



PARRY SOUND AREA LAKE SUMMARIES



Brought to you compliments of:

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Rankin Lake

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Revised:

Location:

MNR District:..... Parry Sound
Geographic Township: Foley
Municipal Township: Sequin
Watershed: Boyne River
Angling Division: 15

Basin and Terrain Characteristics:

Lake Survey Year: 1972
Surface Area:..... 140.3 hectares
Maximum Depth: 20.1 meters
Mean Depth: 7.8 meters
Perimeter: 12.1 km
Island shoreline: 0.6 km
Littoral Zone: 48%
Thermal Regime: Cold
Shoreline Development: 66 Cottages, 1 Resort
Access Points: Road (Public)
Water Level: Not Regulated
Crown Land: 0% 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: 5.0 meters; 5.6 meters (1998)
Colour: Yellow/Brown

Dissolved Oxygen: Good, but shows hypolimnetic sag (MoE, 1975)
Alkalinity: 20.5 – Level 3 Moderately Sensitive (MoE, 1989)
pH: 7.3
Total Phosphorus: 10-25 ug/l (1967); 7.8 ug/l (MoE,1989); 6.0 ug/l (1998)
M.E.I.: 4.6

“Guide to eating fish”: No Information

Fisheries:

Game Fish Species: Lake Trout (1978), Smallmouth Bass (2000), Splake (1985), Rainbow Trout (1999), Yellow Perch (1978), Northern Pike (2000), Largemouth Bass (2000)

Other species present: Pumpkinseed (2000), Rainbow Smelt (1978), Cisco (1978), Brown Bullhead, Bluntnose Minnow, Rock Bass (2000), White Sucker (2000), Darter sp. (1978)

Exotic Species:

Stocking Record: 1999 Rainbow Trout 2,000 8 – 10 inches
1985 F1 Splake 1,500 yearling
1984 F1 Splake 1,200 yearling
1983 F1 Splake 600 yearling
1966 Lake Trout 3,000 yearling
1964 Smallmouth Bass 2,000 fingerling
1964 Lake Trout 1,000 yearling
1962 Lake Trout 1,000 yearling
1961 Lake Trout 1,000 yearling
1960 Lake Trout 1,000 11 months
1958 Lake Trout 1,000 3 months
1957 Smallmouth Bass 300 fingerling
1956 Lake Trout 1,000 yearling
1955 Smallmouth Bass 200 fingerling
1954 Lake Trout 1,000 yearling
1951 Smallmouth Bass 300 fry
1950 Smallmouth Bass 400 fingerling
1946 Smallmouth Bass 500 fingerling
1945 (Smallmouth?) Bass 10,000 fry
1945 Lake Trout 15,000 fingerling
1944 (Smallmouth Bass?) 500 fingerling
1944 Smallmouth Bass 5,000 fry
1944 Lake Trout 15,000 fingerling
1942 Smallmouth Bass 5,000 fry
1942 Smallmouth Bass 1,500 fingerling
1942 Lake Trout 5,000 (?)
194(?) Smallmouth Bass 5,000 fry
1941 Lake Trout 10,000 fry
1940 Lake Trout 5,000 (?)
1939 Smallmouth Bass 10,000 fry
1938 Smallmouth Bass 500 fingerling
1937 Smallmouth Bass 10,000 fry

Stress Type:

Summary of Fisheries Studies / Reports:

McIntyre, E. 2001. Rankin Lake **synoptic trapnet survey** report, Summer 2000.

