

# Sturgeon, America's forgotten dinosaurs, show signs of life

July 10 2019, by Ben Finley, Patrick Whittle And John Flesher

---



In this Thursday, April 25, 2019 photo, an endangered shortnose sturgeon is fitted with a microchip after being caught in a net from the Saco River in Biddeford, Maine. The fish was measured and tagged before being released by students at the University of New England. The shortnose sturgeon is showing signs of bouncing back. In Maine, scientists have captured about 75 this decade on the Saco River, where they were previously never seen. (AP Photo/Robert F. Bukaty)

Sturgeon were America's vanishing dinosaurs, armor-plated beasts that crowded the nation's rivers until mankind's craving for caviar pushed them to the edge of extinction.

More than a century later, some populations of the massive bottom feeding fish are showing signs of recovery in the dark corners of U.S. waterways.

Increased numbers are appearing in the cold streams of Maine, the lakes of Michigan and Wisconsin and the coffee-colored waters of Florida's Suwannee River.

A 14-foot Atlantic [sturgeon](#)—as long as a Volkswagen Beetle—was recently spotted in New York's Hudson River.

"It's really been a dramatic reversal of fortune," said Greg Garman, a Virginia Commonwealth University ecologist who studies Atlantic sturgeon in Virginia's James River. "We didn't think they were there, frankly. Now, they're almost every place we're looking."

Following the late 1800s caviar rush, America's nine sturgeon species and subspecies were plagued by pollution, dams and overfishing. Steep declines in many populations weren't fully apparent until the 1990s.

"However, in the past three decades, sturgeon have been among the most studied species in North America as a result of their threatened or endangered status," said James Crossman, president of The North American Sturgeon and Paddlefish Society, a conservation group.



In this Saturday Dec. 29, 2018 photo, Matthew Balazik, a sturgeon research ecologist with Virginia Commonwealth University and the U.S. Army Corps of Engineers, and his brother, Martin Balazik, a volunteer with VCU's Rice Rivers Center, set out to catch baby Atlantic sturgeon on Virginia's James River. (AP Photo/Ben Finley)

Scientists have been finding sturgeon in places where they were thought to be long gone. And they're seeing increased numbers of them in some rivers because of cleaner water, dam removals and fishing bans.

These discoveries provide some hope for a fish that is among the world's most threatened.

But the U.S. sturgeon population is only a tiny fraction of what it once was—and the health of each species and regional populations vary widely.

While some white sturgeon populations on the Pacific Coast are abundant enough to support limited recreational and [commercial fishing](#), Alabama sturgeon are so rare that none have been caught for years.

Across America, dams still keep some sturgeon populations low by blocking ancient spawning routes. And the fish face newer threats such as rising water temperatures from climate change and the sharp propellers of cargo ships.



In this Thursday, April 25, 2019 photo, an endangered shortnose sturgeon is

tagged after being caught in a net from the Saco River in Biddeford, Maine. Students at the University of New England are studying the sturgeon's population. About 75 have been captured this decade on the Saco River, where they were previously never seen. (AP Photo/Robert F. Bukaty)

It will take decades to measure a population's recovery, experts say. Sturgeon sometimes live longer than humans. And they spawn infrequently, often requiring half a century to bounce back from overfishing.

Environmentalists warn that more conservation efforts are still needed.

"They've survived relatively unchanged for 200 million years," said Jeff Miller, a senior conservation advocate at the Center for Biological Diversity, which is planning a lawsuit seeking federal safeguards for sturgeon in the Great Lakes and Mississippi River watersheds. "If they're going to survive us, they're going to need additional protection."

Sturgeon swam with the dinosaurs. Bony plates line their bodies. Whisker-like barbels hang from their chins. Their toothless mouths telescope out and vacuum up anything from worms to mussels.

Their meat fed Native Americans, the starving settlers of Jamestown and the Lewis and Clark expedition. Delaware River shad fishermen would yank up their nets as thousands of sturgeons swam toward spawning grounds.



In this Saturday Dec. 29, 2018 photo, Matthew Balazik, a sturgeon research ecologist with Virginia Commonwealth University, holds a baby Atlantic sturgeon caught from Virginia's James River. (AP Photo/Ben Finley)

Then came caviar. The Russian delicacy of salt-cured sturgeon eggs became a fad for Europe's new middle class —and that took a heavy toll on American sturgeon.

"People just massacred them, just like we massacred the buffalo," said Inga Saffron, author of the 2002 history "Caviar."

"The difference being they were catching the sturgeon as they were

migrating to spawn," she said. "Not only did they kill the fish, they killed future generations of fish."

By 1900, American sturgeon populations were collapsing. Dams were going up. Pollution sucked oxygen from rivers.

