

Natural. Valued. Protected.

Lake Fact Sheet – Parry Sound District Star Lake

Location:

MNR District: Parry Sound
Geographic Township: Christie
Municipal Township: Seguin
Watershed: Seguin River
Fisheries Mgmt Zone: 15

Basin and Terrain Characteristics:

Lake Survey Year: 1972
Surface Area: 158 hectares
Maximum Depth: 22.6 meters
Mean Depth: 9.3 meters
Perimeter: 10.0 km
Island shoreline: 0.5 km
Littoral Zone: 42%
Shoreline Development: 71 Cottages, 1 Resort (note: 1971 data)
Access Points: Road (Public)
Water Level: Not Regulated (i.e. no dams)
Crown Land: 0% Shoreline

Water Quality:

Secchi reading: 3.4 meters; 5.3 meters (1998)
Colour: Yellow/Brown
Alkalinity: 13.7 – Level 3 Moderately Sensitive (MOE, 1989)
pH: 6.5
Total Phosphorus: 11 ug/l (1998)

“Guide to eating fish”: No information is available for this lake. However, fish in watersheds along the Eastern shore of Georgian Bay typically have mercury contamination from natural, background sources. A precautionary approach should be taken with respect to consumption. We suggest using consumption guidelines for nearby Isabella Lake as a surrogate for Star Lake. The “Guide to Eating Ontario Sport Fish” is available at all Service Ontario offices and on the internet at www.ene.gov.on.ca

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Fisheries:

Game Fish Species: Smallmouth Bass, Lake Trout, Largemouth Bass, Yellow Perch, Lake Whitefish, Northern Pike (introduced)

Other species present: Cisco, Rainbow Smelt, White Sucker, Spottail Shiner, Bluntnose Minnow, Brown Bullhead, Mottled Sculpin

Introduced Species: Lake Trout population maintained by stocking. Northern Pike are not recorded in the 1986 lake survey. The first documented appearance of this species is in the 2002 winter creel survey.

Stocking Record: 2005 Lake Trout 1,000 yearling LP clip
2003 Lake Trout 2000 yearling Ad clip
2001 Lake Trout 2,000 yearling RP clip
1999 Lake Trout 2,000 yearling LV clip
1995 Lake Trout 2,000 yearling LP clip
1993 Lake Trout 1,700 yearling AD clip
1989 Lake Trout 2,000 yearling LV clip
1987 Lake Trout 2,550 yearling RV clip
1986 Lake Trout 1,500 yearling RP clip
1984 Rainbow Trout 1,500 yearling
1982 Rainbow Trout 1,000 15 month
1982 Lake Trout 1,500 yearling
1981 Lake Trout 1,188 yearling
1981 Rainbow Trout 17 month
1980 Rainbow Trout 1,500 15 month
1977 Lake Trout 1,000 yearling
1975 Lake Trout 1,500 2 year
1974 Lake Trout 700 2 year
1965 Lake Trout 1,000 yearling
1963 Smallmouth Bass 1,000 fingerling
1963 Lake Trout 1,500 yearling
1961 Lake Trout 1,000 yearling
1957 Lake Trout 1,000 fingerling
1955 Lake Trout 1,000 3 months
1955 Smallmouth Bass 200 fingerling
1953 Lake Trout 2,000 (fingerling?)
1953 Smallmouth Bass 400 fingerling
1952 Smallmouth Bass 300 fingerling
1951 Lake Trout 1,000 fingerling
1951 Smallmouth Bass 5,000 fry
1950 Lake Trout 1,000 fingerling
1950 Smallmouth Bass 400 fingerling
1949 Lake Trout 2,000 fingerling
1947 Smallmouth Bass (?)

