

# Sheshegwaning Fisheries UPDATE

Fish Community Index Netting to Assess Salmon & Trout

February 2013

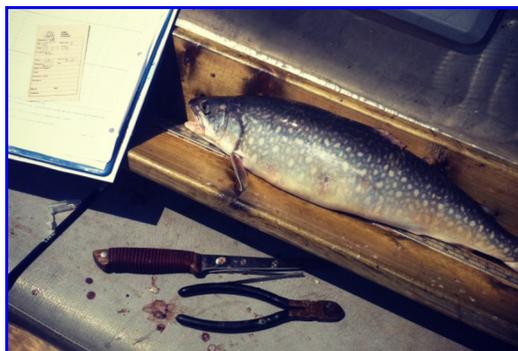
## INTRODUCTION

Sheshegwaning First Nation is located on the northwestern shores of Manitoulin Island in the North Channel of Lake Huron. It is within the North Channel, along the eastern shore of the First Nation, that community members regularly fish for trout, salmon and whitefish. However, within recent years the likelihood of catching one of these species in the area has decreased significantly. To address the concern of declining stocks, Sheshegwaning First Nation wanted to evaluate the current status of the fish population within the area and investigate any temporal trends in population abundance, and understand why the population and/or angling success is declining.

In cooperation with the Anishinabek/Ontario Fisheries Resource Centre, Sheshegwaning First Nation conducted a Fish Community Index Netting study during the summer of 2012. The data collected from this study can be compared to similar studies completed in other areas of the North Channel including West Bay, Manitowaning Bay, and areas adjacent to Serpent River and Sagamok First Nations.



Eastern shoreline of Sheshegwaning.



*A Lake Trout about to be sampled during the Fish Community Index Netting study.*

## METHODS

Multi-mesh gill nets were set overnight in randomly selected locations within two different water depth zones. Mesh sizes on the nets ranged from 38mm—127mm (1.5 - 6 inches) while the depth strata included both shallow (0.5—20 m) and deep (>20 m) areas to ensure the catch of various fish sizes and species. Thirty nets were to be set throughout the 10,000—15,000 ha study area.

All captured fish were sampled by mesh size. All commercial and recreational species, including trout, salmon and whitefish, were measured for fork length, total length and weight. The sex, maturity and stomach contents were determined through internal observation. Ageing structures such as scales, dorsal fin spines, pectoral fin rays and/or otoliths (ear bones) were collected. All coarse fish (eg. Suckers) were measured for fork length only.

## RESULTS

A total of 30 net sets were completed during the week of July 3rd to 11th, 2012. Water temperatures ranged from 18—23 degrees Celsius. Water depths at the netting sites ranged from 2—56 m.

Fish species captured during the project included Lake Trout, Lake Whitefish, Lake Herring, Round Whitefish, Lake Sturgeon, Alewife, Rainbow Smelt, Northern Pike, Longnose Sucker, White Sucker, Lake Chub, Brown Bullhead, Burbot (Ling), Rock Bass, Smallmouth Bass, Yellow Perch and Round Goby.

Captured Lake Trout ranged in total length from 199—558 mm (8-22 inches) and 57—2000 g (<1—4 lbs) in weight. Lake Trout ranged in age from 2 to 7 years old.

Captured Lake Whitefish ranged in total length from 189—590 mm (7—23 inches) and 46—2100 g (<1—4.5 lbs) in weight. They ranged in age from 1 to 10 years.

No salmon species were caught during this study.

## CONCLUSION

A full technical report is currently being drafted and will be finalized in 2013. Data from 2012 will be compiled and compared to existing North Channel data.



*A juvenile Lake Sturgeon was one of the catches in Sheshegwaning.*



For more information on this or other fisheries projects please contact the A/OFRFC:

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