



PARRY SOUND AREA LAKE SUMMARIES



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Sollman Lake

aka. Horn

Created: November 03

Revised:

Location:

MNR District:..... Parry Sound
Geographic Township: Chapman & Ryerson
Municipal Township: Magnetawan & Ryerson
Watershed:
Angling Division: 15

Basin and Terrain Characteristics:

Lake Survey Year: 1970
Surface Area:..... 471.8 hectares
Maximum Depth: 34.7 meters
Mean Depth: 11.3 meters
Perimeter: 22.9 km
Island shoreline: 4.1 km
Littoral Zone: 37%
Thermal Regime: Cold
Shoreline Development: 120 Cottages, 2 Resorts
Access Points: Road (Public)
Water Level:
Crown Land: 25% Shoreline

Water Quality:

(Parameters pertain to fisheries habitat only. For information on potability of water or contaminants, contact Min. of Health and Min. of Environment.)

Secchi reading: 6.9 meters: 7 meters (1998)
Colour: Colourless

Dissolved Oxygen:**Alkalinity:** 3.0 - Level 2 extremely Sensitive (MoE,1989)**pH:** 6.2 (1989)**Total Phosphorus:** 6 ug/l (1998)**M.E.I.:** 1.7**“Guide to eating fish”:** No Information**Fisheries:****Game Fish Species:** Rainbow Trout, Lake Trout (2001), Smallmouth Bass (2001), Yellow Perch (1998), Walleye (2001)**Other species present:** Lake Whitefish (2001), Creek Chub, Rainbow Smelt (2003), Brown Bullhead (2001), Burbot (2001), White Sucker (2001), Rock Bass (2001)**Exotic Species:****Stocking Record:** 2000 Lake Trout 500 16 month LP clip (Research Planting)

1976 Lake Trout 5,000 15 month RP clip

1975 Speckled Trout 1,000 yearling

1974 Lake Trout 10,000 yearling

1972 Lake Trout 17,600 yearling

1971 Lake Trout 10,000 yearling

1970 Lake Trout 8,000 yearling

1969 Rainbow Trout 3,750 yearling

1966 Rainbow Trout 2 year 2,000

1965 Lake Trout 1,000 yearling

1965 Speckled Trout 1,200 yearling

1963 Speckled Trout 4,000 yearling

1963 Lake Trout 2,000 yearling

1961 Speckled Trout 1,500 yearling

1961 Lake Trout 1,000 yearling

1959 Speckled Trout 1,500 yearling

1959 Lake Trout 1,000 yearling

1957 Lake Trout 1,000 fingerling

1957 Speckled Trout 3,000 yearling

1956 Lake Trout 1,000 yearling

1955 Speckled Trout 3,000 yearling

1953 Lake Trout 2,000 (?)

1953 Speckled Trout 1,200 yearling

1952 Speckled Trout 1,000 yearling

1951 Speckled Trout 1,500 yearling

1951 Lake Trout 2,400 yearling

1950 Lake Trout 2,000 (?)

1950 Speckled Trout 2,100 yearling

1949 Lake Trout 2,000 fingerling

1949 Speckled Trout 1,500 yearling

1947 Speckled Trout 2,400 yearling

1946 Speckled Trout 1,200 yearling

1946 Speckled Trout 4,800 yearling

1945 Speckled Trout 1,400 yearling

Stress Type:

Use Type: Recreation, Recreational Fishing, Tourism Based Industry

Summary of Fisheries Studies / Reports:

McIntyre, E. 2001 **Lake Trout Egg Collection Project** Fall, 2001

- The single lake trout captured had a total length of 59 cm.
- The single walleye also reported captured had a total length of 59 cm.
- Netting results were poor in 2001 and 2000, relative to the inaugural year of the project. In 1999, 21 lake trout were captured but only two in 2000 and one in 2001

