

Sturgeon for Tomorrow

Membership

	Member \$25	Partner \$50-\$99	Leader \$100-\$499	Sustainer \$500+
Card & Sticker	✓	✓	✓	✓
Subscription	✓	✓	✓	✓
Recognition		✓	✓	✓
Key Fob			✓	✓
Guided Sturgeon Viewing Tour				✓

If you would like to become a member, please select your membership level, fill out the form below and return with your dues to:

PO Box 27, Mullett Lake, MI 49761

Name _____

Address _____ City _____ State _____ Zip _____

Home Phone _____ Cell Phone _____

Email _____

Additional Contribution \$ _____

For more information on memberships and levels,
please visit our website:

www.sturgeonfortomorrow.org/membership-registration.php



1604 N. Black River Road
Cheboygan, MI 49721



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Sturgeon

for tomorrow



You Can Help Protect
Michigan's Living Fossil—
The Lake Sturgeon

- Eco Tours
- Field Trips
- Hatchery Tours
- Educational Programs
- Guarding Program

231.625.2776

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Sturgeon

for tomorrow



SAVING THE STURGEON IS VITAL

Almost all of the world's sturgeon species are endangered, threatened, near extinction, or gone. From the time the dinosaurs roamed the earth, sturgeon were swimming the waters of the world. For 136 million years sturgeon adapted and survived many changes to their environment. Yet, in less than one sturgeon's lifetime, humans have brought this prehistoric fish to the brink of extinction.

LIVING FOSSILS

Sturgeon are considered "living fossils". In evolutionary terms, sturgeon have been around a long time, about 136 million years versus the two to five million for salmon, and 400 million years for sharks. Sturgeon are cartilaginous (skeletons made of cartilage instead of bones) like sharks and have dorsal fins that resemble sharks, however they have a swim bladder like modern bony fishes. Sturgeon do not have scales, but five rows of bony-like plates called scutes, and four barbels (sensory organs) above their mouth, similar to catfish. They have no teeth.

A VANISHING SPECIES

The world's sturgeon species are endangered and are listed by the Convention on International Trade of Endangered Species (CITES).

Worldwide, there are 29 species or subspecies of sturgeon—nine species exist in North America.



HERE IN MICHIGAN

Help to ensure the survival of this majestic fish

Unlike salmon and some other fish, there is relatively little known about the reproductive ecology and early life stages of the sturgeon. The World Sturgeon Conservation Society has identified the need for dedicated sturgeon research internationally.

Important factors in the survival of the sturgeon are commercial over fishing, loss of habitat due to the construction of dams and erosion covering many remaining spawning areas and pollution. Lake sturgeon can live to 150 years but population increases are often slow as sturgeons do not breed until 12 to 25 years of age. The caviar industry worldwide generates some \$100 million in annual sales, making it one of the most valuable and prized wildlife resources on earth. Even in countries where sturgeons are protected, poaching and the black market make saving the fish difficult.

In Michigan, lake sturgeon are found throughout the Great Lakes Basin. Populations of Lake Sturgeon plummeted to near-extinction levels in the early 1900's as a result of commercial over-fishing. Shoreline development and sedimentation over the decades removed or altered critical sturgeon spawning and rearing habitats.

The Michigan Lake Sturgeon Rehabilitation Strategy is focused on increasing sturgeon stocks through recovery programs for this threatened species. Extensive research is necessary for these recovery programs. Of the major self-sustaining populations of lake sturgeon, the Cheboygan River Watershed, which includes Black Lake in Cheboygan and Presque Isle Counties, has one of the few remaining wild populations that is not totally dependent on hatchery programs.

RESOURCE MANAGEMENT & PROTECTION

Poaching of lake sturgeon is a serious concern for law enforcement. These fish are sacred in many communities throughout its range. Through collaborations with many organizations, genetic markers are being identified in different stocks of sturgeon to distinguish between wild and cultured. This research will continue and the results will assist natural resource managers in their work.

YOU CAN HELP

Join Sturgeon for Tomorrow and our efforts to protect Michigan's unique lake sturgeon!

