

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

Ermine *haidarum* subspecies (*Mustela erminea haidarum*)

Global: G5G2, Provincial: S2 COSEWIC: T, BC List: Red



Summer



Winter

Notes on *Mustela erminea haidarum*: Ermine or “Short-tailed Weasel” are members of the family Mustelidae. One of the few mammals endemic to the Haida Gwaii Archipelago, the *haidarum* subspecies has been described as “the most morphologically distinct” of all Ermine in BC. Other common names include “Queen Charlotte Ermine” or “Haïda” or “Holarctic Short-tailed Weasel.”

Description

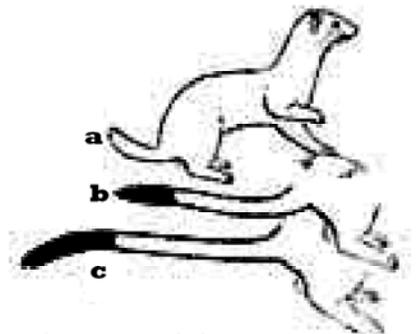
Length 25.1 to 31.5 cm (including a 6.5-7.5 cm tail), Weight 67 to 106 g (females measure 2/3 the respective length and weight). A relatively small member of the genus *Mustela*, the body is slender and cylindrical with short legs. Both sexes undergo a seasonal colour variation, with the summer coat (pelage) dark brown dorsally and creamy white ventrally (including legs and feet) morphing to white in winter.¹ The bushy tail tip remains black all year round. The head is small, triangular with inconspicuous rounded ears. Unique to this subspecies is a skull proportionately larger in its anterior measurements compared to other Ermine. Like most Mustelids, Ermine possess scent glands which produce a strong musky odour used for scent marking.

Diet

Voles, which make up the bulk of mainland Ermine diets are absent from Haida Gwaii. The *haidarum* subspecies has evolved to feed primarily on Dusky Shrew, Northwestern Deermouse (and possibly introduced rats), ground and understory nesting birds and their eggs, other small vertebrates, fruit and a range of invertebrates. While not aquatic they frequent riparian and shoreline areas to forage for invertebrates and may scavenge salmon carcasses.

Look's Like?

There are no other members of the genus *Mustela* on Haida Gwaii, the only other related species are Sea Otter and a distinct coastal lineage of American Marten which shares some general features but is significantly larger, has a more robust build and does not turn white in winter.



