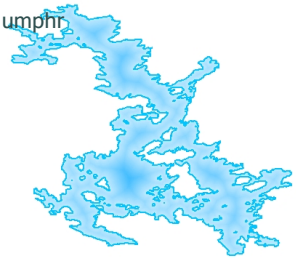
Created: Nov 06, 2014

Broad-scale Fisheries Monitoring Program Bulletin

LAKE ROSSEAU - FMZ 15 - 2008-2012

Lake Rosseau facts

Location: Cardwell; Watt; Medora; Humphr



Surface area: 6297 ha

Maximum depth: 89.0 m

Average depth: 24.08 m

Water clarity: 5.3 m

Monitoring activities



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

Netting summary

Netting period: Jul 25 to Aug 11 2011

Number of nets set: 36

Number of fish species caught: 12

About Broad-scale Fisheries Monitoring

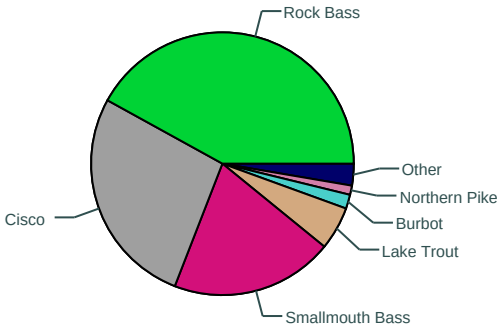
The Broad-scale Fisheries Monitoring program collects information from representative lakes in fisheries management zones across the province to help biologists manage our fisheries effectively. This bulletin provides a snapshot of recent monitoring activities and netting results. The sampling approach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

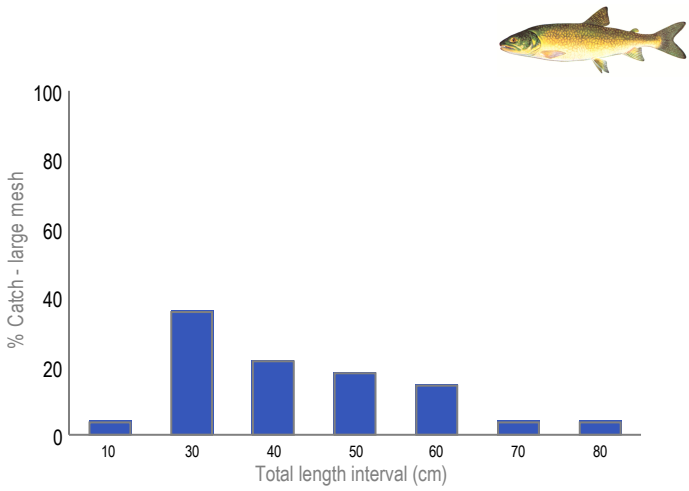
Fish populations were surveyed using large and small mesh nets to provide information on fish species present and their characteristics, such as growth, age, and abundance. The catch data (depicted in the chart below) show that 12 species were surveyed in large mesh nets. No additional fish species were observed in small mesh nets.

Fish species	Total catch %	Maximum length (cm)	Minimum length (cm)	Average length (cm)
Rock Bass	42	27.9	9.4	16.5
Cisco	27	46.4	18.0	30.2
Smallmouth Bass	20	45.9	15.3	32.2
Lake Trout	5	85.4	19.5	47.1
Burbot	2	65.5	43.5	53.2
Northern Pike	1	98.0	59.0	80.9
White Sucker	< 1	54.5	42.6	47.8
Walleye	< 1	62.5	28.0	39.9
Lake Whitefish	< 1	65.1	49.6	59.0
Brown Bullhead	< 1	27.1	25.6	26.4
Rainbow Smelt	< 1	17.8	17.8	17.8
Pumpkinseed	< 1	15.3	15.3	15.3

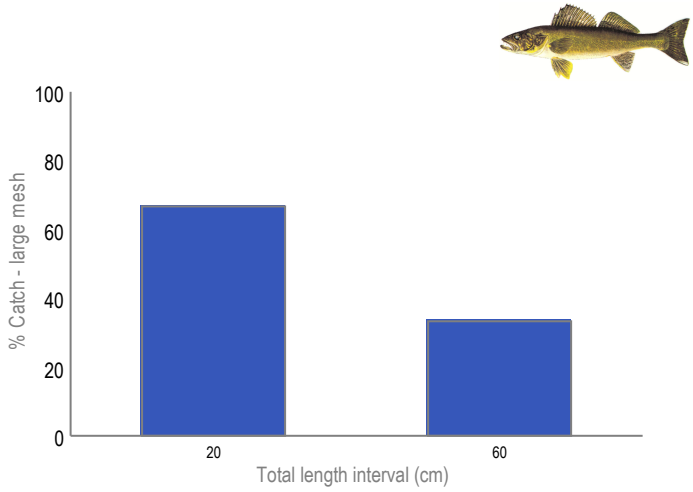
Proportion of fish caught in large mesh nets



Length distribution of Lake Trout



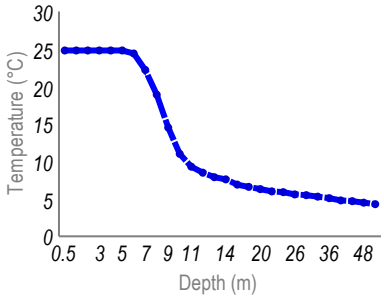
Length distribution of Walleye



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 19.5 to 85.4 cm and the size of Walleye ranged from 28 to 62.5 cm in large mesh nets.

Water chemistry and temperature

Water samples were collected in May 2011 and sent to the Ministry of the Environment and Climate Change for analysis. Water temperature, oxygen levels, and water transparency were measured in August 2011. The graph shows the temperature of Lake Rosseau with increasing depth. The temperature at the surface was 24.8 °C and declined to 4.3 °C at the bottom of the lake.



Aquatic invasive species

Field crews searched for aquatic invasive species and 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.*