

92F.074

STRATHCONA PROVINCIAL PARK
BIOPHYSICAL HABITAT



1. Map Boundaries and symbols

Map Boundaries

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

Examples of Map Symbols

LIM
AT

Ecosection (see box 2)
Biogeoclimatic Zone (see box 3)

Biophysical Habitat Unit Labels

Parental
Serial Stage (see box 5)
Aspect (see box 5)
Habitat Unit symbol (see box 4)
m Stand Density (see box 5)

2. Ecosection

Ecosections 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 (Demarchi et al. 1989).

| Map Symbol | Ecosection | Ecosection | Ecoprovince |
|------------|---------------------------|----------------------|---------------------|
| LIM | Leeward Island Mountains | Eastern Vancouver Is | Georgia Depression |
| NM | Northern Island Mountains | Western Vancouver Is | Coast and Mountains |
| WM | Windward Island Mountains | Western Vancouver Is | Coast and Mountains |

DESCRIPTIONS

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

NM Northern Island Mountains Ecosection. This ecosection is an area of low to rolling topography with high precipitation located at the north end of Vancouver Island.

WM Windward Island Mountains Ecosection. This ecosection 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 climate or zonal ecosystem association. A subzone consists of unique sequences of geographically related ecosystems influenced by one type of regional climate (Utzig, et al. 1983).

CWlm2 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.

CWlm1 & 2 COASTAL WESTERN HEMLOCK - moist maritime subzone
mm1: Submontane The submontane variant occurs on the leeward side of the Vancouver Island Ranges above the CWlm2 subzone and below 600m. Climatic conditions are intermediate between CWlm2 and CWlm1 subzones with moist, mild winters and cool but relatively dry summers.

mm2 - Montane The montane variant occurs at higher elevations on the leeward side of the Vancouver Island Ranges between 600 and 1000m. Compared to CWlm1 this subzone has cooler temperatures, shorter growing seasons and heavier snowfall, with snowpacks persisting throughout the winter.

CWlm1 & 2 COASTAL WESTERN HEMLOCK - very wet maritime subzone
vm1 - Submontane 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 CWlm1. It grades into the MH zone above. Characterized by a wet, humid climate with cool, short summers and cool winters featuring substantial snowfall.

MHtm MOUNTAIN HEMLOCK - moist maritime subzone occurs at high elevations (1000 - 1300m). It has long, moist, cool 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.

MHtmpp MOUNTAIN HEMLOCK PARLAND - moist maritime parkland subzone occurs above the MHtm (1300m). The climate is harsher than in the MHtm. 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 1920m. The harsh 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

BIOPHYSICAL HABITAT UNITS

Map Symbol

Habitat Units of the CWlm2

DC Douglas-fir - Cladia, shallow soils
DS Douglas-fir - salix, dry
HK Western hemlock - Kinnelburg, mesic
CT Western redcedar - foamflower, deep soils
SS Sitka spruce - salmonberry, high floodplain
BR Black cottonwood - red-osier dogwood, medium floodplain

Habitat Units of the CWlm1 and 2

DS Douglas-fir - salix, shallow soils
HS Western hemlock - salix, dry
HP Hemlock - piceaster, mesic
AS Amabilis fr. - salmonberry, moist
CC Western redcedar - skunk cabbage
SS Sitka spruce - salmonberry, high floodplain
BR Black cottonwood - red-osier dogwood, medium floodplain

Habitat Units of the CWlm1 and 2

HC Western hemlock - Cladia, shallow soils
HB Western hemlock - salix, dry
AF Amabilis fr. - foamflower, mesic
AS Amabilis fr. - salmonberry, moist
CG Western redcedar - goldthread, depression (m2 only)
CC Western redcedar - skunk cabbage
SS Sitka spruce - salmonberry, high floodplain
BR Black Cottonwood - red-osier dogwood, medium floodplain
ES Sedgegrass estuary (m1 only)

Habitat Units of the MHtm

MM Mountain hemlock - mountain-heather, parkland
MB Mountain hemlock - blueberry, mesic
AT Mountain hemlock - deer cabbage, wet depression
MD Yellow cedar - halibore
MP Mountain-heathers - partridgefoot heath, mesic
SH Sedge - halibore meadow, fluvial

Habitat Units of the MHtmpp

MM Mountain hemlock - mountain-heather parkland
MB Mountain hemlock - blueberry forest
LM Lichen - mountain-heathers, rocky soil
MP Mountain-heathers - partridgefoot heath, mesic
RM Recent moorland
SH Sedge - halibore 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 RL rock outcrop, limestone
AV Sitka alder avalanche chute SA slump-red alder
CL cliff SC silt-composite vegetation
GL glacier SB silt - bare
LA lake SP snowpack - permanent
RG riparian gravel bar, TB talus - bare
low elevation TV talus - vegetated, Sitka alder
RO rock outcrop WL wetland

Anthropogenic Units

CA Campsite MI Mine

5. Successional Stage/Aspect/Density FOREST SUCCESSIONAL STAGES

No. Stage

1 Shrub-Heb

2 Pole-Sapling

3 Young Forest

4 Mature Forest

5 Old Growth

ASPECT

w warm aspect slopes facing approximately 135° - 250°
c cool aspect slopes facing approximately 20° - 135°

STAND DENSITY

d 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: BC78052: 116-125, 168-180; BC78076: 107, 237; BC80072: 4-50, 106-187, 228-260, 264-291, 296-297; BC80073: 10-36, 43-66, 71-88, 101-103, 261-262, 288-291; BC80093: 129-162; BC80095: 18-53, 59-65, 228-250, 251-277; BC80096: 143-159, 166-177; BC81019: 164, 165; BC81072: 166-172; BC84026: 107-115, 167-173; BC84028: 22-28, 209, 210, 213-218; BC84031: 28-37

Fieldwork: Minimal field checking was undertaken from July 19 to August 6, 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 ecosections, eight biogeoclimatic zones and 85 biophysical habitat units fall within the study area. Mapping is at a scale of 1:20,000 for BCOS map sheets 82E, 100, 92F, 041, 042, 043, 044, 051, 052, 053, 054, 061, 062, 063, 064, 065, 071, 072, 073, 074, 081, 082, 091, 092, 92K, 001, and 92L, 010.

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