

Broad-scale Fisheries Monitoring Bulletin

PIGEON LAKE - FMZ 17 - 2013-2017

Pigeon Lake facts

Location: HARVEY
Surface area: 5163 hectares
Maximum depth: 17.4 metres
Average depth: 3.0 metres
Water clarity: 2.0 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): August 6 to August 16 2013
Number of net sets: 39
Number of fish species caught: 16



Figure 1. Outline of Pigeon Lake



Figure 2. Map of Ontario with FMZ 17 highlighted

About Broad-scale Fisheries Monitoring

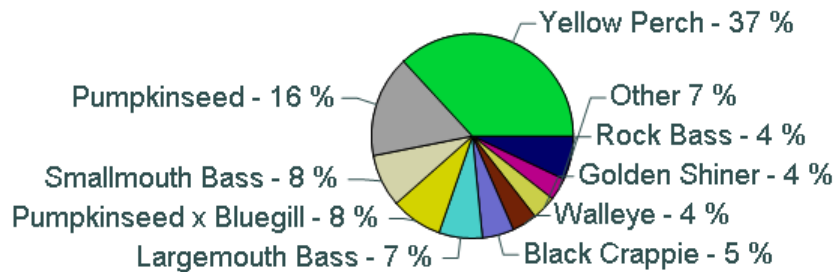
The Broad-scale Fisheries Monitoring program collects information from representative lakes in fisheries management zones across the province to help biologists manage our fisheries effectively. This bulletin provides a snapshot of recent monitoring activities and netting results. The sampling approach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

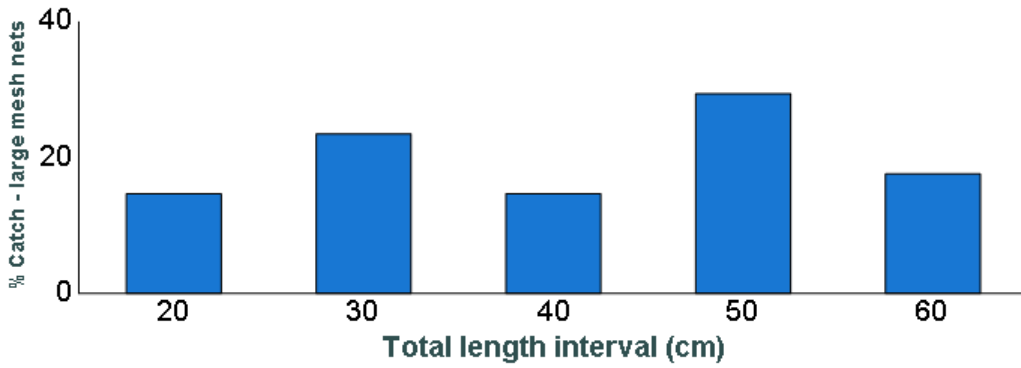
Fish populations were surveyed using large and small mesh nets to provide information on fish species present and their characteristics, such as growth, age, and abundance. The catch data (depicted in the chart below) show that 15 species were surveyed in large mesh nets. An additional fish species observed in small mesh nets was Bluntnose Minnow.

Fish species	Total catch %	Maximum length (cm)	Minimum length (cm)	Average length (cm)
Yellow Perch	37	27.4	13.3	17.5
Pumpkinseed	16	20.5	12.2	16.7
Smallmouth Bass	8	55.4	14.5	28.0
Pumpkinseed x Bluegill	8	21.6	9.3	16.0
Largemouth Bass	7	42.1	12.7	21.3
Black Crappie	5	31.5	13.6	23.2
Walleye	4	67.1	20.8	46.9
Golden Shiner	4	18.5	14.4	16.0
Rock Bass	4	25.4	9.6	15.1
Bluegill	3	19.9	10.0	15.0
Lepomis sp	3	21.2	9.6	14.5
Muskellunge	< 1	111.0	61.4	87.8
White Sucker	< 1	46.1	34.5	40.7
Common Carp	< 1	74.5	74.5	74.5
Brown Bullhead	< 1	21.8	21.8	21.8

Proportion of fish caught in large mesh nets

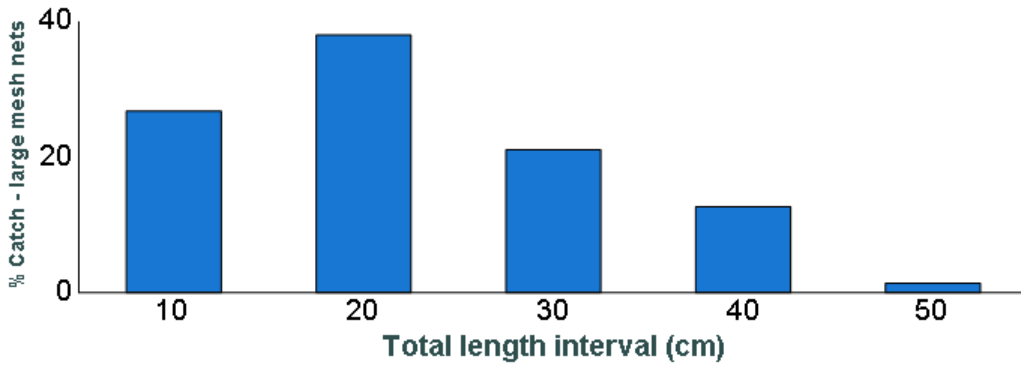


Length distribution of Walleye



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 20 to 67 cm.

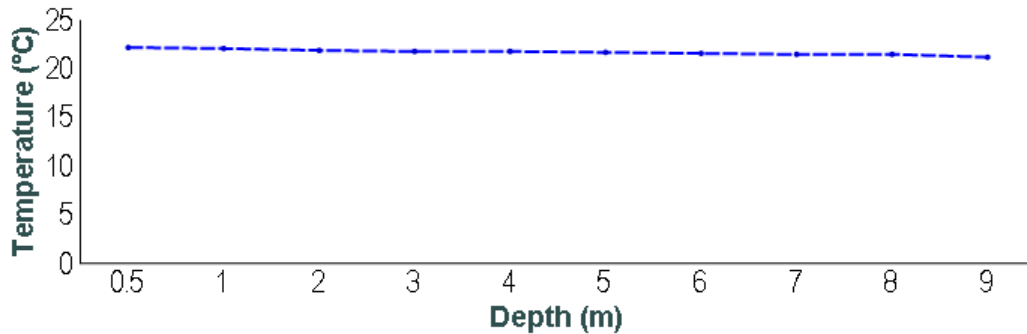
Length distribution of Smallmouth Bass



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 55 cm.

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 2013. The graph shows the temperature of Pigeon Lake with increasing depth. The temperature at the surface was 22.2 degrees Celsius and declined to 21.2 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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