HABITAT AND ECOSYSTEM HEALTH

Supports sustainability in the resource

Sturgeon need large rivers with intact ecosystems for their survival. Lake sturgeon can grow as large as 8 feet and weigh over 200 pounds. Sturgeon are at the top of the aquatic food chain and serve as a key indicator and a symbol of the environmental status of our larger rivers. Conservation and protection of sturgeon and their habitat is therefore important to gauge the health of entire river ecosystems.



SPORT FISHING

In Michigan, the lake sturgeon provides a catch and release sport fishery worth thousands of dollars annually, and a limited spearing harvest deeply entrenched in the Upper Great Lakes culture. This fishery depends on maintaining a sustainable, wild population and a healthy ecosystem.

Research conducted will quantify the sturgeon's capacity to endure environmental change as well as its habitat requirements. This will assist government agencies in managing the fishery and regulating the many rural, urban and industrial activities throughout the Great Lakes.

Poaching of wild sturgeon demands a significant investment by law enforcement personnel and dedicated "Sturgeon Guards" to investigate and prosecute those involved.



OUTREACH ADVOCACY

Teaching Michigan's young people and public about the importance of species conservation and ecology is crucial to the future survival of fisheries and our unique ecosystems. Sturgeon For Tomorrow and collaborators teach children and the general public about conservation and ecology of sturgeon and of ecosystems in the broader sense. Citizens learn the life cycle of the sturgeon as well as its importance culturally to the First Nations and as a sport and food fish.

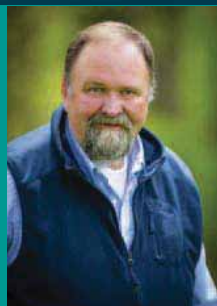


INTEGRATED RESEARCH IS IMPERATIVE

The conservation of these important fish will require an integrated and collaborative research approach through field and laboratory studies. Rehabilitation and recovery programs will provide high quality and innovative research on sturgeon biology, management and hatchery technology for enhancement and restoration. This research will aid in conserving and restoring sturgeon populations worldwide.

GRASS-ROOTS ADVOCACY

Grass-roots advocacy will aid in engaging the public to assist fisheries managers in rehabilitation and recovery programs including ecosystem specific management strategies.



“ The results are in and had it not been for the Black Lake Chapter of Sturgeon For Tomorrow (SFT) working in concert with the DNR there would be no sturgeon season and sturgeon recovery would be just a pipe dream. Recovery is now a sure bet and the heritage of sturgeon spearing is assured as long as SFT stays strong.”

Bob Garner

*Former host of Michigan Out-of-Doors and
Member of Michigan's Conservation Hall of Fame*

GET INVOLVED !

Discover the sturgeon projects in your community and learn how you can make a difference by getting involved with Sturgeon for Tomorrow.

Support Sturgeon for Tomorrow's work by:

- Becoming a member
- Making a tax deductible contribution
- Participating in events, such as the Black Lake Shivaree and our Annual Banquet
- Becoming a Sturgeon Guard

Your contribution supports successful Sturgeon For Tomorrow programs that ensure long-term conservation of lake sturgeon populations. To learn more about other lake sturgeon programs visit the following web pages.



St. Clair Detroit River Chapter of Sturgeon For Tomorrow
Kalamazoo Chapter of Sturgeon For Tomorrow

<http://www.stclairsturgeon.org>
<http://kazoosturgeon.org/>



Sturgeon

Guarding Program

Each spring, sturgeon migrate up rivers to spawn at known spawning sites. At this time a large percentage of the adult sturgeon in the system are concentrated in a small area. When the sturgeon are spawning along the rocky riverbanks they are fairly oblivious to nearby human activity and are susceptible to poaching.

Sturgeon for Tomorrow's volunteer Sturgeon Guards, along with Conservation Officers and other volunteer groups are also concentrated in these areas 24 hours a day to protect the sturgeon from poaching. If the poaching were left unchecked, it would reduce the sturgeon population and destroy the sport fishery.

