

MENOMINEE LAKE STURGEON MANAGEMENT



PEOPLE OF NAMA'O



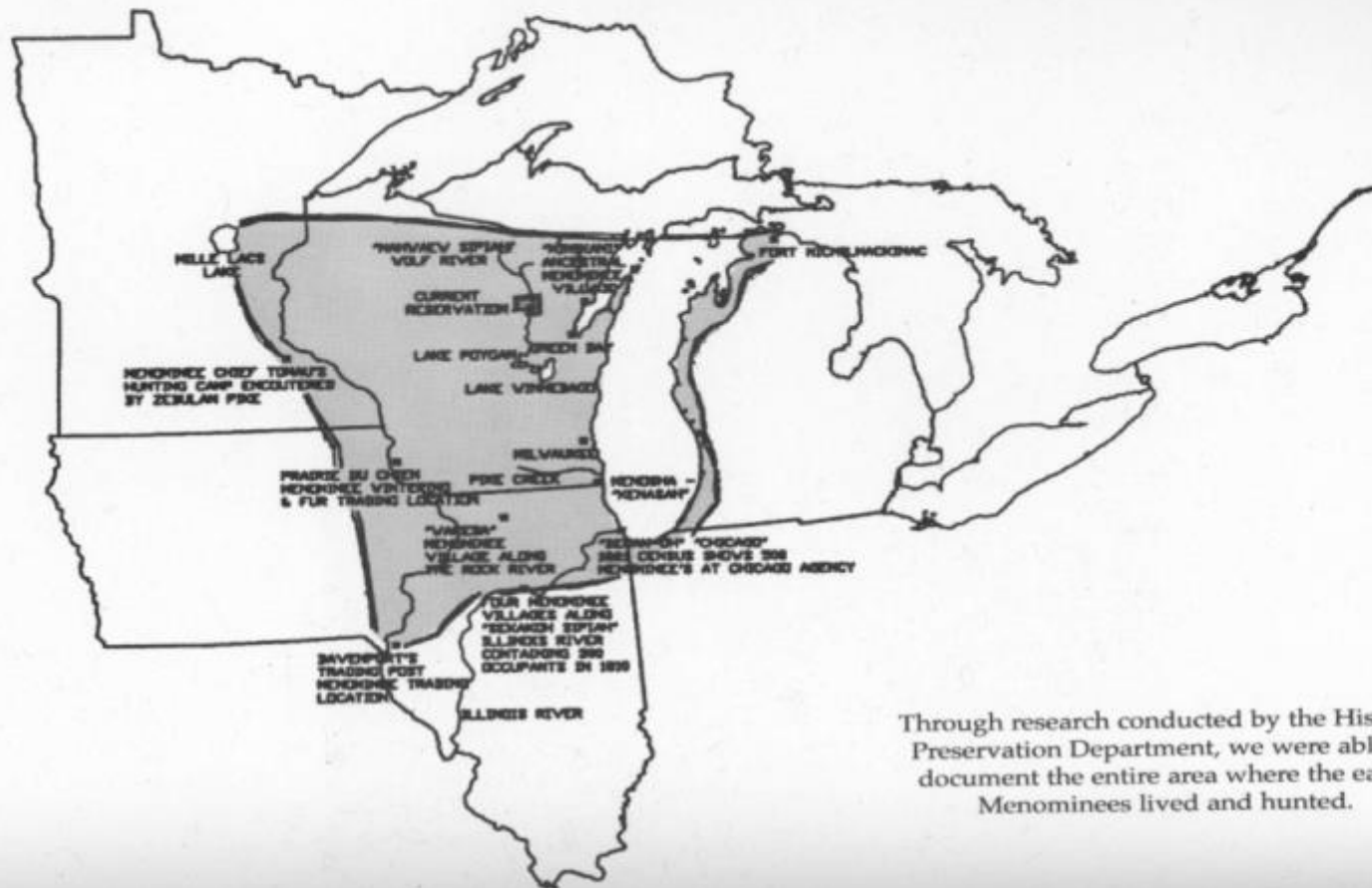
A large sturgeon is shown swimming in turbulent water, creating white foam. The fish is the central focus, moving from the upper right towards the lower left. The water is dark and churning, with white foam from the waves surrounding the fish. The background is a mix of dark blue and brownish tones, suggesting a rocky or turbulent river environment.

Today's Outline

- 1.) Short Menominee History on Lake Sturgeon**
- 2.) Legend Lake Put-Grow-Take Lake Sturgeon Fishery**
- 3.) Wolf River Sonic Tag Lake Sturgeon Research Project**

