

STRATHCONA
PROVINCIAL PARK
1993, 92F.044

92F.049 STRATHCONA PROVINCIAL PARK
BIOPHYSICAL HABITAT



1. Map Boundaries and symbols

Map Boundary

- Ecogeion
- Biogeoclimatic Units
- Biophysical Habitat Units
- Study Area Boundary

Examples of Map Symbols

- Ecogeion (see box 2)
- Biogeoclimatic Zone (see box 3)

Biophysical Habitat Unit Labels

- Percentile
- General Stage (see box 5)
- Aspect (see box 5)
- Habitat Unit symbol (see box 4)
- m Stand Density (see box 5)

2. Ecogeion

Ecogeions are large, subregional sized areas, influenced by a particular macroclimatic process or interacting processes over a large physiographic unit and are characterized by all plant communities and wildlife populations present (Demaree et al. 1989).

Map Symbol	Ecogeion	Ecogeion	Ecogeion
LIM	Leeward Island Mountains	Eastern Vancouver Is	Coastal Depression
NIM	Northern Island Mountains	Western Vancouver Is	Coastal Mountains
WIM	Windward Island Mountains	Western Vancouver Is	Coastal Mountains

DESCRIPTIONS

LIM Leeward Island Mountains Ecogeion. This ecogeion is a mountainous area of reduced rainfall leeward from the crest of Vancouver Island Ranges to the Nanaimo Lowlands.

NIM Northern Island Mountains Ecogeion. This ecogeion is an area of low to rolling topography with high precipitation located at the north end of Vancouver Island.

WIM Windward Island Mountains Ecogeion. This ecogeion is the area of lowlands, islands and mountains on the western margin of Vancouver Island.

3. Biogeoclimatic Units

A biogeoclimatic unit is an area characterized by a distinct climatic climax or zonal ecosystem association. A subzone consists of unique sequences of geographically related ecosystems influenced by one type of regional climate (Upton, et al. 1983).

CWHm2 COASTAL WESTERN HEMLOCK - western very dry maritime subzone occurs at lower elevations along the east side of Vancouver Island. Characterized by warm, dry summers and moist, mild winters with relatively little snowfall. Growing seasons are long and feature water deficits on zonal sites.

CWHm1 & 2 COASTAL WESTERN HEMLOCK - moist maritime subzone The submontane variant occurs on the leeward side of the Vancouver Island Ranges above the CWHm2 subzone and below 650m. Climatic conditions are intermediate between CWHm2 and CWHm1 subzones with moist, mild winters and cool but relatively dry summers.

mn2 - Montane The montane variant occurs at higher elevations on the leeward side of the Vancouver Island Ranges between 650 and 1000m. Compared to CWHm1 this subzone has cooler temperatures, shorter growing seasons and heavier snowfall, with snowpacks persisting throughout the winter.

CWHm1 & 2 COASTAL WESTERN HEMLOCK - very wet maritime subzone The submontane variant occurs below 600m on the windward slopes of Strathcona Park. This subzone has a wet, humid climate with cool summers and mild winters - featuring relatively little snow. Growing seasons are long. Precipitation is high but can vary considerably.

vm2 - Montane The montane variant occurs at higher elevations (600 - 1000m), above the CWHm1. It grades into the Mhmm zone above. Characterized by a wet, humid climate with cool, short summers and cool winters featuring substantial snowfall.

Mhmm MOUNTAIN HEMLOCK - moist maritime subzone occurs at high elevations (1000 - 1300m). It has long, moist, cold winters and short, cool moist summers. Frozen soils are rare due to insulating snowpack, but growing season frosts are common. Total snowfall is great, resulting in substantial snowpacks that can persist into July.

Mhmmop MOUNTAIN HEMLOCK PARKLAND - moist maritime parkland subzone occurs above the Mhmm (1300m). The climate is harsher than in the Mhmm. If trees occur at all they are in isolated clumps and irregular small patches.

AT ALPINE TUNDRA zone occurs on high mountains throughout B.C. In Strathcona Park it occurs above 1650m. The high alpine climate is cold, windy, and snowy, and is characterized by low growing season temperatures and a very short frost-free period.

4. Biophysical Habitat Units

Map Symbol

BIOPHYSICAL HABITAT UNITS

Habitat Units of the CWHm2

- DC Douglas fir - clifden, shallow soils
- DS Douglas fir - salal, dry
- WK Western hemlock - knobber, meic
- CT Western redcedar - foamflower, deep soils
- SS Sitka spruce - salmonberry, high floodplain
- BR Black cottonwood - red cedar dogwood, medium floodplain

Habitat Units of the CWHm1 and 2

- DS Douglas fir - salal, shallow soils
- HS Western hemlock - salal, dry
- HP Hemlock - pipecleaner moss, meic
- AS Amabilis fr - salmonberry, moist
- CG Western redcedar - slank cabbage
- SS Sitka spruce - salmonberry, high floodplain
- BR Black cottonwood - red cedar dogwood, medium floodplain

Habitat Units of the CWHm1 and 2

- HC Western hemlock - clifden, shallow soils
- HS Western hemlock - salal, dry
- WB Western hemlock - blueberry, meic
- AF Amabilis fr - foamflower, rich meic
- AS Amabilis fr - salmonberry, moist
- CG Western redcedar - goldthread, depression (vm2 only)
- CC Western redcedar - slank cabbage
- SS Sitka spruce - salmonberry, high floodplain
- BR Black Cottonwood - red cedar dogwood, medium floodplain
- ES Sedgegrass estuary (vm2 only)

