

## LILY PAD LAKE

ER #5

**ORIGINAL PURPOSE** To conserve an undisturbed highland lake with associated flora and fauna in the southern interior of B.C.

### OVERVIEW

<b>Date established:</b>	4 May 1971	<b>Location:</b>	NE of Nicklen Lake, 12.5 km S of Lumby
<b>ORC #:</b>	3005	<b>Latitude:</b>	50°08'N
<b>Map number:</b>	82 L/2	<b>Longitude:</b>	118°58'W

<b>Total Area:</b>	101 ha	<b>Elevation:</b>	1,370-1,400 m
<b>Land:</b>	88 ha		
<b>Lake:</b>	13 ha		

**Access:** Access via Aberdeen and Goat Mountain Lake logging roads from Lavington to Nicklen Lake.

**Biogeoclimatic Zones:** Interior Cedar Hemlock (ICH)  
**Biogeoclimatic Variant:** ICH mk1 Kootenay Moist Cool  
**Ecosection:** Northern Okanagan Highland  
**Region:** Okanagan  
**Management Area:** Central Okanagan

### COMPOSITION

**Physical:** The reserve features a small, shallow lake on a plateau in the Okanagan Highlands. The lake is an excellent example of a small, slightly acidic bog lake undergoing natural eutrophication. The plateau is characterized by low hills with gentle slopes, sited on a morainal blanket of boulder clay.

**Biological:** A young forest established after fire surrounds the lake although damming by beavers has resulted in tree kill at the margin of the lake. Lodgepole pine dominates (since the mountain pine beetle epidemic no staff have visited the ER), but smaller areas are also occupied by Engelmann spruce, trembling aspen and mountain and Sitka alder. Hybrid white spruce, subalpine fir, Douglas-fir, western larch and western redcedar are uncommon. The shrub and/or herb layers are dominated by one or a combination of the following species (dry to wet): pinegrass, arctic lupine, twinflower, bunchberry, black gooseberry, common horsetail. Plant species diversity is high.

The aquatic vegetation is dominated by waterlily, pondweeds, hornwort, and algae. Sedges are abundant along the shore. Bulbous water hemlock is found here outside its characteristic range.

In the open forest, Northern Flicker, Yellow-bellied Sapsucker, Calliope Hummingbird, Tree Swallow, and Red-breasted Nuthatch have been seen. Yellow-bellied Marmots, Northern Pocket Gophers, American Black Bears, Lynx, and Moose are found in the reserve.

The lake is home to Beaver, Muskrat, Common Loon, Western Toad, frog species, and salamander species. Spotted Sandpiper, American Dipper, and Eastern Kingbird nest at the edge of the lake.

**MANAGEMENT CONCERNS**

<b>SIGNIFICANT SPECIES</b>	<b>BC LIST STATUS</b>	<b>COSEWIC STATUS</b>	<b>CF PRIORITY</b>
bulbous water hemlock			4

**THREATS**

- Climate Change:** The projected warming temperatures in the interior regions could affect the natural eutrophication of this highland lake, resulting in changed levels of productivity and subsequent changes to the associated terrestrial flora and fauna.
- Agriculture:** Cattle grazing in boggy areas near the lake damage sensitive wetland ecosystem.
- Forest Health:** Mountain pine beetle infestation; adjacent lands outside the reserve have been logged for pine beetle control.
- Forestry:** Surrounding logging resulting in more roads and increased access to the reserve; clear-cut logging surrounding ER is resulting in habitat fragmentation in the matrix, effectively decreasing habitat size for species in the ER.

**RESEARCH OPPORTUNITIES**

Reports available on limnology, wildlife and vegetation, and management of surrounding pine beetle-infested forests. Opportunities exist for examining the impact of climate change on a bog system or exploring the effects of fragmentation in the matrix on the use of the ER by wildlife species.

## SCIENTIFIC NAMES OF SPECIES MENTIONED IN THE LILY PAD LAKE ER ACCOUNT

### Flora

alder, mountain (*Alnus incana* ssp. *tenuifolia*)  
alder, Sitka (*Alnus viridis* ssp. *sinuata*)  
aspen, trembling (*Populus tremuloides*)  
bunchberry (*Cornus canadensis*)  
hornwort (*Ceratophyllum* sp.)  
Douglas-fir (*Pseudotsuga menziesii*)  
fir, subalpine (*Abies lasiocarpa* var. *lasiocarpa*)  
gooseberry, black (*Ribes lacustre*)  
horsetail, common (*Equisetum arvense*)  
larch, western (*Larix occidentalis*)  
waterlily (*Nymphaea* sp.)  
lupine, arctic (*Lupinus arcticus*)  
pine, lodgepole (*Pinus contorta* var. *latifolia*)  
pinegrass (*Calamagrostis rubescens*)  
pondweed (*Potamogeton* spp.)  
redcedar, western (*Thuja plicata*)  
sedges (*Carex* spp.)  
spruce, Engelmann (*Picea engelmannii*)  
spruce, hybrid white (*Picea glauca* x *engelmannii*)  
twinlineflower (*Linnaea borealis*)  
water-hemlock, bulbous (*Cicuta bulbifera*)

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### Fauna

Bear, American Black (*Ursus americanus*)  
Beaver, American (*Castor canadensis*)  
Dipper, American (*Cinclus mexicanus*)  
Flicker, Northern (*Colaptes auratus*)  
Gopher, Northern Pocket (*Thomomys talpoides*)  
Hummingbird, Calliope (*Stellula calliope*)  
Kingbird, Eastern (*Tyrannus tyrannus*)  
Loon, Common (*Gavia immer*)  
Lynx (*Lynx canadensis*)  
Marmot, Yellow-bellied (*Marmota flaviventris*)  
Moose (*Alces americanus*)  
Muskrat, Common (*Ondatra zibethicus*)  
Nuthatch, Red-breasted (*Sitta canadensis*)  
Sandpiper, Spotted (*Actitis macularius*)  
Sapsucker, Yellow-bellied (*Sphyrapicus varius*)  
Swallow, Tree (*Tachycineta bicolor*)  
Toad, Western (*Bufo boreas*)