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Lake Fact Sheet – Parry Sound District

Lake Muskoka

Location

<i>Official Name:</i> Lake Muskoka	<i>Local Names:</i>
<i>County/District:</i> Muskoka	<i>Geographic Twp:</i> Muskoka
<i>Municipality:</i> Township of Muskoka Lakes	<i>MNR Admin. Area:</i> Bracebridge
<i>Lat./Long:</i> 45.054 N -79.475 W	<i>UTM (NAD83):</i> 17 620081 4990037
<i>Topographic Map (1:50,000):</i> 31E03	<i>Drainage Basin:</i> Muskoka River

Physical Features

<i>Surface Area (ha):</i> 12,100	<i>Maximum Depth (m):</i> 73	<i>Mean Depth (m):</i> 18
<i>Elevation (m asl):</i> 225	<i>Perimeter (km):</i> 269	<i>Island Shoreline (km):</i> 209
<i>Volume (10⁴ m³):</i> 183,000	<i>Watershed (km²):</i> 4,600 (excludes area of lake)	<i>Water Clarity:</i> 3.5 (varies across the lake)

Land Use and Development

<i>Crown Land (%):</i> 0	<i>Provincial Parks:</i> Hardy Lake Provincial Park
<i>Shoreline Development:</i>	Intense; urban, shoreline residential, commercial,
<i>Access:</i>	Public launches: Bracebridge - George Road, Beaumont Drive; Gravenhurst – Muskoka Wharf; Bala; Milford Bay and others; private access through several marinas.
<i>Water Level Management:</i>	Regulated; water level is controlled by MNR-owned and operated dams at Bala. Flows and levels are governed by the Muskoka River Water Management Plan.

Fish Species

<i>Major Fish Species:</i>	brook trout (E), lake trout (S), lake whitefish (R), Cisco (R), rainbow smelt (I), northern pike, burbot, smallmouth bass (I?), largemouth bass (I?), walleye (I?),
<i>Other Fish Species:</i>	longnose sucker, white sucker, lake chub, golden shiner, common shiner, blacknose shiner, spottail shiner, spotfin shiner (I), bluntnose minnow, black bullhead (?), brown bullhead, margined madtom (I?), trout-perch, rock bass (I), pumpkinseed, black crappie (I 1989), yellow perch, iowa darter, logperch, cisco, Slimy Sculpin, Spoonhead Sculpin

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Other Species: spiny water flea (I 1989), freshwater jellyfish (I 2002)

Notes: E: extirpated, I: introduced – intentional or accidental, O: occasional, R: remnant, S: currently stocked, ?: status uncertain, 2009: year of first record or introduction if known, blank: presumed native

Fisheries Management

Fisheries Management Zone:.....15

Designation for Lake Trout Management:designated; natural reproduction; not at development capacity

Fishing Regulation Exceptions: No lake-specific exceptions (2009);

Muskoka River; Bracebridge Falls and South Falls to Lake Muskoka: Fish sanctuary - no fishing from Apr. 1 - June 15 (2009)

Current Stocking: Lake trout – supplemental, some natural reproduction occurs, stocked every year with yearlings.

Historic Stocking (last year stocked): brown trout (1933), smallmouth bass (1949), walleye (1989), rainbow trout (1983), brook trout (1961), splake (1961)

Contaminants: Species tested: lake trout, northern pike, walleye, smallmouth bass, yellow perch, rock bass, brown bullhead, rainbow smelt

Assessment: Completed Projects:

1988	contaminant sampling
1989	benthic invertebrate sampling
1989-94	zooplankton sampling
1990	critical habitat mapping
1990-91	vegetation mapping
1992-93	winter creel survey
1993	summer creel survey
1993-94	substrate mapping
1993-94	contaminant sampling
1993-95	small fish survey
1995	development mapping
1995	cisco study
1995-96	spring littoral index netting
1998	summer creel survey
1998	lake trout spawning observations
1998	contaminant sampling
1998-99	spring littoral index netting
2001	near shore community index netting
2003	Summer Profundal Index Netting (targets lake trout) (SPIN)
2005	SPIN
2002-06	Fall Walleye Index Netting
2007	Broad-scale Monitoring (BsM)– large mesh (generalized fish community assessment)
2008	BsM – small mesh
2010	BsM – large mesh
2014	Broad-scale Monitoring (large and small mesh netting)
Annual	ice hut count

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Synopsis

Lake Muskoka is the largest inland lake in the District of Muskoka and MNR's Parry Sound District. It supports a large diverse sport fishery. The lake is highly developed and has been greatly perturbed by water management, contaminants, shoreline development and species introductions.

Lake trout were the primary native sport fish species. The population went into serious decline in the 1970's at least partly due to reproductive failure from DDT contamination. The population has not fully recovered; supplemental stocking still occurs. Lake whitefish and lake herring (cisco) populations have been severely depressed as well and are currently present in low numbers, but believed to be increasing. The walleye population crashed as well. Rehabilitation efforts including water level control, habitat improvement, harvest regulation and stocking have largely restored the population.

A disjunct population of margined madtom, a small, secretive member of the catfish family, occurs in Lake Muskoka. It is not known if the population is native or introduced. Margined madtoms are rare in Ontario and are listed as Data Deficient by the Committee on the Status of Species Endangered Wildlife in Canada (COSEWIC 2002).

Fish habitat features along the shoreline of Lake Muskoka have been mapped and provided to municipalities for use in municipal planning. Inquiries regarding the application of this information should be directed to the relevant municipality.

Lake Muskoka is a 'fixed' lake for the provincial Broad-scale Monitoring Program. Repeated sampling on a five year cycle is planned to monitor long-term trends in water quality, fish community and sport fish abundance in randomly selected lakes across the province.

2014 Broad-scale Monitoring

Lake Muskoka was sampled in 2014 as a "trend" lake for the Cycle 2 of the provincial Broad-scale monitoring program. Results will be reported through that program. Two species not previously documented were captured; Slimy Sculpin and Spoonhead Sculpin. Both species are thought to be native to the lake.

Updated: 2018

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

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