

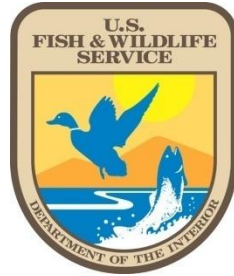


U.S. Fish and Wildlife Service



Fish & Wildlife
Conservation Office
Alpena, Michigan

Facts



- Department of the Interior
- Nine Regions across the U.S.
- Employ approximately 7,500 people
- Nearly 700 field stations – including 530 national wildlife refuges, 66 national fish hatcheries, 64 fishery resources offices, and 78 ecological services offices.
- Over 125 years of service – established by Congress in 1871 as the U.S. Fish Commission

Mission Statement

Working with others to conserve, protect, and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.



Major Responsibilities

- Manage 93 million acres of National Wildlife Refuges
- Conserve 800 species of migratory birds
- Protect over 700 native species listed as Threatened and Endangered
- Restore nationally significant fisheries depleted by overfishing, pollution, or habitat damage
- Partner to restore over 210,000 acres of habitat
- Children and Nature



Service Office Functions

Ecological Services Offices – threatened and endangered species – Kirtland's Warbler and Piping Plover

National Wildlife Refuges – habitat and wildlife on federal refuge lands – Seney and Shiawassee NWRs – over 100,000 acres – ducks, eagles, moose, wolves

Private Lands Office – Partners for Fish and Wildlife Program to restore wild areas on private lands – 1,500 projects since 1988

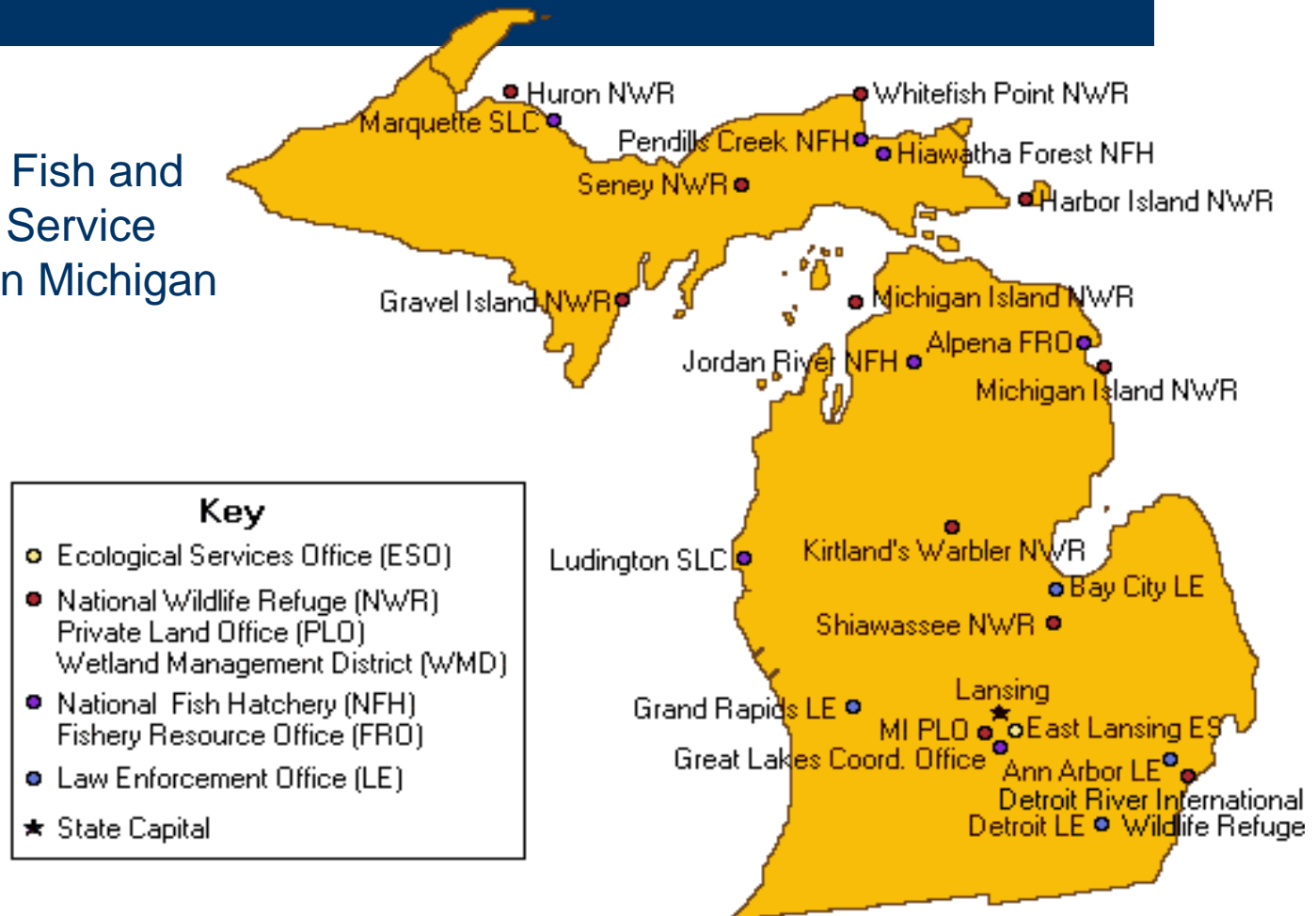
National Fish Hatchery – Breed, rear, and stock native fish species – lake trout restoration in the upper Great Lakes, also rear lake and pallid sturgeon in some states of the midwest

