



**Lake Sturgeon *Acipenser Fulvescens*
Population and Habitat Status for
Lake Nipissing**

Nikki Commanda, Fisheries Biologist

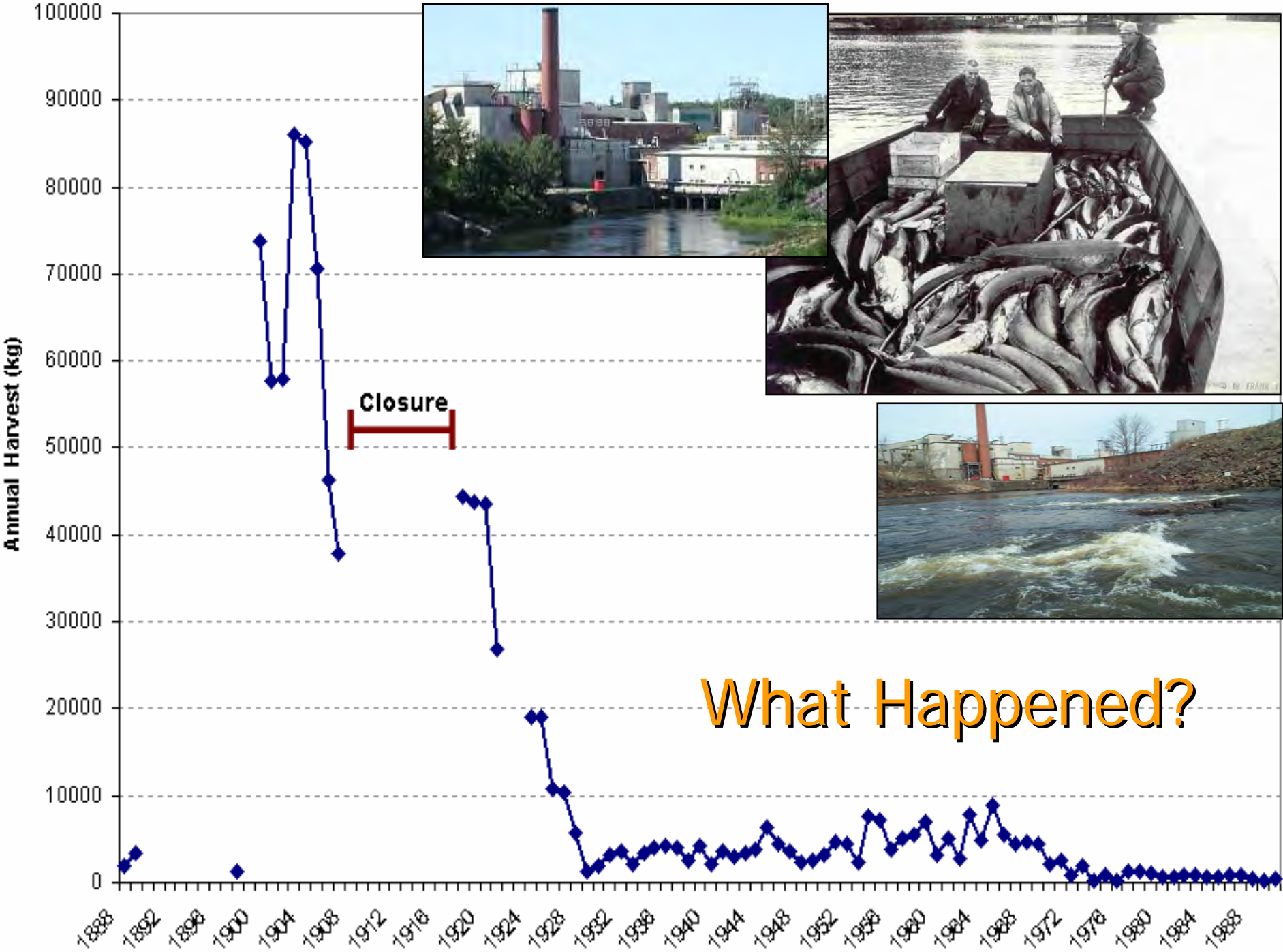
- Status
- Brief History
- Biology
- Results
- Proposed Future



A close-up photograph of a shark's head, showing its eye, gills, and snout. The shark is being held by a person's hand, which is visible on the left side of the frame. The background is a light-colored, sandy or concrete surface.