Habitat Units of the Mhmm

- MM Mountain hemlock - mountain-heather, parkland
- MB Mountain hemlock - blueberry, meic
- AT Amabilis fr - twistedstalk, deep soils
- MD Mountain hemlock - deer cabbage, wet depression
- YH Yellow cedar - halibone
- MP Mountain-heathers - partridgefoot heath, meic
- SH Sedge - halibone meadow, fluvial

Habitat Units of the Mhmm

- MM Mountain hemlock - mountain-heather parkland
- MB Mountain hemlock - blueberry forest
- LM Lichen - mountain-heathers, rocky soil
- RM Recent moraine
- SH Sedge - halibone meadow, fluvial

Habitat Units of the AT

- LM Lichen - mountain-heathers, rocky soils, generally warm aspect

Additional Habitats (occur in several subzones/variants)

- AB Avalanche - bare
- AV Sitka elder avalanche chute
- GL glacier
- LA lake
- RG riparian gravel bar, low elevation
- RO rock outcrop
- CA Campfire
- RL rock outcrop, limestone
- SA slump-red alder
- SC side-composite vegetation
- SB slide - bare
- SP snowpack - permanent
- TB talus - bare
- TV talus - vegetated, Sitka elder
- WL wetland
- MI Minesite

5. Successional Stage/Aspect/Stand Density FOREST SUCCESSIONAL STAGES

No.	Stage	ASPECT
1	Shrub-Herb	warm aspect slopes facing approximately 135° - 280°
2	Pole-Spruce	cool aspect slopes facing approximately 280° - 135°
3	Young Forest	
4	Mature Forest	
5	Old Growth	
w		STAND DENSITY
s		dense canopy: greater than 65% cover
m		moderate canopy: 25 - 65% cover
a		sparse: less than 25% cover

6. Survey and Credits

Air photo coverage for this project: BCT8052: 116-125, 168-180; BCT8078: 107, 237, BCT8072: 4-50, 106-187, 226-260, 294-291, 296-297; BCT8073: 10-36, 43-46, 71-86, 101-103, 261-262, 298-291; BCT8085: 123-162; BCT8096: 19-51, 59-68, 225-226, 227-277; BCT8098: 143-159, 166-177; BCT8101: 164, 165; BCT8102: 168-172; BCT84026: 107-115, 167-173; BCT84028: 22-28, 200, 210, 213-218; BCT84031: 28-37

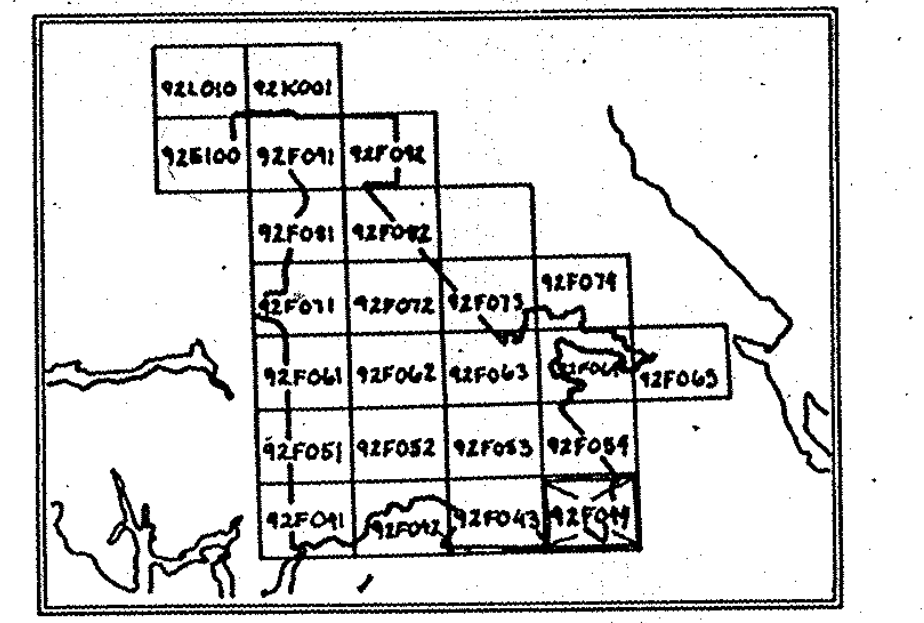
Fieldwork: Minimal field checking was undertaken from July 19 to August 8, 1993. Less than 0.5% of the polygons were fieldchecked.

Mapped by: Madrone Consultants Ltd. 1994

Explanatory notes

In 1993 BC Parks (South Coast) initiated the Strathcona Provincial Park project to provide habitat mapping for effective vegetation and wildlife management.

The project area is over 230,000 hectares in size and is located in the central portion of Vancouver Island straddling the Vancouver Island Mountains. Three ecogeions, eight biogeoclimatic zones and 68 biophysical habitat units fit within the study area. Mapping is at a scale of 1:200,000 for BCGS map sheets 92E100, 92F041, 042, 043, 044, 045, 052, 053, 054, 061, 062, 063, 064, 065, 071, 072, 073, 074, 081, 082, 091, 092, 92K001, and 92L010.



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