
Wolverine

Gulo gulo

Mammalia — Carnivora — Mustelidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Apparently secure subspecies (G4T4)
Statewide: Imperiled (S2)
ESA: No status
USFS: Region 1: Sensitive; Region 4: Sensitive
BLM: Regional/State imperiled (Type 3)
IDFG: Protected nongame

BASIS FOR INCLUSION

Low populations rangewide; no population trend information in Idaho.

TAXONOMY

All New World populations of the wolverine are considered to represent the subspecies *G. gulo luscus*.

DISTRIBUTION AND ABUNDANCE

The wolverine is circumboreal in distribution, occurring in Europe, Asia, and North America. In North America, the wolverine historically occurred in Alaska, Canada, the western U.S., the northeastern U.S. and the Great Lake States. The current distribution includes Alaska, Canada, and several peninsular extensions of Canadian populations into the contiguous U.S. Although wolverine sightings are occasionally reported throughout the Rocky Mountain states (Banci 1994), confirmed populations occur only in Idaho and Montana. Wolverine populations in Idaho are centered in the Selkirk Mountains, Lochsa and Kelly Creek drainages, and the Smoky Mountain complex of the Sawtooth Mountains (Groves 1987).

POPULATION TREND

Population trend is unknown.

HABITAT AND ECOLOGY

The wolverine requires extensive tracts of land to accommodate large home ranges and extensive movements (Banci 1994). Home ranges of adult females in central Idaho averaged 384 km² (148 mi²), and annual home ranges of adult males averaged 1522 km² (588 mi²) (Copeland 1996). The primary habitat during winter is mid-elevation conifer forest, and summer habitat is subalpine areas associated with high-elevation cirques (Copeland 1996). Summer use of high-elevation habitats is related to the availability of prey and den sites and human avoidance. Lower-elevation forests likely contain the greatest amount of ungulate carrion in winter (Copeland 1996).

Den sites are often in large boulder or talus fields in subalpine cirques.

Denning habitat may be a factor limiting distribution and abundance (Copeland 1996). Wolverines may abandon dens in response to disturbance (Copeland 1996, Magoun and Copeland 1998). Reproductive capacity is limited; males and females generally become sexually mature after 2 years of age (Banci 1994) and females do not necessarily produce litters every year (Magoun 1985, cited in Banci 1994, Copeland 1996). In Idaho, reproductive rates may be low and variable; average reproductive output has been estimated to be less than 1 kit per female annually (Copeland 1996).

