

## CHILLIWACK RIVER

ER #98

**ORIGINAL PURPOSE** To set aside productive floodplain forest stands for purposes of research and stock improvement

### OVERVIEW

<b>Date established:</b>	27 March 1980	<b>Location:</b>	Head of Chilliwack Lake, 43 km SE of Chilliwack
<b>ORC #:</b>	3098	<b>Latitude:</b>	49°00'N
<b>Map number:</b>	92 H/3	<b>Longitude:</b>	121°24'W

<b>Total Area:</b>	86 ha	<b>Elevation:</b>	610-760 m
<b>Land:</b>	86 ha		

**Access:** Access by logging road along east side of Chilliwack Lake, or by boat down the lake. A trail passes through the reserve into North Cascade National Park which borders the reserve to the south.

**Biogeoclimatic Zone:** Coastal Western Hemlock (CWH)  
**Biogeoclimatic Variants:** CWHds1 Southern Dry Submaritime; CWHms1 Southern Moist Submaritime  
**Ecosection:** Eastern Pacific Ranges  
**Region:** Lower Mainland  
**Management Area:** South Fraser

### COMPOSITION

**Physical:** The reserve is in the heart of the Skagit Range of the Cascade Mountains, mostly on the floodplain of the gently flowing, slightly meandering Chilliwack River. The flat valley bottom is about 500 m wide in this area. Soils on alluvial sites are believed to be primarily Regosols, those on the adjacent slopes Podzols.

**Biological:** The reserve area is primarily forested with rich old-growth coniferous stands of exceptional growth. A small area of shrubland in the northwest corner is influenced by periodic flooding of Chilliwack Lake, and wetlands occur in the west central area. Three floodplain forest communities have been described. The most recent and most active alluvial sites near the north boundary support mixed forest dominated by black cottonwood, red alder, and western redcedar. Abundant understory shrubs are red-osier dogwood and salmonberry, typical herbs include lady fern and pink wintergreen. On older, better drained alluvial sites the more extensive western redcedar-western hemlock-vine maple-salmonberry-devil's club-lady fern-moss (*Mnium* spp.), and western hemlock-western redcedar-vine maple-devil's club-oak fern-moss (*Hylocomium splendens*) communities are present. Cedars may reach 2.75 m in diameter, and true firs 60 m in height. Other trees present include Engelmann spruce, Sitka spruce, grand fir, amabilis fir, Douglas-fir, bigleaf maple, and Pacific crab apple. This is believed to be an area of hybridization between grand and amabilis fir and between Sitka and Engelmann spruce.

Mammals noted here are the Black Bear, Black-Tailed Deer, Beaver, and Porcupine. Typical birds are the Winter Wren, Brown Creeper, Pileated Woodpecker, Blue Grouse, kinglets, and chickadees.

## MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Spotted Owl	Red listed	Endangered (2008)	2
leafy mitrewort	Blue listed		2

## THREATS

<b>Climate Change:</b>	Increased flooding of Chilliwack Lake due to changes in hydrology may affect the northern edge of floodplain shrub-land. Later, the drier conditions that have been projected may eliminate the floodplain area. It may be colonized by forest systems, due to the lack of flooding which acts to control successional progression.
<b>Access:</b>	The reserve is located on the US-Canada border. Drug smuggling and illegal alien crossing is suspected to occur via the reserve.
<b>Geological processes:</b>	Beaver dams are assisting the increasing impacts of natural flooding. The land base of this reserve is being decreased. Although this is a change, it is a natural process and therefore not a threat.
<b>Harvest:</b>	Illegal harvesting of ferns, salal, mosses, mushrooms, firewood, and cedar shake are depleting the natural biomass in the reserve.
<b>Recreation:</b>	Illegal camping occurs in the front country of the reserve.  The main trail through the reserve runs through leafy miterwort habitat, degrades the habitat and reduces the population.  Illegal garbage is dumped in the reserve by the local community.

## RESEARCH OPPORTUNITIES

This is a site of exceptional tree diversity and growth, and of hybridization between coastal and interior conifers.

## SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE CHILLIWACK RIVER ER ACCOUNT

### Flora

alder, red (*Alnus rubra*)  
cottonwood, black (*Populus trichocarpa* ssp. *trichocarpa*)  
crab apple, Pacific (*Malus fusca*)  
devil's club (*Oplopanax horridus*)  
dogwood, red-osier (*Cornus stolonifera*)  
Douglas-fir (*Pseudotsuga menziesii*)  
fern, lady (*Athyrium filix-fernina*)  
fern, oak (*Gymnocarpium dryopteris*)  
fir, amabilis (*Abies amabilis*)  
fir, grand (*Abies grandis*)  
hemlock, western (*Tsuga heterophylla*)  
maple, bigleaf (*Acer macrophyllum*)

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maple, vine (*Acer circinatum*)  
miterwort, leafy (*Mitella caulescens*)  
moss (*Mnium* spp.)  
moss, step (*Hylocomium splendens*)  
redcedar, western (*Thuja plicata*)  
salal (*Gaultheria shallon*)  
salmonberry (*Rubus spectabilis*)  
spruce, Engelmann (*Picea engelmannii*)  
spruce, Sitka (*Picea sitchensis*)  
wintergreen, pink (*Pyrola asarifolia*)

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### **Fauna**

Bear, American Black (*Ursus americanus*)  
Beaver, American (*Castor canadensis*)  
Chickadee (*Poecile* spp.)  
Creeper, Brown (*Certhia americana*)  
Deer, Black-tailed (*Odocoileus hemionus* ssp. *hemionus*)  
Grouse, Dusky (aka Blue Grouse) (*Dendragapus fuliginosus*)  
Kinglet (*Regulus* spp.)  
Owl, Spotted (*Strix occidentalis*)  
Porcupine, North American (*Erethizon dorsatum*)  
Woodpecker, Pileated (*Dryocopus pileatus*)  
Wren, Winter (*Troglodytes troglodytes*)