

LAKE STURGEON REHABILITATION IN LAKE HURON

(J. Leonardi, MDNR)

BACKGROUND INFORMATION:

Lake Sturgeon is a potamodromous fish found in many large rivers and lakes in North America. Michigan is in the center of its historic range. In the early 1800's Lake Sturgeon were common to all of the Great Lakes. Following European settlement, Lake Sturgeon numbers declined because of exploitation and habitat degradation. This decline can be largely attributed to three factors. First, from the time of European settlement until the late 19th century, Lake Sturgeon were routinely killed as a nuisance species because they became entangled in fishing nets, causing damage. Second, during the late 19th and early 20th centuries, increased harvest, caused by higher market value, devastated the adult population. Third, loss of spawning habitat and nursery areas from construction of dams on spawning rivers, habitat destruction by former logging practices, and poor water quality eliminated most recruitment. Today, these populations are believed to be at 1% of their former size. As a result, Michigan Department of Natural Resources listed lake sturgeon as a state threatened species.

MANAGEMENT EFFORTS:

The rehabilitation of Lake Sturgeon in the Great Lakes is fronted by multiple agencies and groups including Great Lake states (MI, WI, OH, and NY), the Province of Ontario, Native American tribes, the United States Fish and Wildlife Service (USFWS), and other non-profit organizations (i.g. Sturgeon for Tomorrow, Saginaw Bay Watershed Initiative, Michigan State University, others). The Michigan Department of Natural Resources (MDNR), together with numerous partners, utilizes streamside rearing facilities to increase Michigan's lake sturgeon population. Streamside rearing allows young sturgeon to "imprint" to the river water, increasing the chances they return to the target river as mature adults.

The MDNR and partners operate five streamside rearing facilities including:

- Black River (Cheboygan County)
- Cedar River (Menominee County)
- Kalamazoo River (Van Buren County)
- Ontonagon River (Ontonagon County)
- Whitefish River (Delta County)

The Little River Band of Ottawa Indians operate a streamside rearing facility on the Manistee River (Manistee County). The Wisconsin Department of Natural Resources has streamside rearing facilities on the Kewaunee River and Milwaukee River.

Lake Sturgeon are also being reared under a traditional hatchery environment at the Genoa National Fish Hatchery in Genoa, WI. The gametes of these fish were collected by the USFWS from lower Lake Huron/upper St. Clair river.

SAGINAW RIVER WATERSHED REHABILITATION PLAN:

The rehabilitation of Lake Sturgeon in the Saginaw River watershed utilizes surplus fish from the Black River Streamside Rearing Facility and fish from the Genoa National Fish Hatchery. The rehabilitation plan prescribes the stocking of up to 2000 Lake Sturgeon (~5 inches) into four Saginaw River tributaries

for the next decade or longer. Each year, up to 500 Lake Sturgeon will be stocked into the Tittabawassee, Flint, Shiawassee, and Cass rivers.

The first stocking event is scheduled for August 23, 2018 where fish will be coming from the Black River Streamside Rearing Facility. Approximately 125 Lake Sturgeon (~5 inches) will be stocked in each the Tittabawassee, Flint, and Shiawassee rivers. On August 31, 2018 approximately 125 Lake Sturgeon will be stocked into the Cass River.

Lake Sturgeon from the Genoa National Fish Hatchery are scheduled for arrival later in September 2018. Approximately 375 fish per river is expected.

SIDEBARS:

The source of gametes for these Lake Sturgeon come from two different locations – the Black River watershed of northern Lake Huron and the lower Lake Huron/upper St. Clair River. The Black River fish are being reared in a streamside facility whereas, the fish from lower Lake Huron/upper St. Clair River are being reared in a traditional hatchery setting.

The concept is that these fish will “imprint” to the tributary they were stocked as they migrant out to Saginaw Bay and Lake Huron to mature. Once mature, they are expected to return to their natal river to spawn. However, the life history of Lake Sturgeon is one of patience. Fish stocked in 2018 will not likely mature and return to spawn until 2038 (20 years).

All fish will receive a microchip PIT tag which will allow us to compare the survival of the different sources. When these fish mature and subsequently captured in future assessments, we will be able to detect this microchip and the source of origin.

ABOUT LAKE STURGEON:

Sexual maturity in females is reached between 14 and 33 years, most often from 24 to 26 years and 12 to 17 years for males. Generally, female Lake Sturgeon spawn once every three to seven years while males spawn every one to four years. Spawning occurs on clean, gravel shoals and stream rapids from mid-April to late May in preferred water temperatures of 55 to 64 degrees F. Female Lake Sturgeon may lay 4,000 to 7,000 eggs per pound of fish. The typical life-span of Lake Sturgeon is 55 years but individuals over 100 years old have been found. The current state record for a legally harvested Lake Sturgeon is 193 pounds taken from Mullett Lake (Cheboygan County). Sturgeon greater than 300 pounds have been observed in the Great Lakes Basin. Lake Sturgeon are benthivores (meaning they eat prey from the bottom of waterbodies), feeding mostly on small invertebrates such as insect larvae, crayfish, snails, clams and leeches.