

# Broad-scale Fisheries Monitoring Program Bulletin

## SHADOW LAKE - FMZ 17 - 2013-2017

### Shadow Lake facts

Location: LAXTON

Surface area: 357 ha

Maximum depth: 22.0 m

Average depth: 7.8 m

Water clarity: 4.3 m

### Monitoring activities

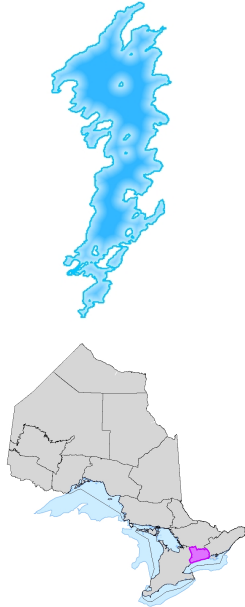
- ☒ Fish netting
- ☒ Fish contaminants
- ☒ Zooplankton
- ☒ Water chemistry
- ☐ Bathymetry
- ☒ Water temperature/dissolved oxygen
- ☒ Aquatic invasive species

### Netting summary

Netting period: Aug 8 to Aug 16 2016

Number of nets set: 18

Number of fish species caught: 21

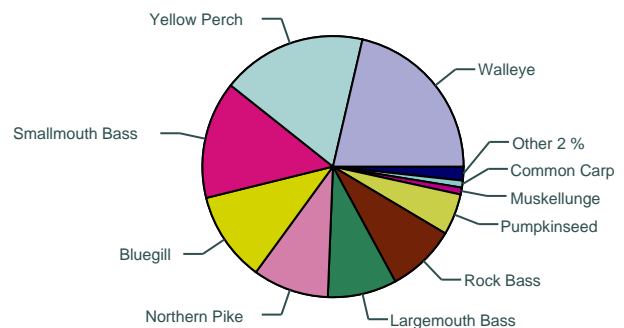


### Fish netting results

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 Black Crappie, Blackchin Shiner, Blacknose Shiner, Bluntnose Minnow, Common Shiner, Logperch, Rainbow Smelt, Spottail Shiner, and Trout-perch.

| Fish species    | Total catch % | Maximum length (cm) | Minimum length (cm) | Average length (cm) |
|-----------------|---------------|---------------------|---------------------|---------------------|
| Walleye         | 21            | 64.8                | 33.6                | 44.5                |
| Yellow Perch    | 18            | 23.1                | 14.6                | 16.4                |
| Smallmouth Bass | 15            | 51.0                | 23.9                | 38.3                |
| Bluegill        | 11            | 18.5                | 9.0                 | 12.0                |
| Northern Pike   | 9             | 75.6                | 32.3                | 50.6                |
| Largemouth Bass | 9             | 37.9                | 13.6                | 22.9                |
| Rock Bass       | 9             | 23.4                | 9.8                 | 17.0                |
| Pumpkinseed     | 5             | 20.8                | 11.2                | 16.9                |
| Muskellunge     | < 1           | 100.3               | 100.3               | 100.3               |
| Common Carp     | < 1           | 72.2                | 72.2                | 72.2                |
| Golden Shiner   | < 1           | 12.8                | 12.8                | 12.8                |
| Brown Bullhead  | < 1           | 26.4                | 26.4                | 26.4                |

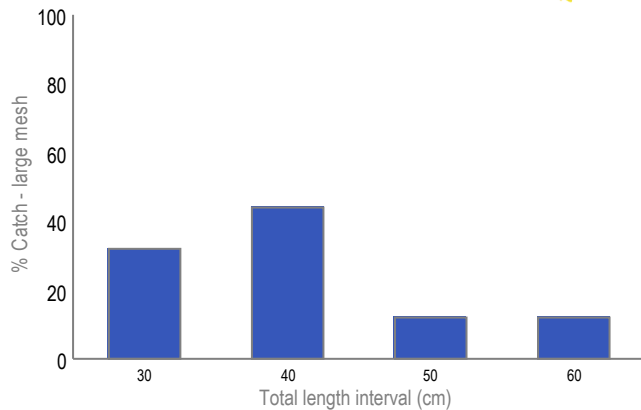
### Proportion of fish caught in large mesh nets



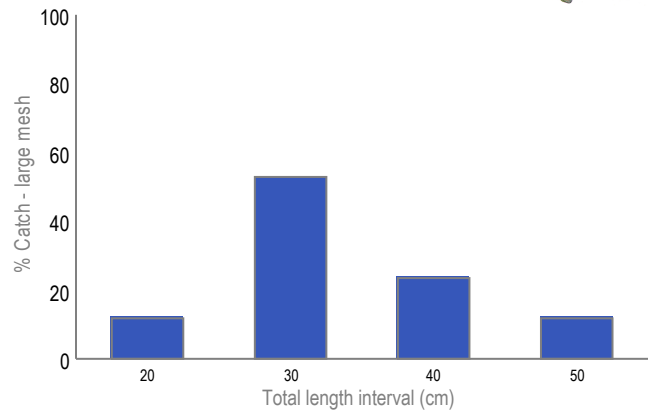
### About Broad-scale Fisheries Monitoring

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](http://Methods for monitoring fish populations).

### Length distribution of Walleye



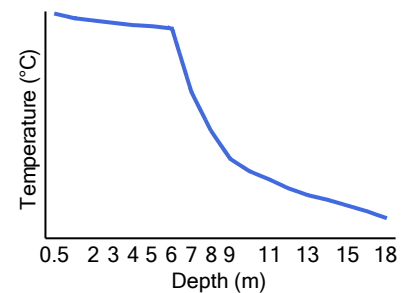
### Length distribution of Smallmouth Bass



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 33 to 64 cm and the size of Smallmouth Bass ranged from 23 to 51 cm in large mesh nets.

### Water chemistry and temperature

Water temperature, oxygen levels, and water transparency were measured in August 2016. The graph shows the temperature of Shadow Lake with increasing depth. The temperature at the surface was 25.8 degrees Celsius and declined to 7.8 degrees Celsius at the bottom of the lake.



### Aquatic invasive species

Field crews searched for aquatic invasive species; rainbow smelt 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](http://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](mailto:mnr.nric.mnr@ontario.ca), or visit [www.ontario.ca/fishing](http://www.ontario.ca/fishing).