Broad-scale Fisheries Monitoring Bulletin
PIGEON LAKE - FMZ 17 - 2008-2012

Pigeon Lake facts

Location: HARVEY
Surface area: 5163 hectares
Maximum depth: 17.4 metres
Average depth: 3.0 metres
Water clarity: 1.7 metres

Monitoring activities

Fish netting - yes
Fish contaminants - yes
Zooplankton - yes
Water chemistry - yes
Bathymetry - no
Water temperature/dissolved oxygen - yes
Aquatic invasive species - yes

Netting summary

Netting period(s): July 9 to July 17 2009,
August 17 to August 18 2009
Number of net sets: 36
Number of fish species caught: 15

Figure 1. Outline of Pigeon Lake

Figure 2. Map of Ontario with
FMZ 17 highlighted

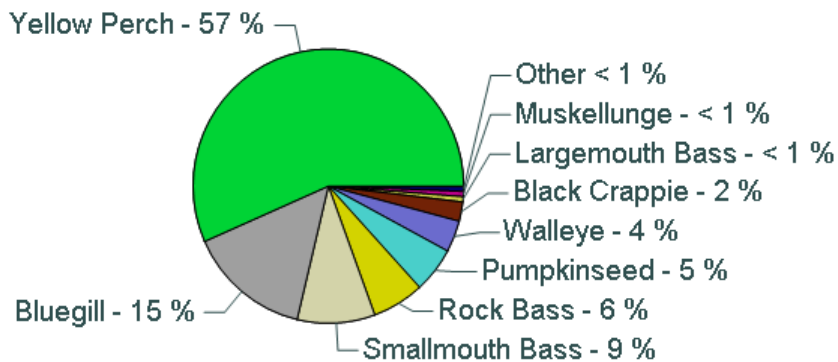## About Broad-scale Fisheries Monitoring

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](#).
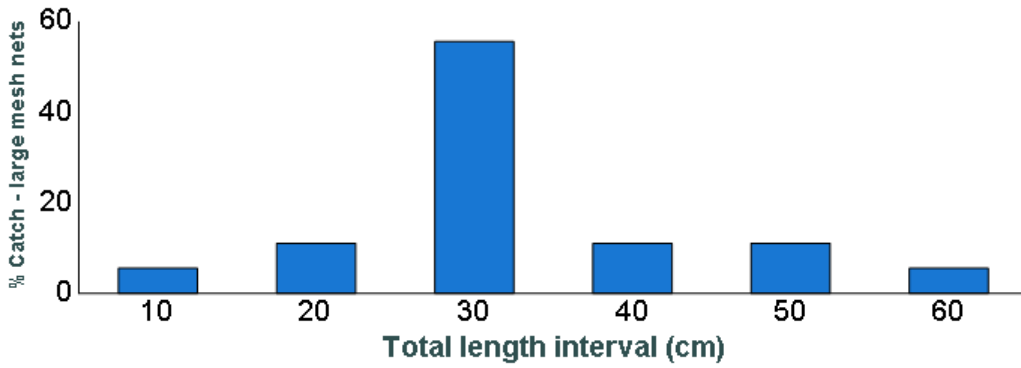
Fish netting results

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. Additional fish species observed in small mesh nets were Blackchin Shiner, cisco, and Trout-perch.

Fish species	Total catch %	Maximum length (cm)	Minimum length (cm)	Average length (cm)
Yellow Perch	57	25.8	5.6	18.2
Bluegill	15	20.9	12.1	16.8
Smallmouth Bass	9	47.0	14.4	23.9
Rock Bass	6	18.1	10.2	14.6
Pumpkinseed	5	19.6	10.0	15.8
Walleye	4	62.8	19.4	37.2
Black Crappie	2	29.6	20.4	23.8
Largemouth Bass	< 1	32.0	19.5	25.6
Muskellunge	< 1	87.9	56.2	75.3
Common Carp	< 1	82.5	82.5	82.5
Golden Shiner	< 1	15.4	15.4	15.4
Brown Bullhead	< 1	24.1	24.1	24.1

Proportion of fish caught in large mesh nets

Yellow Perch - 57 %
Other < 1 %
Muskellunge - < 1 %
Largemouth Bass - < 1 %
Black Crappie - 2 %
Walleye - 4 %
Pumpkinseed - 5 %
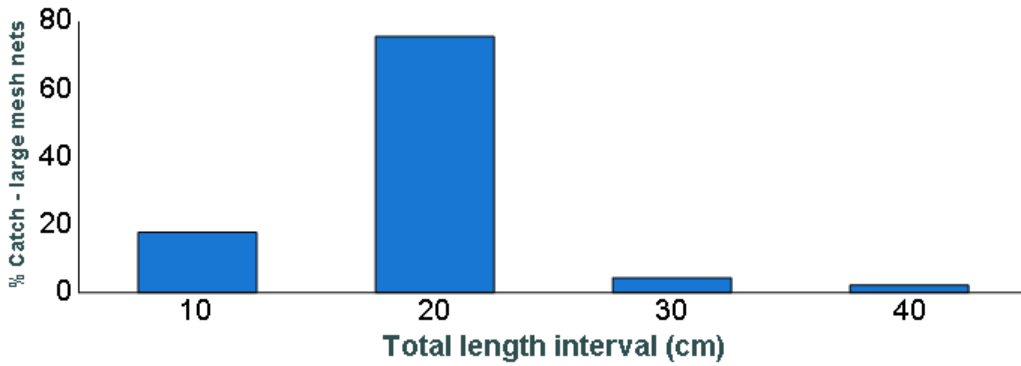Rock Bass - 6 %
Smallmouth Bass - 9 %
Bluegill - 15 %

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 Walleye ranged from 19 to 62 cm.
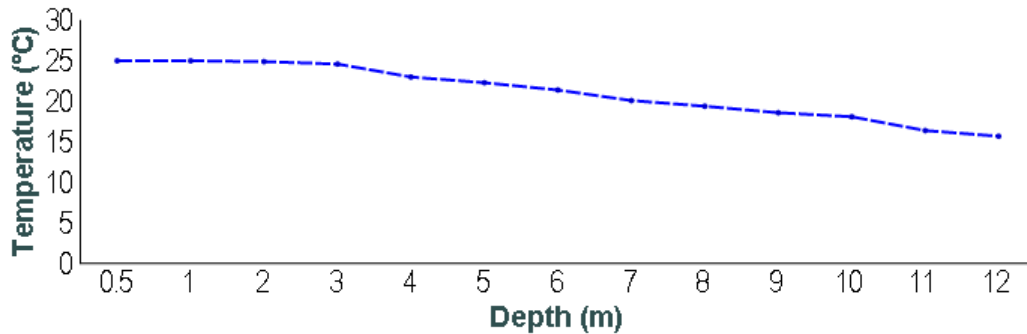
Length distribution of Smallmouth Bass

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 Smallmouth Bass ranged from 14 to 47 cm.

Water chemistry and temperature

Water samples were collected in April 2009 and sent to the Ministry of Environment and Climate Change for analysis. Water temperature, oxygen levels, and water transparency were measured in July 2011. The graph shows the temperature of Pigeon Lake with increasing depth. The temperature at the surface was 25.0 degrees Celsius and declined to 15.7 degrees Celsius at the bottom of the lake.

Aquatic invasive species

Field crews searched for aquatic invasive species; spiny water flea 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.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.

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