Lake Fact Sheet – Parry Sound District

Lake of Bays

Location

Official Name: ..... Lake of Bays	*Local Names:* ..... Fork Lake
County/District: .....Muskoka	*Geographic Twp:* ..... Franklin and McLean
Municipality: Township of Lake of Bays, Town of .....Huntsville	*MNR Admin. Area:*.....Bracebridge
Lat./Long:.....45.256 N 79.002 W	*UTM (NAD83):*.....17 656731 5013311
Topographic Map (1:50,000):.....31E06	*Drainage Basin:*Muskoka River – South Muskoka River

Physical Features

Surface Area (ha): 6780	*Maximum Depth (m):* 70	*Mean Depth (m):*..... 22
Elevation (m asl):.....316	*Perimeter (km):* 167	*Island Shoreline (km):*..... 31
Volume (10^4 m^3):.....153,000	*Watershed (km^2):* ..... 1330 (excludes area of lake)	*Water Clarity:* ……..

Land Use and Development

Crown Land (%):..... 0 *Provincial Parks:* ..... none

Shoreline Development:	High; urban, shoreline residential, commercial
Access:	Public launches at Old Hwy 117, South Portage Road, Rabbit Bay, Dwight; private access through several marinas.
Water Level Management:	Regulated; water level is controlled by MNR-owned and operated dam at Baysville. Flows and levels are governed by the Muskoka River Water Management Plan.

Fish Species

Major Fish Species:	rainbow trout (O, occur incidentally from stocking in Oxtongue R.), brook trout (R), lake trout, lake whitefish, cisco, northern pike (I), smallmouth bass (I), walleye (I?)
Other Fish Species:	rainbow smelt (I), longnose sucker, white sucker, brown bullhead, burbot, trout-perch, rock bass (I), yellow perch (I?)
Other Species:	spiny water flea (1995, I)

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

Parry Sound Area office: (705) 746-4201
Bracebridge Area office: (705) 645-8747

Lake Fact Sheet – Parry Sound District

Lake of Bays

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)
Current Stocking:	None
Historic Stocking (last year stocked):	rainbow trout (1965), Atlantic salmon (1935), brook trout (1956), lake trout (1993), smallmouth bass (1922), walleye (1924)
Contaminants:	Species tested: lake trout, lake whitefish, smallmouth bass, yellow perch, rock bass
Assessment:	Completed Projects:

1988	lake trout egg mortality study
1990	Winter Creel Survey
1990	Lake Trout Spawning Observations
1993	Lake Trout Spawning Observations
1994	Lake Trout Spawning Observations
1990's	Lake trout spawning shoal enhancements
1996	Winter Creel Survey
1999	Lake Trout Spawning Observations
2000	Spring Littoral Index Netting (SLIN)
2004	Winter Creel Survey
2004	Summer Profundal Index Netting (targets lake trout)
2005	Brook trout spawning survey
2006	Smelt spawning survey
2006	Northern pike spawning survey
2007	Summer Profundal Index Netting (lake trout)
2008	Broad-scale Monitoring (randomized fish community sampling)
2011	Summer Profundal Index Netting (targets lake trout)

Temperature/dissolved oxygen profiles are collected on a regular basis

Synopsis

The water quality in Lake of Bays is excellent. The temperature-oxygen profile indicates there is a considerable amount of habitat available to lake trout. The District Municipality of Muskoka lake capacity model indicates there can be a significant amount of additional development before there is an impact on lake trout habitat.

The lake trout fishery on Lake of Bays has been important locally for more than 100 years with an outpost camp present on Bigwin Island as early as 1853. The lake trout in this water body attain trophy proportions with average weights from previous surveys ranging from 2.2-4.4 kgs.

Water level management activities have been a concern for lake trout reproduction on Lake of Bays in the past. A 1988 study quantified the percentage of egg loss due to drawdown estimates egg loss in any

Parry Sound Area office: (705) 746-4201
Bracebridge Area office: (705) 645-8747

given year to be between 10% and 21%. The small sample sizes used to quantify egg density and subsequent loss suggests these numbers should be viewed with caution. A local group involved with CFIP have done extensive work on the lake including spawning bed rehabilitation. The Muskoka River Water Management Plan implemented in 2006 prescribes lake levels that should not have a significant effect on lake trout reproduction.

Several winter creel surveys have been completed. Estimates of fishing effort and lake trout catch and harvest varied substantially. In 2004, lake trout effort was estimated to be approximately 18,000 ang/hr or about 3 hr/ha which is moderately high. It was estimated that 3,800 lake trout were caught and 3,400 were harvested. Creels from other lakes in the Muskoka area indicate the winter fisheries account for at least 75% of the years' total harvest.

Lake of Bays is one of few larger lakes in the area which still supports a significant brook trout population; though it is a small fraction of what it would have been prior to the introduction of bass and other warm water species. Their persistence is dependent to a large extent on tributary stream that are used as nursery areas. Some effort has been made to identify, protect and enhance these habitats.

Northern pike became established in the lake in the 1990's, probably through an intentional, unauthorized introduction. Pike have not become abundant because of limited juvenile habitat but have the potential to reach large sizes.

Lake of Bays lake trout stocking was discontinued after the 1993 plant to preserve the genetics of the native stocks and the lake has since been managed as a self-supporting lake trout fishery. No special regulations or harvest controls apply. Many area lakes have had special regulations applied which has resulted in a redistribution of fishing activity, some to Lake of Bays. Regular monitoring of this important fishery is required to ensure the lake trout population is managed sustainably.

From 2008 to 2011, adult lake whitefish were transferred live from Lake of Bays to Mary Lake in an attempt to re-establishing a self-sustaining population in Mary Lake. In the same years lake trout eggs were collected, again to try to re-establish a reproducing lake trout population in Mary Lake. In 2009 and 2010 the eggs were reared at the Haliburton Highlands Outdoors Association hatchery, to be stocked as yearlings. In 2011, fertilized eggs were stocked directly into Mary Lake.

Updated: 2012

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

Parry Sound Area office: (705) 746-4201
Bracebridge Area office: (705) 645-8747