

Red Rock Fisheries UPDATE

Lake Sturgeon Tagging Study

February 2013

INTRODUCTION

Red Rock Indian Band (RRIB) has historically fished Lake Helen for subsistence and commercial purposes; mostly using gill nets. In the 1980's, the Ontario Ministry of Natural Resources and the Great Lakes Fishery Commission designated Nipigon Bay as an area of concern and closed the bay to commercial fishing. In adherence of Aboriginal rights, the First Nation actively maintains their subsistence fishery through the use of gill nets.

To assist RRIB in making pro-active choices regarding the harvest of Lake Sturgeon, a Lake Sturgeon Tagging study was proposed to the Anishinabek/Ontario Fisheries Resource Centre. The study of Lake Sturgeon on Lake Helen first started in 2008; during which no Lake Sturgeon were captured. A subsequent study occurred in 2010 in which four were captured and tagged. The purpose of completing another Lake Sturgeon Tagging study in 2012 was to continue to monitor the movements of previously tagged fish and add to the data by implanting radio tags into additional Lake Sturgeon.



Red Rock Indian Band member Sean Ruth holds a Lake Sturgeon caught and released in Lake Helen.

During the 2012 study, there was a total of 65 Lake Sturgeon gill nets set in Lake Helen and a total of five Lake Sturgeon caught, tagged and released. One of the five was a recapture from 2010.

The average fork length of captured Lake Sturgeon was 1201 mm (approx. 47 inches or 4 ft), and ranged between 1045 mm and 1410 mm. The mean total length of the Lake Sturgeons was 1280 mm (50.5 inches) and ranged between 1170 mm and 1465 mm. Captured Lake Sturgeon ranged from 12500 g to 33000 g with a mean round weight of 20750 g (approx. 46 lb).

METHODS

Traditional Ecological Knowledge was gathered from RRIB Elders and fishermen as to locations of past Lake Sturgeon catches. Large mesh gill nets were set at target locations as well as randomly throughout Lake Helen to cover all areas. Gill nets included 8, 9, 10 and 12 inch mesh sizes. Successfully captured Lake Sturgeon were sampled for fork length, total length, girth, weight, and an external indication of sex and maturity when possible. FLOY tags were attached to the Lake Sturgeon near the dorsal fin (see picture). To implant radio tags the Lake Sturgeon were anaesthetized. All fish were released back into the lake.

CONCLUSION

Successful catches were in the areas immediately adjacent to where the Nipigon River drains into Lake Helen. This area is unique both in terms of hydrodynamics (created by the outflow) and in the fact that the area is subjected to a significant amount of sediment deposition. Factors like water movements and sediment deposition have been characterized as key factors for Lake Sturgeon and their seasonal movement patterns.

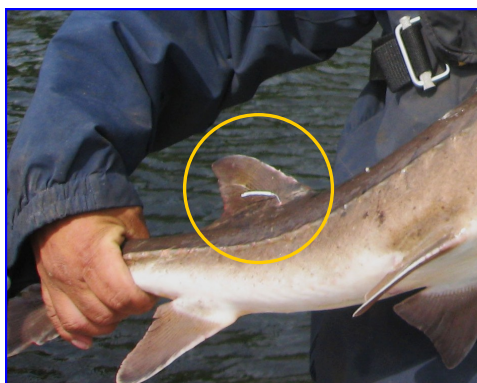
A full technical report is currently being drafted and will be finalized in 2013.

RESULTS

Sean Ruth and Michael Blakely III of the Red Rock Indian Band, conducted the Lake Sturgeon Tagging study and were able to gain quality netting and fish sampling experience. They were out on the Lake Helen from October 3rd to 26th, 2012. The water temperatures on the lake ranged from 10—12 degrees Celsius.



A Lake Sturgeon from Lake Helen about to be weighed.



A FLOY tag inserted beside the dorsal fin of a Lake Sturgeon. If you catch one of these fish, please give the tag number to the A/OFRFC or RRIB Band Office.



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

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