Scientists restore habitat for lake sturgeon

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(Photo: Detroit Free Press/Hasan Dudar)

Restoration efforts by Great Lakes scientists could ensure that an ancient shark-looking (but toothless) fish, around since the time of the dinosaurs, will stick around for a little longer.

The Friends of the Detroit River and the Michigan Sea Grant hosted a Detroit River Restoration Tour today, highlighting projects such as fish spawning habitats and shoals at Stony Island to protect the coastal wetlands from erosion.

Two lake sturgeon, pre-historic fish native to the Great Lakes region, were on display along the banks of the Detroit River at the Dossin Great Lakes Museum, where attendees could hold or pet the fish.

Lake sturgeon are considered a threatened species, and Michigan and Wisconsin hold the "last major populations of these fish," according to the Michigan Department of Natural Resources.

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To help rebuild fish populations, the St. Clair-Detroit River System Initiative — a project managed by the Michigan Sea Grant — has installed six spawning reefs from 2004 to 2015 in the Detroit and St. Clair rivers, according to informational literature from the initiative.

“We’re diversifying their spawning opportunity, you know, giving them more areas to spawn, which should translate into more young sturgeon,” said Ed Roseman, a research fishery biologist with the Great Lakes Science Center. “But because it takes such a long time to mature and grow, it’ll be a while before that effect really translates into the spawning population.”

Roseman said that the limestone reefs are typically four acres in size and are placed 25-30 feet underwater so that weeds and algae won’t grow on them.

Roseman said that in the early 1900s, the Livingstone Channel in the lower parts of the Detroit River was modified for deep draft ships to pass, which changed the water movement and removed and covered up much of the original spawning habitat.

According to informational literature from the St. Clair-Detroit River System Initiative, more than 60 miles of the Detroit River have been dredged, which destroyed the natural limestone reefs in the Livingstone Channel.

Sturgeon in Detroit: Ancient fish weighing up to 200 pounds lurk in river

“Because very few natural rocky areas remain, sturgeon have been found depositing their eggs on some unusual materials. For example, coal cinders that were dumped in the river when ships unloaded near Algonac, Michigan are used as spawning sites,” the informational form reads.

Roseman said that the sturgeon are considered “broadcast spawners.” He compared the process to a handful of marbles being tossed onto the ground. He said the spawning reef has to have interstitial spaces, or cavities, where the eggs can settle and incubate, and where they can be protected from predators and getting washed away.

Lake sturgeon, which have horny scutes instead of scales, can grow up to 7 feet in length and 300 pounds, and females live 80 to 150 years while males live an average of 55 years, according to informational literature from the St. Clair-Detroit River System Initiative.

“They’re a good part of the historic Great Lakes fish community,” Roseman said. “The Great Lakes were formed and these fish kind of evolved with the lakes."

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Article: Scientists Restore Habitat for Lake Sturgeon

Review Questions:

1. The Lake Sturgeon is described as a Threatened Species. What does that mean?

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2. Several organizations have worked together to create spawning reefs for Sturgeon. What does it mean when fish spawn?

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3. What major change in the Detroit River does the article describe, that destroyed Sturgeon’s original spawning reefs?

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4. What unusual materials were Sturgeon discovered spawning on?

5. Why do the spawning reefs need to have cavities, or spaces, between the rocks?

6. List one unique physical characteristic of Lake Sturgeon:

7. The beginning of the article describes a public tour that scientists hosted, to show and discuss their river restoration projects, which included seeing and touching live Lake Sturgeon. Why do you think the scientists host these types of events?