Broad-scale Monitoring Bulletin
BIG DEER LAKE – ZONE 15

Big Deer Lake Facts

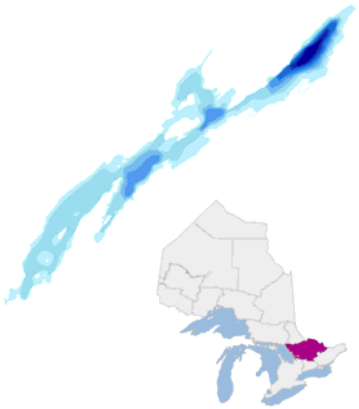
District of Parry Sound

Surface Area: 160 ha

Maximum Depth: 18 m

Average Depth: 3 m

Water Clarity: 4.0 m



Monitoring Activities

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

Netting Summary

Netting dates: August 30 – September 1, 2011

Netting days: 3

Number of net sets: 21

Number of fish species caught: 11

Fish Netting Results

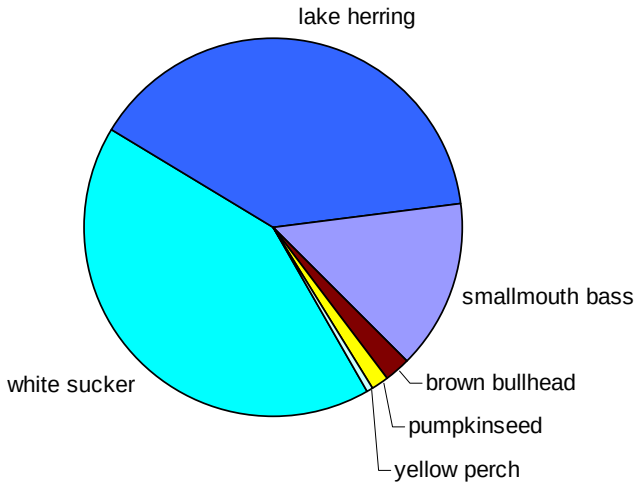
Fish populations were surveyed using large and small mesh nets to provide information on fish species present and their characteristics, such as growth, age and abundance. The catch data below show that 6 species were surveyed in large mesh nets. Additional fish species observed in small mesh nets were bluntnose minnow, common shiner, lake trout, rainbow smelt and spottail shiner.

Fish species	Total Catch %	Maximum Length cm	Minimum Length cm	Average Length cm
white sucker	42	48.2	19.3	39.7
lake herring	39	44.3	17.4	20.5
smallmouth bass	15	44.1	14.9	31.5
brown bullhead	2	25.6	24.4	25.0
pumpkinseed	1	18.3	15.8	17.1
yellow perch	<1	19.5	19.5	19.5

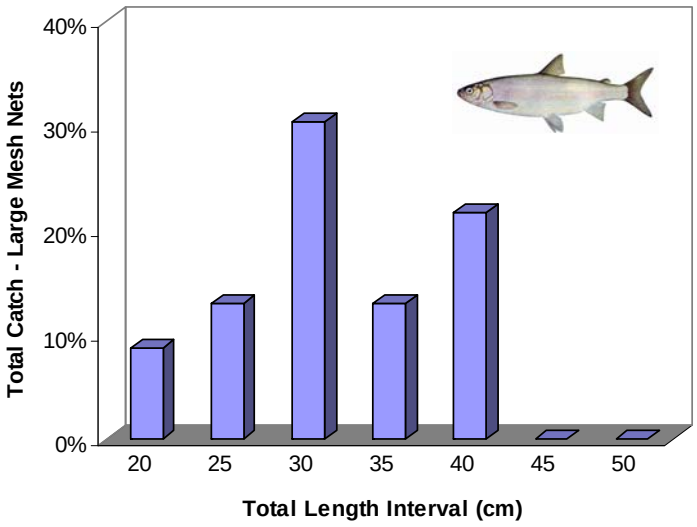
About the Program

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.

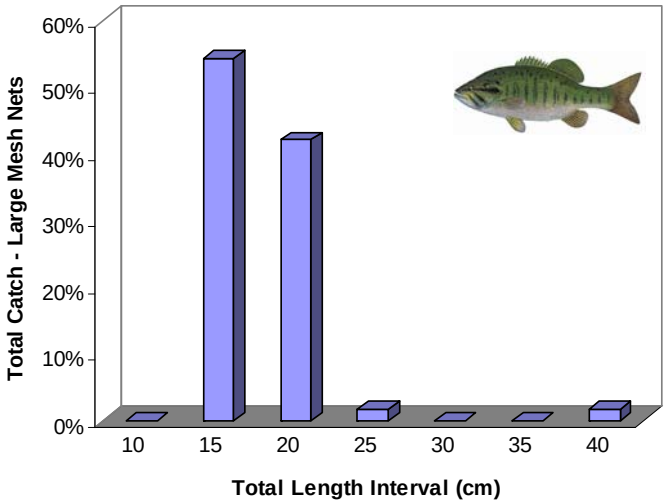
Proportion of Fish Caught in Large Mesh Nets



Length Distribution of Lake Herring



Length Distribution of Smallmouth Bass



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

The size of lake herring ranged from 17 to 44 cm (from a total of 57 fish) and the size of smallmouth bass ranged from 15 to 44 cm (from a total of 23 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. Big Deer Lake is considered a cool-water lake that can support fish species such as smallmouth bass.

Invasive Species

Invasive species were monitored using plankton nets and observations made by field crews. Rainbow smelt was observed in small mesh nets during monitoring in Big Deer Lake. 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.