ISSUES

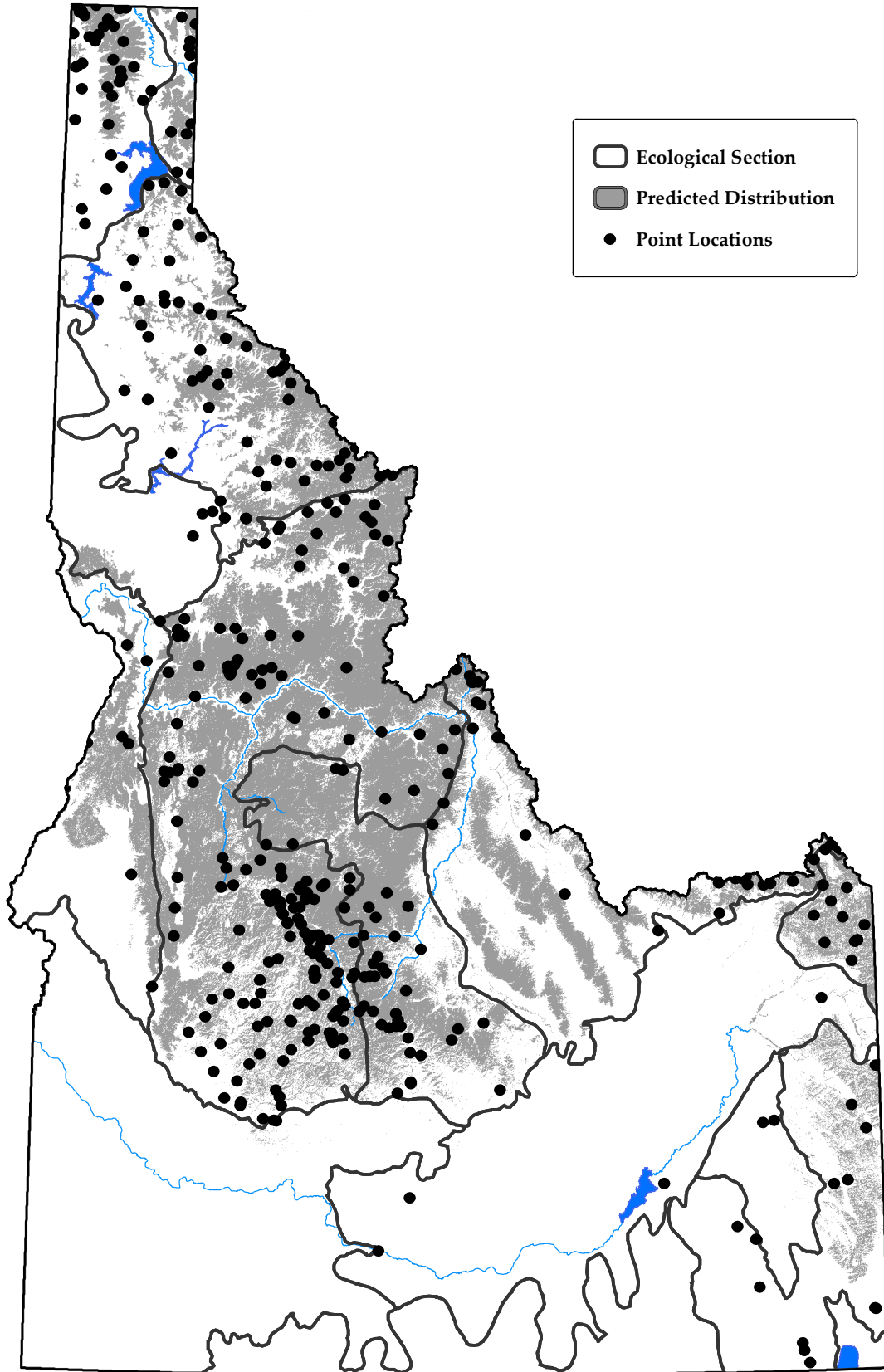
Recent genetic studies suggest that populations are fragmented in the southern portion of their range (Kyle and Strobeck 2001, cited in Rowland et al. 2003). Fragmentation may isolate populations, reduce genetic diversity, and increase the risk of population extirpation (Copeland and Whitman 2004). Human disturbance is among the most important causes of habitat fragmentation and degradation in wolverine habitat. Areas of disturbance create barriers to movement, reduce winter foraging opportunities, and may affect reproductive success (Copeland and Whitman 2004). Increased winter recreation may displace wolverines from potential habitat (Copeland and Whitman 2004). An important source of mortality across the range of the wolverine is trapping (Banci 1994). Although harvest of wolverines is illegal in Idaho, incidental trapping may contribute to mortality.

RECOMMENDED ACTIONS

Efforts are needed to determine and monitor the status of populations in Idaho. Of importance would be to determine whether populations in Idaho are self-sustaining or dependent on dispersers from Canada (Banci 1994), which is relevant to assessing range fragmentation and protecting corridors and core habitats, especially den sites. Limiting disturbance to occupied habitat, particularly habitat associated with den sites, is critical to the long-term persistence of the species in the state. As much as any species in the state, the wolverine would benefit from wilderness designations in subalpine and mid-elevation forests. Trapping regulations that eliminate the possibility of incidental trapping is needed, particularly where populations are small.

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Map created on September 22, 2005
and prepared by Idaho Conservation Data Center.
Sources: Point data are from Idaho Conservation Data Center,
Idaho Department of Fish and Game (2005). Predicted distribution
is from the Wildlife Habitat Relationships Models (WHR),
A Gap Analysis of Idaho: Final Report. Idaho Cooperative Fish
and Wildlife Research Unit, Moscow, ID (Scott et al. 2002).
Predicted distribution is approximate (for more information, go to
http://www.wildlife.uidaho.edu/idgap/idgap_report.asp).

