demographic and genetic stochasticity.

### Conservation Actions

- h Continue active participation with the interagency conservation efforts.
- h Conduct inventories for species in all suitable habitats in the state.
- h Delineate important habitats and work cooperatively with land management agencies to maintain these within the designated areas
- h Designate important habitats, habitat corridors, and identify where habitat conservation and management efforts should focus to protect, enhance, or improve suitable habitat.
- h Integrate management actions with those that benefit other boreal forest carnivore species (e.g., American marten, Canada lynx, Wolverine, etc).
- h Monitor population densities and trends. If monitoring data show that populations are declining, provide information to the WGFD Commission to allow them to evaluate and consider an appropriate response.
- h Improve survey methodology (e.g., capture, detection, etc.).
- h Evaluate the potential to translocate species to bolster populations in some areas of the state.
- h Determine the effects of recreational and commercial activities on populations.
- h Work cooperatively with the US Forest Service to conduct surveys for species in all potential habitat.

#### Monitoring/Research

No on-going monitoring.

#### Recent Developments

Several petitions to list the species under the federal Endangered Species Act have been filed in recent years. The U.S. Fish and Wildlife Service has decided against all listing attempts to date. In April 2010, the USFWS initiated a review of the DPS designation for the Wolverine petition. WGFD and Wildlife Conservation Society have been cooperatively working on the improving the knowledge of the status of Wolverine in the GYE and Teton Park area. Results have been published by WCS.

#### References

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SOURCE: Digital maps of ranges and predicted distributions for Wyoming Species of Greatest Conservation Need: April 2010. Wyoming Natural Diversity Database. University of Wyoming, Laramie, Wyoming. Note that brown indicates the predicted distribution of the species; heavy black lines indicate outermost boundaries of possible occurrence.