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Summary of Fisheries Studies / Reports:

McIntyre, E. 2003 Star Lake 2002 **Winter Creel Survey Report**

- An intensive, roving creel census was conducted on Star Lake from January 16 to March 31, 2002. We estimate a total effort of 1,448 angling hours, a total catch of 64 lake trout and harvest of 41.
- Fishing quality for lake trout was exceptionally poor with 22.6 angler hours of effort required to catch a fish (EUC) and 35.3 angler hours required to harvest one (EUH).
- Fishing intensity was very high with an estimated 9.2 angler hours of fishing effort per hectare.
- Relative to historic creel data for Star Lake, it appears there may be a trend of decreasing angling quality (EUC) in the winter fishery since 1978. Within this time frame there has been a 13-year period (1988 – 2001) for which no data is available making any trend analysis very dubious.
- Since 1978, the catch of lake trout in Star Lake as reported in winter creel survey data has been primarily comprised of planted fish. Of 200 lake trout sampled, 189 (95%) were planted fish. There is little or no evidence of natural reproduction by lake trout in Star Lake.
- With wide assumption liberties, we estimate the current annual harvest of planted lake trout is in the order of 50 – 100 fish per year. This translates into a harvest rate of stocked fish of approximately 5 – 10%. We consider this a satisfactory harvest rate for the purpose of providing artificial, lake trout angling opportunities.
- Presence of northern pike documented for first time.

Deary Env. Consultants, 1990 Summary report for **lake trout** (*Salvelinus namaycush*) **assessment** of thirteen lakes in the Parry Sound District.

- 5 over-night gill net sets (mid - summer)
- Standard lake survey gill nets used (50' panels of 1½, 2, 2½, 3, 3½, 4 and 4½" nylon mesh)
- Caught: 8 lake whitefish, 4 rainbow smelt, 10 common white suckers, 1 smallmouth bass, 7 lake trout; 2 of 7 were naturals (28%)
- Mean total length: 55.2 ± 14.7 cm. (P > 0.05); range: 23.4 - 71.2 cm
- Mean round wt.: 1.94 kg.; range: 0.1 - 3.6 kg.

Black, R. 1986 1986 **gillnet survey** on Star Lake (Christie Township).

- 4 over-night, gill net sets using 'Standard Lake Survey gill nets'; Aug. 12 - 15, 1986.
- Caught: 9 lake trout, 16 lake whitefish, 7 lake herring, 1 rainbow trout, 15 white sucker, 45 rainbow smelt, 2 smallmouth bass, 1 rock bass
- All captured lake trout were fin clipped

Robson, K. 1981. **Historical information on lake trout lakes** in the Parry Sound District.

- Anecdotal record indicating Star Lake was a native, lake trout lake.

Baldwin, R.W. 1980. **Intensive winter creel census** on six lake trout lakes in the Parry Sound District (1979).

- Checked on 22 occasions during the winter of 1979.

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- 83 angler hours of fishing effort observed; estimated total effort: 770 angler hours
- 11 lake trout caught (CUE 0.133 lake trout / angler hr.)
- Average size: 36.8 cm (doesn't indicate if total or fork length); average wt. 0.78 kg.
- 11 lake trout 'observed'; 1 natural and 10 planted.
- Estimated total lake trout harvest: 102 fish; 72.2 kg.

Thurston, L.D.W. 1975 **Summer and winter creel census** on selected lake trout lakes in the Parry Sound District 1974 - 75.

- Summer 1974: checked on 11 occasions: effort surveyed: 63 angler hrs; caught 15 smallmouth, 2 largemouth and 7 yellow perch (no lake trout)
- Winter 1975: checked on 8 occasions: effort surveyed: 13.5 angler hrs.; caught 8 yellow perch (no lake trout)

MNR, 1978. Summarized **creel data** for winter of 1978 on lake file.

- Checked on 12 occasions
- Effort surveyed: 90 angler hours
- Catch: 27 lake trout (21 lake trout observed - all but 1 planted)

MNR, 1978. Note to File: **Personal angling diary** for Star Lake

- Angled 60 days on Star Lake during the winter of 1978.
- Angling effort: 303 angler hours
- Caught 61 lake trout; all but 1 were planted (clipped) fish

MNR, 1975 - 1987. Un-summarized raw **creel data** on file.

- 90 lake trout 'reported' of which 9 (10%) were natural

Management Prescription:

- Manage as a natural self-sustaining large and smallmouth bass fishery.
- Maintain artificial cold-water fishing opportunities through bi-annual plantings of lake trout.
- Regulation exceptions:
 - Lake trout season open all year except Dec. 24th

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Refer to Lake Fact Sheet Interpretation document for explanation of content.

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