# **Broad-scale Fisheries Monitoring Program Bulletin** CROWE LAKE - FMZ 17 - 2013-2017



Location: MARMORA

- Surface area: 1037 ha
- Maximum depth: 15.2 m
- Average depth: 5.4 m
- Water clarity: 5.5 m



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

### **Netting summary**

Netting period: Aug 12 to Aug 21 2014

Number of nets set: 27

Number of fish species caught: 14

## **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*.

# ontario.ca/fishing



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, Common Shiner, Golden Shiner, Largemouth Bass, and Logperch.

Fish species	Total catch %	Maximum length (cm)	Minimum length (cm)	Average length (cm)
Yellow Perch	30	24.5	13.9	16.0
Smallmouth Bass	29	55.2	14.4	34.7
Rock Bass	22	25.8	10.0	14.7
Walleye	10	61.9	24.1	43.0
Northern Pike	5	80.5	43.2	57.1
Brown Bullhead	3	30.1	23.1	27.3
Pumpkinseed	1	23.5	10.7	19.0
cisco	< 1	44.7	44.7	44.7
White Sucker	< 1	25.2	25.2	25.2

# Proportion of fish caught in large mesh nets









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 Walleye ranged from 24 to 61 cm and the size of Smallmouth Bass ranged from 14 to 55 cm in large mesh nets.

## Water chemistry and temperature

Water samples were collected in May 2013 and sent to the Ministry of Environment and Climate Change for analysis. Water temperature, oxygen levels, and water transparency were measured in August 2014. The graph shows the temperature of Crowe Lake with increasing depth. The temperature at the surface was 23.2 degrees Celsius and declined to 13.9 degrees Celsius at the bottom of the lake.



### Aquatic invasive species

Field crews searched for aquatic invasive species; zebra mussels were observed during monitoring. 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 visitwww.ontario.ca/fishing.