

## ROSS LAKE

ER #22

**ORIGINAL PURPOSE** To preserve an isolated population of ponderosa pines and other vegetation in a location transitional between coastal and interior climates

### OVERVIEW

|                          |              |                   |   |
|--------------------------|--------------|-------------------|---|
| <b>Date established:</b> | 4 April 1971 | <b>Location:</b>  | E side of the head of Ross Lake, 50 km SE of Hope |
| <b>ORC #:</b>            | 3022         | <b>Latitude:</b>  | 49°00'N   |
| <b>Map number:</b>       | 92 H/3       | <b>Longitude:</b> | 121°03'W  |

|                    |       |                   |           |
|--------------------|-------|-------------------|-----------|
| <b>Total Area:</b> | 61 ha | <b>Elevation:</b> | 525-760 m |
| <b>Land:</b>       | 61 ha |                   |           |

**Access:** Access via Silver-Skagit Road from Hope, and 0.5 km hike from that road at Ross Lake. The reserve is within the Skagit Valley Recreation Area

|                                |                            |
|--------------------------------|----------------------------|
| <b>Biogeoclimatic Zones:</b>   | Interior Douglas-Fir (IDF) |
| <b>Biogeoclimatic Variant:</b> | IDFww Wet Warm             |
| <b>Ecosection:</b>             | Hozameen Range             |
| <b>Region:</b>                 | Lower Mainland             |
| <b>Management Area:</b>        | South Fraser               |

### COMPOSITION

**Physical:** The reserve is situated on the lower slopes of Mount Hozameen, Cascade Mountains, on the east side of the Skagit River valley. Adjacent peaks rise to about 2000 m. The reserve has a westerly aspect and average slope of 25 to 30%. Surficial materials are largely colluvial, and several areas of bedrock outcrop occur. Annual precipitation is intermediate between that of the coast and the interior due to a partial rain-shadow caused by the Skagit River which lies to the west.

**Biological:** Of major interest here is the occurrence of ponderosa pine trees and associated dry-site plants in a semi-coastal environment. Southwestern exposure and rocky, well-drained soils, together with the reduced precipitation regime allow these species, which may be remnants of formerly more widespread dry forest in this area, to persist in a marginal environment. Ponderosa pine trees occupy a small central part of the reserve, and have an understory dominated by kinnikinnick and bluebunch wheatgrass. Douglas-fir forests cover most of the reserve, and associations having affinities with both coastal and interior zones have been noted. On dry sites a Douglas-fir-kinnikinnick-pinegrass association is present, while in mesic locations a Douglas-fir-Oregon-grape-moss association has developed. This contains typically coastal species such as vine maple, and interior ones like soopolallie. A typically coastal forest type, the western redcedar-devil's club-foamflower-moss association occurs in moist gullies and seepage areas. Coastal trees like bigleaf maple and grand fir occur sporadically in this forest community.

The Skagit Valley also has a diverse bird and mammal fauna containing both coastal and interior species.

#### MANAGEMENT CONCERNS

| SIGNIFICANT SPECIES | BC LIST STATUS | COSEWIC STATUS | CF PRIORITY |
|---------------------|----------------|----------------|-------------|
| silvery lupine      | Red listed     |                | 1           |
| lace fern           |                |                | 4           |
| Properius Duskywing | Blue listed    |                | 2           |
| steer's head        | Blue listed    |                | 2           |

#### THREATS

**Climate Change:** The unique transitional climatic characteristics represented in this reserve may shift as a result of changed hydrology and temperature as is projected for the interior of B.C. Changed conditions may favour one forest system over another, resulting in reduced diversity of representation within the reserve boundaries. Changes in regular disturbance regimes may also contribute to shift in the forest's composition

**Forest health:** Fire suppression has effected the composition of the forest as parts of the ecosystem require natural fire cycles. The risk of catastrophic forest fires has also been amplified due to increased fuel load build-up.

#### RESEARCH OPPORTUNITIES

This transitional ecosystem may show signs of climate changes sooner others. A good place for monitoring changes.

#### SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE ROSS LAKE ER ACCOUNT

##### Flora

devil's club (*Oplopanax horridus*)  
 Douglas-fir (*Pseudotsuga menziesii*)  
 fir, grand (*Abies grandis*)  
 foamflower, three-leaved (*Tiarella trifoliata* var. *trifoliata*)  
 kinnikinnick (*Arctostaphylos uva-ursi*)  
 lupine, silvery (*Lupinus argenteus* var. *laxiflorus*)  
 maple, bigleaf (*Acer macrophyllum*)  
 maple, vine (*Acer circinatum*)  
 Oregon-grape, dull (*Mahonia nervosa*)  
 pine, ponderosa (*Pinus ponderosa*)  
 pinegrass (*Calamagrostis rubescens*)  
 redcedar, western (*Thuja plicata*)  
 soopolallie (*Shepherdia canadensis*)  
 steer's head (*Dicentra uniflora*)  
 wheatgrass, bluebunch (*Pseudoroegneria spicata*)

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**Fauna**

Duskywing, Propertius (*Erynnis propertius*)