

PROPOSAL FOR ECOLOGICAL RESERVE

October 2002

Name: Springer Lake - Peterson Creek Ecological Reserve

Ecological Reserves Advisory Committee Recommendation: Designate the area shown on the attached map (comprised of all of Section 16; the SW, SE and NE quarters of Section 21; all of Section 22; the SW and SE quarters of Section 27 and the SE quarter of Section 28 in Township 18, Range 15E) as the Springer Lake - Peterson Creek Ecological Reserve.

LOCATION

Location: The proposed ecological reserve is located at approximately 50° 32' N latitude and 95° 28' W longitude (NTS Map Sheet 52 L/11 Flintstone Lake). It is situated alongside P.R. 314 approximately 12 km north-northwest of the junction with P.R. 315. The site consists of the western basin of Springer Lake and a large segment of Peterson Creek, which flows southwest from Springer Lake to the Bird River. Most of the area falls within Nopiming Provincial Park.

Total Area: The size of the proposed ecological reserve is about 900 ha.

Access: A road from P. R. 314 to a canoe launch on the west bay of Springer Lake provides access to the area. Portions of Peterson Creek are visible from P. R. 314 and P. R. 315, but the creek is probably not easily navigable by canoe.

Jurisdiction/Administration: Most of the proposed ecological reserve falls within Nopiming Provincial Park, but the western edge is on Crown land outside the park.

STATUS SUMMARY

Outstanding Features: Springer Lake supports several species of wildlife considered rare, uncommon or highly localized in Manitoba. These include one of the few populations of Green Frog (*Rana clamitans*) and of Mink Frog (*Rana septentrionalis*) known in Manitoba, plus a population of Water Shrew (*Sorex palustris*). The Green Frog was rediscovered in 1989 and was still present in 2002. Before 1989, the Green Frog in Manitoba was only known from two specimens collected in 1936 and 1952. Mink Frogs are more widespread than Green Frogs in Manitoba, but both species are known only from Whiteshell and Nopiming provincial parks. Water Shrews, though relatively widespread in mixedwood and boreal forest, are highly localized to certain creeks and ponds such as Peterson Creek. The rare Woodland Jumping Mouse (*Napaeozapus insignis*) and the uncommon Star-nosed Mole (*Condylura cristata*) may also occur here at the western edge of their range in Canada.

In addition to the presence of noteworthy species noted above, Dr. Peter Taylor has conducted breeding bird surveys between 1989 and 1998. This long term record makes it one of the best documented areas with ongoing baseline biodiversity data suitable for future research and monitoring.

Site Description: Springer Lake is situated at the southern edge of a large burn that occurred in the late 1980s. The area is currently in the early stages of Jack Pine (*Pinus banksiana*) regeneration.

Habitats and Vegetation: The area contains lake, river, wetland and forest communities typical of the Precambrian shield and Boreal Coniferous Forest biome.

Wildlife: Springer Lake contains populations of species that are considered rare or highly localized in Manitoba. One of these is the Green Frog. Until 1989, the status of the Green Frog in Manitoba was uncertain, with just two specimens recorded, one in 1936 and another in 1952. The Springer Lake - Peterson Creek population was discovered by Dr. Peter Taylor in 1989, although numbers were very low with no more than four calling individuals heard in the west bay of Springer Lake. Dr. Taylor reported that Green Frogs were still present there in 2002, indicating that a viable population has become established. The Green Frog has also been heard calling from three other localities in Nopiming Provincial Park (near Beresford Lake in the northeast corner of the park, near Davidson Lake in the southeast corner of the park, and, in 2002, near P.R. 314 at the Rabbit River about 15 km north of Springer Lake).

Springer Lake and Peterson Creek contain a significant population of Mink Frogs. The Mink Frog chorus was exceptionally strong in the first half of July 2002, possibly as a result of high water conditions after heavy rains in June. This rare species is also largely restricted to Whiteshell and Nopiming provincial parks.

The area also supports populations of Water Shrew, and, possibly, Woodland Jumping Mouse and Star-nosed Mole -- both localized species at the western periphery of their range.

