



A publication by:

NORTHWEST WILDLIFE PRESERVATION SOCIETY

Wolverine

Gulo gulo



By Rowena Shi

The wolverine is the largest terrestrial species of the family Mustelidae. It is a stocky and muscular carnivore, more closely resembling a small bear than other mustelids. The wolverine, a solitary animal, has a reputation for ferocity and strength out of proportion to its size, with the documented ability to kill prey many times larger than itself. Icons of northern regions, wolverines are rarely seen and prefer remote, pristine wilderness areas.

Characteristics

The wolverine is a stocky and muscular animal. Though its legs are short, its large, five-toed paws and plantigrade posture facilitate movement through deep snow. The adult wolverine is about the size of a medium dog, with a length usually ranging from 65–107 cm (26–42 in), a tail of 17–26 cm (6.7–10.2 in), and a weight of 16 kg (35 lb). It is the largest of the terrestrial mustelids; only the marine-dwelling sea otter and giant otter of the Amazon basin are heavier.

Wolverines have thick, dark, oily fur which is highly hydrophobic, making it resistant to frost. This has led to its traditional popularity among hunters and trappers as a lining in jackets and parkas in Arctic conditions. A light-silvery facial mask is distinct in some individuals, and a pale buff stripe runs laterally from the shoulders along the side and crossing the rump just above their tail. Some individuals display prominent white hair patches on their throats or chests.

Like many other mustelids, it has potent anal scent glands used for marking territory and sexual signaling. The pungent odor has given rise to the nickname "skunk bear". Wolverines, like other mustelids, possess a special upper molar in the back of the mouth that is rotated 90 degrees, towards the inside of the mouth. This special characteristic allows wolverines to tear off meat from prey or carrion that has been

NWPS Headquarters
720-1190 Melville Street
Vancouver, BC V6E 3W1

NWPS Vancouver Island
PO Box 39058
RPO James Bay
Victoria, BC V8V 4X8

t Vancouver 604.568.9160
t Victoria 778.967.3379
e info@northwestwildlife.com
w www.northwestwildlife.com

frozen solid. Wolverines have exceptionally strong jaws, in fact the second strongest jaw pressure after the spotted hyena.

Life Cycle

Wolverines usually breed during the summer. The gestation period usually lasts from 7 to 9 months after which 2-4 young are born between January and April. Young stay in a den under rocks, fallen trees, or in a hollow log. The mother cares for them for 7-8 months then leaves. The young are fully mature at the age of 3 years old. The wolverine can live up to the age of 10, and maybe even up to 15-18.

Habitat

Wolverines are found in rugged, remote country, spending most of their time in high elevations near or above timberline. Further north in Alaska and Canada, wolverines occur within a wide variety of elevations in alpine, boreal and arctic habitats, including boreal forests, tundra and western mountains.

Historically, wolverines once lived in the northern and southern Rocky Mountains, Sierra Nevada Mountains, and North Cascades Mountains, as well as in parts of the midwest and the northeast. Today, wolverines in the Lower 48 can be found in portions of the North Cascades Mountains in Washington and the northern Rocky Mountains in Montana, Idaho and Wyoming (this area also includes the Wallowa Range in Oregon). There have been lone individuals found in Michigan's forests, the southern Rocky Mountains in Colorado, and the Sierra Nevada Mountains in California.

Behaviour

The wolverine is a powerful and versatile predator and scavenger. Prey mainly consists of small to medium-sized mammals, but the wolverine has been recorded killing prey such as adult deer and caribou that are many times larger than itself. Armed with powerful jaws, sharp claws, and a thick hide, wolverines, like most mustelids, are remarkably tenacious and strong for their size. They may defend kills against larger or more numerous predators such as wolves or bears.

Wolverines inhabiting the Old World hunt more actively than their North American relatives. This may be because predator populations in Eurasia are not as dense, making it more practical for the wolverine to hunt for itself than to wait for another animal to make a kill and then try to scavenge it. They often feed on carrion left by wolves, so changes in wolf populations may affect the population of wolverines. They are also known on occasion to eat plant material.

