

HALEY LAKE

ER #117

ORIGINAL PURPOSE To conserve a small population of the rare and endangered Vancouver Island marmot

OVERVIEW

Date established:	18 Feb. 1987	Location:	On Vancouver Island, approximately 32 km SW of Nanaimo
Date amended:	18 April 1991 20 May 2004		
ORC #:	3117	Latitude:	49°01'N
Map number:	92 F/1	Longitude:	124°18'W

Total Area:	888 ha	Elevation:	1,140-1,518 m
Land:	877 ha		
Lake:	11 ha		

Access: Access to the reserve crosses private land controlled by Island Timber

Biogeoclimatic Zones: Coastal Mountain Heather-Alpine (CMA);
Coastal Western Hemlock (CWH);
Mountain Hemlock (MH);

Biogeoclimatic Variants: CMA unp CMA Undifferentiated and Parkland;
CWH mm2 CWH Montane Moist Maritime;
MH mm1 MH Windward Moist Maritime.

Ecosections: Leeward Island Mountains

Region: Vancouver Island

Management Area: Qualicum

COMPOSITION

Physical: The reserve consists of steep rocky south, east and northeast-facing slopes of a subalpine ridge and the upper parts of associated colluvial slopes. The ridge extends southeastward from Green Mountain in the Nanaimo River drainage.

Biological: Major plant community types in this reserve are stunted mountain hemlock and mountain heathers along the ledges and crest of the ridge, sparse moss, lichen and herbaceous plant cover on rocky knolls and faces and meadow vegetation on talus and other colluvium. The latter is the main habitat of the Vancouver Island marmot. Several different meadow communities occur, with dominants such as pearly everlasting, bracken fern, cow-parsnip, showy sedge and Indian hellebore, depending on drainage and soil texture. Rare plants occurring here are the Olympic mountain aster, the Olympic onion and the coastal wood fern.

The Vancouver Island marmot, a species endemic to the island for which it is named, had only about 250 individuals in its world population in 1993. Though related to the hoary marmots of the mainland, this island form has evolved in isolation for thousands of years, resulting in very distinctive characteristics like its chocolate-

brown coat. Marmots occur only high in the mountains of the southern half of the island. Similar to other marmot species, Vancouver Island marmots inhabit burrows, usually dug under protective boulders, and hibernate between October and May. They live in small scattered colonies and feed on a variety of herbaceous meadow plants and a few low shrubs. The population declined so rapidly that Haley Lake had no marmots. In 2009 there were 30 individuals that were descendants of reintroduced individuals (Don Doyle, Ministry of Environment biologist). Other mountain wildlife such as Roosevelt Elk, American Black Bear, Cougar, Wolves, Marten, Golden Eagles and Gray Jays may also be seen in this area.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Vancouver Island Marmot	Red listed	Endangered (2008)	1
spreading phlox – Wallace’s selaginella association	Red listed		2
Olympic onion	Red listed		3
snow bramble	Blue listed		2
Olympic mountain aster	Blue listed		2
Ermine, ssp. <i>anguinae</i>	Blue listed		2
coastal wood fern	Blue listed	Special Concern (2001)	2
pearly everlasting-leafy aster association	Red listed		2

THREATS

Climate Change: The Vancouver Island Marmot’s habitat is restricted to sub-alpine areas in central Vancouver Island, and their preferred food sources are the flowers and roots of alpine plants. Research projects a decline in alpine areas due to forest encroachment as the climate changes, which may further endanger the marmots.

RESEARCH OPPORTUNITIES Research on behaviour and on foraging ecology of the Vancouver Island marmot was conducted here resulting in two M.Sc. theses. Annual reports on the status of Vancouver Island marmots are available.

ER WARDEN ACTIVITIES

- Monitor/report illegal activities where observed
- Survey fauna present in ER
- Continue to survey flora in ER
- Monitor for invasive plants (control or eradicate where possible)

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE HALEY LAKE ER ACCOUNT

Flora

aster, leafy (*Aster foliaceus*)

aster, Olympic mountain (*Aster paucicapitatus*)

bramble, snow (*Rubus nivalis*)
cow-parsnip (*Heracleum maximum*)
everlasting, pearly (*Anaphalis margaritacea*)
fern, bracken (*Pteridium aquilinum* ssp. *lanuginosum* and ssp. *latiusculum*)
fern, coastal wood (*Dryopteris arguta*)
hellebore, Indian (*Veratrum viride*)
hemlock, mountain (*Tsuga mertensiana*)
onion, Olympic (*Allium crenulatum*)
phlox, spreading (*Phlox diffusa* spp. *longistylis*)
sedge, showy (*Carex spectabilis*)
selaginella, Wallace's (*Selaginella wallacei*)

Fauna

Bear, American Black (*Ursus americanus*)
Cougar (*Puma concolor*)
Eagle, Golden (*Aquila chrysaetos*)
Elk, Roosevelt (*Cervus canadensis roosevelti*)
Ermine, anguinae subspecies (*Mustela erminea anguinae*)
Jay, Gray (*Perisoreus canadensis*)
Marmot, Vancouver Island (*Marmota vancouverensis*)
Marten (*Martes americana*)
Wolf, Grey (*Canis lupus*)
