

Broad-scale Fisheries Monitoring Program Bulletin

LAKE MANITOU - FMZ 10 - 2013-2017

Lake Manitou facts

Location: SANDFIELD
 Surface area: 10588 ha
 Maximum depth: 49.1 m
 Average depth: 14.6 m
 Water clarity: 9.8 m



Monitoring activities

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



Netting summary

Netting period: Aug 15 to Aug 21 2016
 Number of nets set: 55
 Number of fish species caught: 20

About Broad-scale Fisheries Monitoring

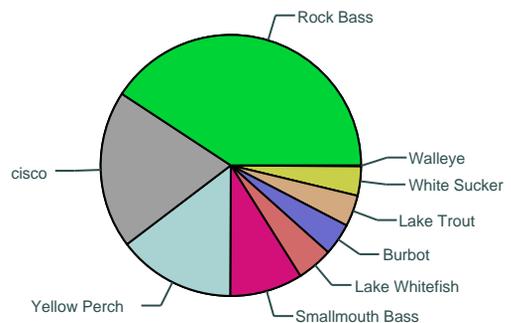
The Broad-scale Fisheries Monitoring program collects information from representative lakes in fisheries management zones across the province to help biologists manage our fisheries effectively. This bulletin provides a snapshot of recent monitoring activities and netting results. The sampling approach 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](#).

Fish netting results

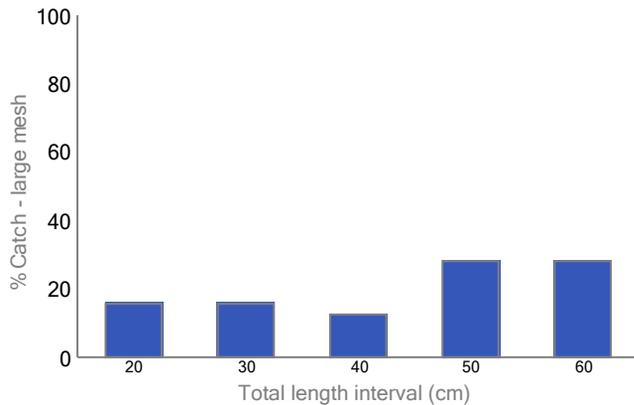
Fish populations were surveyed using large and small mesh nets to provide information on fish species present and their characteristics, such as growth, age, and abundance. The catch data (depicted in the chart below) show that 9 species were surveyed in large mesh nets. Additional fish species observed in small mesh nets were Bluntnose Minnow, Brown Bullhead, Common Shiner, Creek Chub, Logperch, Mimic Shiner, Pumpkinseed, Rainbow Smelt, Spoonhead Sculpin, Spottail Shiner, and Trout-perch.

Fish species	Total catch %	Maximum length (cm)	Minimum length (cm)	Average length (cm)
Rock Bass	41	26.4	8.0	17.0
cisco	20	24.3	17.0	21.0
Yellow Perch	15	30.9	14.1	18.9
Smallmouth Bass	9	50.1	12.7	29.8
Lake Whitefish	4	62.1	53.1	57.1
Burbot	4	70.6	41.6	62.3
Lake Trout	4	69.8	20.8	48.9
White Sucker	4	56.6	17.5	47.8
Walleye	< 1	68.5	68.5	68.5

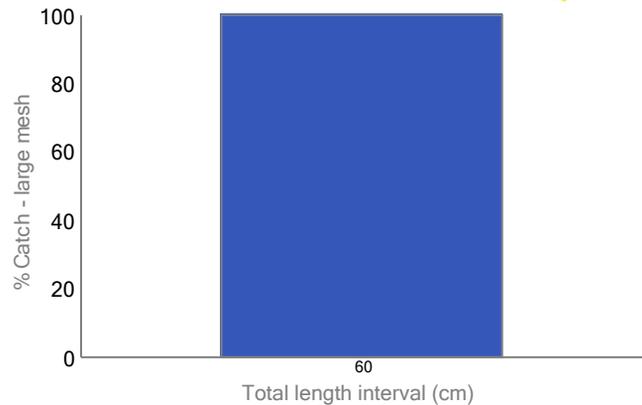
Proportion of fish caught in large mesh nets



Length distribution of Lake Trout



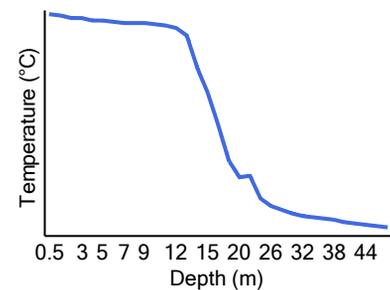
Length distribution of Walleye



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 20 to 69 cm and the size of Walleye ranged from 68 to 68 cm in large mesh nets.

Water chemistry and temperature

Water samples were collected in May 2016 and sent to the Ministry of Environment and Climate Change for analysis. Water temperature, oxygen levels, and water transparency were measured in August 2016. The graph shows the temperature of Lake Manitou with increasing depth. The temperature at the surface was 23.7 degrees Celsius and declined to 6.7 degrees Celsius at the bottom of the lake.



Aquatic invasive species

Field crews searched for aquatic invasive species and Error. Could not get plural AIS name. were observed during monitoring. Zooplankton samples are being processed to determine if any new invasive species are present. 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.invasivespecies.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](#).
[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.