But as decades passed, fishing bans took effect, and environmental laws became stronger.



In this Thursday, April 25, 2019 photo, a researcher holds an endangered shortnose sturgeon caught in a net in the Saco River in Biddeford, Maine. The fish was measured and tagged before being released by students at the University of New England. Sturgeon were America's vanishing dinosaurs, armor-plated beasts that crowded the nation's rivers until mankind's craving for caviar pushed

them to the edge of extinction. (AP Photo/Robert F. Bukaty)

Among the species showing improvement is Atlantic sturgeon, whose range stretches from Florida to eastern Canada.

The population around the Chesapeake Bay was feared to be extinct in the mid-1990s. Now, thousands of are believed to be there, according to Virginia Commonwealth University scientists.

Last fall, Matthew Balazik, a sturgeon research ecologist with the university and the U.S. Army Corps of Engineers, netted more than 200 baby Atlantic sturgeon in the James River—the first seen there in years. "This could be a kind of a comeback generation," Balazik said.

Not every river is seeing improvement. Dewayne Fox, a fisheries professor at Delaware State University, said the Delaware River's population remains low, possibly because of collisions with cargo vessels or dredging on spawning grounds.

But overall, Atlantic sturgeon appear to be slowly recovering after a species-wide fishing moratorium went into effect in 1998, according to a 2017 assessment by the Atlantic States Marine Fisheries Commission.



In this Thursday, April 25, 2019 photo, an endangered shortnose sturgeon is measured by Hannah Verkamp, left, a student at the University of New England, in Biddeford, Maine. Sturgeon were America's vanishing dinosaurs, armor-plated beasts that crowded the nation's rivers until mankind's craving for caviar pushed them to the edge of extinction. (AP Photo/Robert F. Bukaty)



In this Saturday Dec. 29, 2018 photo, Matthew Balazik, a sturgeon research ecologist with Virginia Commonwealth University, holds a frozen Atlantic sturgeon on caught on Virginia's James River. The sturgeon was likely hit by a ship. (AP Photo/Ben Finley)



In this Friday, June 14, 2019, image made from video, a research vessel ships off on a sturgeon surveying expedition in Harrison Township, Mich. The armor-plated, bottom-feeding fish are mounting a comeback from the edge of extinction. Scientists say fishing bans, stocking programs, cleaner water and dam removals are helping sturgeon recover. (AP Photo/Mike Householder)



In this Oct. 8, 2010 file photo, Virginia Commonwealth University graduate student Matt Balazik prepares to toss a 70-pound Atlantic sturgeon into the James River near Charles City, Va. Balazik is a sturgeon census taker, using electronic tracking devices to monitor the movements of the armor-plated fish. (AP Photo/Steve Helber)

The shortnose sturgeon also shows signs of bouncing back. In Maine, scientists have captured about 75 this decade on the Saco River, where they were previously never seen.

In Maine's Kennebec River, the shortnose population nearly doubled from about 5,100 in the late 1970s to more than 9,400 around 2000, and it has likely grown since, said Gail Wippelhauser, a fisheries biologist with Maine's Department of Marine Resources.

Wippelhauser credits cleaner water: "They used to just dump sewage into the river. There were paper mills that used to dump chemicals in."

Lake sturgeon are waging a slow but steady comeback. The largest group is in the river corridor linking Lakes Huron and Erie, said Ed Baker, a research biologist with the Michigan Department of Natural Resources.

The species is benefiting from fishing limits and stocking programs, some by Native American tribes. But dam construction over more than a century has slowed the recovery.



In this Saturday Dec. 29, 2018 photo, Matthew Balazik, a sturgeon research ecologist with Virginia Commonwealth University, measures a baby Atlantic

sturgeon caught from Virginia's James River. (AP Photo/Ben Finley)

One solution has been a fish elevator and tanks that haul them around two hydroelectric dams on the Menominee River, which flows between Wisconsin and Michigan's Upper Peninsula.

The number of Gulf sturgeon is also growing, particularly in Florida's Suwannee River. That population has at least doubled since the mid-1990s to about 10,000 fish.

The species still faces various threats including the Gulf Coast's ever-warmer waters, said Adam Kaeser, an aquatic ecologist with the U.S. Fish and Wildlife Service.

Decimated by dams, only one Alabama sturgeon has been caught since 2007, but DNA tests of river water confirm some are still there.

"They're hanging on," said biologist Steve Rider with the Alabama Department of Conservation and Natural Resources. "But they're barely hanging on."

© 2019 The Associated Press. All rights reserved.

Citation: Sturgeon, America's forgotten dinosaurs, show signs of life (2019, July 10) retrieved 11 May 2024 from <https://phys.org/news/2019-07-sturgeon-america-forgotten-dinosaurs-life.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.