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

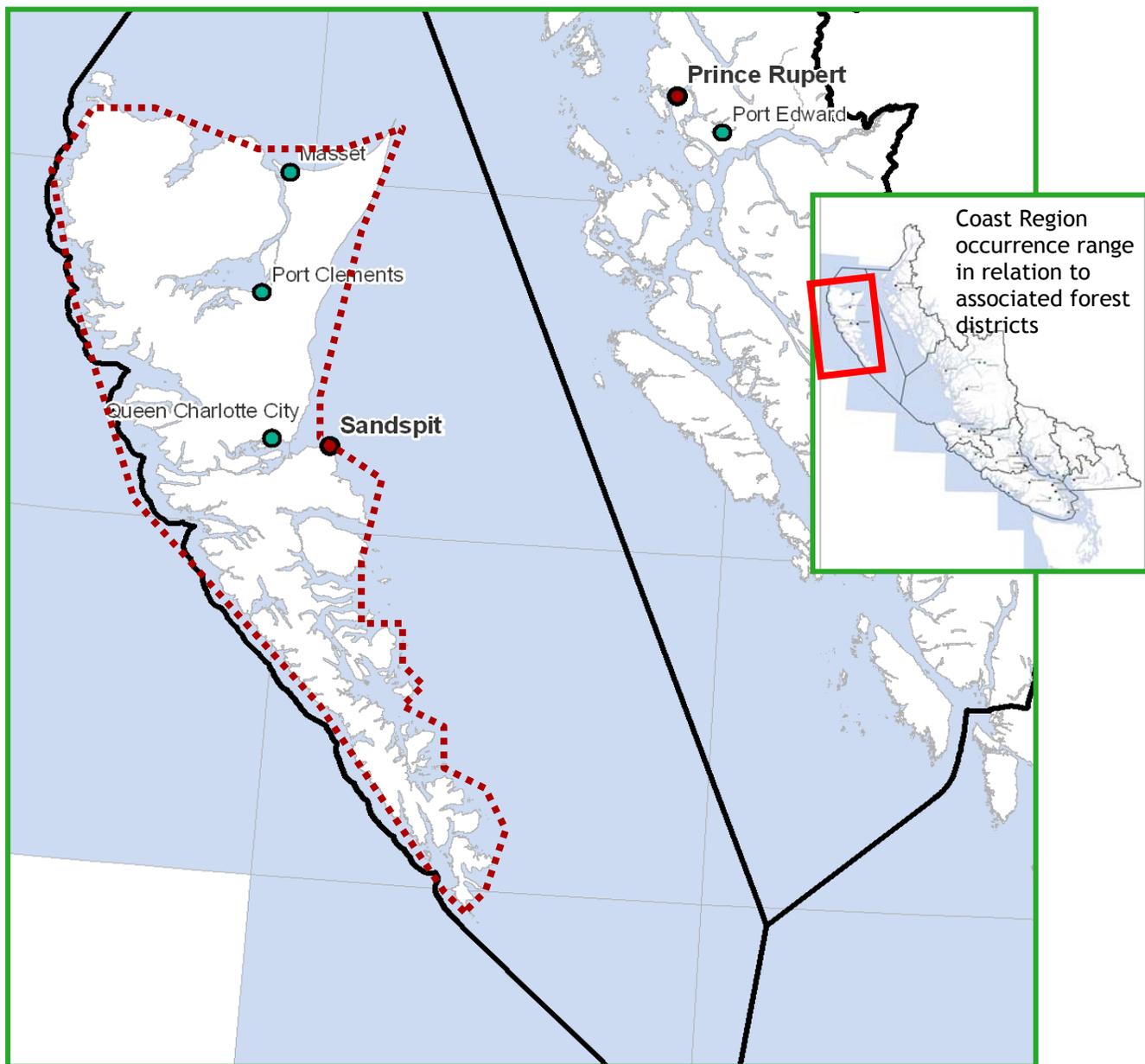


American Marten

¹ The white winter morph may be disadvantageous on Haida Gwaii since snow cover at low elevations is infrequent.

Distribution

The *haidarum* subspecies is known only from the Haida Gwaii Archipelago



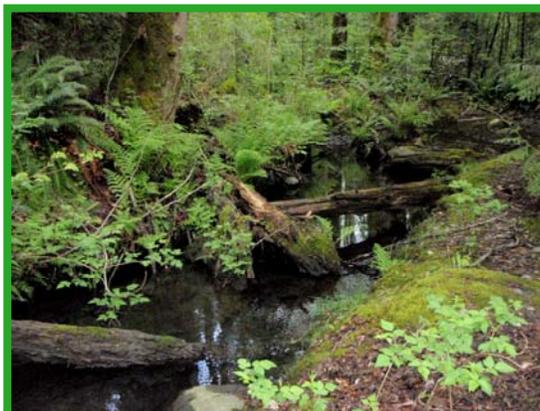
Ermine *haidarum* subspecies (*Mustela erminea haidarum*), known occurrence range for the Coast Region

Habitat Preferences

This subspecies uses a variety of habitats, but generally has demonstrated a high fidelity to riparian and shoreline habitats at low elevations near ocean, rivers, creeks and estuaries. Habitat features include coarse woody debris, sea-beach debris, rock piles.

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 kit abandonment or exposure of young to predators. Ermine and other *Mustela* species are active ground foragers and require abundant cover such as a diverse understory and large woody debris. This reduces vulnerability to predation while foraging from raptors as well as the larger American Marten.



Seasonal Life Cycle

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--|-----|-----|--|-----|-----|-----|--|-----|-----|-----|-----|
| | | | | | | | Breeding in July - delayed egg implantation for 9 months | | | | |
| | | | 4-13 kits born April May, weaned June-July | | | | | | | | |
| Active all year round – juveniles disperse over late fall-winter | | | | | | | | | | | |

Fertilized eggs do not become attached to the female's uterus until the following spring after breeding. Ermine can reproduce in their first year and in most populations females are pregnant annually.

Threats

- ◆ Distribution coincides with areas undergoing land use change from logging, road development and foreshore development.
- ◆ Rarity and naturally low population densities contribute to knowledge gaps in occurrence, full range of habitat preferences and abundance.
- ◆ Ermine 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 impacts such as vehicle mortality, particularly among dispersing juveniles.
- ◆ Predation by feral or free ranging domestic pets (e.g. cats) and competition for food resources from introduced species such as Raccoon may be having an impact on population viability.
- ◆ American Marten populations have increased on Haida Gwaii, likely in conjunction with introduced prey resources such as rat species, leading to further competition and predation stress for Ermine.
- ◆ Incidental trapping mortality may be an issue. Ermine are a non-target species impacted by trapping of American Marten.
- ◆ Ermine and other 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.

Conservation & Management Objectives

- ◆ Apply conservation and management recommendations as set out in “Rare amphibians, reptiles, and mammals of British 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 recommendations for conserving this subspecies identified in “Status and Management of Ermine on the Queen Charlotte Islands.”
- ◆ 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:

- ◆ Information on population numbers and habitat requirements is inadequate, inventories are needed to determine the number of current (extant) occurrences.
- ◆ Restore the quality of riparian habitats along streams, wetlands and shorelines that have been impacted by forestry and development activities. Riparian buffers imposed to protect fish habitat are likely insufficient for protecting the complete range of foraging and refugia requirements of this subspecies. Buffers similar to those proposed for water shrew species (i.e. 100 meters from the top of bank on either side of a watercourse) may be necessary to protect the broadest range of habitat features and functions.
- ◆ Maintain connectivity and reconnect fragmented segments of riparian and upland habitats.
- ◆ Conserve structural diversity and retain standing and downed coarse woody debris especially in riparian and shoreline areas. Slash piles, snags, and downed logs should be left for foraging areas after logging to provide cover and 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.
- ◆ 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 Ermine is listed under the Federal Species at Risk Act (SARA) and is subject to protections and prohibitions under the BC Wildlife Act. All harvesting of the subspecies is prohibited. Incidental trapping requires compulsory inspection by an officer of the BC Ministry of Environment (for further details refer to the provincial Furbearer Management Guidelines for Ermine). This subspecies habitat may also be governed under provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act.

Content for this Factsheet has been derived from the following sources

- B.C. Conservation Data Centre. 2010. [Internet] [Updated February 19 2005) Conservation Status Report: *Mustela erminea Haidarum* B.C. Minist. of Environment.
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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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