

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

### Long-tailed Weasel *altifrontalis* subspecies (*Mustela frenata altifrontalis*)

Global: G5NTR, Provincial: SH, COSEWIC: N/A BC List: N/A



Notes on *Mustela frenata altifrontalis*: This member of the family Mustelidae (“ermine, weasels”), includes numerous species from badgers to wolverines. Also referred to as “Washington Long-tailed Weasel,” this is one of three subspecies of Long-tailed Weasel in BC. Extremely rare it is uncertain if this species is extirpated in Canada. Much of its biology is inferred from the somewhat more common Long-tailed Weasel.

#### Description

Length: 42 - 45 cm (including a 15-17 cm tail) Weight: 267 g.

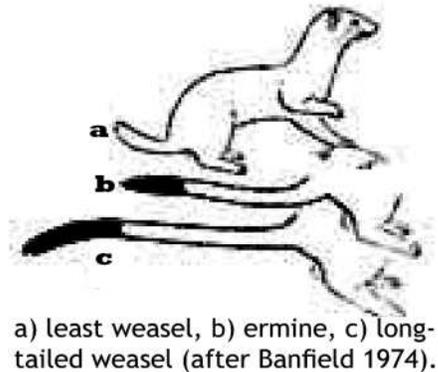
The largest of BC's weasels, Long-tailed Weasel females are smaller (a trait common to other *Mustela* species) by approximately 10 cm and weigh up to 130 g less. The *altifrontalis* subspecies, as with other weasels has a long thin profile, short legs, long neck, and a short, dense pelage (fur). The distinct ferret-like dark brown eye mask and golden facial patches distinguish this subspecies. Fur ranges from fawn to brown on the back with a buff to yellowish belly. In higher elevations with persistent winter snow cover, both the species and subspecies change to a white winter morph. In the Fraser Lowlands where snow accumulations are lower the change to white may not occur or may be incomplete.

#### Diet

This subspecies feeds primarily on small mammals, occasionally birds, amphibians, other small vertebrates and insects. A tenacious predator, weasels are quite willing to take on significantly larger prey including Snowshoe Hare. They are also effective rodent control agents. In the US, the subspecies is known to predate on ground nesting bird species, including Horned Lark (including the *strigata* ssp.), which may present certain challenges for recovering both these extremely rare co-occurring subspecies on the Coast Region.

#### Look's Like?

Long-tailed Weasel, the somewhat more common form is most likely to be confused with its *altifrontalis* subspecies. Two close relatives, Least Weasel and Ermine also overlap in range. Exotic escapees like the domestic Ferret can have similar pelage patterns but are significantly larger and more robust.



