

Broad-scale Fisheries Monitoring Program Bulletin

LAKE MANITOU - FMZ 10 - 2008-2012

Lake Manitou facts

Location: Sandfield

Surface area: 10588 ha

Maximum depth: 49.1 m

Average depth: 14.6 m

Water clarity: 6.5 m



Monitoring activities

- ☒ Fish netting
- ☒ Fish contaminants
- ☒ Zooplankton
- ☒ Water chemistry
- ☐ Bathymetry
- ☒ Water temperature/dissolved oxygen
- ☒ Aquatic invasive species



Netting summary

Netting period: Jul 18 to Jul 25 2011

Number of nets set: 65

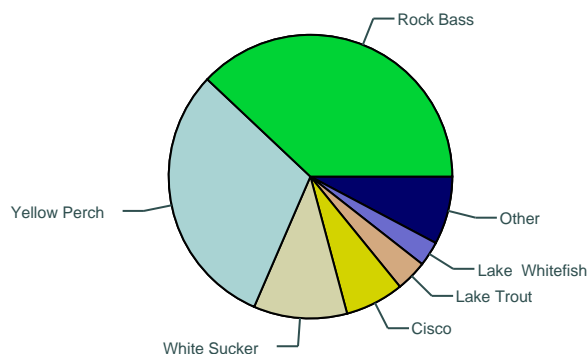
Number of fish species caught: 17

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 (depicted in the chart below) show that 12 species were surveyed in large mesh nets. Additional fish species observed in small mesh nets were Bluntnose Minnow, Logperch, Rainbow Smelt, Slimy Sculpin, and Trout-perch.

Fish species	Total catch %	Maximum length (cm)	Minimum length (cm)	Average length (cm)
Rock Bass	38	26.7	9.6	16.9
Yellow Perch	31	34.4	13.9	18.5
White Sucker	11	59.6	29.1	45.8
Cisco	7	27.0	15.8	19.8
Lake Trout	4	79.2	32.5	57.5
Lake Whitefish	3	65.2	19.4	49.6
Smallmouth Bass	2	48.1	18.8	36.0
Burbot	2	77.7	23.9	59.5
Walleye	2	70.1	49.7	57.8
Brook Trout	2	48.9	16.5	22.5
Brown Bullhead	< 1	34.8	32.8	33.8
Northern Pike	< 1	90.6	90.6	90.6

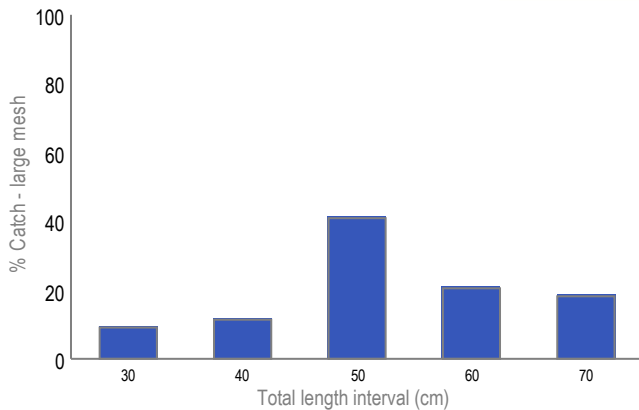
Proportion of fish caught in large mesh nets



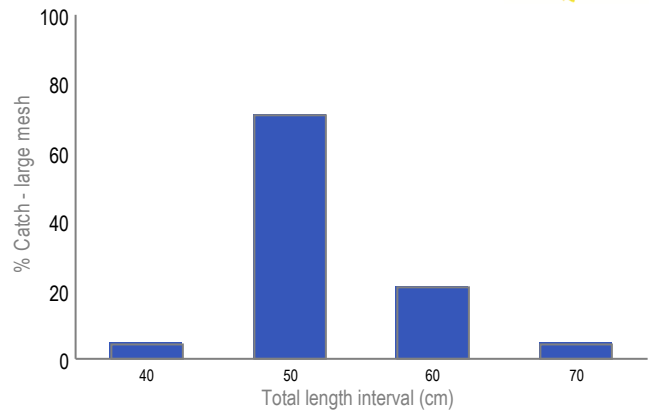
About Broad-scale Fisheries Monitoring

The Broad-scale Fisheries Monitoring program collects information from representative lakes in fisheries management zones across the province to help biologists manage our fisheries effectively. This bulletin provides a snapshot of recent monitoring activities and netting results. The sampling approach allows us to measure and evaluate the health of Ontario's lakes and their fish communities, and track changes through time over broad areas of Ontario. To learn more about the sampling program visit [Methods for monitoring fish populations](#).

Length distribution of Lake Trout



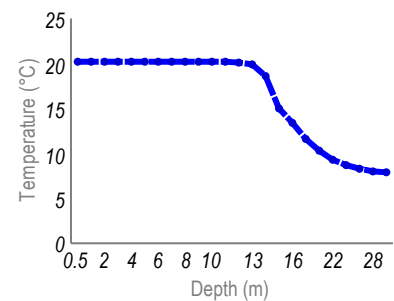
Length distribution of Walleye



Catch results are presented in 10-cm length intervals, labelled with the lower limit (e.g., the "20 cm" interval represents fish between 20 cm and 29 cm). The size of Lake Trout ranged from 32.5 to 79.2 cm and the size of Walleye ranged from 49.7 to 70.1 cm in large mesh nets.

Water chemistry and temperature

Water samples were collected in April 2010 and sent to the Ministry of the Environment and Climate Change for analysis. Water temperature, oxygen levels, and water transparency were measured in August 2012. The graph shows the temperature of Lake Manitou with increasing depth. The temperature at the surface was 20.2 °C and declined to 7.9 °C at the bottom of the lake.



Aquatic invasive species

Field crews searched for aquatic invasive species; Rainbow smelt were observed during monitoring. Samples are currently being processed to determine if any more 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 Ontario Sport Fish](#).

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