

**ORIGINAL PURPOSE** Preservation of representative ponderosa pine and Douglas-fir ecosystems in a prominent interior valley

#### OVERVIEW

<b>Date established:</b>	12 Oct. 1971	<b>Location:</b>	20 km WNW of Kamloops, N of Kamloops Lake
<b>Date amended:</b>	4 Nov. 1971	<b>Latitude:</b>	50°45'N
<b>ORC #:</b>	3029	<b>Longitude:</b>	120°34'W
<b>Map number:</b>	92 I/15		

<b>Total Area:</b>	235 ha	<b>Elevation:</b>	610-1,160 m
<b>Land:</b>	235 ha		

**Access:** Access by road from Tranquille.

**Biogeoclimatic Zones:** Ponderosa Pine (PP); Interior Douglas-Fir (IDF)  
**Biogeoclimatic Variants:** PPxh2 Thompson Very Dry Hot; IDFdk1 Thompson Dry Cool; IDFxh2 Thompson Very Dry Hot  
**Ecosection:** Thompson Basin; Tranquille Upland  
**Region:** Thompson  
**Management Area:** Kamloops

#### COMPOSITION

**Physical:** This reserve, located on the north side of the Thompson River valley, has two distinct landforms. Its northeastern half consists of steep, gullied slopes which drop away sharply from the Red Plateau to the north. These have much exposed bedrock, talus and colluvial material; soils, where developed, are Regosols. Below this escarpment are gently sloping fans of colluvial materials derived from glacial till on which Chernozemic soils have developed. Exposure is to the south and southwest. The climate is characterized by cold winters, hot summers and little precipitation.

**Biological:** The reserve is largely forested although tree cover is sparse in many areas due to aridity and/or lack of soil. Small areas of treeless grassland occur along its lower fringe, some of which have been modified by cultivation. Remaining natural grasslands are dominated by big sage, Sandberg's bluegrass and needle-and-thread grass. Most of the gently sloping part of the reserve is covered by a ponderosa pine-bluebunch wheatgrass community having a sparse shrub layer comprised mainly of rabbitbush and big sage. Above about the 760 m elevation, a Douglas-fir-ponderosa pine-bluebunch wheatgrass community is present. Here, bluebunch wheatgrass is still dominant in the herb layer but the clumps are smaller and more widely spaced.

Wildlife surveys have not been carried out, although two snakes (Western Rattlesnake and Gopher Snake) are known to occur, and the area provides important winter range for mule deer and bighorn sheep.

## MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Western Rattlesnake	Blue listed	Threatened (2004)	2
Gopher Snake, ssp. <i>deserticola</i>	Blue listed	Threatened (2002)	2
Bighorn Sheep	Blue listed		3
dotted smartweed	Blue listed		2
Hudson Bay sedge	Blue listed		3
awned cyperus	Blue listed		2
The Dalles milk-vetch	Red listed		2
trailing fleabane			4
western fairy-candelabra			4
slender plantain			2
grey horsebrush			4

## THREATS

<b>Climate Change:</b>	Possible changes in precipitation and temperature may alter both the forest and grassland communities. Projected drought and heat may favour the grassland ecosystems and encourage the northward and upward migration of the forest systems.
<b>Forest health:</b>	Suppression of fires on the grasslands has altered the natural disturbance regime.
<b>Non-native species:</b>	Invasive species have been introduced

<b>RESEARCH OPPORTUNITIES</b>	One master's thesis has been prepared on reserve vegetation.
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## SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE TRANQUILLE ER ACCOUNT

### Flora

bluegrass, Sandberg's (*Poa secunda* ssp. *sandbergii*)  
 cyperus, awned (*Cyperus squarrosus*)  
 Douglas-fir (*Pseudotsuga menziesii*)  
 fairy-candelabra, Western (*Androsace occidentalis*)  
 fleabane, trailing (*Erigeron flagellaris* var. *flagellaris*)  
 grass, needle-and-thread (*Hesperostipa comata*)  
 horsebrush, grey (*Tetradymia canescens*)  
 milk-vetch, The Dalles (*Astragalus sclerocaruis*)  
 pine, ponderosa (*Pinus ponderosa*)  
 plantain, slender (*Plantago elongata*)  
 rabbit-brush (*Chrysothamnus* sp.)  
 sagebrush, big (*Artemisia tridentata*)  
 sedge, Hudson Bay (*Carex heleonastes*)  
 smartweed, dotted (*Polygonum punctatum*)  
 wheatgrass, bluebunch (*Pseudoroegneria spicata*)

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**Fauna**

Deer, Mule (*Odocoileus hemionus*)

Rattlesnake, Western (*Crotalus oreganus*)

Sheep, Bighorn (*Ovis canadensis*)

Snake, Gopher (*Pituophis catenifer ssp. deserticola*)