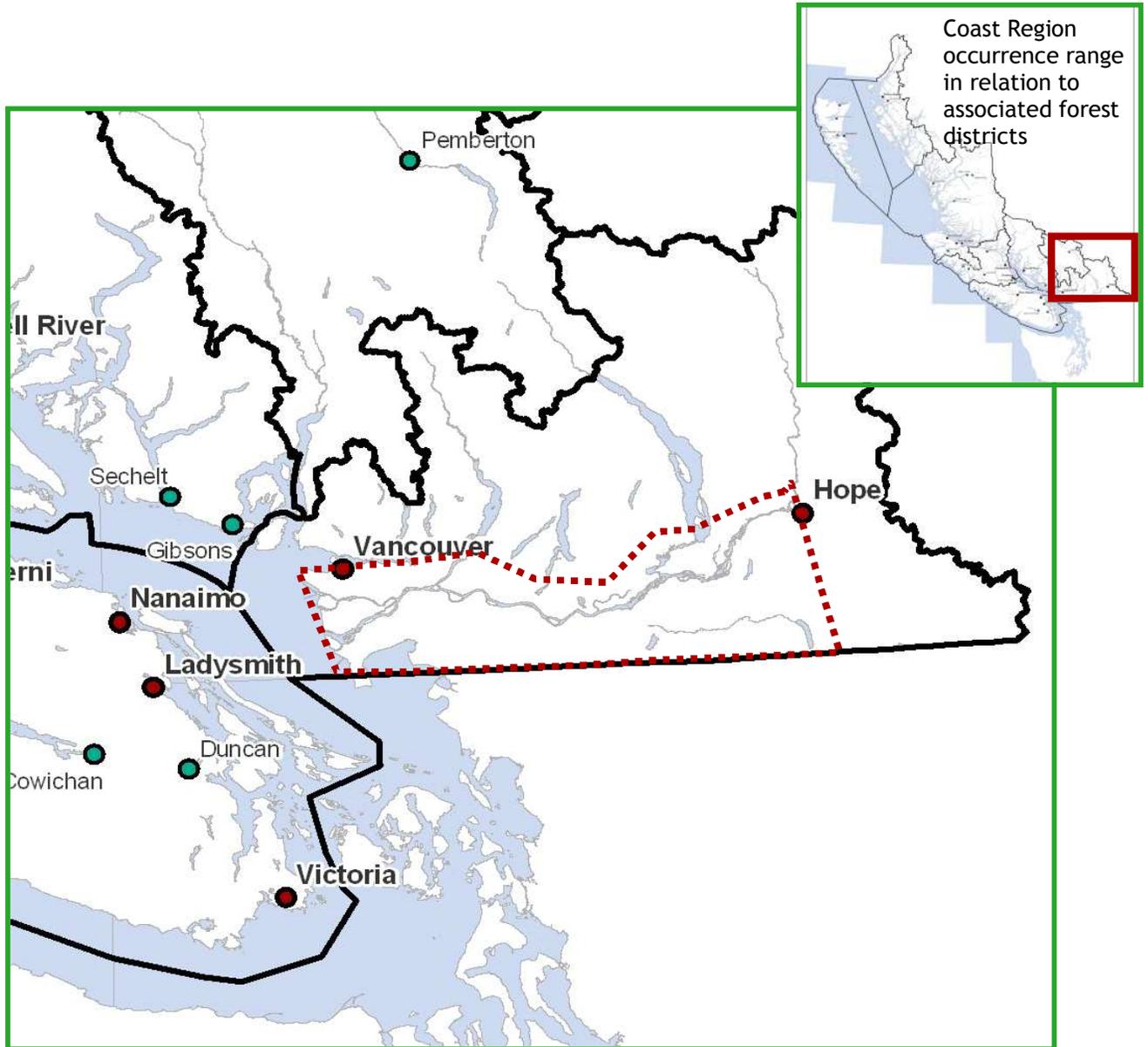
a) least weasel, b) ermine, c) long-tailed weasel (after Banfield 1974).



Long-tailed Weasel

**Distribution**

*Elevation 0-3000m.* Historically this subspecies range extended from Oregon north to Washington State and into BC west of Hope, north to Harrison Lake and east to the Fraser Estuary. Historic specimen records occur from Vedder Crossing, Cultus Lake, Lihumitson Park, and the Chilliwack area. While it is still somewhat widely distributed in Oregon and Washington State, it may be extirpated on the Coast Region. Unconfirmed sightings from the Fraser Lowlands still occur indicating the subspecies may still persist on the South Coast.



Long-tailed Weasel *altifrontalis* ssp. (*Mustela frenata altifrontalis*), potential occurrence range for the Coast Region

**Habitat Preferences** Found in a wide variety of open habitats, usually near water including shrub thickets, open woodlands, old-field and agricultural hedgerows, riparian areas, grasslands, swamps, and marshes. Weasels can be tolerant to close proximity to human settlements.



**Critical Features** Dens are found in abandoned burrows of other mammals, in rock crevices, brush piles, hollow stumps, or among tree roots. Both sexes utilize soil burrows or cavities in standing or downed wood. Disturbance to maternal dens can potentially result in litter abandonment or exposure of young to predators. Population density averages 1 per 7-40 acres, depending upon habitat and environmental conditions. Mean home range size was 51.8 ha for adult females and 180.3 ha for adult males.

