Broad-scale Monitoring Bulletin
LAKE OF BAYS – ZONE 15

Lake of Bays Lake Facts

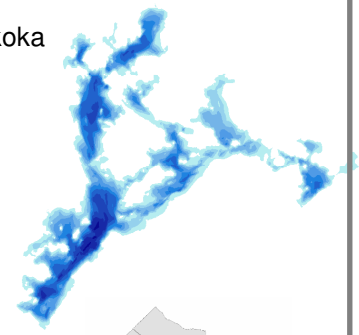
District Municipality of Muskoka

Surface Area: 6776 ha

Maximum Depth: 70 m

Average Depth: 22 m

Water Clarity: 11 m





Monitoring Activities

- ✓ Fish netting
- ✓ Fish contaminants
- ✓ Zooplankton
- ✓ Water chemistry
- ✓ Bathymetry
- ✓ Water temperature/dissolved oxygen
- ✓ Invasive Species

Netting Summary

Netting dates: August 12 – 27, 2008

Netting days: 8

Number of net sets: 34

Number of fish species caught: 13

Fish Netting Results

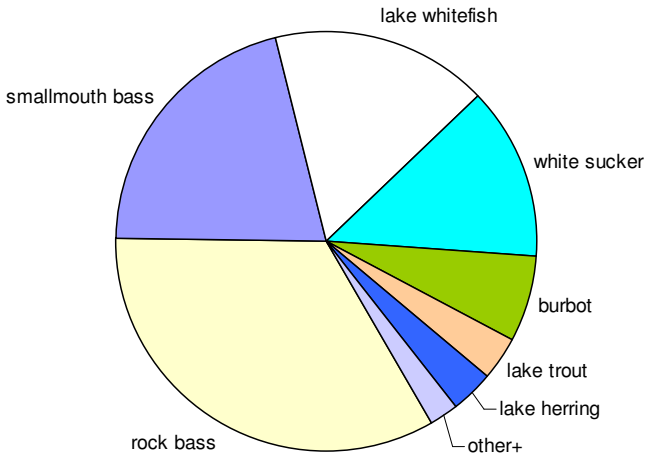
Fish populations were surveyed using large and small mesh nets to provide information on fish species present and their characteristics, such as growth, age and abundance. The catch data below show that 11 species were surveyed in large mesh nets. Additional fish species that were caught in small mesh nets are common shiner and bluntnose minnow.

Fish species	Total Catch %	Maximum Length cm	Minimum Length cm	Average Length cm
rock bass	34	23.2	9.8	15.8
smallmouth bass	21	49.0	15.7	34.6
lake whitefish	17	65.1	24.7	46.0
white sucker	13	59.1	36.4	51.6
burbot	7	59.5	32.5	44.1
lake trout	3	60.6	26.5	41.9
lake herring	3	36.7	31.7	33.5
longnose sucker+	1	57.7	56.6	57.2
rainbow smelt+	<1	17.9	17.9	17.9
northern pike+	<1	64.0	64.0	64.0
yellow perch+	<1	17.3	17.3	17.3

About the Program

The Broad-scale Monitoring Program provides information for managing our fisheries effectively. This bulletin provides **a snapshot of the recent monitoring activities and netting results.** Netting is conducted using large and small mesh nets. Large mesh nets contribute information about fish species and small mesh nets describe the fish community. To learn more about the sampling program read *Broad-scale Monitoring Program: Monitoring the Health of Ontario Inland Lakes* or visit ontario.ca/fishing.

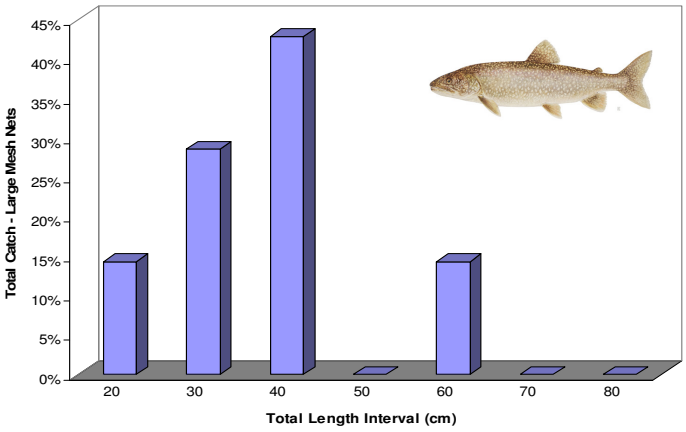
Proportion of Fish Caught in Large Mesh Nets



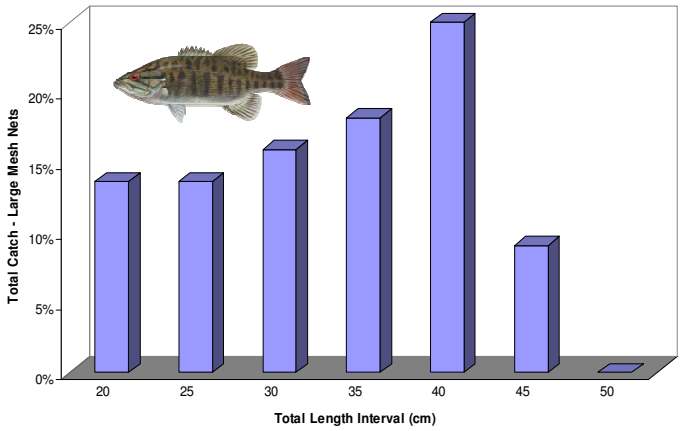
ontario.ca/fishing

Ontario

Length Distribution of Lake Trout



Length Distribution of Smallmouth Bass



20 cm = 20 to 25 cm, 25 cm = 25 to 30 cm, etc.

The size of lake trout ranged from 26 to 60 cm (from a total of 7 fish) and the size of smallmouth bass ranged from 19 to 49 cm (from a total of 44 fish) in large mesh nets.

Water Chemistry and Temperature

Water samples were collected in May 2008 and sent to the Ministry of Environment for analysis. Water temperature, oxygen levels and water transparency were measured in August 2008. Lake of Bays is considered a cold-water lake that can support cold and cool-water fish species such as lake trout, lake herring and whitefish.

Invasive Species

Invasive species were monitored using plankton nets and observations made by field crews. Spiny water flea and rainbow smelt have already been detected in Lake of Bays. Samples are currently being processed to determine if any new invasive species were detected through this sampling program. Any species new to Ontario or an invasive species that is a new record for a waterbody is reported to the Invading Species Hotline www.invadingspecies.com.

Fish Contaminants

Levels of contaminants in fish flesh (e.g. mercury, PCB's, mirex, organochlorine pesticides and other organic chemicals) will be reported in the *Guide to Eating Sport Fishing in Ontario* or visit ontario.ca/fishguide.

For more information please contact Ministry of Natural Resources at 1-800-667-1940, send an email to mnr.nric.mnr@ontario.ca or visit ontario.ca/fishing.