Status

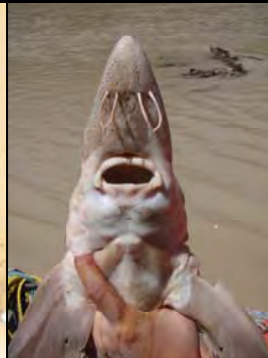
- Considered Threatened by the Committee on the Status of Species-at-Risk in Ontario
- Committee on the Status of Endangered Wildlife in Canada
- Great Lake Upper St. Lawrence Population
- Lake Nipissing – Status presently unknown



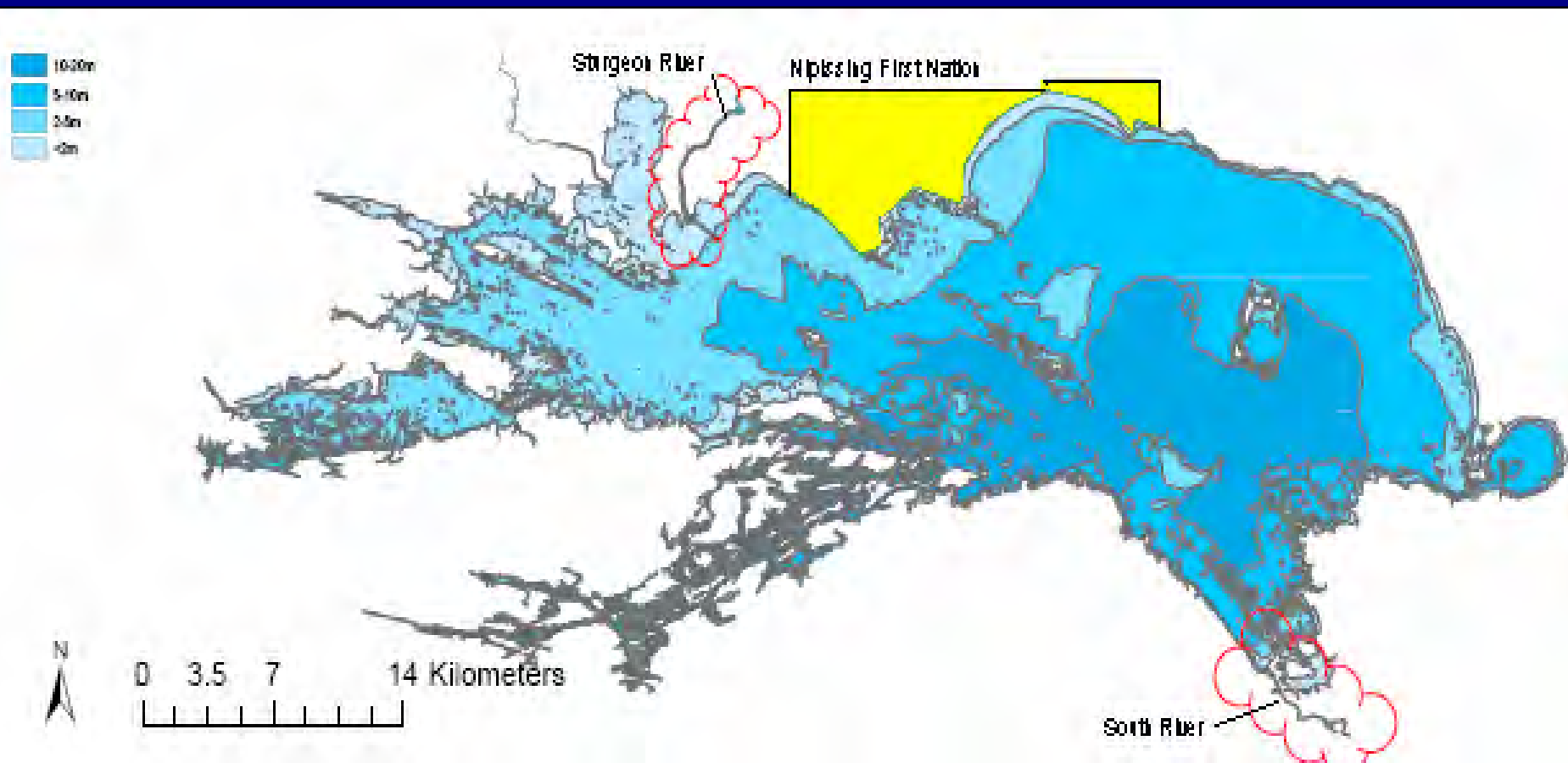
What Happened?

Biology

- Spawning frequency and habitat
- Temperature and fecundity
- Growth, adult size and longevity



- Where do they go after they spawn?
 - Are there other spawning sites?
 - How many are there?
- Can we enhance this habitat or the sturgeon population?
If so, how do we begin?
 - Can they recover?



Results

Aboriginal Funds for Species at Risk



- Adult mark-recapture
- Juvenile mark-recapture
- Habitat use and movement patterns -
Radio Telemetry
- Traditional Ecological Knowledge

Adult mark-recapture

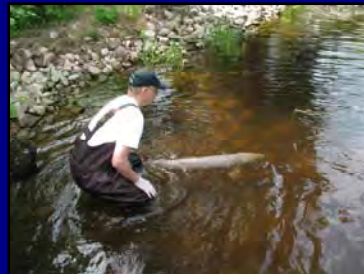


■ South River

- Total of 212 sturgeon were tagged in 2008
- Population estimate of 410 with upper and lower 95% confidence intervals of 460 and 361.
- No need to collect more data.

