



WAYNE LYNCH

# Alberta's Wolverine

(*Gulo gulo*)

## data deficient

## status

**Alberta:** Recommended by the Endangered Species Conservation Committee (ESCC) as Data Deficient

**British Columbia:** Sensitive

**Saskatchewan:** Sensitive

**Manitoba:** Sensitive

**Ontario:** May Be At Risk

**Quebec:** At Risk

**New Brunswick:** Extirpated

**Labrador:** At Risk

**Yukon:** Sensitive

**Northwest Territories:**  
Secure

**Nunavut:** Sensitive

**Canada (COSEWIC):** Eastern population is Endangered; western and northern populations are Vulnerable (1989)

**United States:** Apparently Secure (N4)



## Description

The wolverine is a solitary, medium-sized carnivore that is also called "glutton," "carcajou (evil one)," or "skunk bear." As the largest member of the weasel family, the wolverine can be up to 125 cm in length, with males ranging from 11.3 to 16.2 kg and females ranging from 6.6 to 14.8 kg in weight. The wolverine can defend its food aggressively against wolves and bears by using its muscular body, razor-sharp teeth and strong jaws, and by covering food with foul-smelling secretions from its anal gland. The wolverine's dense, chocolate-brown coat usually has two buff stripes that run along the flanks, joining at the base of a large, bushy tail.

The wolverine is a scavenger as well as a cunning predator. During the summer, the wolverine preys mainly on marmots, ground squirrels, mice, voles, birds and insects, but also consumes eggs and berries. During the winter, it is primarily a scavenger, relying heavily on carrion of large ungulates killed by starvation, disease or other predators. If snow conditions are favourable or if the prey is weakened, wolverines will occasionally kill deer, moose and caribou during winter.

## Population and Distribution

The circumboreal distribution of the wolverine has dwindled significantly since the early 1900s, especially in the eastern and southern portions of its range. The wolverine was once found across Canada, except in Newfoundland,

Nova Scotia and southwestern Ontario, and in the northern United States, as far as Illinois and Indiana in the east and New Mexico and California in the west. Little information exists about the wolverine's Eurasian distribution. In southern and eastern Canada, wolverine populations are now at very low levels and the species has been extirpated from large portions of its range. Wolverine populations and ranges have also decreased in northern and western Canada, although the extent to which this has occurred is unknown.

Historically found across Alberta, the wolverine is now restricted to the northern, boreal half of the province and along the mountains and foothills. Alberta's wolverine population is wide-ranging (with a range of approximately 400 000 km<sup>2</sup>), but has a low density. The species' reliance on carrion limits the number of individuals supported by an area, making for an extremely dispersed population.

The Alberta population is considered to be declining at an unknown rate because the range and distribution of harvest have decreased significantly since trapping records have been kept, independent of harvest effort and fur price. The current provincial wolverine population is roughly estimated at fewer than 1000 breeding individuals.

## Habitat

Despite its shrinking range, the wolverine is still found in a diversity of ecozones, including the boreal forest,

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tundra and subalpine regions. This species tends to be found in fairly remote habitats not associated with human development, and sometimes avoids large open areas such as recent cutblocks. Generally, wolverine density and use of habitats is influenced more strongly by food availability (especially ungulate carrion during the winter) than by specific habitat characteristics.

## Threats

Human encroachment and the resulting habitat alteration have reduced the wolverine's range. Human settlement, extensive logging, oil and gas development, mining and recreational development all render the habitat less suitable for wolverines and increase mortality.

Other threats to Alberta's wolverine population include activities reducing the amount of ungulate carrion available during the winter, predator- and rabies-control programs, and trapping and hunting pressures. The wolverine has a low population density and, as is true for most large carnivores, its reproductive potential is naturally low. As a result, the trapping of only a few individuals has a large potential to negatively affect the reproductive success of the population, and recovery from any population decline will be slow.

## Management

The wolverine is protected as a "fur-bearing animal" under Alberta's *Wildlife Act*, and the circumstances under which it can be harvested or controlled are specified.

The limited amount of information available on Alberta's wolverine populations makes it difficult to assess the species' provincial status and to determine the impact of potential threats on local populations. To accurately define its status in Alberta, additional research of demography, distribution and ecology is

necessary. Alberta has initiated population trend and inventory protocols for the wolverine. After these protocols are completed, management activities other than harvest regulations will be evaluated.

Alberta's Endangered Species Conservation Committee assessed the wolverine in September 2000, recommending that trapping should be allowed to continue for now to facilitate data collection, but that provincial trapping regulations should be reviewed after two years. Other recommendations include involving trappers in research, investigating models that project future changes in wolverine habitat, and incorporating consideration of the wolverine in land use guidelines and environmental impact assessments.

## What You Can Do To Help

**As a member of the public, a landowner, an industrial developer or a trapper:**

- Report observations of the wolverine to the nearest office of the Fish and Wildlife Division, Alberta Sustainable Resource Development.
- Contact the Fish and Wildlife Division for information on ways to modify activities to minimize negative effects on the wolverine, and how you can help with research (e.g., allowing Fish and Wildlife biologists to conduct autopsies on trapped animals) and recovery.