Fishery Offices – research on native fish species, control and monitor aquatic nuisance species, and provide fishery assistance – sea lamprey control – fish stocking Spencer F. Baird

Law Enforcement – inspections for illegal animals/parts, federal wildlife and fishing laws, and maintain order on National Wildlife Refuges.

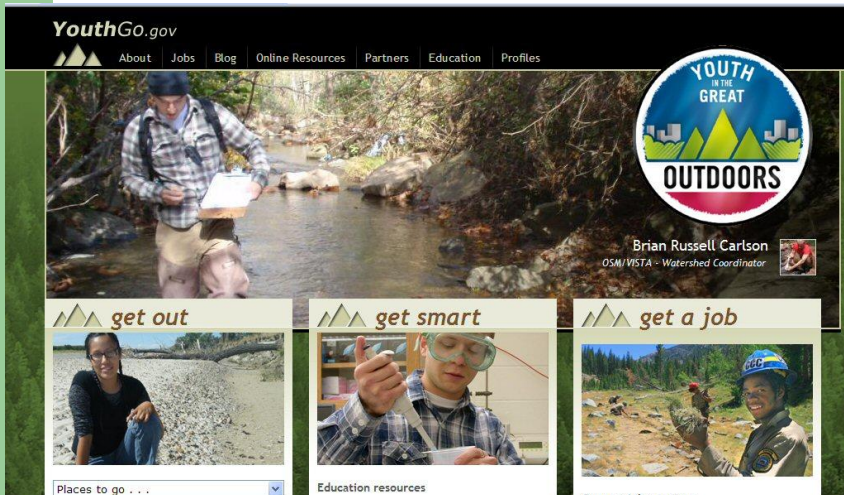
Michigan Office Locations

23 U.S. Fish and Wildlife Service offices in Michigan



Useful Educator Web Sites

- USFWS <http://www.fws.gov>
- Kids and Educators <http://www.fws.gov/educators/>
- Let's Go Outside <http://www.fws.gov/letsgooutside/>
- Midwest Region (MI, WI,..) http://www.fws.gov/midwest/kids*
- Youth in the Great Outdoors <http://youthgo.gov>





Alpena FWCO Sturgeon Activities

- Lake Huron Lake Sturgeon Task Group, Chair
- Huron Erie Corridor Lake Sturgeon Research
- Lake Huron Lake Sturgeon Tagging in partnership with MIDNR and Commercial Fishers
- Sturgeon Partnership Integration through Websites – Great Lakes Lake Sturgeon Web Site and Lake Sturgeon Tagging Database Web Site
- Information and Education

Lake Sturgeon Restoration Efforts in the Huron-Erie Corridor (HEC)



HEC

- Southern Lake Huron
- St. Clair River
- Lake St. Clair
- Detroit River
- Western Lake Erie

HEC Initiative

- Create new science that will assist resource managers when making decisions regarding the aquatic resources in the HEC

<http://huron-erie.org/index.html>



Lake Sturgeon Restoration Efforts in the Huron-Erie Corridor (HEC)