■ Sturgeon River

- Total of 32 sturgeon were tagged in 2008.
- Need more data to estimate the population.



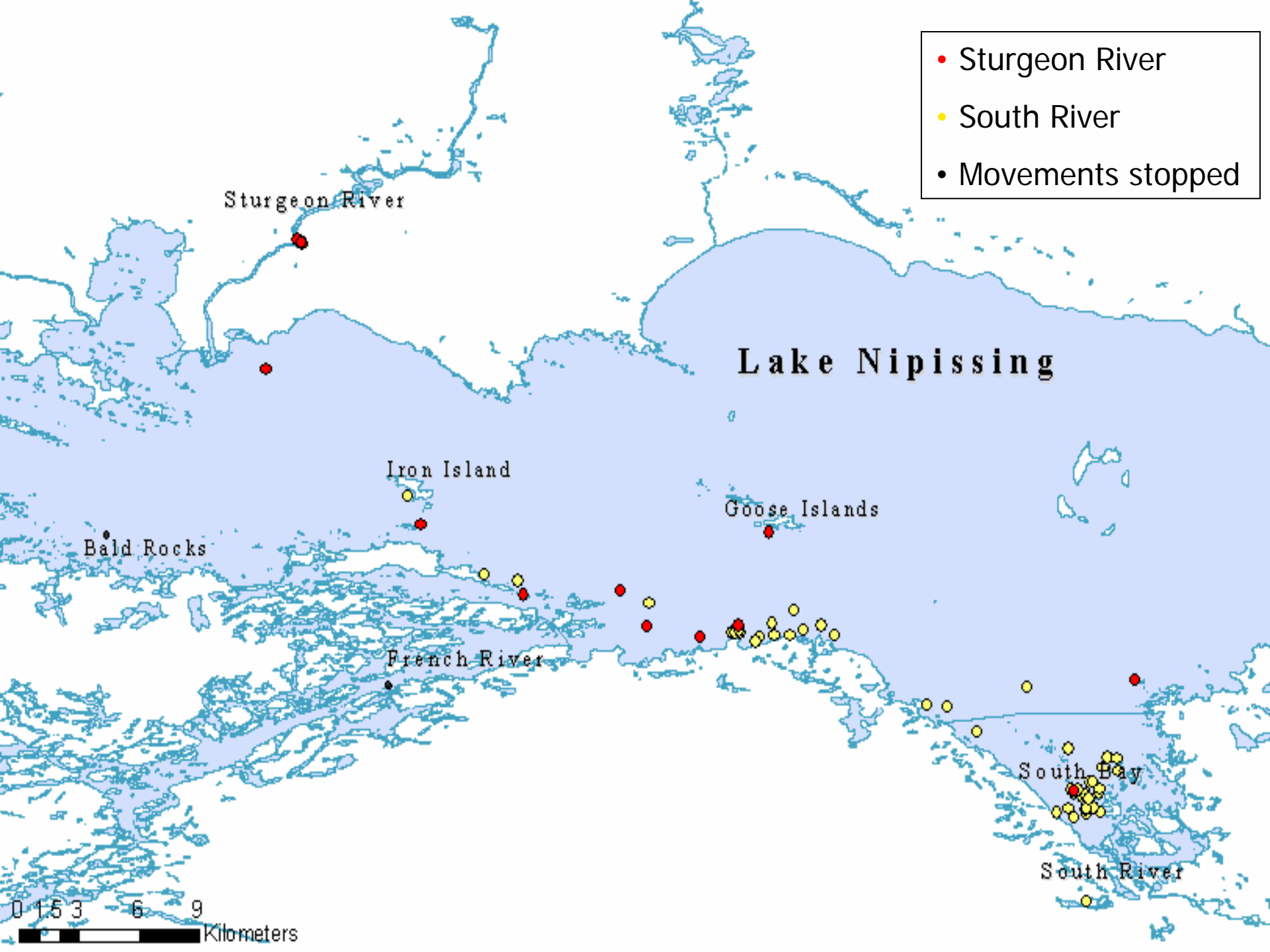
Juvenile mark-recapture

- In 2008 a total of 105 juvenile sturgeon were captured. Seven were recaptures.
- In 2009 a total of 127 sturgeon were caught. Seventeen were recaptures.
- In 2010 a total of 60 were caught. Eleven were recaptures.
- Estimating the juvenile population to be 502 with upper and lower 95% confidence intervals of 539 and 487.



Habitat Use and Movement Patterns





Traditional Ecological Knowledge

- To collect historical knowledge of lake sturgeon, specifically as it relates to past abundance, habitat use, and the potential presence of shoal-spawning population.



