

ORIGINAL PURPOSE To establish a research area containing unburned forest ecosystems representative of the Boreal White and Black Spruce Zone

CURRENT PURPOSE To protect a complete watershed containing a pocket of mature white and black spruce forest that is uncommon in the surrounding area which is characterized by large swaths of burned and second growth forest.

OVERVIEW

Date established:	15 Dec. 1977	Location:	W side of Smith River, 115 km
ORC #:	3080		ESE of Lower Post
Map number:	94 M/9; M/10	Latitude:	59°41'N
		Longitude:	126°30'W

Total Area:	1,390 ha	Elevation:	580-1,295 m
Land:	1,390 ha		

Access: Vehicular access to the lower boundary of the reserve possible in summer on the Smith River forestry road.

Biogeoclimatic Zones: Boreal White and Black Spruce (BWBS); Spruce-Willow-Birch (SWB)

Biogeoclimatic Variants: BWBS dk2 Liard Dry Cool; SWB mk Moist Cool

Ecosection: Liard Plain

Region: Peace

Management Area: Liard

COMPOSITION

Physical: The reserve encloses an entire drainage basin on the east slope of an upland within the Liard Plain. This upland has rounded summits which were over-ridden and smoothed by Pleistocene ice, and slopes which have subsequently been dissected by stream erosion. The unnamed creek in the reserve flows eastward into the Smith River which empties into the Liard. Most of the area is drift-covered; bedrock exposures are rare. Soils are only moderately weathered and largely classified as Brunisols.

Biological: Except for a few steep slopes and ridge-crests the entire reserve is forested with mature stands. The reserve watershed has escaped the widespread fires which have burned much of this part of the province in the past 50 years. Most of the reserve area falls within the Boreal White and Black Spruce Zone. Based on air photo interpretation, its highest reaches may be representative of the Spruce-Willow-Birch Zone, but the high elevation vegetation has not been examined in the field.

Four communities have been described at lower and middle elevations, two of which are dominated by white spruce. One white spruce type is characterized by an understory of highbush-cranberry, prickly rose, red-osier dogwood, wild sarsaparilla, and meadow horsetail; the other contains tamarack trees and is distinguished by Bebb's willow, Labrador tea, common and meadow horsetail, and knight's plume (a moss). Black spruce woods in which bilberry willow and mosses are dominant in the understory also occur.

At middle elevations, especially on dry south-facing slopes, lodgepole pine is the dominant tree. Pine stands have an understory characterized by soopolallie, prickly rose, common juniper, kinnikinnick, mountain death-camas, and wheat grass. The delicate fairy-slipper orchid is relatively common in mossy spruce woods.

Birds noted here include the Dark-eyed Junco, Evening Grosbeak, Yellow-rumped Warbler, Boreal Chickadee, Ruby-crowned Kinglet, Golden-crowned Kinglet, and Spruce Grouse.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Grizzly Bear	Blue listed	Special Concern (2002)	2

THREATS

Climate Change: Research projects that the Boreal White and Black Spruce Zone may be significantly impacted by climate change. Warming soil temperatures may inhibit the growth of key ecological components such as the forest floor mosses, impacting the forest system as a whole.

RESEARCH OPPORTUNITIES Given the uncertainties around ecosystem transformations in the north, this would be a good place to set up a monitoring system. It is accessible, and large enough to be able to avoid edge effects.

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE SMITH RIVER ER ACCOUNT

Flora

death-camas, mountain (*Zigadenus elegans*)
 dogwood, red-osier (*Cornus stolonifera*)
 highbush-cranberry (*Viburnum edule*)
 horsetail, common (*Equisetum arvense*)
 horsetail, meadow (*Equisetum pratense*)
 juniper, common (*Juniperus communis*)
 kinnikinnick (*Arctostaphylos uva-ursi*)
 knight's plume (*Ptilium crista-castrensis*)
 Labrador tea (*Ledum groenlandicum*)
 orchid, fairy slipper (*Calypso bulbosa*)
 pine, lodgepole (*Pinus contorta* var. *latifolia*)
 rose, prickly (*Rosa acicularis* spp. *sayi*)
 sarsaparilla, wild (*Aralia nudicaulis*)
 soopolallie (*Shepherdia canadensis*)
 spruce, black (*Picea mariana*)
 spruce, white (*Picea glauca*)
 tamarack (*Latix laricina*)
 willow, Bebb's (*Salix bebbiana*)
 willow, bilberry (*Salix myrtilifolia*)

Fauna

Bear, Grizzly (*Ursus arctos*)

Chickadee, Boreal (*Parus hudsonica*)

Grosbeak, Evening (*Coccothraustes vespertinus*)

Grouse, Spruce (*Falcapennis canadensis*)

Junco, Dark-eyed (*Junco hyemalis*)

Kinglet, Golden-crowned (*Regulus satrapa*)

Kinglet, Ruby-crowned (*Regulus calendula*)

Warbler, Yellow-rumped (*Dendroica coronata*)