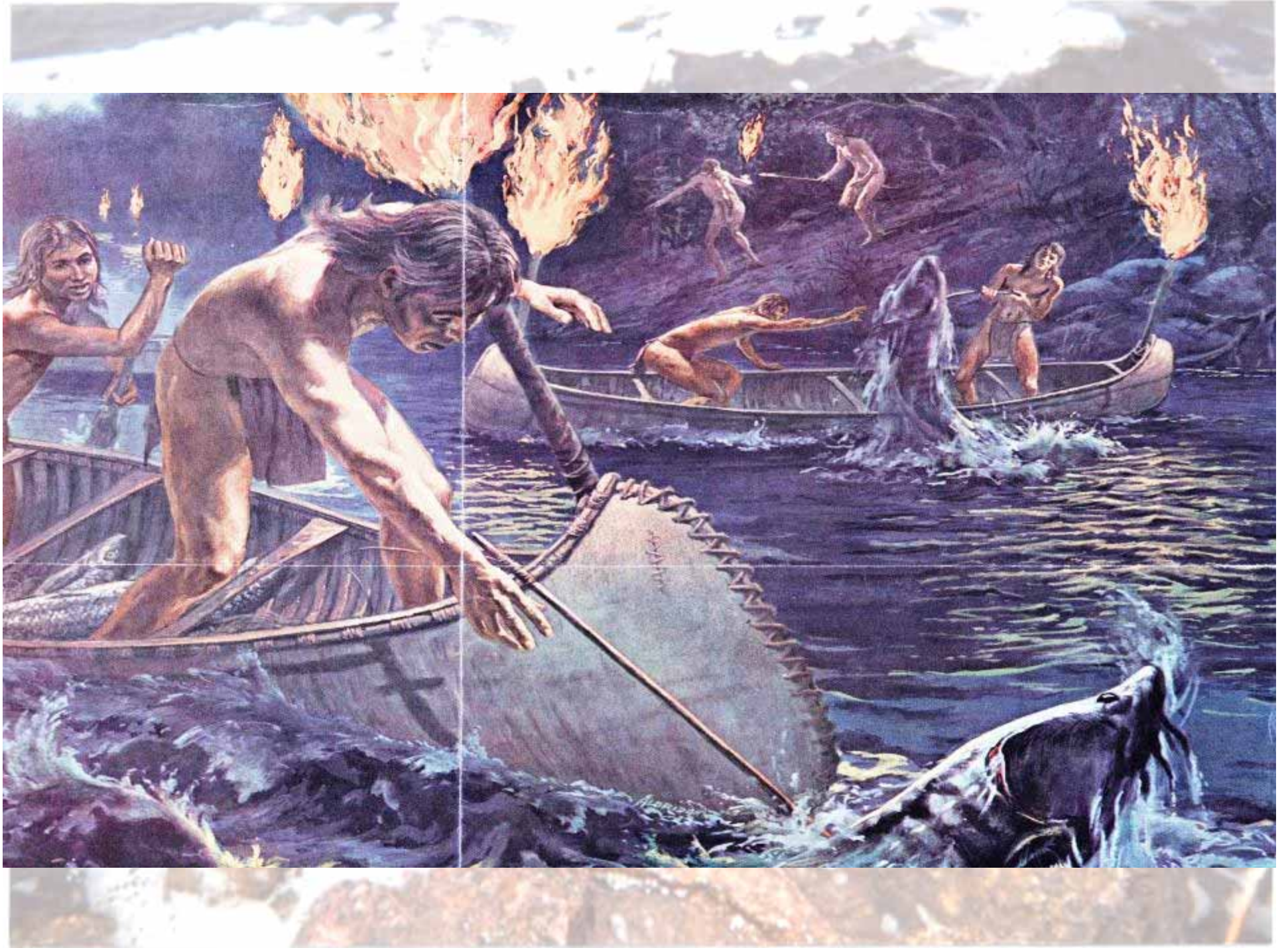
NAMA'O THE SACRED FISH

MENOMINEE TERRITORIAL RANGE 1720-PRESENT



Through research conducted by the Historic Preservation Department, we were able to document the entire area where the early Menominees lived and hunted.







NOMAD INDIAN
TRADING POST
MARKTON WIS

PREPARING FOR THE DANCE
KESHENA FALLS - MENOMINEE INDIAN RESERVATION - WISCONSIN
46



- **The Menominee fish dance was performed at Keshena Falls.**
- **Historically an All Animals dance was performed honoring all wildlife including fish.**





**Shawano Paper
Mill Dam - 1892**

**Balsam Row
Dam - 1926**





- Nama'o the Sacred Fish would come back home (**Namao Uskawamit**) to Keshena Falls.
- Hundreds of Menominee would witness their return to Keshena Falls
- The sacred drum in Keshena Falls would once again call them home.



Special thanks has to be given to the following departments for all of their input in this continuing process

Menominee Conservation/Fish and Wildlife, MITW

Menominee Tribal Legislature

Bureau of Indian Affairs, Minneapolis Area Office

United States Fish and Wildlife Service

Wisconsin Department of Natural Resources

Environmental Services, MITW

Menominee Conservation Commission

Menominee Tribal Members

Sturgeon for Tomorrow

Winnebago Citizens Sturgeon Advisory Committee

A photograph of a lake sturgeon swimming in shallow, rocky water. The fish is dark and elongated, with a prominent dorsal fin. The water is clear, revealing the rocky bottom. The text is overlaid on the image.

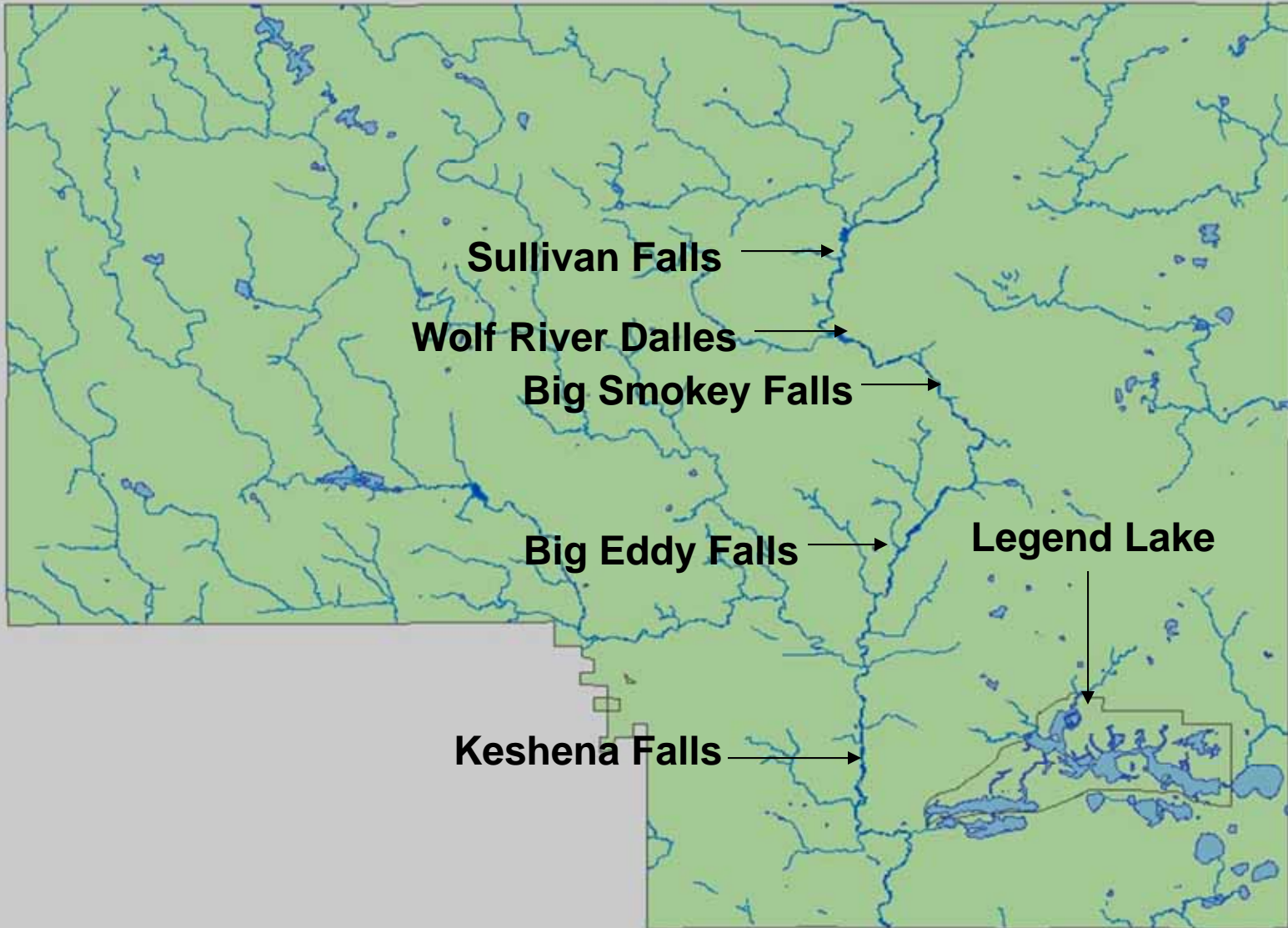
The Menominee/Wisconsin Lake Sturgeon Management Plan