"A good friend of mine the late Paul Goulais once told me that when he was young his mother cooked sturgeon many ways, boiled, fried, baked and even cooked the caviar inside in her bannock. They also used the oil to burn. There are still many of the older people who enjoy eating this fish."

-Nipissing First Nation Elder-



Traditional Ecological Knowledge - lake sturgeon in Lake Nipissing

Purpose: To acquire historical knowledge of the lake sturgeon population of Lake Nipissing, specifically as it relates to past abundance, migration patterns, critical habitats, habitat use and potential presence of shoal-spawning population.

Please include your name and age so that credit can be given.

PARTICIPANT INFORMATION (optional)

Date (of interview):

Name:



Age:

HARVEST INFORMATION

1. Do you consider yourself a: CIRCLE 1 or more and provide number of years fished.

Commercial ___ Recreational (includes occasional) ___ or Subsistence fisher ___

2. Were lake sturgeon caught incidentally or were they a targeted species?

3. How do you remember lake sturgeon being caught in the past?

4. What season were they most caught in: Spring Summer Autumn Winter
a. Why were they caught during this season?

5. Generally where were lake sturgeon caught? Please indicate on map below:



PAST ABUNDANCE INFORMATION

1. Has the sturgeon population decreased in number over the years? If so, what do you believe caused this decline in the sturgeon population?

2. Do you remember how many sturgeon were in Lake Nipissing compared to the present?

SPAWNING INFORMATION

1. Do you know of any historical spawning locations of lake sturgeon in Lake Nipissing? Please CIRCLE on map below: and/or name of the area? Include year _____

2. Do you know of any shoal-spawning sturgeon in Lake Nipissing? Please indication with a STAR (*) on map below: and/or name of the area? Include year _____



3. Were there any traditional indicators that told you from experience (or from family) that sturgeon were about to spawn? If so, what were these indicators?



HABITAT USE INFORMATION

1. Do you know of any past or present **juvenile** lake sturgeon habitat in Lake Nipissing?
Please **CIRCLE** on map below: AND/OR

- Name areas you are aware of, and...
- What season?

2. Do you know of any past or present **adult** lake sturgeon habitat in Lake Nipissing?
Please indicate with a **STAR** (*) on map below: AND/OR

- Name areas you are aware of, and...
- What season?



3. Do you know of any habitat in general that sturgeon may use and why this might be?



MOVEMENT INFORMATION

1. Do you know of any movement patterns of lake sturgeon in Lake Nipissing? (Please indicate with **ARROWS OR A LINE** on the map below).

Example: do you know if they moved along the North shoreline close to Nipissing First Nation?



2. How do you know of these movement patterns? *Example: knowing where to fish at certain times of the year.*

CULTURAL INFORMATION (optional)

- What is the Ojibway name for lake sturgeon?
- What is the cultural significance of lake sturgeon to the people of Nipissing or to you as an individual?



3. Can you remember any stories or legends about lake sturgeon while growing up?

a. Name of person who told you this information and their relationship to you?