Successful males will form lifetime relationships with two or three females, which they will visit occasionally, while other males are left without a mate. Mating season is in the summer, but the actual implantation of the embryo in the uterus is stayed until early winter, delaying the development of the fetus.

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720-1190 Melville Street
Vancouver, BC V6E 3W1

NWPS Vancouver Island

PO Box 39058
RPO James Bay
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t Vancouver 604.568.9160

t Victoria 778.967.3379

e info@northwestwildlife.com

w www.northwestwildlife.com

Females will often not produce young if food is scarce. Fathers may make visits to their offspring until they are weaned at 10 weeks of age; also, once the young are about six months old, some reconnect with their fathers and travel together for a time.

Threats

Wolverines do not have any natural predators that seek them out as prey, however they do compete throughout their huge ranges with much larger carnivores such as wolves, bears and cougar.

The greatest threats currently to the wolverine include destruction of habitat, trapping for their fur and even climate change. Wolverines once inhabited much of the northern United States in greater numbers. By the 20th century, wolverines were mostly killed off in the lower 48 states due to unregulated predator control and trapping. Since then, they have been slowly recolonizing their former territory.

Today, the species is rare, and faces significant challenges to its future in the U.S. Yet, because of their limited numbers, huge individual territories, and remote locations, it is difficult to gather data on wolverines and this poses a challenge to scientists, agencies, and others trying to understand wolverine's habitat requirements and threats to their survival. Perhaps in part due to this lack of data, they have yet to be federally protected under the Endangered Species Act.

Wolverines have eked out a living under tough conditions in the past, but the danger of climate change melting away their snowbound habitat looms large in the near future. Wolverines rely on deep spring snow to rear their young, so they are especially vulnerable to the loss of their alpine habitat due to climate change. Scientists predict that wolverines in the lower 48 states may lose two-thirds of their suitable, snow-covered habitat by the end of the century.

Wolverine trapping has long been allowed in Montana, where several wolverines statewide can be legally trapped each year. Occasionally, across their range they are also accidentally caught in traps set for other species. In addition, winter recreation like snowmobiling and backcountry skiing likely disrupts denning wolverines. Further research is needed to confirm the extent of measurable impacts these activities have on the species.

Infrastructure development, land management and transportation corridors can fragment wolverine habitat and reduce connectivity. The Lower 48 population is not well-connected to those in Alaska and Canada, but to improve genetic diversity for wolverines we need to increase connectivity between these populations and between 'island' habitat ranges. These 'islands' also need to be fully occupied by reproductive adults to be resilient against climate change. Reintroductions into former habitats like Colorado will be important to help wolverines reoccupy mountain ranges that will retain snowpack into the future.

What We Can Do To Help

The last ten years have brought about significant advances in our knowledge of wolverines, from basic ecology to increased understanding of impacts of human disturbance, to the development of increasingly sophisticated monitoring and research tools. To improve wolverine management and conservation, there is a need for collaboration on designing research projects, publishing results, and improving

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t Victoria 778.967.3379
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w www.northwestwildlife.com

communication among researchers and managers across wolverine range. Conserving large scale wolverine habitat is naturally beneficial to a myriad of species that share their diverse terrain. Wolverines are much like grizzly bears in that protecting them naturally conserves great swaths of pristine wilderness.

Support conservation groups that educate individuals, protect habitat and stop the cruel practices of the trapping of mammals.

Other Interesting Facts

When a wolverine takes a step its paw spreads to almost twice its original size as it presses against the ground. This makes it easier for wolverines to walk on snow. It's like built-in snowshoes.

Wolverines are the strongest of all mustelids and for their size among the most powerful mammals in North America.

Wolverines have incredible endurance and can ascend mountain ranges easily and cover great distances even in winter.

Bibliography

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