- A synoptic trapnet survey consisting of 12 overnight sets using eight-foot trapnets was conducted on Rankin Lake from July 24 – 28, 2000. The purpose of the study was two fold: 1) to evaluate the status of the resident smallmouth bass population and 2) to assess the survival of rainbow trout planted in the spring of 1999 to create artificial fishing opportunities.
- A total of 126.8 kilograms of fish were caught, for a Catch (wt.)-Per-Unit-Effort (C.U.E.) of 10.57 kg. per net set. This index of fish productivity is well below the average of 16.19 kg/net set from 15 other synoptic trapnet surveys recently conducted in the Parry Sound Area. Smallmouth bass comprised 82% of the total catch weight followed by northern pike at 10%. Largemouth bass, rock bass, pumpkinseed and common white sucker together comprised only 8%. We stress that catch composition is not representative of fish community composition due to gear selectivity.
- Smallmouth bass C.U.E by number was 6.9 ± 1.2 (standard error) bass per net night. This is well above average for lakes similarly surveyed in the Parry Sound Area and relative to these lakes is indicative of a high abundance of smallmouth bass for Rankin Lake. Biosampling data suggested good reproduction and recruitment by the smallmouth bass population. The total mortality rate was undetermined but appeared to be low. We conclude that the smallmouth population of Rankin Lake is in a very healthy and sustainable condition.
- The complete absence of any rainbow trout in the catch suggests 1) that these fish have experienced very high mortality since they were planted in 1999; or 2) the gear was highly ineffective at capturing this species. Anecdotally, not a single rainbow trout has been reported caught in the sport fishery. We speculate the former conclusion is most likely.
- Gear selectivity resulted in insufficient data for other species from which to draw any reliable conclusions.

Eco-North Laboratory 2001 Note to File: **Water Analysis** Summer 2001

- Water samples were taken from five locations to give 'a point in time' account of the coliforms on July 12, 2001.
- All sample sites exceeded Ministry of Health Guidelines for consumption in both E. Coli and Total Coliform. Recreational use was not impacted.
- Water should be boiled or sterilized before consumption.

Eco-North Laboratory 2000 Note to File: **Water Analysis** Summer 2000

- Water samples were taken from five locations to give 'a point in time' account of the coliforms on August 23, 2001.
- Two sample sites exceeded Ministry of Health Guidelines for consumption in both E. Coli and Total Coliform. One site was within guidelines. One site exceeded the E. Coli Guideline. One site exceeded the Total Coliform Guideline. Recreational use was not impacted.

- Water should be boiled or sterilized before consumption.

Hill, C. and E. McIntyre, 1988. Rankin Lake F1 **splake stocking assessment** report.

- From August 18 – 20, 1987, an assessment was conducted on Rankin Lake to determine the success of the 1983, '84 and '85 plantings of F1 splake. Four standard lake survey gill nets were each set for two nights for a total of eight net nights of fishing effort. The total catch was comprised of 2 splake, 22 smallmouth bass, 1 largemouth bass, 10 common white suckers, 17 rock bass and 7 rainbow smelt.
- The low abundance of F1 splake in this survey combined with the almost no reports of harvest by anglers strongly suggests poor survival of the plantings. The very good showing of naturally reproducing smallmouth bass in the catch indicates that Rankin Lake is currently much better suited for warm water species than coldwater species. Consequently it is recommended that further plantings of F1 splake and or lake trout be discontinued and that the lake be managed for smallmouth bass on a natural, self-sustaining basis.

MNR 1978 Raw data: **Lake Trout Assessment** Project

- Between May 18-19, 1978, 5 gill net sets (presumably each consisting of 50' sections of 2, 2½, 3, 3½, 4 and 4½" mesh) were made on Rankin Lake to assess lake trout abundance and origin (i.e. whether natural or planted fish).
- Catch consisted of: 39 yellow perch, 25 cisco, 7 smelt, 5 smallmouth bass and 4 lake trout (of which 3 had no fin clips identified)

Keller & Conroy, 1975 A Report on the **Quality of Selected Waters** in the Township of Foley Parry Sound District

- raw data from a water quality survey
- General conclusions are made but they are not lake specific

Ontario Water Resources Commission 1967 **Biological Survey** of Rankin Lake

- No evidence was found that the sewage lagoon from Camp Wakana was affecting the lake. No discharge into the lake should be allowed during the summer months. The lagoon should be regularly inspected
- The number of cottages and the utilization of septic fields necessitate regular sampling for bacterial contamination.
- Snails present in some areas harboured the parasite responsible for swimmer's itch

Management Prescription:

Manage as a natural, self-sustaining smallmouth bass, largemouth bass and northern pike fishery.

The most recent study (McIntyre, 2001) indicates a healthy smallmouth bass population.