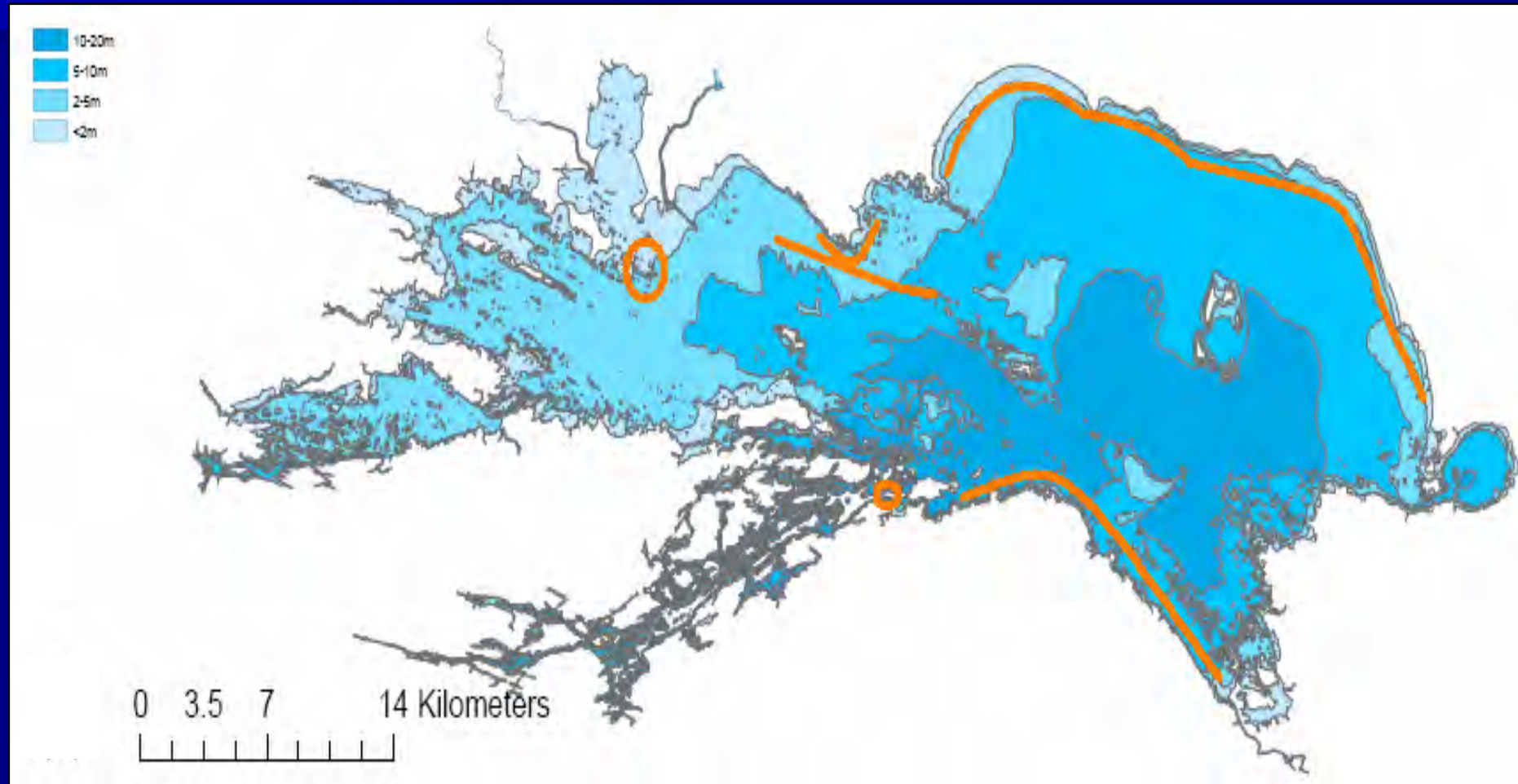
4. How do you remember sturgeon being prepared and cooked?

a. What parts of the sturgeon were used?

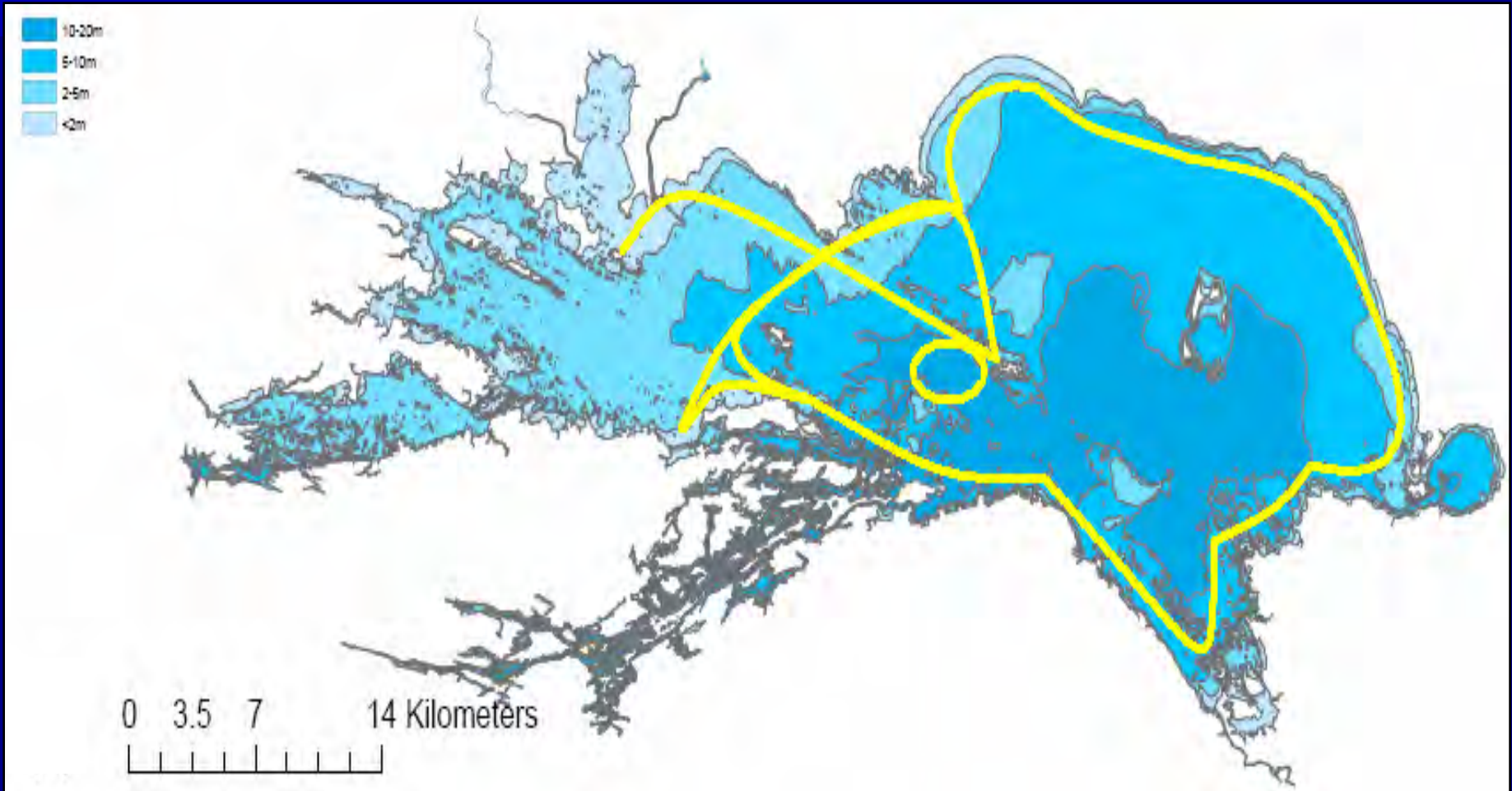
5. Do you have any general stories of lake sturgeon in Lake Nipissing you would like to share that you have experienced over your life time?