St. Clair River

- Construction of spawning reef in the Middle Channel
- Adult and juvenile lake sturgeon telemetry studies
- Partner with Michigan DNR when conducting tagging studies
- Partner with USGS when conducting larval drift studies (2006-Present)
- Trawling for YOY and juveniles (beginning late summer 2011)



Lake Sturgeon Restoration Efforts in the St. Clair River

Construction of spawning reef in Middle Channel



Lake Sturgeon Restoration Efforts in the St. Clair River

Telemetry Studies

- Monitor the movement of juvenile lake sturgeon in the North Channel (2004-2006)
- Assess movement patterns of adult lake sturgeon spawning at the Blue Water Bridge spawning site (2002-2004)
- Partners - MDNR, USGS, U of M



Lake Sturgeon Restoration Efforts in the Huron-Erie Corridor (HEC)

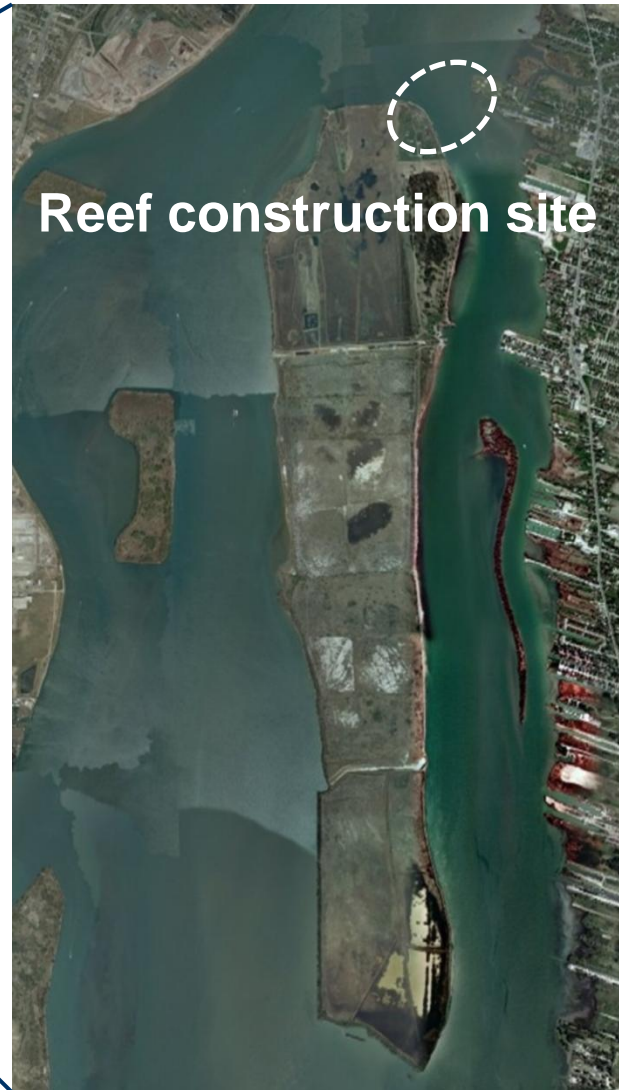
Detroit River

- Belle Isle reef construction project (Constructed Summer 2004)
- Fighting Island reef construction project (Spawning documented in 2010)
- Trawling for YOY and juveniles (YOY captured in 2010)
- Juvenile habitat assessments (Side-scan sonar and invert collections)
- Adult population assessments (2003-present)



Lake Sturgeon Restoration Efforts in the Detroit River

Fighting Island Reef Construction Project



Lake Sturgeon Restoration Efforts in the Detroit River

Deployment of reef materials at Fighting Island Reef Construction Site



Photo obtained from Dr. Bruce Manny, USGS

Lake Sturgeon Restoration Efforts in the Detroit River

Juvenile Lake Sturgeon Habitat Assessments

- Side-scan sonar used to identify habitat types near Fighting Island
- Trawling assessments will be conducted to determine the distribution and abundance of juvenile lake sturgeon
- Ponar grabs will be used to quantify macroinvertebrates along transects
- Underwater video will be used to verify images of substrate collected using side-scan sonar
- Partners - USGS, OMNR, University of New England



Lake Sturgeon Restoration Efforts in the Huron-Erie Corridor (HEC)

