Broad-scale Monitoring Bulletin
BELLA LAKE – ZONE 15

Bella Lake Facts

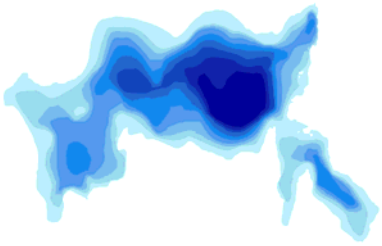
District Municipality of Muskoka

Surface Area: 358 ha

Maximum Depth: 40 m

Average Depth: 16 m

Water Clarity: 6.1 m



Monitoring Activities



- ✓ Fish netting
- ✓ Fish contaminants
- ✓ Zooplankton
- ✓ Water chemistry
- ✓ Bathymetry
- ✓ Water temperature/dissolved oxygen
- ✓ Invasive Species

Netting Summary

Netting dates: August 15 – 18, 2011

Netting days: 4

Number of net sets: 24

Number of fish species caught: 12

Fish Netting Results

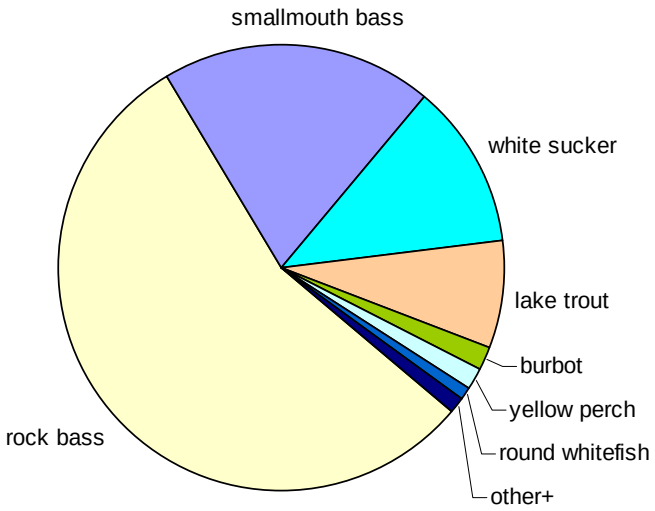
Fish populations were surveyed using large and small mesh nets to provide information on fish species present and their characteristics, such as growth, age and abundance. The catch data below show that 9 species were surveyed in large mesh nets. Additional fish species observed in small mesh nets were bluntnose minnow, golden shiner and rainbow smelt.

Fish species	Total Catch %	Maximum Length cm	Minimum Length cm	Average Length cm
rock bass	55	23.0	9.8	14.8
smallmouth bass	20	53.9	14.9	26.4
white sucker	12	55.5	19.3	42.6
lake trout	8	63.1	31.2	45.1
burbot	2	40.9	31.9	37.3
yellow perch	1	20.4	10.3	16.1
round whitefish	1	46.0	45.2	45.6
common shiner+	<1	16.6	16.6	16.6
pumpkinseed+	<1	7.0	7.0	7.0

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. Large mesh nets contribute information about fish species and small mesh nets describe the fish community. To learn more about the sampling program read *Broad-scale Monitoring Program: Monitoring the Health of Ontario Inland Lakes* or visit ontario.ca/fishing.

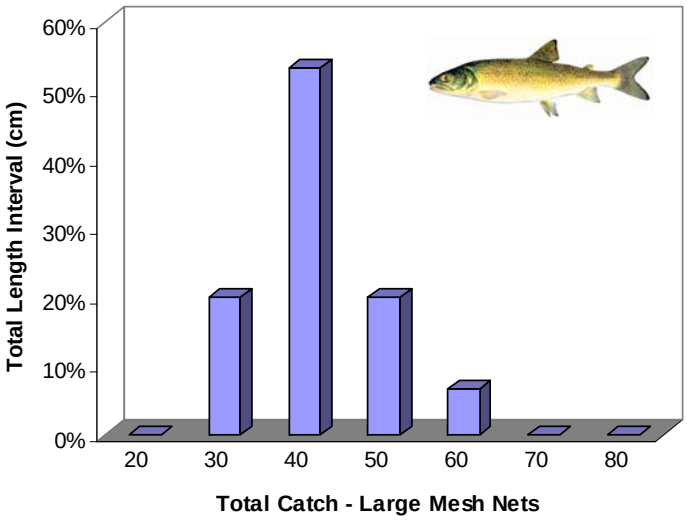
Proportion of Fish Caught in Large Mesh Nets



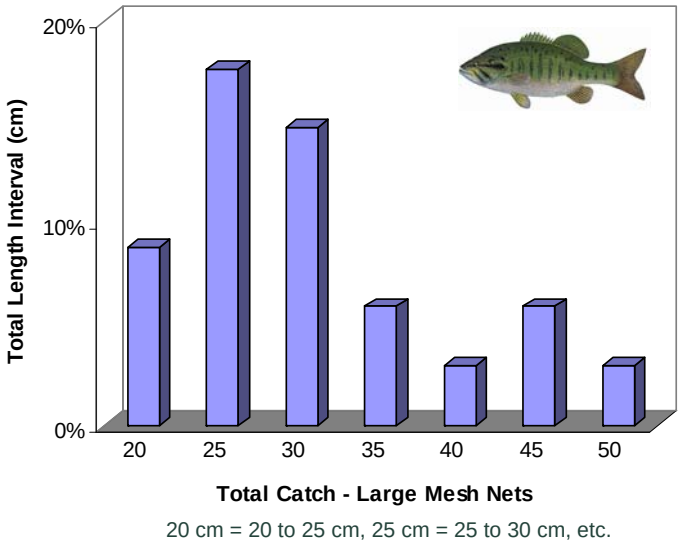
ontario.ca/fishing

Ontario

Length Distribution of Lake Trout



Length Distribution of Smallmouth Bass



20 cm = 20 to 25 cm, 25 cm = 25 to 30 cm, etc.

The size of lake trout ranged from 31 to 63 cm (from a total of 15 fish) and the size of smallmouth bass ranged from 15 to 54 cm (from a total of 38 fish) in large mesh nets.

Water Chemistry and Temperature

Water samples were collected in May 2011 and sent to the Ministry of Environment for analysis. Water temperature, oxygen levels and water transparency were measured in August 2011. Bella Lake is considered a cold-water lake that can support cold and cool-water fish species such as lake trout, whitefish and smallmouth bass.

Invasive Species

Invasive species were monitored using plankton nets and observations made by field crews. Spiny water flea has already been detected in Bella Lake and was also observed during monitoring. Rainbow smelt was also observed in small mesh nets 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 Sport Fishing in Ontario* or visit ontario.ca/fishguide.

For more information please contact Ministry of Natural Resources at 1-800-667-1940, send an email to mnr.nric.mnr@ontario.ca or visit ontario.ca/fishing.