MANAGEMENT GOAL

To establish, restore and maintain quality lake sturgeon populations and habitat on the Menominee Reservation that meets tribal needs and is supported by the public

Lake Sturgeon on the Menominee Indian Reservation: An effort towards co-management and population restoration





WOLF RIVER: FOR VIEWING ONLY NO HARVEST

LEGEND LAKE



Put, Grow and Take Lake Sturgeon Fishery



Every Lake Sturgeon Has a PIT Tag

Passive Integrated Transponder tags, or "PIT tags," are small microchips (about the size of a grain of rice) implanted underneath a bony scute. This is a permanent mark that we will use throughout this fishes life.















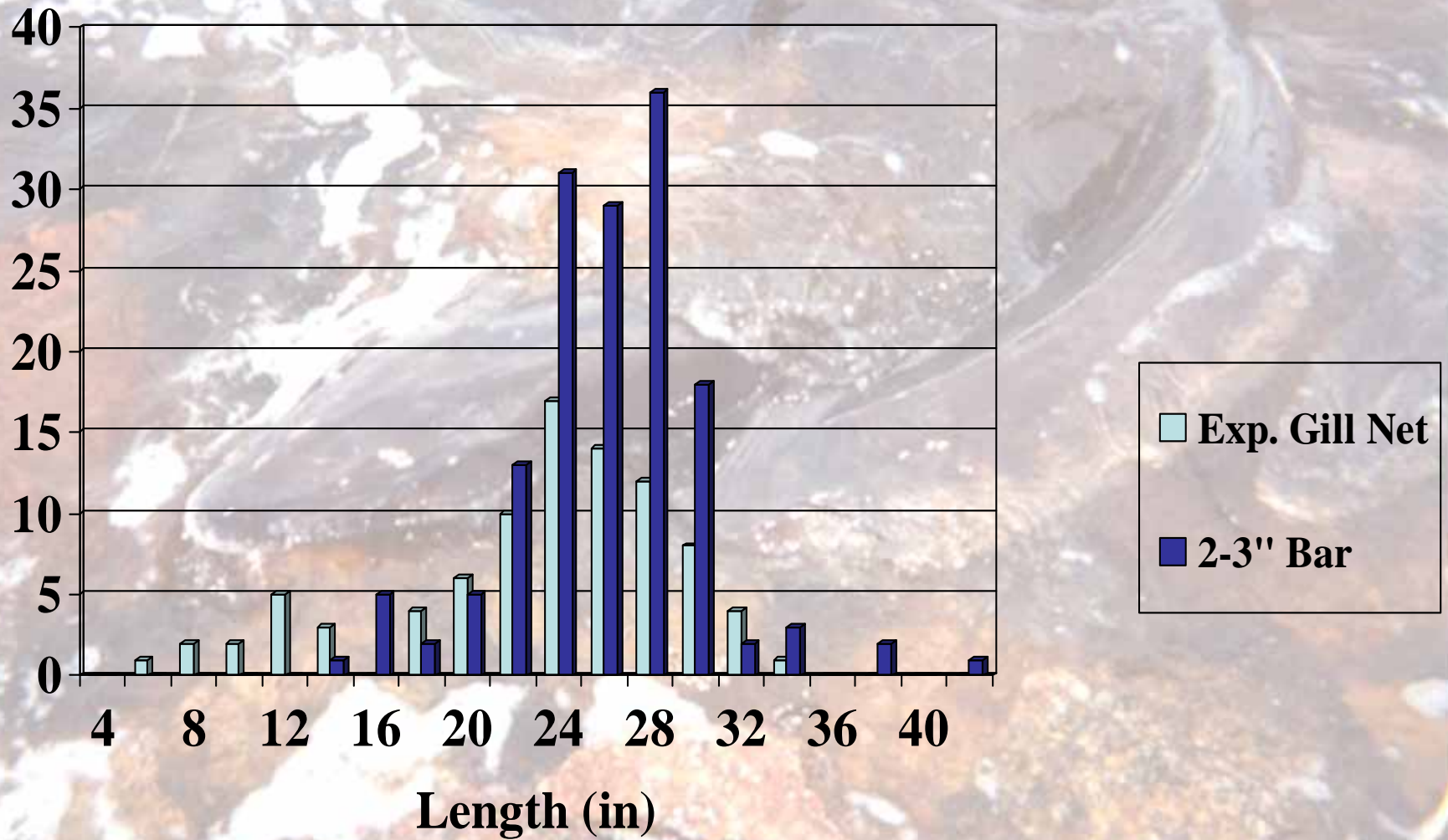
RESULTS

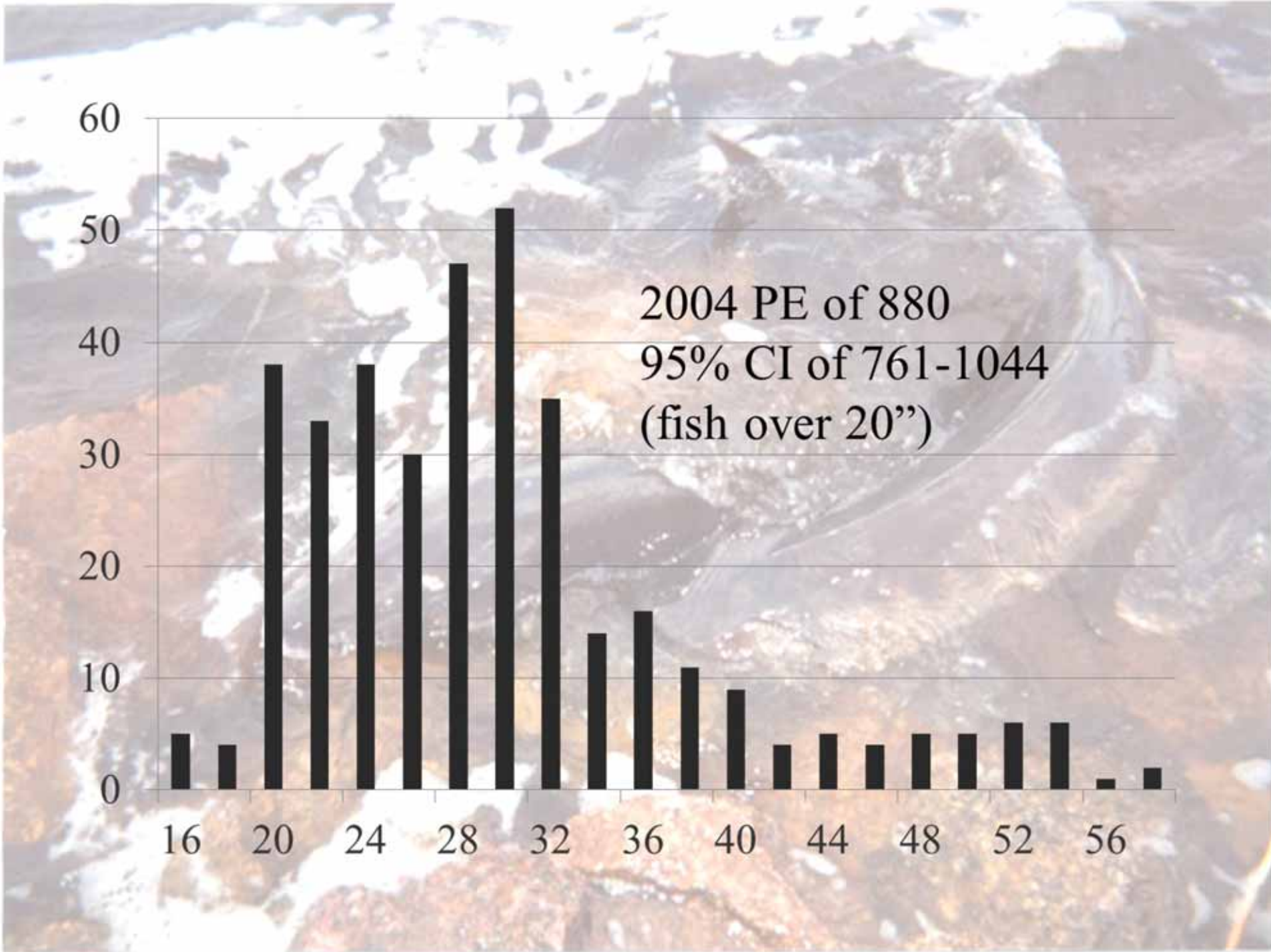


LEGEND LAKE FISH STOCKING

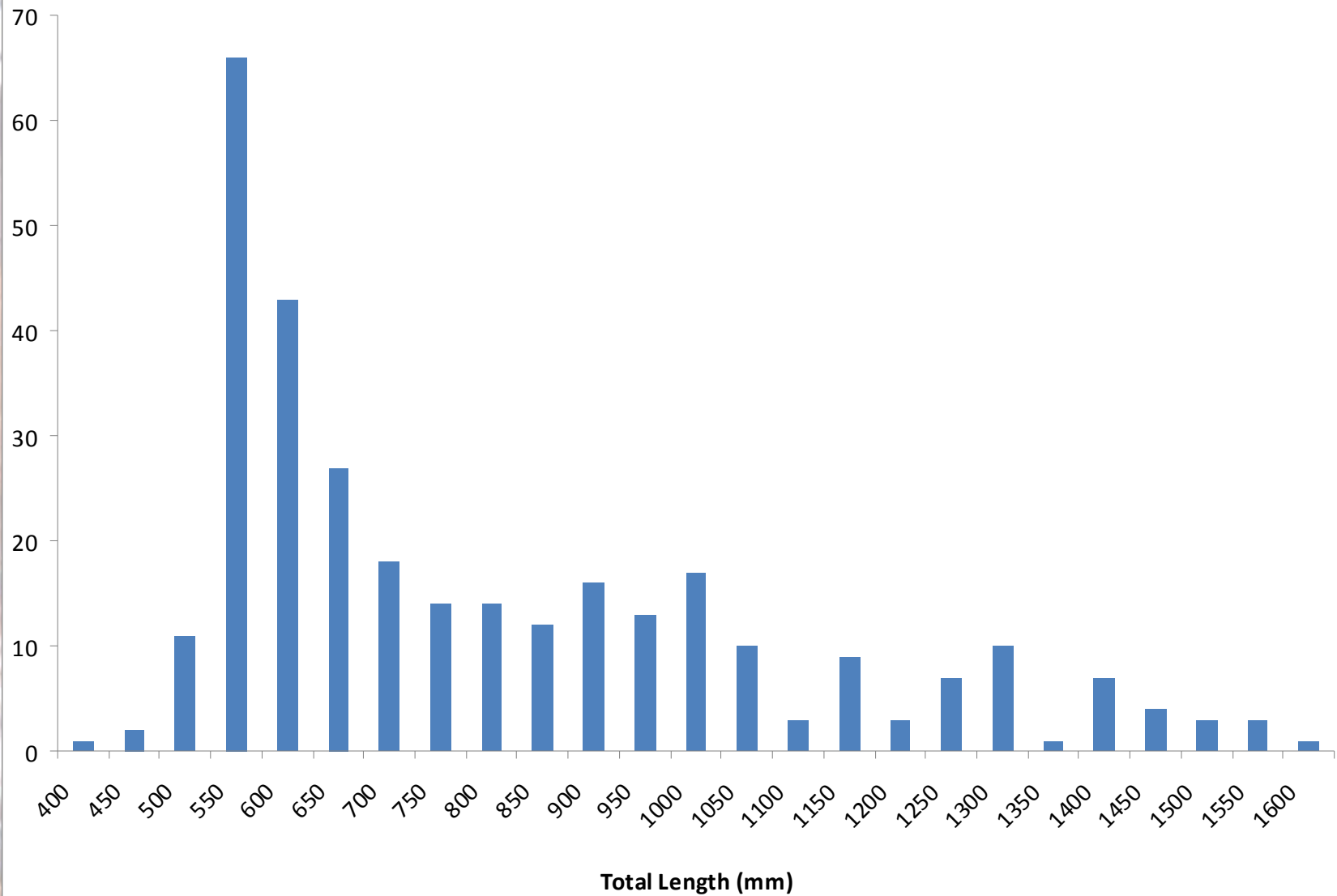
Year Class	Number	Size	Date
1993	600	13	May 94
1994	3560	5	Sept 94
1994	425	12	Apr 95
1995	6180	5-6	Sept 95
1995	323	>20	'99 and '01
1996	1820	6	Sept 96
1998	1010	5.5	Sept 98
1999	8000	6.5	Aug 99
1999	83	23	Jun 01
2000	6880	5-9	'00-'01
2001	21319	3-8	Jul-Aug '01
2002	4000	4-6	Jul '02