Additional Work

- Administer several grants related to Sturgeon research in the HEC

HEC Initiative

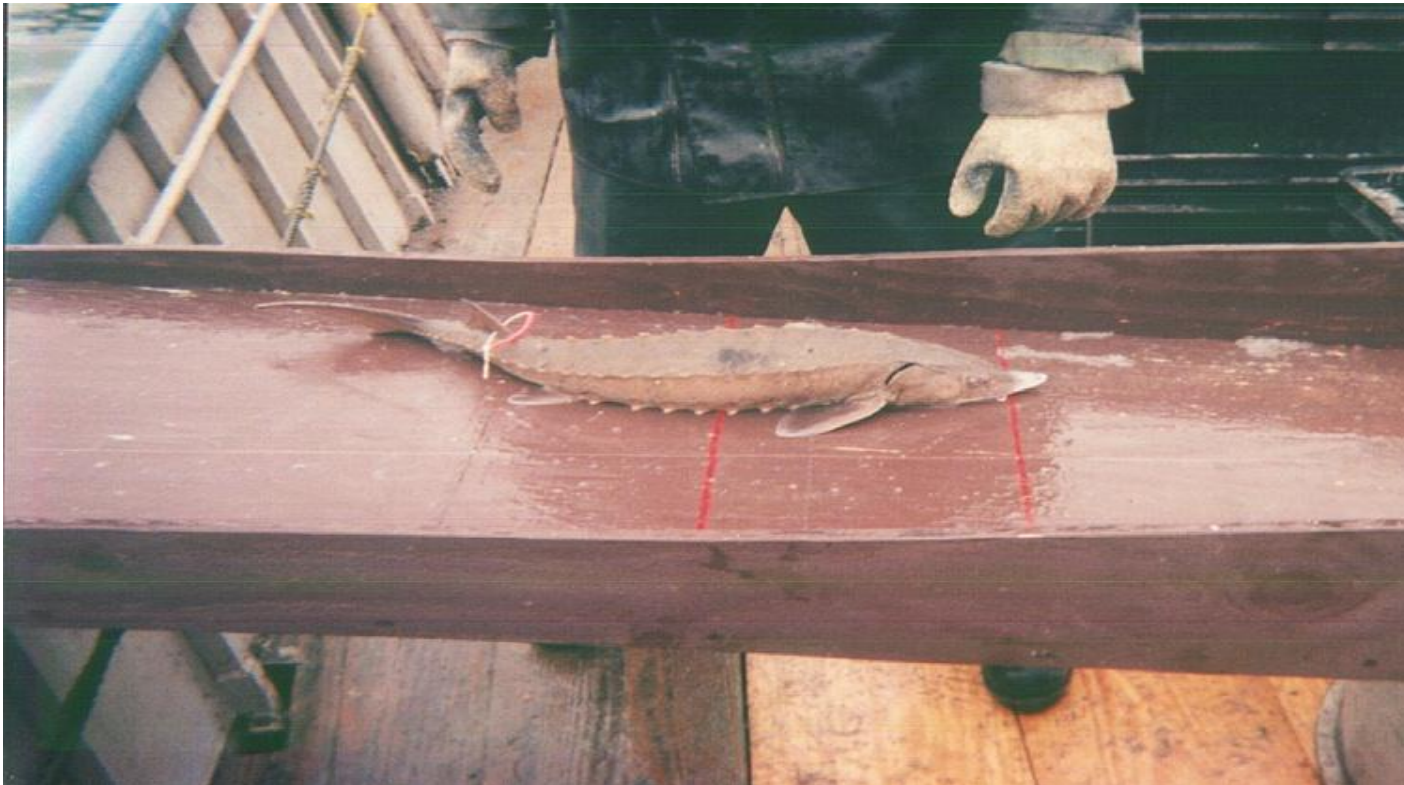
- Collaborative partnership including federal, tribal, state, provincial, local, and non-governmental participants
- Includes over 27 partners

A complete list of partners and more information can be found by searching Huron Erie Corridor Initiative on the web



Fisheries and Oceans
Canada

Lake Huron Lake Sturgeon Tagging in partnership with MIDNR and Commercial Fishers





Great Lakes Lake Sturgeon Web Site

[Home](#)[Researchers](#)[Resources](#)[Site Information](#)

This site provides information and a network of links to lake sturgeon (*Acipenser fulvescens*) research conducted by a number of U.S. and Canadian agencies and universities in the Great Lakes Region of North America.



