

## CHUNAMON CREEK

ER #107

**ORIGINAL PURPOSE** To establish a research area containing Sub-Boreal Spruce and Engelmann Spruce – Subalpine Fir ecosystems

### OVERVIEW

<b>Date established:</b>	20 Nov. 1981	<b>Location:</b>	Butler Range, W of Williston Lake, 54 km NNE of Gernansen Landing
<b>ORC #:</b>	3107		
<b>Map number:</b>	94 C/1	<b>Latitude:</b>	56°13'N
		<b>Longitude:</b>	124°27'W

<b>Total Area:</b>	344 ha	<b>Elevation:</b>	875-1,500 m
<b>Land:</b>	344 ha		

**Access:** Access via logging roads from Raspberry Harbour.

**Biogeoclimatic Zones:** Sub-Boreal Spruce (SBS); Englemann Spruce – Subalpine Fir (ESSF)

**Biogeoclimatic Variants:** ESSFmv3 Omineca Moist Very Cold; SBSmk2 Williston Moist Cool; SBSwk2 Finlay-Peace Wet Cool

**Ecosections:** Parsnip Trench; Southern Omineca Mountains

**Region:** Omineca

**Management Area:** Omineca

### COMPOSITION

**Physical:** From its western boundary along the summit of the Butler Range at the 1500 m elevation, the reserve slopes moderately to the northeast for nearly three kilometres, to its base at the 875 m level. Average slope is 10-15°. Shallow valleys have been incised by two small streams whose entire headwaters are within the reserve. The entire reserve is soil-covered.

**Biological:** This gently sloping site is entirely clothed with relatively mature, dense stands of conifer forest. Despite an elevational range of only 625 m, a complete transition from typical white spruce-dominated Sub-boreal Spruce forest to Subalpine fir-dominated Engelmann Spruce-Subalpine Fir forest is evident. Growing sites range from good at low elevations through medium at mid-slope to poor at upper levels. On good sites the white spruce stands, about 135 years old, reach 37 m in height.

Two associations have been described in the Sub-boreal Spruce Zone. These are the white spruce-black huckleberry-bunchberry-moss type and the white spruce-Subalpine fir-oak fern-moss type.

Three associations have been noted in the subalpine zone. The lowermost, in which Engelmann spruce is dominant and Subalpine fir sub-dominant, is identified by its understory of oval-leaved blueberry, oak fern and mosses. Subalpine fir is the most abundant tree in forests above the 1250 m level, where Subalpine fir-lodgepole pine-black huckleberry-moss and Subalpine fir-Engelmann spruce-bunchberry-queen's cup-moss types are present.

Widely scattered trembling aspen and paper birch trees occur. White-flowered rhododendron is near the northeastern limit of its range in this reserve.

The fauna has not been described but species typical of climax conifer forests, for example marten, red squirrel, red-backed vole, spruce grouse, gray jay and northern junco, should be common.

#### MANAGEMENT CONCERNS

##### SIGNIFICANT SPECIES

None listed

##### THREATS

###### Climate Change:

The Engelmann Spruce-Subalpine Fir Zone and the Sub-Boreal Spruce Zone are projected to migrate northward and drastically decrease in area, respectively. Warmer temperature and higher rates of evapotranspiration may not support the Sub-Boreal Spruce communities, though the Engelmann Spruce-Subalpine Fir may remain in this reserve while its distribution expands northward. An increase in grassland and dry-adapted forest systems in interior areas are projected to result from climate change.

##### RESEARCH OPPORTUNITIES

This is an excellent site to study growth of northern spruce stands and to monitor hydrology of northern forest streams.

#### SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE CHUNAMON CREEK ER ACCOUNT

##### Flora

aspen, trembling (*Populus tremuloides*)  
birch, paper (*Betula papyrifera*)  
blueberry, oval-leaved (*Vaccinium ovalifolium*)  
bunchberry (*Cornus canadensis*)  
fern, oak (*Gymnocarpium dryopteris*)  
fir, subalpine (*Abies lasiocarpa* var. *lasiocarpa*)  
huckleberry, black (*Vaccinium membranaceum*)  
pine, lodgepole (*Pinus contorta* var. *latifolia*)  
queen's cup (*Clintonia uniflora*)  
rhododendron, white-flowered (*Rhododendron albiflorum*)  
spruce, Engelmann (*Picea engelmannii*)  
spruce, white (*Picea glauca*)

##### Fauna

Grouse, Spruce (*Falcapennis canadensis*)  
Jay, Gray (*Perisoreus canadensis*)  
Junco, Dark-eyed (*Junco hyemalis*)  
Marten, American (*Martes americana*)  
Squirrel, Red (*Tamiasciurus hudsonicus*)  
Vole, Red-backed (*Myodes* spp.)