2002 Length Frequency of Lake Sturgeon Captured in Experimental vs. 2-3" Bar Gill Nets

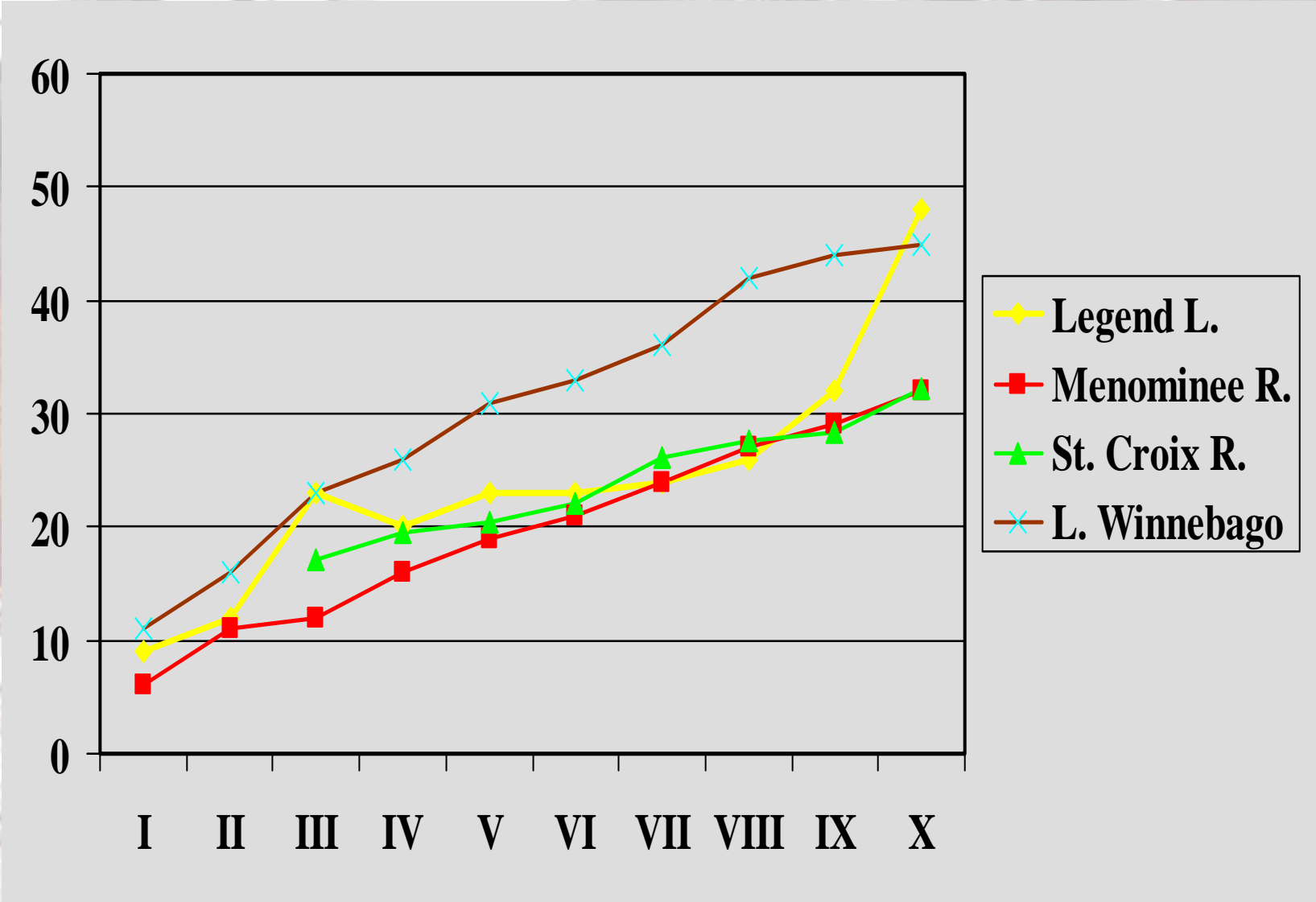




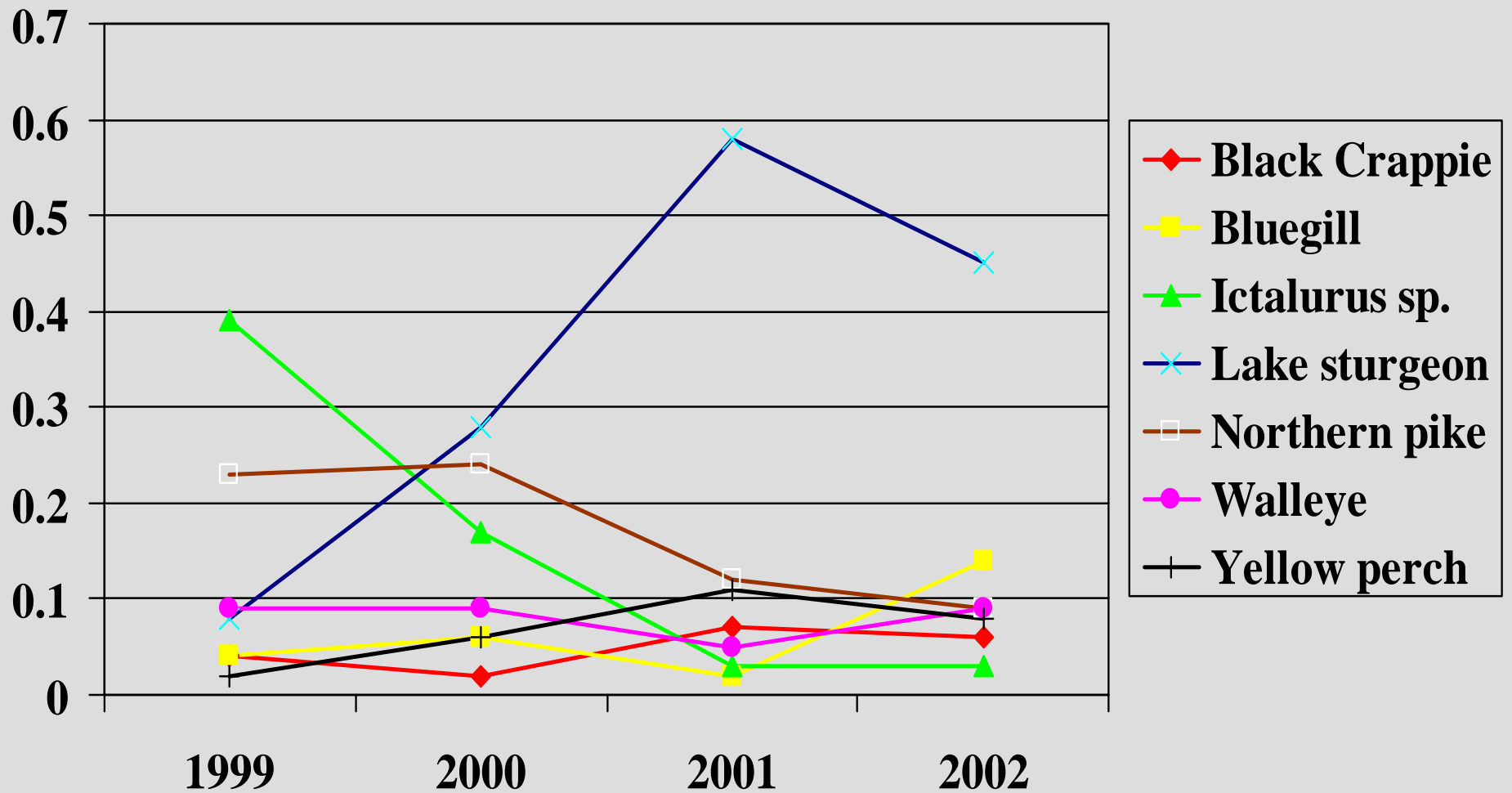
Length Frequency of Lake Sturgeon collected in Legend Lake, 2011 (n=315)