RESEARCHERS

> [Researcher Contacts](#)

RESOURCES

> [Resource Documents](#)

> [Lake Sturgeon Biology](#)

> [Links](#)

SITE INFORMATION

> [Site Information](#)

> [Site Map](#)

> [Contact Information](#)

[Lake Sturgeon
Tributary Database and GIS
Web Site](#)

[Great Lakes Lake Sturgeon
Tag Identification Database
Web Site](#)

[The Lake Sturgeon, *Acipenser
fulvescens* \(Chondrostei:
Acipenseridae\) Annotated
Bibliography \(pdf, 4.62 Mb\)](#)

Some New Information Please Check the Site for More

New [New York Lake Sturgeon Working Group - 2011 Meeting Summary](#) -
Edited by Thomas Brooking and Scott Schlueter (pdf, 3.32 Mb)

New [Seasonal Distribution and Movement of Lake Sturgeon in the Black
Sturgeon River and Black Bay, Lake Superior](#) - Mike Friday (pdf, 799 Kb)

lake sturgeon activities:

[Alpena Fish and Wildlife Conservation Office](#) | [Ashland Fish and Wildlife Conservation Office](#) | [Cartersville Fish and Wildlife Conservation Office](#) | [East Lansing Ecological Services Office](#) | [Federal Assistance](#) | [Genoa National Fish Hatchery](#) | [Green Bay Ecological Services Office](#) | [Green Bay Fish and Wildlife Conservation Office](#) | [La Crosse Fish and Wildlife Conservation Office](#) | [La Crosse Fish Health Center](#) | [Law Enforcement](#) | [Lower Great Lakes Fish and Wildlife Conservation Office](#) | [Marquette Biological Station](#) | [New York Field Office](#)



**U.S. Fish and Wildlife Service
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St. Marys River Coordinator: Scott Koproski

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Phone: (989) 356-5102 Ext. 1023

Office Information:

U.S. Fish and Wildlife Service
[Alpena Fish and Wildlife Conservation Office](#)
480 W. Fletcher Street
Alpena, MI 49707

Lake Sturgeon Research / Activities

- [Sturgeon Comeback in the Detroit River - Windsor Star - 5-27-2009](#)
- [U.S. Fish and Wildlife Service studies Lake Sturgeon - You Tube video](#)
- [\\$178,000 secured for lake sturgeon spawning reef in the Detroit River - 4-19-2008](#)
- [U.S. Canada partner to build sturgeon spawning reef in Detroit River](#)
- [2006 Great Lakes Lake Sturgeon Coordination Meeting Poster - Scott Koproski/Meghan Kline/Ashley Moerke/Roger Greil - Lake sturgeon telemetry study in the St. Marys River, Michigan](#)
- [2006 Annual Report for Evaluation of Lake Sturgeon Spawning in the Saginaw River Watershed \(2005-2006\) \(NFWF Project no. 2005-0006-011 - \(pdf, 717 Kb\)](#)
- [2004 Great Lakes Lake Sturgeon Coordination Meeting Poster - Emily Zollweg/John Weisser/Rob Elliott/Henry Quinlan/Jim Boase/Scott Koproski/Adam Kowalski/Nancy Auer/Ed Baker/Doug Carlson/Tim Haxton/Mike Thomas/Jerry Weise - Great Lakes Lake Sturgeon Tributary Database and Geographic Information System Demonstration](#)
- [Status of Lake Sturgeon in Michigan Waters of Lake Huron, Reported by Commercial Fisheries 2003, March 2004. \(pdf, 458 Kb\)](#)
- [Contributed to the Great Lakes Lake Sturgeon Tributary Database and GIS](#)
- [2002 Lake Huron Sturgeon Activities](#)

Great Lakes Lake Sturgeon Tag Identification Database

Introduction

Data Submission

PIT Tag Search

External Tag Search

Participants

Contact Us

[Link to Great Lakes
Lake Sturgeon Web Site](#)

[Link to Lake Sturgeon
Tributary Database and GIS
Web Site](#)

This site is maintained by the
[U.S. Fish and Wildlife Service](#)

[Privacy/Disclaimer](#) | [E-mail](#)

updated: 3/28/2011

Introduction

The Great Lakes Lake Sturgeon Tag Identification Database (TID) is intended to facilitate communication between people who tag and those who recapture lake sturgeon across the Great Lakes. The database provides managers, researchers, and other interested parties the ability to determine who should be contacted when they encounter a tagged lake sturgeon. Development of the TID was initiated by the U.S. Fish and Wildlife Service's (USFWS) Great Lakes Lake Sturgeon Committee in 2001. The structure of the database was developed through a peer review process that involved fishery professionals from several agencies that tag lake sturgeon in the Great Lakes. Completion of the database and development of this web accessible version was made possible through funding provided by the Great Lakes Fishery Trust in 2005. The database is managed by the Alpena Fish and Wildlife Conservation Office (Alpena FWCO). The USFWS Lake Sturgeon Committee provides oversight of the project.

