

Broad-scale Monitoring Bulletin

SYDENHAM LAKE - FMZ 18 - 2008-2012

Sydenham Lake Facts

Geographic Location: Loughborough

Surface Area: 660 ha

Maximum Depth: 36.6 m

Average Depth: 7.2 m

Water Clarity: 6.5 m



Monitoring Activities

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



Netting Summary

Netting period: Jul 26 2010 to Aug 5 2010

Number of net sets: 29

Number of fish species caught: 19

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 below show that 13 species were surveyed in large mesh nets. Additional fish species observed in small mesh nets were Blackchin Shiner, Bluntnose Minnow, CARPS and MINNOWS, Common Shiner, Hornyhead Chub and Mottled Sculpin.

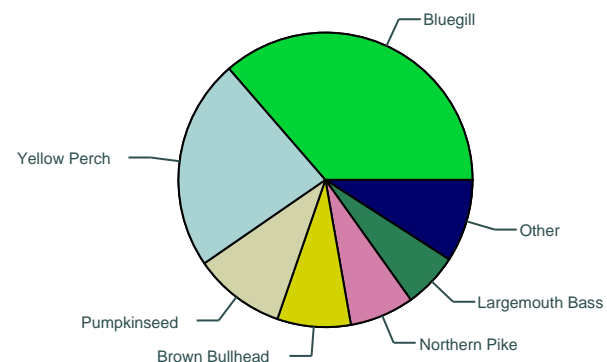
Fish species	Total Catch %	Maximum Length cm	Minimum Length cm	Average Length cm
Bluegill	36	20.4	9.7	15.1
Yellow Perch	23	28.9	13.2	16.9
Pumpkinseed	10	23.8	9.1	15.7
Brown Bullhead	8	29.1	19.0	24.5
Northern Pike	7	78.9	25.0	57.8
Largemouth Bass	6	40.1	13.1	19.6
Cisco	2	25.2	16.8	20.3
Yellow Bullhead	2	27.5	12.8	18.4
Rock Bass	2	26.3	18.7	22.6
Smallmouth Bass	1	51.7	36.2	43.7
Golden Shiner	1	15.7	14.2	14.7
Black Crappie	1	25.7	17.7	20.6
UNIDENTIFIABLE	< 1	14.3	14.3	14.3

About the Program

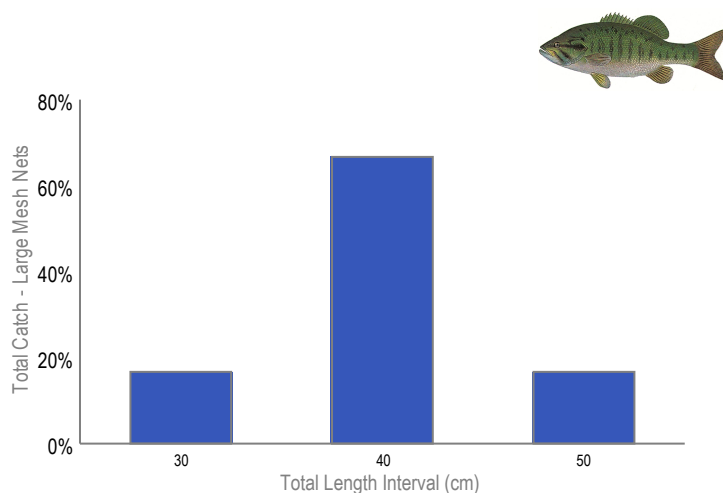
The Broad-scale Monitoring Program provides information for managing our fisheries effectively. This bulletin provides a snapshot of the recent monitoring activities and netting results. Netting is conducted using large and small mesh nets to understand the characteristics of fish communities in a lake. Large mesh nets contribute information about fish species and small mesh nets describe the fish community. To learn more about the sampling program visit

[Fish Ontario: Monitoring and State of the Resource Reporting.](#)

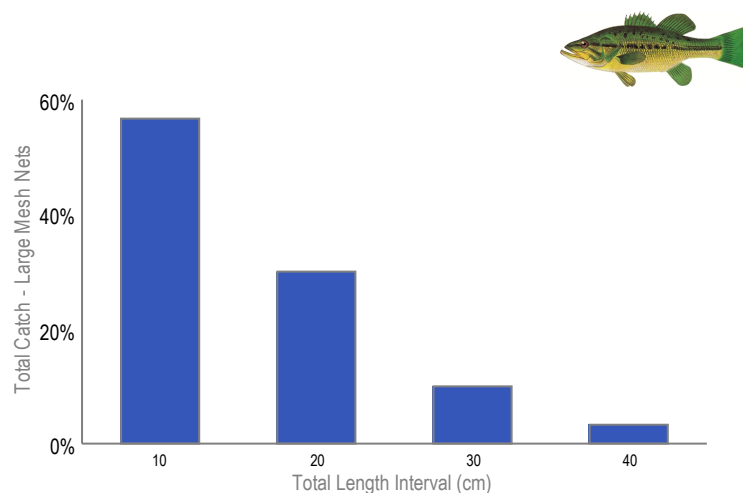
Proportion of Fish Caught in Large Mesh Nets



Length Distribution of Smallmouth Bass



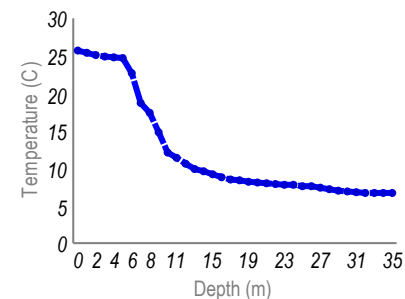
Length Distribution of Largemouth Bass



Catch results are presented in 10 cm length bins, labelled with the lower limit (i.e., the '20 cm' bin represents fish between 20 cm and 29 cm). The size of Smallmouth Bass ranged from 36.2 to 51.7 cm and the size of Largemouth Bass ranged from 13.1 to 40.1 cm in large mesh nets.

Water Chemistry and Temperature

Water samples were collected in April 2010 and sent to the Ministry of Environment for analysis. Water temperature, oxygen levels and water transparency were measured in August 2010. The graph shows the temperature of Sydenham Lake with increasing depth. The temperature at the surface was 25.7 °C and declined to 6.7 °C at the bottom of the lake.



Aquatic Invasive Species

Aquatic invasive species were monitored by field crews and Zebra mussel 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 ontario.ca/fishing.

ontario.ca/fishing