Lake Sturgeon Length at Age

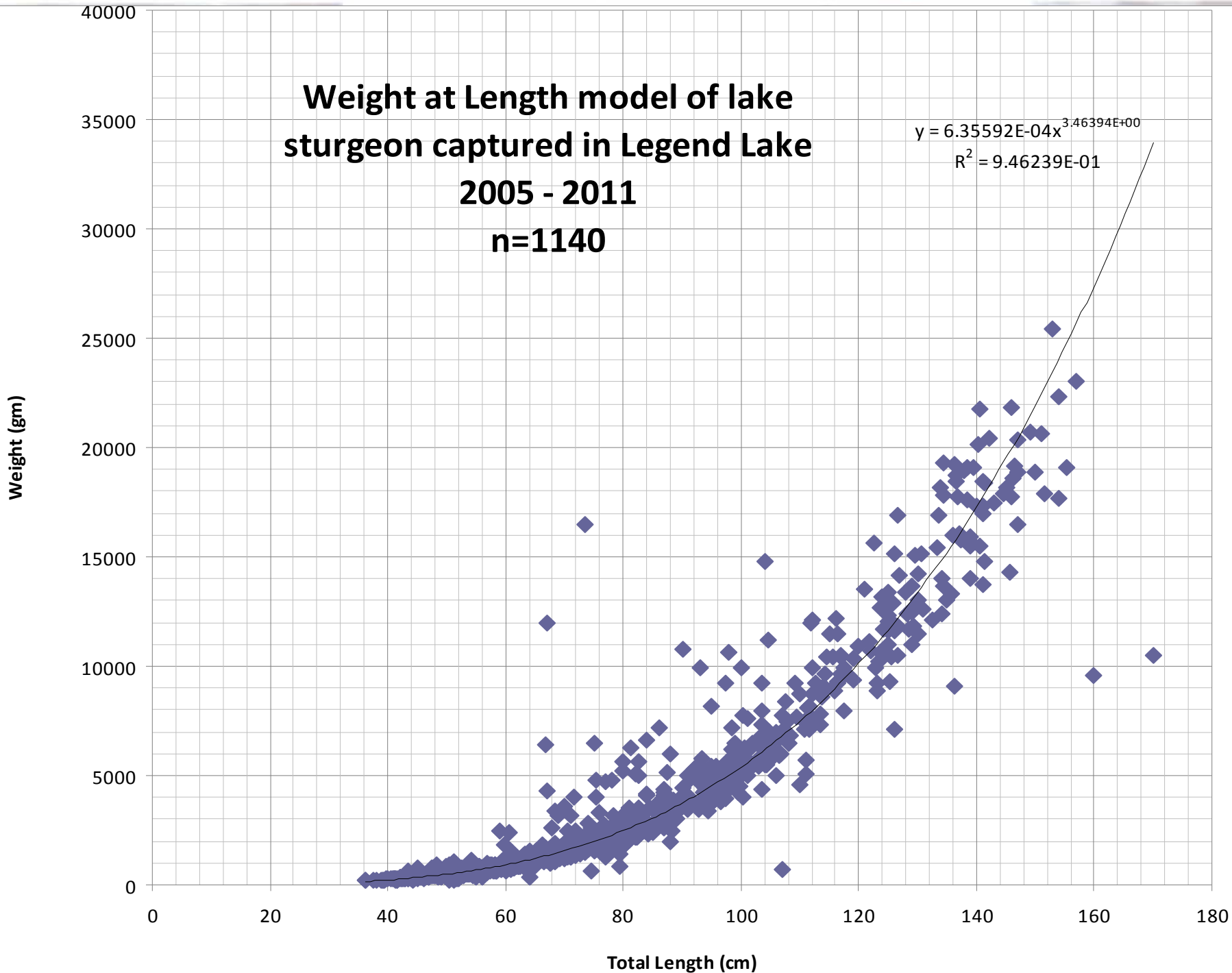


Legend Lake Species Relative Abundance



**Weight at Length model of lake
sturgeon captured in Legend Lake
2005 - 2011
n=1140**

$y = 6.35592E-04x^{3.46394E+00}$
 $R^2 = 9.46239E-01$









Menominee Lake Sturgeon Reintroduction and Movement Behavior in the Upper Wolf River:

