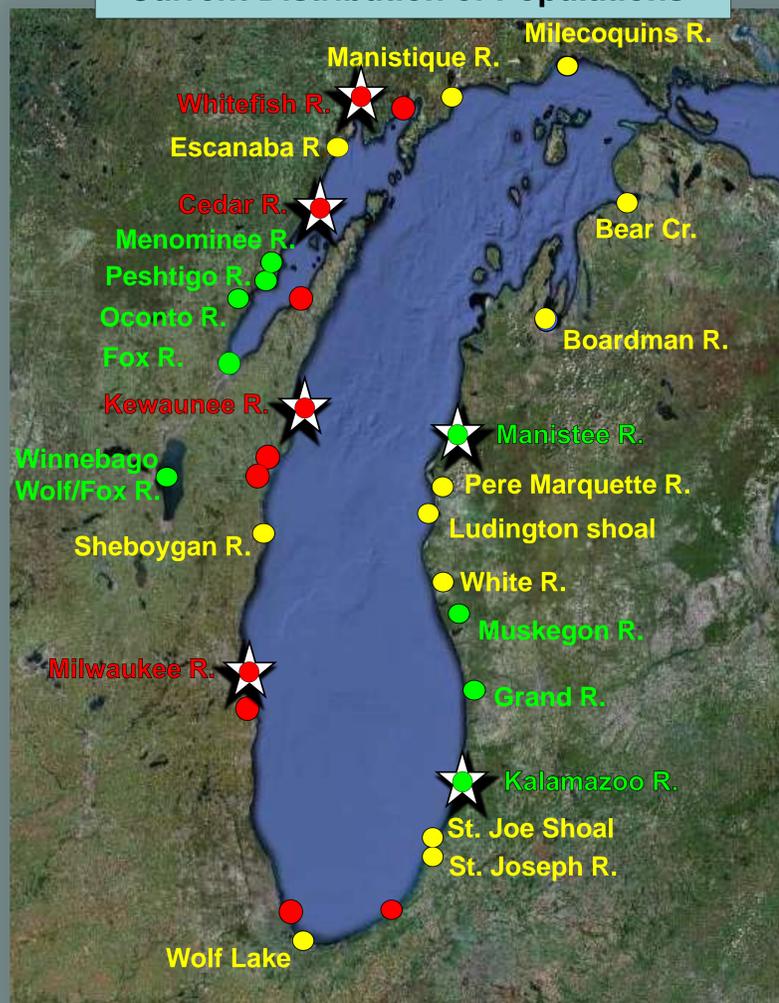


Lake Sturgeon Streamside Rearing - Lake Michigan Partnership -



Current Distribution of Populations



● Presumed Extirpated Populations ● Known Spawning Populations
 ● Occasional Observations but No Documented Reproduction
 ★ Streamside Rearing Facility

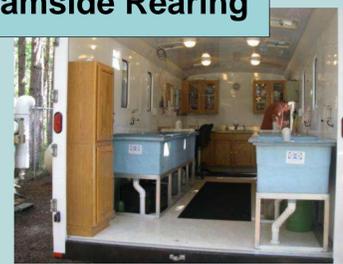
Laying The Groundwork

Great Lakes sturgeon declined dramatically in the late 1800s from overfishing, pollution and habitat loss. Though many populations were extirpated long ago, sturgeons still persist in at least 8 rivers around Lake Michigan but at a small fraction of their historic abundance. Once depleted, it is often difficult for sturgeon to recover because survival of young fish is poor and it takes them many years to mature.



In 2002, a partnership of Agency and University biologists and researchers initiated a lake-wide assessment of the status of lake sturgeon in Lake Michigan. Rehabilitation needs were identified and prioritized and rehabilitation guidelines for conserving the genetic characteristics of remaining populations were developed.

Development of Streamside Rearing

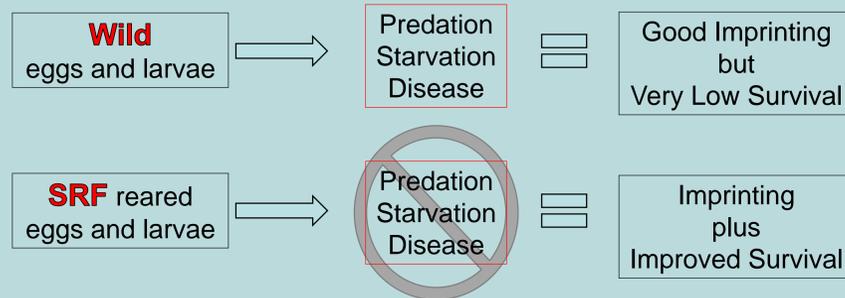


Because each population has been found to be genetically distinct, it is important to use a rearing technique that maintains these important differences. Streamside rearing was first initiated on the Manistee River by the Little River Band of Ottawa Indians in 2004. This technique was then used in 2006 to begin reintroducing sturgeon to the Cedar and Whitefish Rivers, MI as well as the Kewaunee and Milwaukee Rivers, WI. The most recent facility was established in 2011 on the Kalamazoo River, MI.

Why Use a Streamside Rearing Facility (SRF)?

An important aspect of "streamside" rearing is the fish are reared in water pumped from the target river. It is hoped this will allow young sturgeon to "imprint" to the river water in the same way wild fish do, ensuring their return to the target river as mature adults and reducing the chance that they might stray to other rivers, causing genetic concerns for other populations.

Eggs and larvae brought into these facilities also have a much better chance of survival than eggs and larvae in the wild that face predation, disease and starvation.



Two examples where streamside rearing is used:

1) **Reintroduction Locations:** Gametes are collected from a donor river that has a healthy population of spawning adults. The eggs are then delivered to the rearing facility where they are hatched and reared in water from the target river. This process helps to reestablish sturgeon in rivers where they have been extirpated and no longer exist.



2) **Supplementation Locations:** Where small populations remain, naturally fertilized eggs and wild hatched larvae are collected from the target river and placed in the rearing facility where they are reared in water from that river. This process helps a very small population recover before they disappear.

Raising Fish Streamside

Over a 6 month period, biologists raise the young sturgeon, first feeding them brine shrimp, then blood worms, and finally krill, getting them up to a size of 6-10 inches so they can be tagged and then released into the river in the fall.



Evaluation

After fish are released from the facilities, biologists begin long term monitoring of the populations. Over the next 25 years, teams of researchers will make sure facility reared fish return to their intended rivers of origin and that target populations increase in abundance and maintain sufficient genetic diversity to sustain themselves long-term. Tag detection will also help determine survival and distribution of the released fish throughout their life.



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