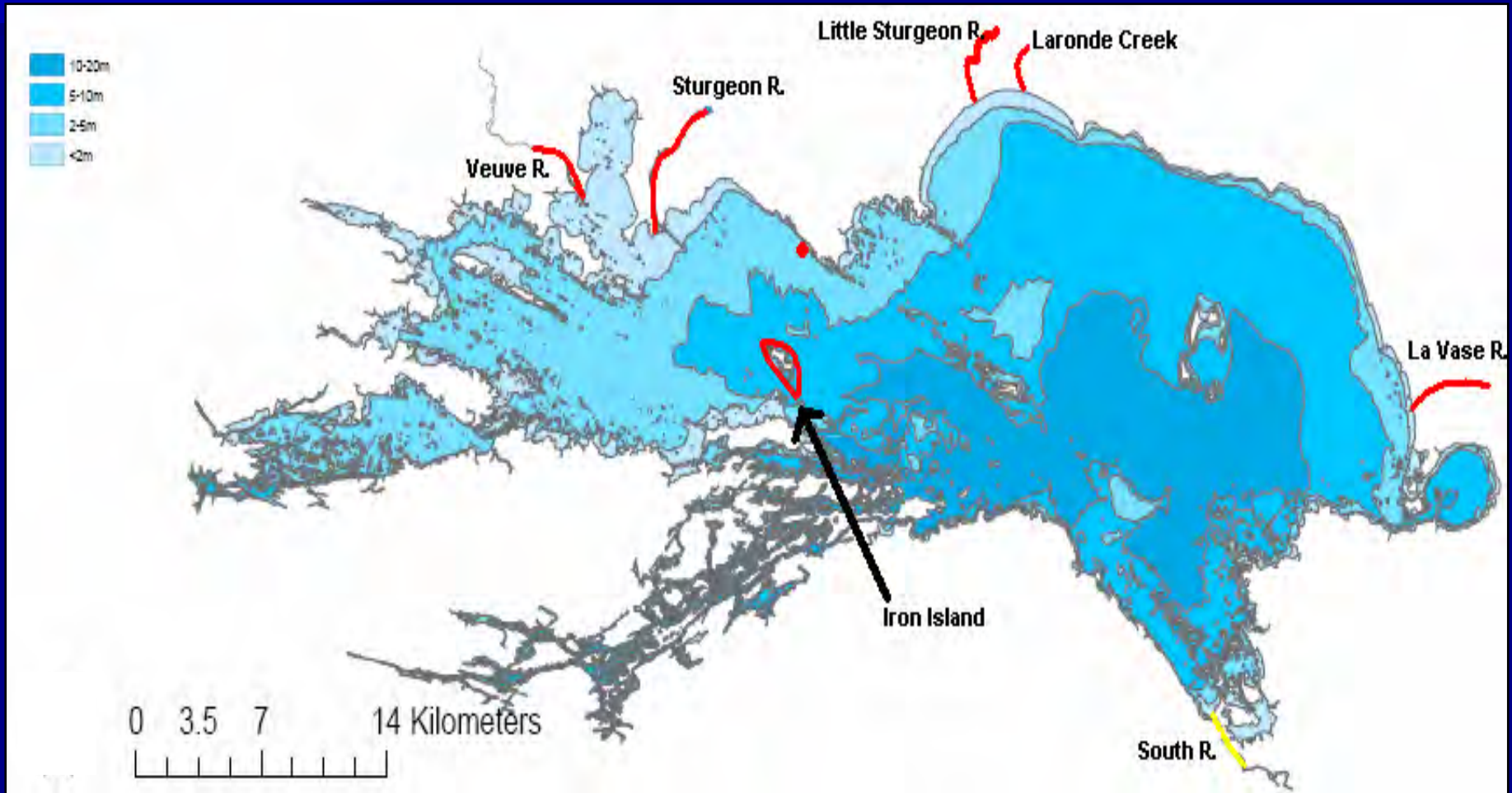
Habitat Use



Movement Patterns



Spawning Sites



Proposed Future



- Estimate the adult population in the Sturgeon River
- Track adult sturgeon
- Habitat
- Document TEK
- Radio tag juvenile lake sturgeon and track movements