Analysis of Peter Taylor's Breeding Bird survey data taken around dawn in mid-June between 1989 and 1998 and during his other observations in the area yielded a list of 58 species of birds in the proposed ecological reserve (see attached Appendix). To this list could be added less conspicuous songbirds, along with owls, diurnal raptors, woodpeckers and other species that are not especially easy to detect around dawn.

Mammals seen or heard in the area include Moose (*Alces alces*), Lynx (*Lynx lynx*), and Gray Wolf (*Canis lupus*). Reptiles present include Western Painted Turtle (*Chrysemis picta*) and Common Snapping Turtle (*Chelydra serpentina*).

Fisheries data for Springer Lake identified the presence of the following fish species. White Sucker (*Catostomus commersoni*) is considered abundant, and Northern Pike (*Esox lucius*) and Walleye (*Stizostedion vitreum*) are common. Yellow Perch (*Perca flavescens*) are considered rare. Burbot (*Lota lota*), Blacknose Shiner (*Notropis heterolepis*), Golden Shiner, (*Notemigonus crysoleucas*) and Johnny Darter (*Etheostoma nigrum*) have been reported, but their population status is unknown.

Degree of Disturbance: Much of the forest surrounding Springer Lake, and farther north, was burned in the late 1980s. Some of the forest to the south has been logged recently. Peterson Creek is crossed once by both P.R. 314 and P.R. 315, and significant stretches of the creek are parallel to, and visible from, these roads. Flow does not appear to have been impeded by road construction.

There is no cottage development on or near either the lake or creek. Recreational use of Springer Lake is minimal. Two drainage ditches cross the southern portion of the proposed ecological reserve.

Existing Land Use Activities/Encumbrances: Springer Lake lies wholly, and Peterson Creek partly, within Nopiming Provincial Park. The entire area falls within the Tembec/Pine Falls Forest Management Licence Area, in an area zoned open for forest harvest.

Since the mid 1990s, the Department of National Defense (DND) has had a lease to an area on the southeast shore of Springer Lake. Accordingly, the southern section of the lake has been excluded

from the proposed ecological reserve. Otherwise, the entire lake would have been recommended for inclusion in this ecological reserve proposal. The DND site consists of a bunkhouse and several associated buildings. They are used as a base to carry out survival and search and rescue training exercises here and elsewhere in the region and in the park.

Sagkeeng First Nation holds a Wild Rice Licence on Springer Lake. No recent data are available on the extent of the wild rice harvest, and little activity has been observed during the wild rice harvest period. The extent of use of the area for other traditional activities is unknown.

The proposed ecological reserve falls within part of two Registered Trap Lines. Some outfitters carry out bear hunts in the general area, and individuals hunting for moose have been observed.

Protective Status: Although the site is largely located in Nopiming Provincial Park, this portion of the park does not qualify as a protected area closed to logging, mining or hydro-electric development.

PRINCIPAL SOURCES

Selected References:

Preston, W.B. 1982. The amphibians and reptiles of Manitoba. Manitoba Museum of Man and Nature.

Taylor, P. 1990. Notes on the Green Frog and the Mink Frog in Manitoba. Blue Jay 48(1): 5-6.

Field Work: The Green Frog population was first discovered at the site in 1989, and subsequent visits have shown that the population has persisted to date, along with a population of Mink Frogs. The status of these two species of frog elsewhere in the Peterson Creek drainage (including Lapin Lake and several small, unnamed lakes) should be evaluated.

Peter Taylor has conducted breeding bird surveys of the area since 1989. The Springer Lake Breeding Bird Survey route follows P.R. 314 past the lake, and the Bird River Breeding Bird Survey route includes portions of Peterson Creek adjoining P.R. 315. Five survey observation points fall within or beside the proposed ecological reserve.

In the early 1980s, Dr. Robert Wrigley assisted a scientist from the American Museum of Natural History to collect Water Shrews from the proposed ecological reserve for sonar and behavioural studies. In 2001, Kevin Campbell of the University of Manitoba also collected Water Shrews from the area for metabolic and behavioural studies. The proposed ecological reserve provides optimal habitat for this localized species.

