

Inside Report: Bringing the paddlefish back to lakes

It's an unmistakable fish, more dinosaur than bass, but until recently, the paddlefish had disappeared from Caddo Lake in Louisiana and Texas. Thanks to a program between public and private partners, including the Caddo Lake Institute and The Nature Conservancy, 50 [paddlefish](#) were released into the lake as part of an ongoing experiment on what it will take to bring the species back.

The paddlefish is one of the oldest living fish with ancestry going back 400 million years, and has shown little evolution since then. The commercial harvest of the [paddlefish](#), known for its eggs used as caviar, has been prohibited in Louisiana since 1985 as a protective measure, said Mike Wood, biologist director for inland fisheries at the state Department of Wildlife and Fisheries. Although the fish can live for a long time, they take up to 10 years to become sexually mature, and the price harvesters were getting for the eggs meant that a large number of fish were cut open just to find one with eggs. The ban on commercial harvests, he said, was imposed to avoid having the fish become endangered in the state.

"They can be locally rare," Wood said. "But they're not uncommon across their range."

One of the biggest reasons for the decline was the management of water coming from Lake O' the Pines into Caddo Lake after a flood-control dam was installed to create a reservoir.

"As the case with a lot of dams, down the road, you start seeing the detrimental effects of the dam," said Dan Weber, northwest Louisiana project manager for The Nature Conservancy.

It was in the early 1990s that it became known there was a need for some type of restoration in areas affected by dams.

Also around this time, The Nature Conservancy purchased about 8,000 acres in the Caddo Lake area later transferred to the Texas Parks and Wildlife Department. The transfer resulted in the interest in restoring habitat for the paddlefish.

The U.S. Army Corps of Engineers and The Nature Conservancy entered into a partnership a decade ago, called the Sustainable Rivers [Projects](#), to select a small group of dams around the country for more study on historical water flows in the area.

"To see if there are ways to operate the dams in a different way to see if improvement was made to the downstream system," Weber said.

Big Cypress Bayou and Caddo Lake were one of the eight initially selected areas.

Those discussions eventually resulted in an agreement in 2011 with the corps and the Northeast Texas Municipal Water District to change the way water flows into the area to see if that would work better for all users, including the paddlefish restoration effort, the Caddo Lake Institute's website says.

"One of the things has been moving forward is the effort to restore paddlefish," Weber said.

Paddlefish, he said, need flows of a certain magnitude to trip their spawning impulse. The fish also need a gravel-based water bottom with a certain depth of water in order to reproduce. According to the Louisiana Sea Grant, the paddlefish in Louisiana grows to an average of about 2.5 feet and weighs from 10 to 15 pounds as an adult. It's believed the damming of the Big Cypress Bayou changed these variables enough to help take the paddlefish out of the equation in Caddo Lake.

"The water regime in there had been turned entirely upside down," Weber said.

The dams provide important function so there are limits to what can be done, but supporters are optimistic.

To that end, transmitters were placed on about 50 paddlefish from Oklahoma and released in Caddo Lake in early March.

The transmitters will give watchers an idea of how the fish use the basin, if they'll use the spawning grounds, their survival rates and more. Most of the observation will be done by area Texas schoolchildren, as coordinated by the Caddo Lake [Institute](#). More information about the program will be available on the institute's website in the future.

Amy Wold covers environmental issues for The Advocate. Follow her on Twitter [@awold10](#).