McIntyre, E. 2001 **Lake Trout Egg Collection Report**, Fall 2000

- Only 2 lake trout were captured at the Birch Crest site and no lake trout were captured at the Twin Island site. Both fish were males and were released. No lake trout eggs were collected.
- The catch of lake trout at the Birch Crest site was much reduced from the previous year when 21 lake trout were captured. Likewise, 155 lake whitefish and 61 common white suckers were captured in 1999, but only 11 and 71 respectively in 2000. Fishing effort was slightly greater in 1999 with a total of 8 nights of netting effort versus 6 netting nights in 2000.
- We are unable to speculate on the cause of the poor catch results in 2000 especially lake trout. However, these results do lend additional credibility to speculation expressed in the previous year's report that lake trout are not spawning at the Birch Crest site.
- The catch of brown bullhead was up considerably: 23 in 2000 versus only 1 in 1999.
- Seven walleye were caught in '99, none in 2000.
- Concurrent with the netting project being conducted by Mr. Stewart, Ministry of Natural Resources staff conducted spawning site evaluation at all locations reported lake trout spawning sites (Blythe, 1989). Sites were visually inspected for lake trout eggs deposited on these sites using a remote viewing underwater camera. Not a single lake trout egg was observed at any of the sites.
- Spawning locations for lake trout in Sollman Lake remains unknown at this time.

McIntyre, E. 2000 **Lake Trout Egg Incubation Study**, Fall 1999 to Spring 2000

- The lake trout catch from a total of nine net nights of fishing effort was a meager 21 fish or 2.3 lake trout per net night. Other species caught included: 155 common white suckers, 61 lake whitefish, 7 walleye, 2 rock bass and 1 brown bullhead.
- The low catch rate of lake trout (2.3 per net night) suggests either a very small spawning population or that our trapnet was not in the vicinity of where lake trout actually spawn.
- Thirteen (13) male lake trout were biosampled having a mean total length of 65.3 cm and mean weight of 2815 grams. Only two (2) female lake trout were sampled both of very similar size with mean total length of 66.9 cm and each weighing 2600 grams.
- The capture of 7 walleye is the first evidence that walleye are present in this lake.
- It is unknown if these are native fish from a natural range expansion (possibly via Sterling and Sollman Creek), or are these remnants of an unauthorized introduction by a member of

the public within the past decade or so.

- Despite a fair number of lake whitefish captured (6.8 per net night), as of October 29th we saw no evidence – in the form of egg deposition, that lake whitefish were using this area for spawning. From 38 lake whitefish sampled, mean size was 45.2 cm. total length.
- Approximately 2600 artificially fertilized lake trout eggs were loaded into three separate *Scotty-Jordan* incubators on October 24, 1999. All eggs were obtained from a single gravid female and fertilized with milt from several males. Dave Stewart reports hatching success rates of 79%, 69% and 64% for each of the incubators.
- We conclude that water quality conditions on Sollman Lake are satisfactory for successful lake trout egg incubation and that *Scotty-Jordan* egg incubators can effectively be used to incubate lake trout eggs and enhance hatching rates by eliminating mortality associated with egg predators.
- Intensive underwater (SCUBA) observation of lake trout spawning shoals was conducted along the shoreline of Birch Crest Resort on October 29, 1999. Spawning shoals that had been enhanced with rock deposition in 1998 were found to be heavily silted with absolutely no indication of any cleaning related to lake trout pre-spawning, milling-about activities
- We conclude that lake trout did not spawn in any of the area searched.

McIntyre, E. 1998 **Spring littoral index netting** report for Sollman (Horn) Lake, 1998 Chapman Twp.

- 9 lake trout caught for a CUE of 0.3 (very poor; low lake trout abundance)
- large bodied lake trout - mean total length 55.4 cm. mean wt. 1.8 kg. (N = 9)
- poor levels of recruitment and reproduction - but all lake trout sampled were ‘naturals’
- harvest controls are needed to allow the spawning population to rebuild and establish the Lake Trout as the dominant predator

McIntyre, E. 1997 Results of a **non-intensive roving creel survey** conducted on Sollman Lake during the summer of 1996.