Nomination Proposal: Peter Taylor, P.O. Box 597, Pinawa, Manitoba R0E 1L0.

Initial Draft: Peter Taylor and David R. M. Hatch, August 2001

Revised and Updated: Peter Taylor, David R. M. Hatch, Bob Wrigley and Helios Hernandez, January-October 2002

RECOMMENDATIONS

Establish as an ecological reserve because:

- In Manitoba, both Mink Frog and Green Frog are restricted to the extreme southeastern region of the province. Springer Lake and Peterson Creek together contain substantial and some of the best documented populations of these two species.
- The area is also a sanctuary for a number of other localized, semi-aquatic animals such as the Water Shrew.
- The area has a diverse community of breeding birds and other species that have been actively monitored since 1989, making it very valuable as a benchmark ecological monitoring site.

APPENDIX - PRELIMINARY BIRD CHECKLIST FOR SPRINGER LAKE

Data Obtained by Dr. Peter Taylor

Between 1989 and 1998, Breeding Bird Surveys (BBS) were conducted in the eastern Nopiming Park area along Provincial Road 314. The normal BBS protocol was followed. Counts of birds seen and heard were made during three-minute stops at sites 800 m apart (by odometer). Surveys were run mainly in mid-June, and these particular stops were made around 5:00 a.m.

Five of the stop sites fell within or very near the proposed reserve. The coordinates of the five BBS point count sites are as follows (those for #7 were not measured, and are interpolated from 6 and 8):

4: 50.525 N, 95.468 W

5: 50.532 N, 95.467 W

6: 50.538 N, 95.469 W

7: 50.545 N, 95.465 W

8: 50.552 N, 95.461 W

The following list of 58 species consists mainly of birds recorded at the five stops on 10 consecutive runs of the BBS that included the Springer Lake area. A few additional water and marsh birds, observed during frog surveys or prolonged stops at the shore of Springer Lake are included, as well as nocturnal birds (Common Nighthawk and Whip-poor-will) regularly observed in or near the area at other times.

Doubtless, the list could be expanded to include some less-conspicuous songbirds, such as Brown Creeper and Boreal Chickadee, as well as owls, diurnal raptors, woodpeckers and other species that are not especially easy to detect around dawn.

Mammals seen or heard in the area include Moose, Lynx and Grey Wolf. Reptiles include Painted Turtle, and Snapping Turtles are most likely present.

Bird species marked * in the following list are particularly common in the area.

Common Loon

Pied-billed Grebe

Mallard

Ring-necked Duck

Common Goldeneye

Ruffed Grouse

Virginia Rail

Sora

Common Snipe

Black-billed Cuckoo

Common Nighthawk

Whip-poor-will

Ruby-throated Hummingbird

Pileated Woodpecker

Olive-sided Flycatcher

Yellow-bellied Flycatcher

*Alder Flycatcher

Least Flycatcher

Eastern Kingbird
 Blue-headed Vireo
 *Red-eyed Vireo
 Gray Jay
 Common Raven
 Tree Swallow
 Black-capped Chickadee
 Red-breasted Nuthatch
 *Winter Wren
 Sedge Wren
 Golden-crowned Kinglet
 Ruby-crowned Kinglet
 *Swainson's Thrush
 *Hermit Thrush
 American Robin
 Tennessee Warbler
 *Nashville Warbler
 Chestnut-sided Warbler
 Magnolia Warbler
 Yellow-rumped Warbler
 Palm Warbler
 Black-and-white Warbler
 Ovenbird
 Connecticut Warbler
 *Mourning Warbler
 *Common Yellowthroat
 Wilson's Warbler
 *Chipping Sparrow
 Vesper Sparrow
 *Song Sparrow
 Lincoln's Sparrow
 *Swamp Sparrow
 *White-throated Sparrow
 Dark-eyed Junco
 Rose-breasted Grosbeak
 Red-winged Blackbird
 Common Grackle
 Purple Finch
 American Goldfinch
 Evening Grosbeak

Springer Lake & Peterson Creek

Proposed Ecological Reserve

Legend

-  Proposed Ecological Reserve
-  Township Quarter Sections
-  Nopiming Provincial Park



