

# Michipicoten Fisheries UPDATE

Lake Sturgeon Spawning Assessment in the Michipicoten River

December 2012

## INTRODUCTION

In advance of the Waterpower Agreement for Lake Sturgeon (2012) and the Michipicoten River Water Management Plan (2014), there is a demand for research and assessment of Lake Sturgeon spawning, movements, and population dynamics in the Michipicoten River. Given that both of these processes will require Aboriginal consultation, Michipicoten First Nation (MFN), Brookfield Renewable Power (BRP), and the Ontario Ministry of Natural Resources (OMNR) have expressed a strong interest in having MFN involved and participating throughout the process. As such MFN, BRP, and OMNR has requested the assistance of the Anishinabek/Ontario Fisheries Resource Centre to facilitate and undertake research on behalf of and in partnership with MFN.



Mission Falls, Michipicoten River

As there is little background information for this Lake Sturgeon population and the river has a series of hydroelectric generating stations that were constructed in the mid-1900s, MFN and the A/OFRFC have conducted a spawning assessment that was funded by the Canada-Ontario Agreement for Respecting the Great Lakes Basin.

## METHODS

Spawning assessment methodology includes; the monitoring of abiotic



An anaesthetized Lake Sturgeon before insertion of an internal radio tag.

conditions (temperature, flow, and discharge), traditional knowledge surveys related to Lake Sturgeon, adult gill netting, the setting of egg mats, larval drift netting, and habitat assessment and mapping.

## RESULTS

Lake Sturgeon spawning assessments were undertaken on the Michipicoten River from May 21<sup>st</sup> to July 11<sup>th</sup> 2012 when water temperatures ranged from 12°C to 22°C.

A total of 8 Lake Sturgeon were captured during this study using 7" to 10" mesh gill nets. The total number of overnight sets was 130 resulting in a Catch Per Unit Effort of 0.06 sturgeon/100' net/day. Five juvenile/sub-adult Lake Sturgeon were captured near the mouth of the river, and three ripe males were captured below Scott Falls dam and radio tagged to monitor their movements. Two of the three radio tagged Lake Sturgeon remained at Scott Falls dam until June 13<sup>th</sup> and June 18<sup>th</sup>, while the third individual remained at the dam for the duration of the study. Their movements will continue to be monitored throughout the winter by remote base station receivers.

A Traditional Ecological Knowledge survey has been developed and distributed to community members of Michipicoten First Nation. The A/OFRFC will continue to gather results from these

surveys in partnership with MFN and present findings at a community workshop in the spring of 2013.

This project also included the installation of three information billboards at different access points on the Michipicoten River.

## CONCLUSION

Results have shown that radio tagged Lake Sturgeon were frequently detected in the pool below Scott Falls spillway and in the tailrace below Scott Falls Power House. The habitat at both of these locations is conducive to Lake Sturgeon spawning and staging habitat, given the ripe status of the tagged Sturgeon and water temperatures at the time of detection.

Although this study improved our knowledge of Lake Sturgeon in the Michipicoten River, a considerable amount of research is still required to evaluate the status and threats to this population.

A full technical report is currently available from the A/OFRFC.



The information board that will be installed at MFN, Scott Falls Generating Station and Buck's Marina.



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

755 Wallace Road Unit #5 North Bay, ON P1A 0E7

phone: (705) 472-7888 fax: (705) 472-6333

[www.aofrc.org](http://www.aofrc.org) [www.facebook.com/AOFRFC](http://www.facebook.com/AOFRFC)