- Nine sample days only; only 34.25 angler hours sampled.
- Low fishing pressure: 1.7 boats per mid-day activity count.
- Smallmouth bass E.U.C. and E.U.H. were 4.9 and 5.7 hours respectively
- No lake trout were caught

Janoki, K. 1993. Sollman Lake creel census, winter 1992 - 1993.

- Volunteer Creel format
- ‘reported’ fishing effort: 1,111 angler hours.
- 49% of effort targeted lake trout; 35% whitefish and 16% ling.
- 22 lake trout and 37 whitefish observed
- Lake trout mean total length: 46.7 cm.
- Observed lake trout catch & harvest: 82 and 48 respectively
- Observed whitefish catch & harvest: 49 and 46 respectively
- Observed ling catch & harvest: 91 and 89 respectively
- Lake trout EUC and EUH: 12.0 and 20.5 hours respectively
- Whitefish EUC and EUH: 13.5 and 14.4 hours respectively

<p>Deary Env. Consultants, 1990 Summary report for lake trout (<i>Salvelinus namaycush</i>) assessment of thirteen lakes in parry Sound District. Parry Sound District fisheries report. 26 p.</p> <ul style="list-style-type: none"> • Lake trout CUE - 0.67 lake trout per net night (4 caught in 6 sets); lower to mid range of 13 lakes surveyed. • All lake trout natural. • Large cisco and moderate whitefish populations - 189 and 46 respectively caught in 6 gill net sets. • Dissolved oxygen levels – excellent
<p>Blythe, C. 1989 Raw data relating to lake trout spawning assessment project conducted during the fall of 1989.</p> <ul style="list-style-type: none"> • Fine gill nets set on potential spawning areas during the night - Oct. 17 - 19; short term - 1 hr. sets. • Set No. 1 - (Birch Crest Resort): 11 lake trout caught; all males; 1 RP clip • Set No. 2 - (North Shore Access): 0 lake trout; 4 cisco • Set No. 3 - (Birch Crest Resort): 3 lake trout; 1 natural female; 2 RP males • Set No. 4 - (Pine Island): 2 lake trout; 1 female natural; 1 male natural • Set No. 5 - (Duck Island): 0 lake trout • Set No. 6 - (Birch Crest Resort): 0 lake trout • Set No. 7 - (Pine Island): 0 lake trout
<p>Brown, N. 1985 Winter creel census (1985) Horn Lake, Chapman Township</p> <ul style="list-style-type: none"> • voluntary creel submitted by fishermen from 13 ice huts • 1665 angler hrs. fishing effort • 129 lake whitefish harvested (88 kg); EUH of 12.9 anglers hrs/whitefish , EUC 8.5 • 12 lake trout caught & 5 kept; EUC - 138.7; EUH - 333 hrs.
<p>Robson, K. 1981 Historical information on lake trout lakes in the Parry Sound District.</p> <ul style="list-style-type: none"> • Historical, anecdotal record indicating a native lake trout population for Sollman Lake.
<p>Thurston, L. 1977. Summary of two years (1975-77) of lake trout assessment work, Parry Sound District.</p> <ul style="list-style-type: none"> • Summer gill net survey: CUE of 0.5 LT/set; (6 caught - 5 naturals)
<p>Thurston, L. 1976. Assessment of lake trout plantings, Parry Sound District</p> <ul style="list-style-type: none"> • Summer gill net survey: CUE of 0.83 LT/set (10 caught; 6 naturals)
<p>Thurston, L.D.W. 1975 Summer and winter creel census on selected lake trout lakes in the Parry Sound District 1974-75.</p> <ul style="list-style-type: none"> • Winter 1975 - checked 3 days

- 39 angler hours of effort surveyed
- caught 4 lake whitefish & 1 lake trout (presence or absence of fin clip not indicated)

Management Prescription:

- Lake trout catch and possession limit of two (2), zero (0) between 40 - 55 cm (15.7 - 21. 6 in.), Conservation license limit of one (1), zero (0) between 40 - 55 cm (15.7 - 21. 6 in.).
- Lake trout open from May 19 (3rd Sat.) - Sept. 30.