- Status
- Brief History
- Biology
- Results
- Proposed Future





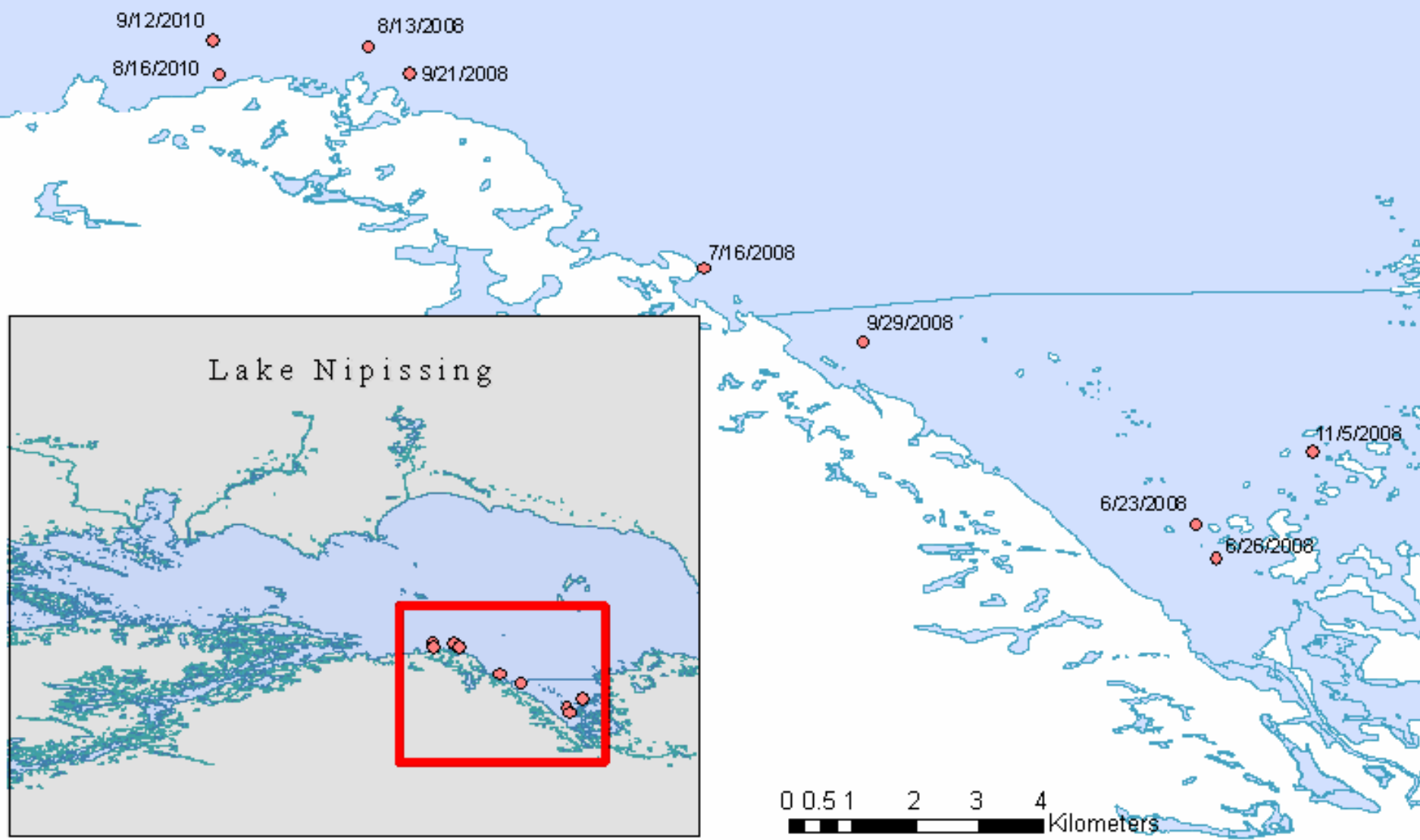
QUESTION?