ECO-TOURS, FIELD TRIPS AND STURGEON VIEWING TOURS

Tours and Field Trips are available seasonally for visitors to view these majestic fish in the wild or in a streamside hatchery.

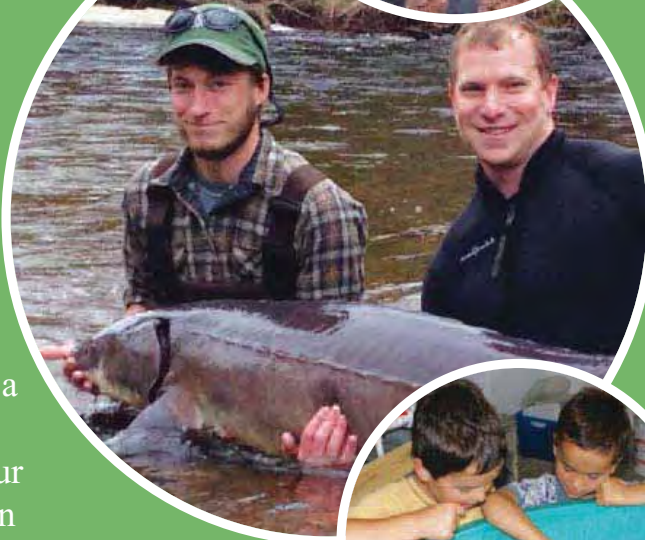
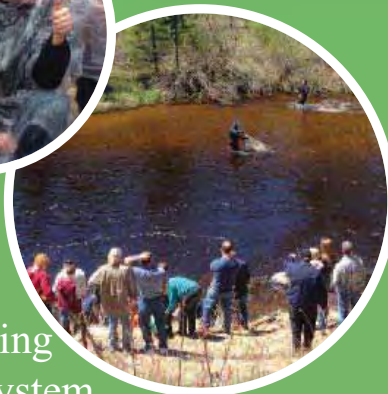
- River Tours and Field Trips are available April & May
- Hatchery Tours are available May through September

RIVER TOURS AND FIELD TRIPS

To view the sturgeon in nature, interpretive programs for all age groups are held on the Upper Black River during late April to the end of May. These programs include outdoor activities, so participants are asked to dress appropriately for the weather.

HATCHERY TOURS

In order to maintain optimal fish health and quality, the Sturgeon Hatchery is accessible to the public only through a scheduled guided tour. Tours are conducted from July to October. We encourage visitors to call ahead for current tour information. Tours take approximately 1 hour. The Sturgeon