Data contained in the database are limited to contact information for those who tag and recapture lake sturgeon with specified tag number (PIT tags) or other identifying marks or tags. Data are submitted electronically to the Alpena FWCO where they are formatted and added to the database. Annual updates will be completed to include new tags and recaptures. The Alpena FWCO will make every attempt to keep the database as current as possible and will rely on the efforts of all agencies and institutions involved to provide data in a timely manner.

Like all databases, errors or omissions will occur. It is the responsibility of each individual or agency providing data to transfer complete and accurate records. Any errors found by users should be referred to the Alpena FWCO which will consult with the appropriate agency to rectify the error.

<http://www.glfc.org/sturgeontag/>

Great Lakes Lake Sturgeon Tag Identification Database

Select Tag Color

White

Search Results

Tag Type	Tag Color	Tag Number Range	Information on Tag	Tag Location	Agency	Name	Address	Phone	Email
FloyCinch	White	1-200	AOFRC 1-705-472-7888	Dorsal	Anishinabek/Ontario Fisheries Resource Centre	Sarah Couchie	755 Wallace Rd Unit 5, North Bay, On P1B8G4	705-472-7888 ext 24	scouchie@aofrc.org

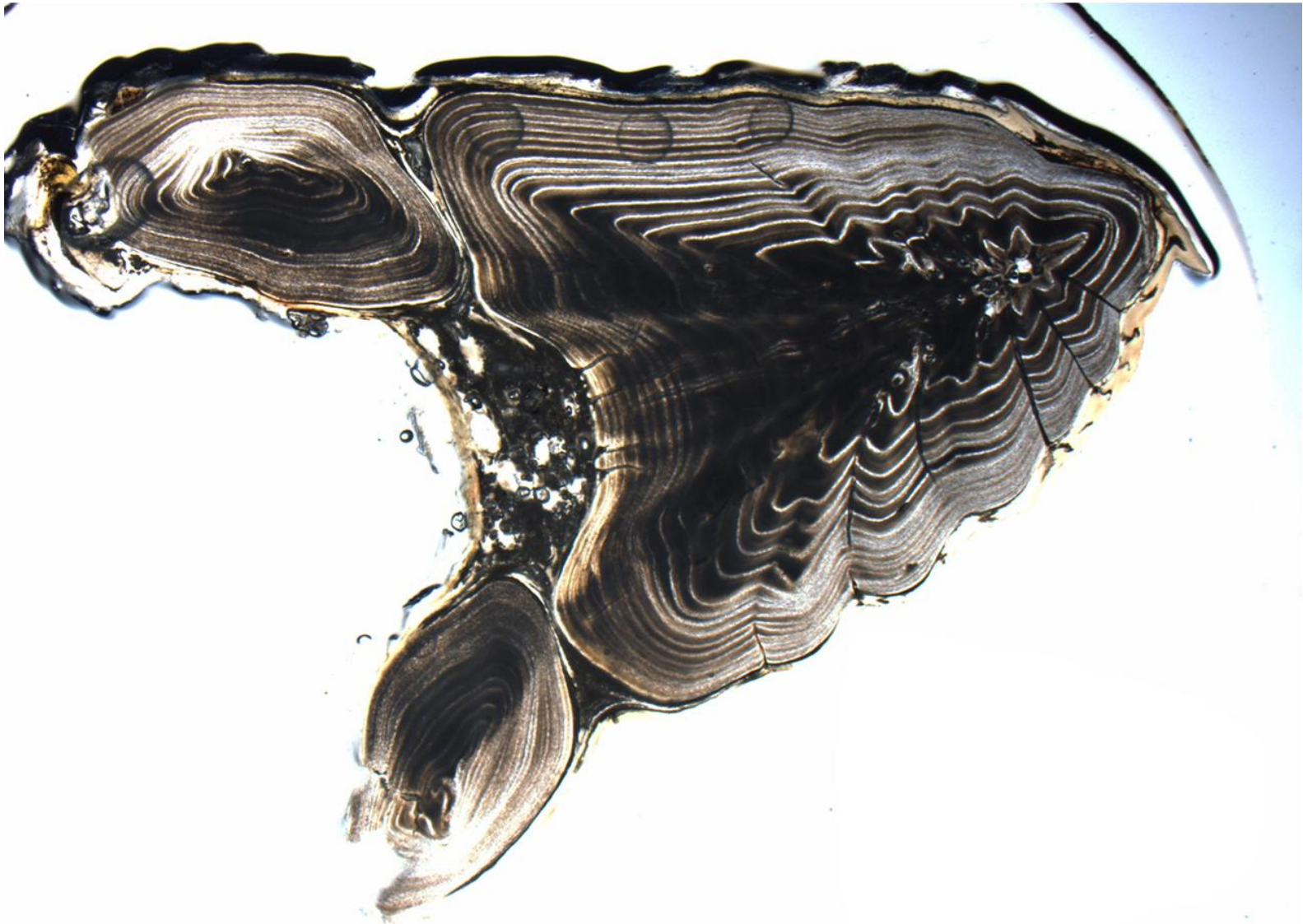
Please select the appropriate contact from above. If the tag you are looking for is not provided above please contact the database manager - Adam Kowalski at adam_kowalski@fws.gov or 989-356-5102 ext.1013.

