

ORIGINAL PURPOSE To protect an area of montane and subalpine flora and fauna representative for the North West Cascade Ecosection and protect rare species and special karst habitat

OVERVIEW

Date established:	9 December 1998	Location:	16 km S of Chilliwack
ORC #:	9841	Latitude:	49°00'N
Map number:	91/B/11	Longitude:	121°54'W

Total Area:	2,161 ha	Elevation:	800-1600 m
Land:	2,158 ha		
Lake:	3 ha		

Access: Accessible via deactivated logging road off the Columbia Valley highway.

Biogeoclimatic Zones: Mountain Hemlock (MH); Coastal Western Hemlock (CWH)
Biogeoclimatic Variants: MHmm1 Windward Moist Maritime; MHmm2 Leeward Moist Maritime; CWHvm2 Montane Very Wet Maritime
Ecosection: Northwestern Cascade Ranges
Region: Lower Mainland
Management Area: South Fraser

COMPOSITION

Physical: The reserve consists of the three south/north-draining valleys and headwaters of Liumchen Creek, between the international border and their confluence. The two western of these parallel valleys are V-shaped and flanked by forested mountain ridges. The upper part of the eastern valley is glacially modified into a cirque and contains Liumchen Lake. The stream draining the lake initially falls steeply through an incised canyon and then continues as another V-shaped valley towards the mainstem of Liumchen Creek, outside the reserve. The northeastern edge of the reserve and the slopes facing the cirque show limestone outcrops and limited karst features. Non-calcareous substrates prevail over the majority of the reserve further west.

Biological: All but the north-eastern portion of the reserve has a continuous forest cover dominated by amabilis fir, western and mountain hemlock. The cirque basin in the northeast, its surrounding ridges and slopes, and the ridge connecting to Mount Liumchen in the extreme southeast are interspersed with subalpine meadow and shrub communities, avalanche and slide paths, and open rock areas.

Discontinuous subalpine fir stands occur in addition to the above tree species at the highest elevations and particularly on the limestone substrate. Several rare plant species are on record from this area, most likely connected to the limestone habitats.

The reserve contains one of the larger remaining continuous old forest areas which are essential for the protection of the Northern Spotted Owl.

The normal complement of large mammals, including Black-tailed Deer, American Black Bear, Cougar, Grey Wolf and Coyote, is expected to occur.

Cultural: The reserve falls within the traditional territory of the Sto:lo First Nation.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
cliff paintbrush	Blue listed	Threatened (2005)	3
Spotted Owl	Red listed	Endangered (2008)	2
oldgrowth specklebelly	Blue listed	Special Concern (2010)	2
alpine anemone	Blue listed		3
Fendler's waterleaf			4
rusty cliff fern			4

THREATS

Climate Change: Research projects a reduction in alpine and subalpine areas as a result of warmer temperatures, changed hydrology, increased growing degree days and encroaching forest systems.

Access: Area was converted to ecological reserve after it was already established as recreational area. Extensive local use still occurs.

Access: Illegal hunting occurs within reserve.

Forestry: Reserve is surrounded by logging activities.

Recreation: Unapproved backcountry camping occurs.

RESEARCH OPPORTUNITIES The reserve provides opportunity for research into Spotted Owl ecology.

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE LIUMCHEN ER ACCOUNT

Flora

anemone, alpine (*Anemone drummondii* var. *drummondii*)
 fern, rusty cliff (*Woodsia ilvensis*)
 fir, amabilis (*Abies amabilis*)
 fir, subalpine (*Abies lasiocarpa* var. *lasiocarpa*)
 hemlock, mountain (*Tsuga mertensiana*)
 hemlock, western (*Tsuga heterophylla*)
 oldgrowth specklebelly (*Pseudocypbellaria rainierensis*)
 paintbrush, cliff (*Castilleja rupicola*)
 waterleaf, Fendler's (*Hydrophyllum fendleri* var. *albifrons*)

Fauna

Bear, American Black (*Ursus americanus*)
 Cougar (*Puma concolor*)
 Coyote (*Canis latrans*)
 Deer, Black-tailed (*Odocoileus hemionus* ssp. *hemionus*)

Owl, Spotted (*Strix occidentalis*)

Wolf, Grey (*Canis lupus*)