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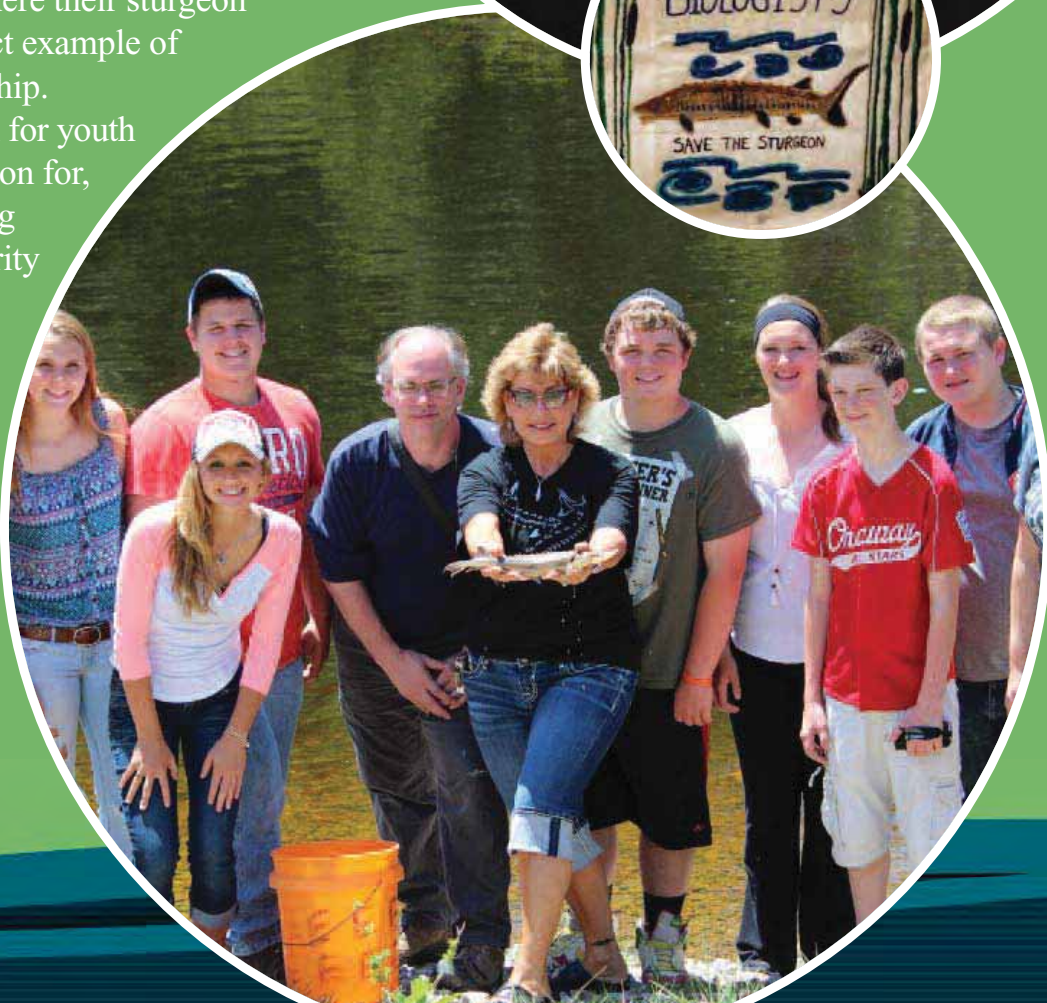
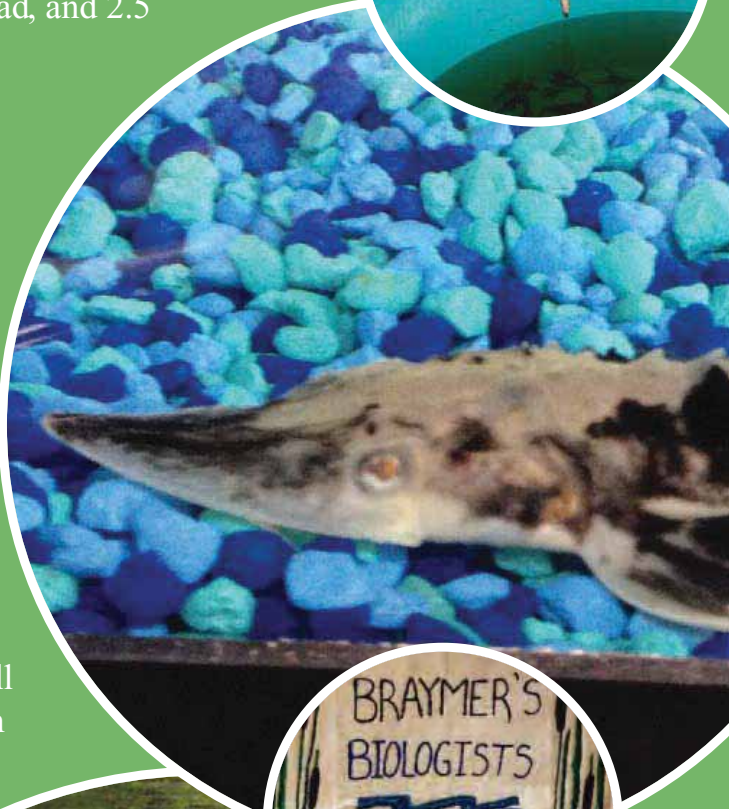
STURGEON IN THE CLASSROOM