[Search Again](#)

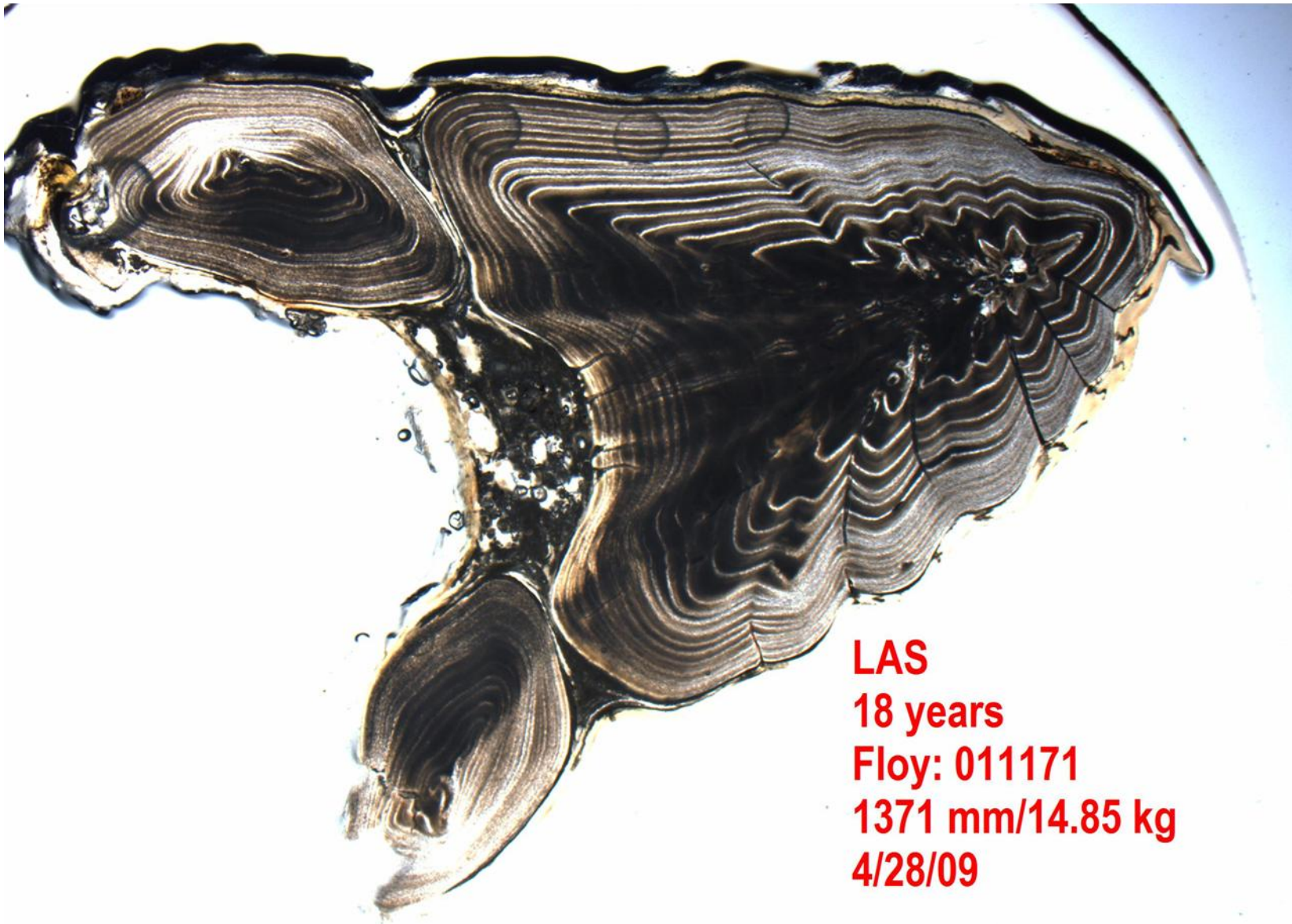
Potential Lake Sturgeon Educator Resources

