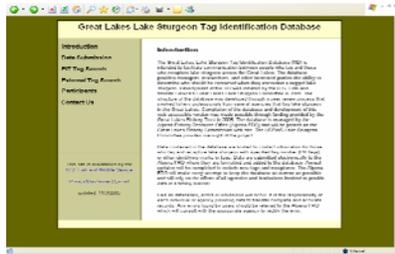




# Alpena FRO Lake Sturgeon Activities

## Geographic Responsibilities Include:

- The St. Marys River which connects Lake Superior to the lower Great Lakes
- Lake Huron and the Saginaw Bay Watershed
- The St. Clair River, Lake St. Clair, and the Detroit River Corridor
- The western basin of Lake Erie



Screen capture of the tagging database.

## Great Lakes Lake Sturgeon Tag Identification Database

- Constructed by Alpena FRO to improve data sharing
- Allows users to search for PIT tag or external tag sequences to obtain contact information
- Contains tagging information from nearly all Great Lakes lake sturgeon research
- There are over 12,500 PIT tags and 100 external tag sequences housed in the database
- Alpena FRO updates the database annually
- The database is housed by the Great Lakes Fishery Commission: [www.glfrc.org/sturgeonatg/](http://www.glfrc.org/sturgeonatg/)



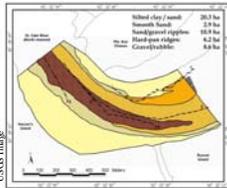
A lake sturgeon captured and tagged by a commercial fisher.



A lake sturgeon on the deck of a commercial boat.

## Lake Huron Commercial Fishers Aid in Data Collection

- Beginning in 1995, Alpena FRO enlisted the help of commercial fishers to collect data from lake sturgeon
- There are currently 14 commercial boats collecting data
- Lake sturgeon are a by-catch of the commercial fishery which targets lake whitefish and yellow perch
- Total length, fork length, girth, and GPS coordinates are recorded, and each fish has an external tag secured
- To date, data from 427 lake sturgeon has been collected



Side-scan Sonar map of the North Channel.



Assessment crew holding juvenile lake sturgeon.

## St. Clair River (2002-2006)

- Identified the largest lake sturgeon spawning population in the Upper Great Lakes at the headwaters of the St. Clair
- Tagging and telemetry efforts determined that most lake sturgeon were coming from Lake St. Clair and Saginaw Bay
- Movement was detected from Lakes Michigan and Erie
- Juvenile lake sturgeon (age 0-5) were consistently found in the North Channel and the shallow flats of the St. Clair Delta
- The North Channel was surveyed using Side-scan Sonar
- Analysis is ongoing and will be used to describe habitat used by both juvenile and adult lake sturgeon

## Detroit River (1999-2008)

- Assessment work identified a small remnant stock using artificial habitat at Zug Island but recruitment is low or absent due to degraded habitat
- In 2004, three artificial spawning reefs were constructed near Belle Isle at the headwaters of the Detroit River
- Post-construction assessment identified 16 different species using the reefs of which two are state listed species (northern madtom and lake sturgeon)
- Ongoing research will assess the use of historical spawning sites and identifying potential sites for artificial reefs
- In 2006, four juvenile lake sturgeon (ages 0-4) were captured in the Lower Detroit River at one specific site likely indicating site fidelity



Lake Sturgeon eggs deposited on the artificial reef at Belle Isle.

## Saginaw River Watershed and Maumee River (2004-2007)

- Assessments have been conducted to determine if lake sturgeon are reproducing in these systems
- To date, spawning activities have not been documented
- In 2007, habitat assessments will be conducted to determine if the necessary life history requirements would be fulfilled if lake sturgeon are reintroduced



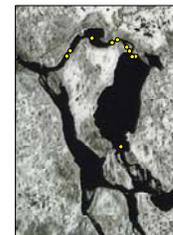
A saturated incision on the abdomen of a lake sturgeon.



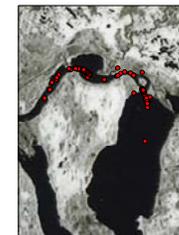
The St. Marys River contain many channels, islands, and bays.

## St. Marys River

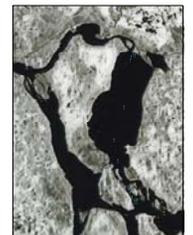
- Assessment and tracking activities began in 2006
- 72 lake sturgeon were captured and 12 had a sonic tag surgically implanted which have a 4 year battery life
- Most lake sturgeon remained close to capture locations
- Two fish left the system shortly after being released
- One ripe male and one ripe female were captured
- Reproduction appears to be taking place in the St. Marys
- By following the implanted fish in subsequent years spawning locations may be identified



Capture locations of the 12 implanted lake sturgeon.



Movement of 9 lake sturgeon between May and November.



Movement of 1 lake sturgeon between May and November that swam down river 5 miles and returned to the north channel of Sugar Island.