2012 Great Lakes Restoration Initiative





Collecting Lake Sturgeon



MENOMINEE LAKE STURGEON RADIO TELEMETRY PROJECT

Sonic Transmitters/Receivers Used





























GETTING SONIC RECEIVER

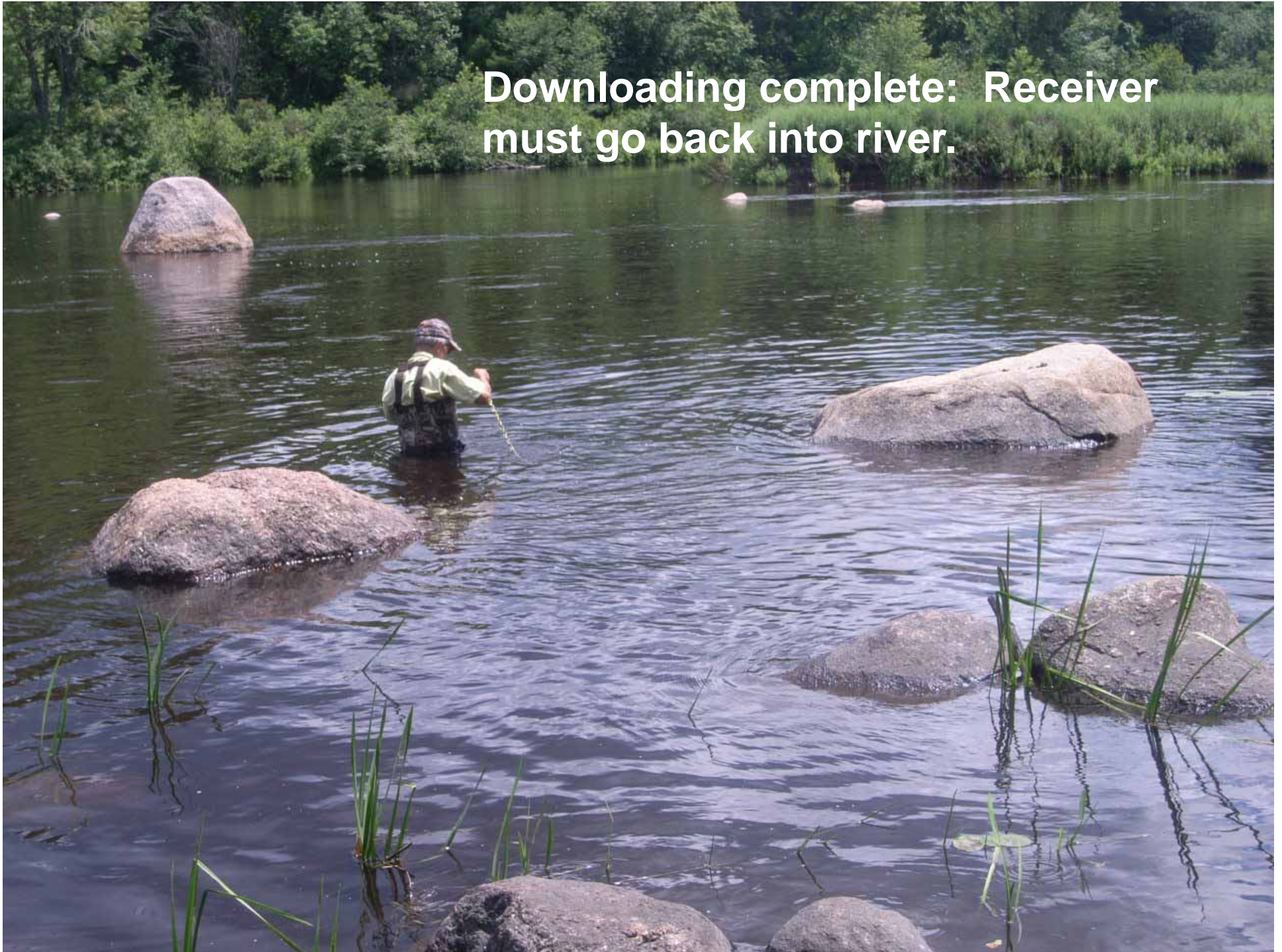


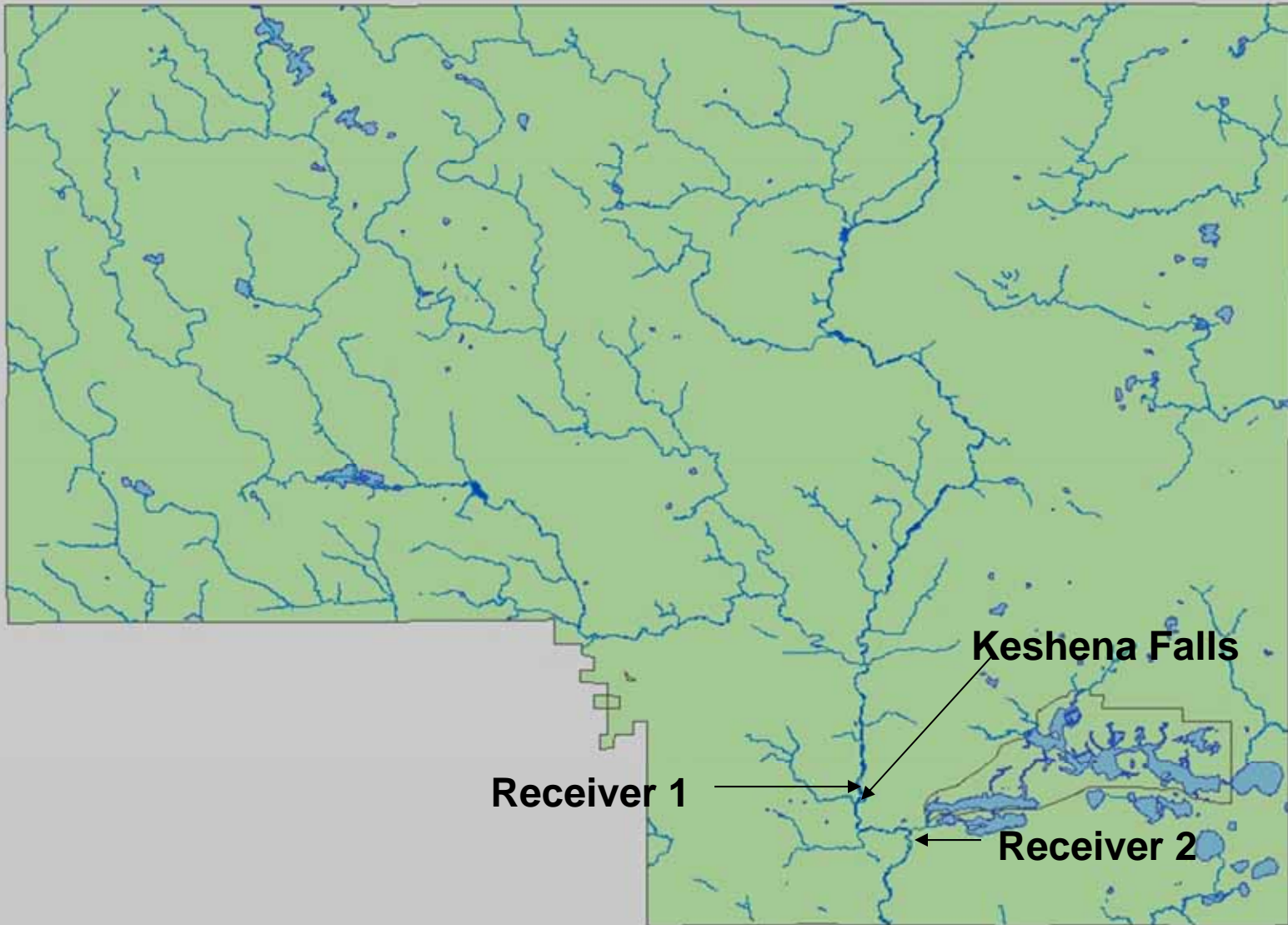


Downloading Sonic Receiver Tracking Lake Sturgeon Movements



**Downloading complete: Receiver
must go back into river.**





Keshena Falls

Receiver 1

Receiver 2



2012 RESULTS

A large fish, possibly a salmon, is shown swimming in turbulent water over rocks. The fish is the central focus, moving from the upper right towards the lower left. The water is dark and churning, with white foam from the rocks. The background is a blurred, natural setting.

SPAWNING LOCATIONS OF AUCOUSTIC TAGGED FISH

- 1.) Keshena Falls: 11 Female:14 Male**
- 2.) Between Shawano and Balsam
Row Dam: 1 Male**
- 3.) Below Shawano Dam:
4 Female:8 Male**
- 4.) No Contacts: 3 Female:2 Male**



SUMMER LOCATIONS OF AUCOUSTIC TAGGED FISH

1.) Above Balsam Row Dam:

35 Fish: 18 Female:17 Male

**2.) Between Shawano and Balsam
Row Dam:**

16 Fish: 3 Female:13 Male

3.) Below Shawano Dam:

21 Fish: 8 Female:13 Male



Ok, ok, What does this all mean?

**** 48.6 % Acoustic Tagged Fish still present above Balsam Row Dam**

35 of 72 total Lake Sturgeon of 164; 81-82 Remain

**** 18 of 29 Females remain above Balsam Row Dam - 62.1 %**