- Lake sturgeon age determination from spine cross sections – develop an activity
- Use recaptured information from Lake Huron commercial fishermen in Saginaw Bay to develop population estimates
- Access Lake Sturgeon Tagging Database – develop an activity
- Classroom speaker

Fish 1



Fish 1



LAS
18 years
Floy: 011171
1371 mm/14.85 kg
4/28/09



River and Stream Ecosystems - Windows Internet Explorer

http://techalive.mtu.edu/meec/module07/title.htm

Michigan Department of Environmental Quality Michigan Environmental Education Curriculum MichiganTech Tech Alive


Michigan Tech > Tech Alive > Series Index > Michigan Environmental Education Curriculum > Module Index > Ecosystems

River and Stream Ecosystems

Michigan Environmental Education Curriculum
River and Stream Ecosystems

During this exercise you will learn the following about rivers and streams:


- How the lake sturgeon, a native fish species of the Great Lakes, has been affected by the changing river ecosystem
- Why the lake sturgeon and other animals depend on the river for survival
- How to identify some common plants and animals found in the river ecosystem



Horton Creek - Charlevoix, MI

Rivers and Streams as an Ecosystem

Rivers and streams can be found throughout the entire state of Michigan. They give people an excellent opportunity to view the interaction between wildlife and fish communities. They provide recreation and beautiful scenery as well. The wildlife and fish in these systems, along with the environment in which they live, make up the stream ecosystem. During this exercise you will learn how animals and fish survive within the stream ecosystem and how the stream ecosystem has been influenced over time.



Spawning Lake Sturgeon

Start > Title > Site Map > Credits > Glossary > Help

Internet 100%

<http://techalive.mtu.edu/meec/module07/title.htm>

Lake Sturgeon in Michigan

There are many fish and other animals that live within the river ecosystem. The lake sturgeon (*Acipenser fulvescens*) is one of the largest and oldest. Many changes throughout the river systems in the Great Lakes have lead to the decline of lake sturgeon in the State of Michigan, and now it is listed as a threatened species in our state. Lake sturgeon can live up to 150 years and reach up to 8 feet in length! You will learn how most rivers have been influenced over time. You will also learn some ways we can protect these systems for all of the animals that live there.



Lake Sturgeon Eggs



Lake Sturgeon
(10-15 days old)



Lake Sturgeon
(Less than one year old)



Start > Title > Site Map > Credits > Glossary > Help

Michigan Tech > Tech Alive > Series Index > Michigan Environmental Education Curriculum > Module Index > Ecosystems

Surviving the River: Survival Factors

Michigan Environmental Education Curriculum
River and Stream Ecosystems

Sturgeon Egg Survival



Adjust the water temperature, spawning habitat, current speed, and number of predators in the river. Bring the sturgeon egg populations to a healthy number.

Temperature



Pebbles

Spawning Habitat

Current



Predator Population

EGG POPULATIONS

Healthy



Endangered

Alt | Win

Start > Title > Site Map > Credits > Glossary > Help

Michigan Tech > Tech Alive > Series Index > Michigan Environmental Education Curriculum > Module Index > Ecosystems