Miigwetch

- Aboriginal Funds for Species at Risk
- Alex Commanda, Nipissing First Nation Elder
- Brian Stevens, Nipissing First Nation Elder
- Dan Commanda, Nipissing First Nation Elder
- Henry Anishnabie, Nipissing First Nation Elder
- Homer McLeod, Nipissing First Nation Elder
- Larval lake sturgeon image. Michigan Environmental Education Curriculum : Rivers and Stream Ecosystem.
<http://techalive.mtu.edu/meec/module07/larvae.htm>
- Nipissing First Nation www.nfn.ca. Historical Background.
- Richard Rowe, Biologist, Nipissing First Nation Natural Resource Department
- Scott Kaufman, Ministry of Natural Resources, North Bay
- Thomas Pratt, Community Production Scientist, Fisheries and Oceans Canada, Sault St. Marie

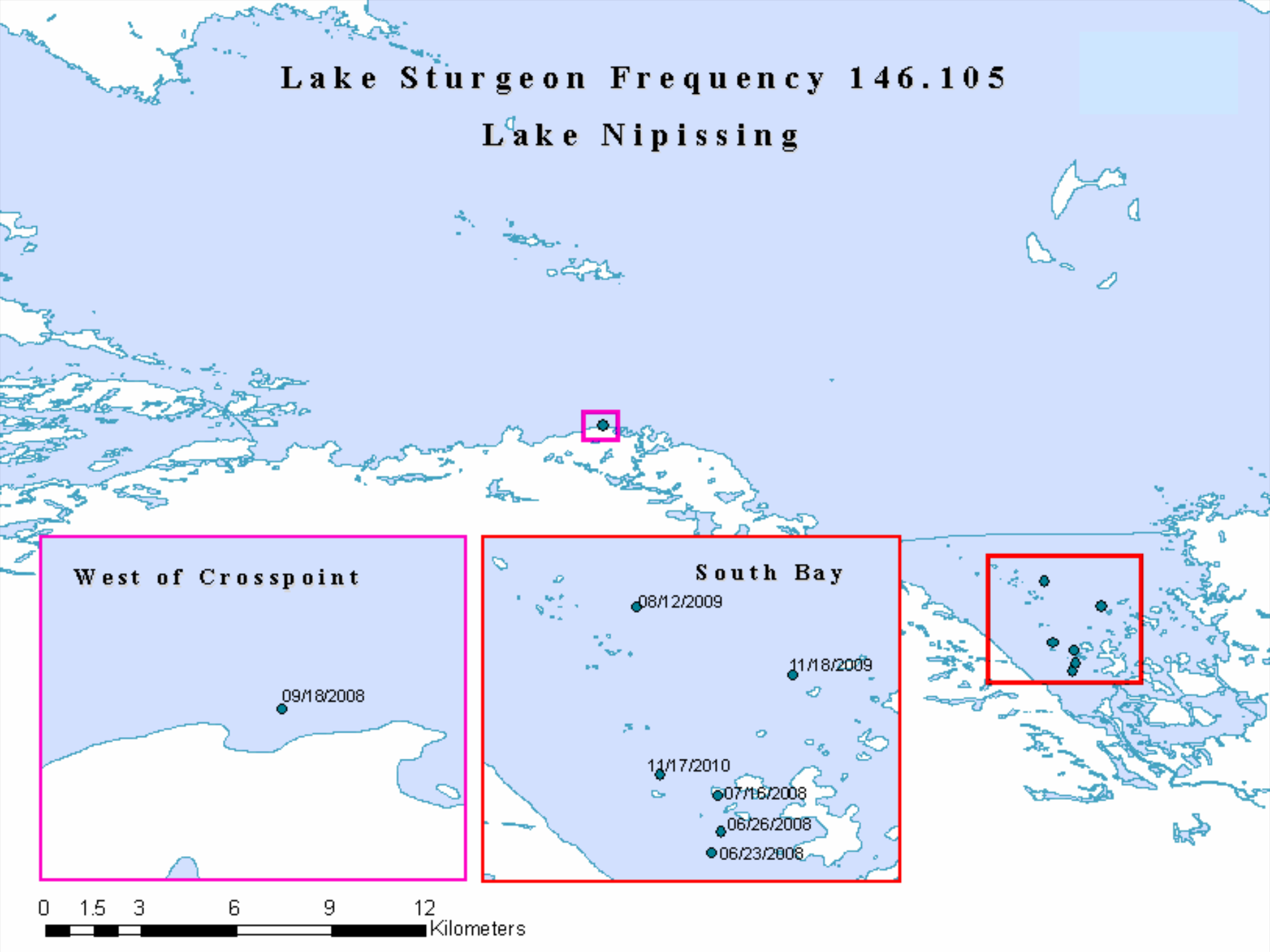
Lake Sturgeon Frequency 146.047

South Shoreline of Lake Nipissing



Lake Sturgeon Frequency 146.105

Lake Nipissing



West of Crosspoint

09/18/2008

South Bay

08/12/2009

11/18/2009

11/17/2010

07/16/2008

06/26/2008

06/23/2008

0 1.5 3 6 9 12 Kilometers

