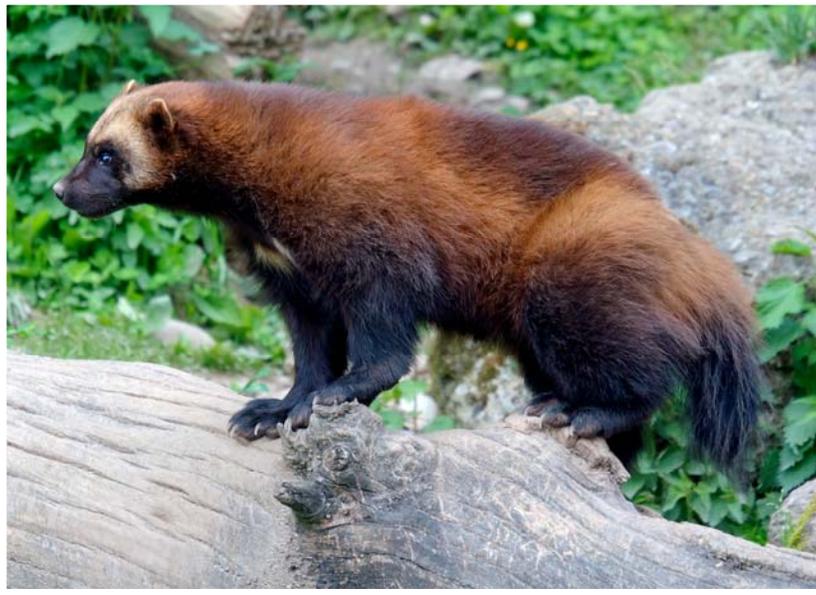


BC's Coast Region: Species & Ecosystems of Conservation Concern

Wolverine (*Gulo gulo luscus*) Global: G4T4, Provincial: S3, COSEWIC: SC BC List: Blue Identified Wildlife
(*G. g. vancouverensis*) Global: G4T1Q, Provincial: SH, COSEWIC: SC, BC List: Red Identified Wildlife



Notes on *Gulo gulo luscus* and *Gulo gulo vancouverensis*: Wolverine are a member of the family Mustelidae (including ermine, weasels and martens), and are the largest Mustelid in North America. In BC two subspecies are still described, the Vancouver Island (*vancouverensis*) and mainland/interior (*luscus*) form. The classification of the Vancouver Island form as a subspecies different from *G. g. luscus* is still disputed. Wolverine have not been observed on Vancouver Island since the early 1990's and may now be extirpated there. Biology of the subspecies is inferred from the species as a whole.

Description

Length 82-130cm, Weight 6.5-16kg. The broad head, short neck and large clawed feet give Wolverine a bear-like appearance. Pelage (fur) colour is variable, ranging from dark brown to sable with a buff or white v-lone along the collar bone. The head, throat and sides are distinctly lighter than the slightly darker dorsal saddle. Legs are usually dark. The fur is short on the head but lengthens along the body, ending in a bushy tail. Females are smaller than males.

Diet

Wolverines are voracious omnivores and powerful enough to take down significantly larger prey (e.g. caribou) as well as being an efficient carrion scavenger. However being an opportunist, a variety of foods are consumed including birds, small mammals, nuts, fruits and even salmon in coastal areas. Wolverine are also known to cache food over the winter.

Look's Like?

The much smaller Fisher is more at home foraging in treed areas and does not have the distinct yellow or fawn side stripes or lighter facial mask. Wolverines have a distinct track pattern that distinguishes them from other Mustelid species. The semi-retractable claws curve inwards, and a heel pad on the front foot often imprints resembling a thumb. The scat, tapered and twisted at the ends (a Mustelid characteristic) is as large as 35cm, compared to that of Fisher (5 cm).



