

# Wolverine

*Gulo Gulo luscus*



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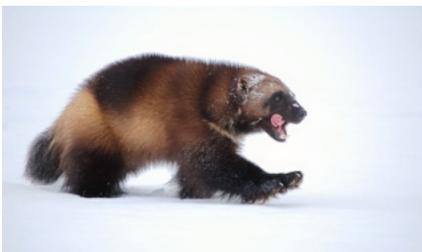
Wolverine

## Species Description

The wolverine is the largest terrestrial mustelid (a member of the weasel family). Adult males typically weigh 26 to 40 pounds, while adult females average 17 to 26 pounds. The wolverine resembles a small bear with a bushy tail, a broad head, small eyes, and short, rounded ears. Wolverines have glossy, dark-brown fur, a light face mask, and stripes running down both sides of their bodies. They are powerfully-built animals, with short legs and wide feet built for traveling across deep snow. Each foot has five toes with curved, semi-retractile claws used for digging and climbing.

## Habitat

The North American wolverine inhabits arctic, boreal, (northern, sub-arctic forest) and alpine habitats in Alaska, western Canada, and the western contiguous United States. South of the Canadian border, wolverines are restricted to high mountain environments near the treeline, where conditions are cold year-round and snow cover persists well into the month of May.



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Wolverine in snow

Deep, persistent, spring snow is required for successful wolverine reproduction because female wolverines dig elaborate dens in the snow for their offspring. These den structures are thought to protect wolverine kits from predators and the harsh conditions of alpine winters.

## Range

Wolverines live in remote and inhospitable places, at high elevations away from human populations. They naturally occur at low densities, and are rarely encountered where they do occur. In the contiguous United States, wolverines currently occur in the North Cascades Range in Washington and the Northern Rocky Mountains of Montana, Idaho, and Wyoming. Wolverines once existed in the Sierra Nevada Mountains of California and the Southern Rocky Mountains in Colorado. However, at least one individual wolverine is currently known to inhabit each of these areas, and these animals are thought to be recent migrants.

A small number of historical records confirm that wolverines once occurred in the Great Lakes region of the United States and Canada. However, based on the low number of records and the current lack of

suitable wolverine habitat in the Great Lakes area (such as year-round cold and persistent spring snow), we have concluded that this region, as well as areas further east, likely did not support resident wolverines in the past and does not provide climatic conditions suitable for wolverine occupancy and reproduction today.



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## Diet

Wolverines, while primarily carnivorous scavengers, are opportunistic feeders that consume a variety of foods, depending on availability. They are known for scavenging the carrion of large animals like elk, deer, and moose, but they are also capable of killing small mammals and birds. Wolverines prey upon pikas, marmots, ground squirrels, porcupines, and snowshoe hares. Occasionally, wolverines also consume insects, eggs, berries, and roots.

## Reproduction

Wolverines breed from late spring to early fall. Females give birth between February and April to litters containing one to five young, with an average of between 1 and 2 kits.

Wolverine reproduction is food-limited, meaning that females often are not able to bear and raise young to adulthood due to lack of nutritional resources. Female wolverines only reproduce every other year on average, enabling them to conserve energy and improve the odds of success in breeding years. This erratic reproduction pattern, combined with small litter sizes, makes the reproductive rate for wolverines one of the lowest known for mammals.

## Population

Scientists estimate that 250 to 300 wolverines inhabit the contiguous United States, while 15,000 to 20,000 animals are thought to live in Canada.

## Threats

Climate change is the threat with the greatest potential to impact the North American wolverine. A warming climate will likely result in a loss of suitable habitat due to increased summer temperatures and a reduced incidence of persistent spring snowpack. According to analyses completed by the University of Washington's Climate Impacts Group and the USDA Forest Service's Rocky Mountain Research Station, wolverine habitat in the contiguous United States is likely to decrease in aerial extent by 23% by 2045 and 63% by 2099. With lower elevation habits becoming unsuitable, remaining wolverine habitat is likely to become more fragmented. Connectivity between remaining wolverine habitats will be reduced,

increasing rates of loss of genetic diversity and making the retention of small populations more difficult. Other threats have the potential to act in concert with climate change to exacerbate impacts on wolverines. Recreation, especially during the denning season, is one such threat, as mother wolverines tend to move their kits to alternate denning areas once humans have been detected nearby. Recreational activities such as snowmobiling and backcountry skiing have the potential to affect wolverines. However, further research is needed to confirm whether these activities have measurable impacts on the species.



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*Wolverine profile*

While recreation has the potential to affect the wolverine, it does not currently seem to be suppressing populations. Similarly, the primary threat of climate change has not so far resulted in any detectable population-level effects to the species. Therefore, we have concluded that these threats are not imminent to wolverines at this time.

## Legal Status under the Endangered Species Act

After thoroughly evaluating all of

the scientific information currently available, the U.S. Fish and Wildlife Service has determined that protection for the contiguous United States distinct population segment of the North American wolverine is warranted under the Endangered Species Act (ESA). However, we have determined that proposing the species for protection is precluded at this time by the need to take action on other species facing more immediate and severe extinction threats. As a result, the wolverine has been placed on the list of species that are candidates for ESA Protection. We will review the status of the species annually, as we do for all candidate species, and will propose the species for protection when funding and workload priorities for other listing actions allow.

## More Information

To learn more about the North American wolverine, please visit the following site:  
<http://www.fws.gov/mountain-prairie/species/mammals/wolverine/>

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