Long-tailed Weasel and their subspecies have a close association with open lowland habitats in early successional stages.

**Seasonal Life Cycle**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			Kits born, weaned at >1 mos.			Breeding		Delayed egg implantation			
Active all year – juveniles disperse over late fall-winter											

Fertilized eggs do not become attached to the female’s uterus until the following spring after breeding.

**Threats**

- ◆ Rarity and difficulty in assessing population densities contributes to knowledge gaps in occurrence, population, and abundance.
- ◆ Distribution coincides with areas undergoing rapid development and habitat change. Agriculture and forestry practices also have the potential to impact and fragment habitat.
- ◆ Roadways that cut through core habitat areas and lack of wildlife passage structures increase vehicle mortality impacts and population fragmentation.
- ◆ Members of the genus *Mustela* have a naturally high metabolic rate. Combined with close interdependency on prey availability and a short lifespan, reproductive success is potentially further impacted by anthropogenic influences such as vehicle mortality, particularly among dispersing juveniles.
- ◆ Rodent pest control practices which utilize poison baits can result in sub-lethal impacts to associated predators. Weasels which frequent settlement areas can also become incidental trapping mortalities as part of pest control practices that employ lethal trapping methods.
- ◆ Application of pesticides in agricultural areas may effect prey supply and have indirect toxic effects.
- ◆ Weasel species are vulnerable to infection by a parasitic sinus worm that sometimes causes severe damage to the skull. Effects to population viability from this are suspected but not proven.
- ◆ Predation by feral or free ranging domestic pets (e.g. dogs) may impact local populations.

**Conservation & Management Objectives**

- ◆ Apply conservation and management recommendations as set out in “Rare amphibians, reptiles, and mammals of British Columbia” and the Furbearer Management Guidelines for the Ermine *Mustela erminea*, Long-tailed Weasel *Mustela frenata* and Least Weasel *Mustela nivalis* in British Columbia. Integrate complimentary objectives found in “Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia”.

- ◆ Assess, inventory and monitor using methodology set out in the RISC standards #28, Inventory Methods for Martens & Weasels v 2.0

**Specific activities should include:**

- ◆ Buffers similar to those proposed for Pacific Water Shrew (100 meters from top of bank on either side of a watercourse) may be necessary to protect the broadest range of habitat features and functions. Riparian buffers imposed to protect fish habitat are likely insufficient for protecting the complete range of foraging and refugia requirements of this subspecies.
- ◆ Connecting urban forest patches or forest reserve areas would benefit this subspecies. Slash piles, snags, and downed logs should be left for foraging areas after clear cuts occur to maintain and restore habitat connectivity.
- ◆ Wildlife underpasses should be installed at appropriate intervals where high road densities and potential for vehicle interactions occur. Clear-span crossings are preferred. Culvert crossings should be a minimum 2 m diameter with open bottoms with natural substrate, no longer than 30 m and should not have large drops that would impede small mammal (or fish) movement. On long culverts that are dark in the middle, consider the use of grates that will allow light and rain to enter.
- ◆ Implement agricultural land set-asides and stewardship agreements, work towards covenant and acquisition opportunities.
- ◆ Education and outreach regarding free ranging and feral domestic pet impacts should form part of overall conservation approaches
- ◆ Inventories are needed to determine the accurate number of actual (extant) occurrences since current information on numbers and habitat requirements is inadequate. Given an intrinsically high reproductive rate, this subspecies has the potential to be recovered if suitable habitat is protected and/or adequate connectivity is maintained.

This subspecies of Long-tailed Weasel is subject to protections and prohibitions under the BC Wildlife Act. Long-tailed Weasel is presently closed to harvesting and subject to Compulsory Inspection on the South Coast of the Coast Region. Check provincial regulations for further restrictions. Trappers accidentally catching the *altifrontalis* subspecies 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](mailto:info@sccp.ca). Content updated April 2012.

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