

GRAYLING RIVER HOT SPRINGS

ER #147

ORIGINAL PURPOSE To protect a nationally significant hot springs site and related natural values.

OVERVIEW

Date established:	29 June 2000	Location:	67 km NE of Muncho Lake		
ORC #:	8312	Latitude:	59°41'N		
Map number:	94 N/63	Longitude:	127°25'W		
Total Area:	1,421 ha	Elevation:	800-1,000 m		
Land:	1,420 ha				
Lake:	1 ha				
Access:	There is no road access to this ecological reserve. Access by helicopter.				
Biogeoclimatic Zone:	Boreal White And Black Spruce (BWBS) Spruce Willow Birch (SBS)				
Biogeoclimatic Variant:	BWBSmw2 Fort Nelson Moist Warm; BWBSwk3 Kledo Wet Cool; SBSmk SBS Moist Cool				
Ecosection:	Hyland Plateau				
Region:	Peace				
Management Area:	Liard				

COMPOSITION

Physical:	Located on the Grayling River approximately 50 km upstream of its confluence with the Liard River. The ecological reserve represents the Hyland Plateau ecosection and contains a thermal and mineral spring complex of national significance. The ecological reserve is rated one of the best hot springs in Canada based on geological and ecological characteristics. The hot springs occur in a series of varying temperature along both sides of a small canyon on the Grayling River and on a flat area further downstream. An impressive tufa formation (calcium deposits precipitated from hot spring water) exists on one of the canyon sites, above which is an unusual cave occupied by bats. The lower hot springs discharge into a complicated series of channels and pools within the flood channels on both banks of the Grayling. A major feature is the tufa terrace and steep 20 metre high cliff at the edge of the river. The hot springs have the hottest temperatures in the Liard area. The karst topography is rarely found this far north.
Biological:	The terraces surrounding the hot springs are in early stages of deciduous succession following a very large fire in 1971, although small remnant stands of mature white spruce exist on north-facing slopes and on the gravel bars of the river. Thermally influenced gravel bars and river banks host one of the richest plant communities in the Liard area, including a

distinct and diverse array of warm water plant species. Local plant occurrences typically associated with hot springs include yellow monkey-flower, Philadelphia fleabane, Pennsylvania pellitory and the most northerly occurrence of western witchgrass. Two provincially rare, hot spring-associated plants are prairie wedgegrass and satin grass.

The physical diversity of hot spring and non-hot spring habitats found here gives rise to an unusually high number of vascular plant species.

The ecological reserve has a significant Little Brown Myotis nursery colony. It also has extensive moose and other ungulate habitat, grizzly bear habitat, and arctic grayling and bull trout are common in the local streams.

MANAGEMENT CONCERNS

SIGNIFICANT SPECIES	BC LIST STATUS	COSEWIC STATUS	CF PRIORITY
Grizzly Bear	Blue listed	Special Concern (2002)	2
Bull Trout	Blue listed		2
prairie wedgegrass	Red listed		1
satin grass	Red listed		1

THREATS

Climate Change:	Changes in hydrology may impact the hot springs and associated flora and fauna.
Development	Ecological values associated with the hot springs are vulnerable to development of adjacent land and potential overuse by visitors.
RESEARCH OPPORTUNITIES	The ecological reserve may serve as a good site for research on rare mineral spring associated vegetation and bat ecology.
ER WARDEN ACTIVITIES	<ul style="list-style-type: none"> • Monitor for any use to the ecological reserve

SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE GRAYLING HOT SPRINGS ER ACCOUNT

Flora

fleabane, Philadelphia (*Erigeron philadelphicus*)
 grass, satin (*Muhlenbergia racemosa*)
 monkey-flower, yellow (*Mimulus guttatus*)
 pellitory, Pennsylvania (*Parietaria pensylvanica*)
 spruce, white (*Picea glauca*)
 wedgegrass, prairie (*Sphenopholis obtusata*)
 witchgrass, western (*Dichanthelium acuminatum* var. *fasciculatum*)

Fauna

Bear, Grizzly (*Ursus arctos*)

Grayling, Arctic (*Thymallus arcticus*)

Moose (*Alces americanus*)

Myotis, Little Brown (*Myotis lucifugus*)

Trout, Bull (*Salvelinus confluentus*)