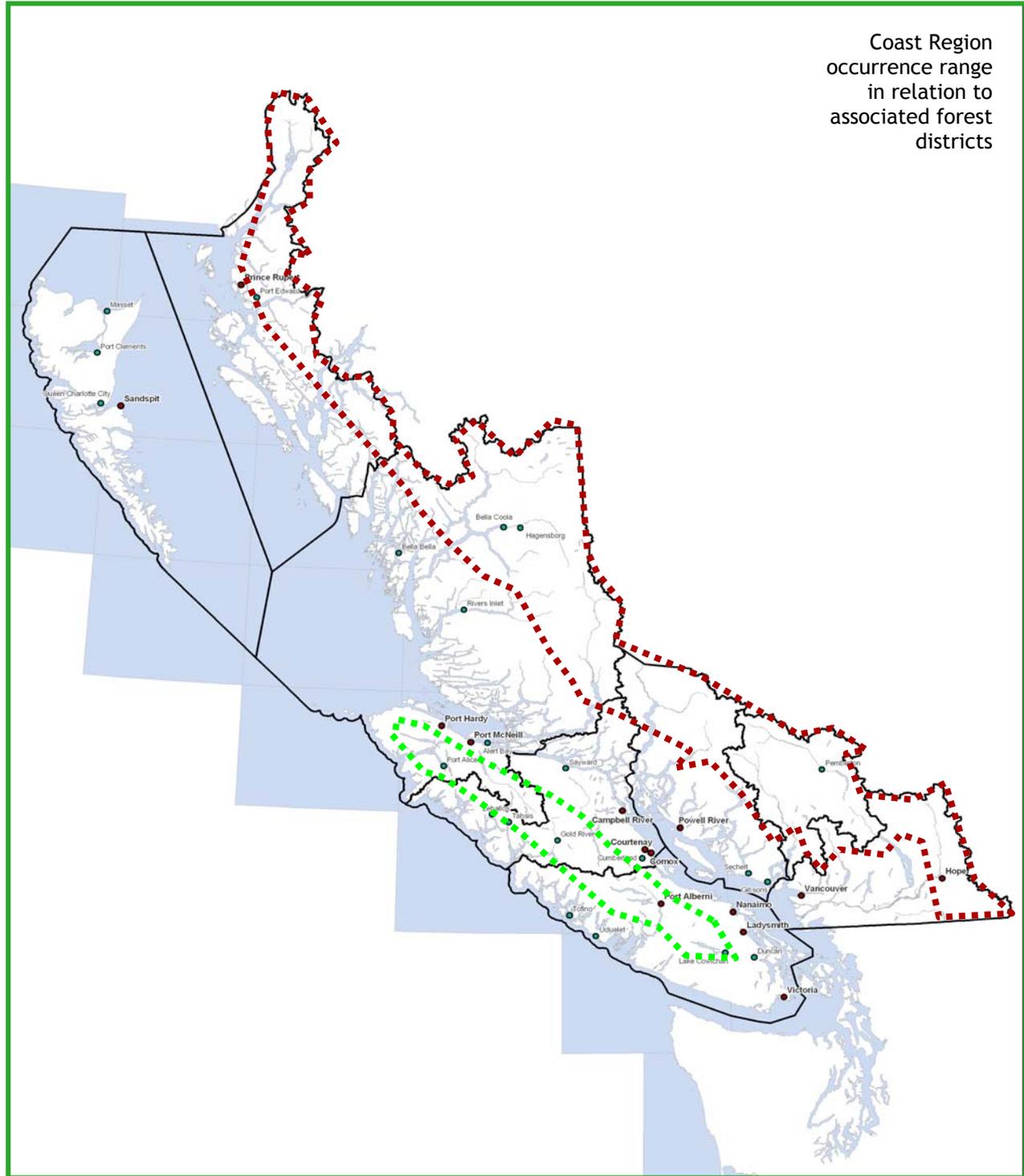
Wolverine Front foot (left) 8 cm & Hind foot (right) 13 cm



Fisher

Distribution

Elevation: Valley bottoms to alpine. Wolverines are widely distributed throughout BC except for Haida Gwaii (and possibly extirpated from Vancouver Island). Lack of inventory data makes distribution for the Coast Region difficult, but given their life history requirements, densities may be quite low for areas near high population centers (e.g. South Coast). Based on historic records and habitat preferences, distribution of the mainland subspecies is likely restricted to mid to high elevation forests, alpine and alpine tundra areas on the Central and North Coast and south and east along the Cascades and Fraser Canyon. If any individuals still persist on Vancouver Island, they would likely occur in central and north island regions at similar elevations and habitats as the mainland.



Wolverine (*Gulo gulo luscus* red-dotted line and *vancouverensis* ssp. green dotted-line), potential occurrence range for the Coast Region

Habitat Preferences Habitat use is somewhat segregated by sex and age class, mature males being found in more mature forests, females in both young and mature forests. Availability of food items and cover, correlated to the structural diversity of habitats at higher elevations is a key factor. Wolverine will exploit varying elevation areas if sufficient prey is available.