Students across Michigan can learn about prehistoric lake sturgeon through an exclusive opportunity to host a live lake sturgeon fingerling in their classrooms. This unique program teaches students about Michigan's state threatened lake sturgeon while allowing them to actively participate in raising a fall fingerling in their classroom. Students monitor and ensure water quality in their tanks, feed and record growth rates while applying grade level content in Science, Technology, Engineering and Math (STEM). Classrooms receive their small sturgeon in the fall and in the spring, the students or "citizen scientists" return their sturgeon to the Black River where their sturgeon originated. This program is a perfect example of place-based education and stewardship. Emphasis is placed on interpretation for youth to become aware, develop appreciation for, and alter behavior towards protecting and conserving the ecological integrity of the Great Lakes utilizing the majestic Lake Sturgeon as the poster child.

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REVOLUTIONARY RESEARCH

The preservation of sturgeon

Events

LIFE HISTORY & ECOLOGY

Researchers coordinate and implement field studies of lake sturgeon reproductive ecology, including tagging programs to determine migratory, distribution, and abundance in river and lake systems.

POPULATION DYNAMICS

Assessments in size of populations, age-class of fish, spawning stocks, and recruitment success are being conducted throughout the Great Lakes. Analysis of genetic structure among and between basin-wide sturgeon populations and their implied interactions are being studied.

ENVIRONMENTAL CONSIDERATIONS

Rehabilitation and recovery of wild populations requires an understanding of how fish are impacted by environmental disturbances such as hydroelectric dams, water level and flow variations, and chemical pollution.

SPAWNING MIGRATION

Initiatives to determine energy requirements for swimming, reproduction, and growth are needed. Investigation into the effects of temperature, lighting, food sources and other environmental factors are essential. The effects of global warming on sturgeon populations will also be studied.

AQUACULTURE PRODUCTION

There is revolutionary potential for development of stream-side aquaculture production. Sturgeon For Tomorrow, University researchers, and several programs are conducting culture research on native sturgeon species in the areas of husbandry, nutrition, health, reproduction and genetics.

Stock enhancement of sturgeon populations will require novel hatchery approaches to rearing sturgeon released in the wild. In Michigan, the Michigan Department of Natural Resources has a hatchery recovery operation at the Wolf Lake State Fish Hatchery in Wawantam, MI. The success of these conservation hatcheries depends on release of fish that can adapt and survive in the wild, this will require research on different approaches of broodstock management and rearing of juvenile sturgeon, including nursing habitat, imprinting, feeding behavior, diet, and environmental stress effects.



JANUARY

Membership Renewals

FEBRUARY

First weekend: Sturgeon Season and Black Lake Sturgeon Shivarree

APRIL

Register for Sturgeon Guarding Program

MAY-JUNE

Sturgeon Guarding Program

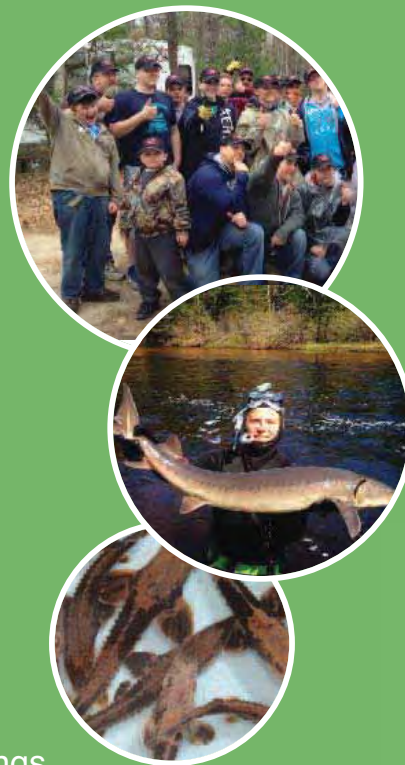
Netting, Tagging, Larval Sampling

Hatchery Rearing and Tours

JULY-AUGUST

Hatchery Rearing and Tours

Stocking Fall Fingerlings



SEPTEMBER

Annual Banquet, 2nd Saturday in September, Cheboygan