Wolverines tend to be found at higher elevations forests and alpine areas with areas of deep snowpack.

Critical Features Availability of resident and maternal den sites can be a limiting factor. Dens are usually at the base of a hollow tree, in boulder clusters or in snow tunnels (in winter). Core areas of well-distributed, interconnected and seasonally important habitats based on home range sizes (which can range up to 10,000 hectares for males and 5,000 for females) and migration/dispersal capabilities are required across large landscape units. Dispersal can arrange up to several hundred kilometers.

Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				Breeding – *Delayed egg implantation							
	Kits born early spring – weaned by end of June										
Active – juveniles disperse over late fall-winter											

Fertilized eggs do not become attached to the female's uterus until the following January, after which the growth of the litter begins.

Threats

- ◆ Increase in access associated with forest harvesting may increase targeted and incidental trapping and subsequent mortality, possibly diminishing source populations. Trapping can also alter the balance of reproductive age adults in local populations, potentially effective breeding success and overall population numbers.
- ◆ Resource based and extractive land use activities (e.g. logging, gas, oil and mineral exploration and extraction, hydro projects, recreational and backcountry uses) which contribute to the fragmentation, loss or significant alteration of critical features and food sources. Wolverine is particularly sensitive to disturbance from motorized backcountry recreational activities, which increase as backcountry areas become opened up after logging or similar industrial activities occur.
- ◆ Loss of connectivity, foraging and denning features from urbanization and expanding settlement patterns in formerly “wilderness” areas may contribute to conservation issues for Wolverine populations throughout their remaining range.
- ◆ Direct mortality from transportation corridors such as roads and rail or from hunting and poaching.
- ◆ As with many other large carnivores Wolverines generally have low reproductive rates and low abundance, limiting natural population growth and ability to colonize new areas.

Conservation & Management Objectives

- ◆ Apply conservation and management objectives as set out in the Identified Wildlife Provisions found in “Accounts and Measures for Managing Identified Wildlife - Accounts V. 2004 *Gulo gulo* and in the “Habitat Associations and Movement Patterns of Reproductive Female Wolverines (*Gulo gulo luscus*) on the Southeast Alaska Mainland as well as the “COSEWIC assessment and update status report on the wolverine *Gulo gulo* in Canada. Integrate complimentary

objectives and practices found in “Wildlife Guidelines for Backcountry Tourism/Commercial Recreation in British Columbia”.

- ◆ Inventory and monitor using standardized methods (Resource Information Standards Committee # #24: Inventory Methods for Marten and Weasels Version 2.0)

Specific activities should include:

- ◆ Identify fragmentation thresholds which impact foraging and connectivity requirements and reduce population viability.
- ◆ Parks and protected areas in fragmented landscapes are not a guaranteed means of protecting populations and may actually cause isolated populations to occur.
- ◆ Restrict and avoid road development in backcountry areas that presently have low density road networks. For existing roads, close during critical times (e.g. breeding) and rehabilitate/decommission when relevant activities (e.g. forestry operations) cease. Wildlife overpasses or underpasses are preferred as are clear-span stream crossings.
- ◆ Increase awareness about the sensitivity of Wolverines to disturbance and clearing and promote user groups and landowners to follow best management practices that limit disturbance and reduce human-wildlife conflicts. Wolverine can be attracted to campsites, game dressing/preparation sites and food caches. Attractant-free backcountry sites (e.g., camps for tree planters, cruisers, engineers, wilderness camping and hunters) should be monitored to ensure potential for interactions is reduced through appropriate food storage and garbage management.
- ◆ Reduce incidental harvest of wolverine in traps (i.e., specially designed traps that exclude larger carnivore species, changes to trapping timing etc.).

Wolverine subspecies in BC are listed under the Federal Species At Risk Act (SARA), are Identified Wildlife under the BC Forest and Range Practices Act and subject to protections and prohibitions under the BC Wildlife Act. Hunting and trapping of Wolverine is closed on the Coast Region, trappers or hunters accidentally killing wolverines are obligated to deliver the intact carcasses (un-skinned) to an officer of the BC Ministry of Environment within 15 days of the end of the trapping season. Habitat for this species may also be governed under other provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act as well as Regional and local municipal bylaws.

Content for this Factsheet has been derived from the following sources

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Every effort has been made to ensure content accuracy. Comments or corrections should be directed to the South Coast Conservation Program: info@sccp.ca. Content updated August 2010.

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