





Sawfish research was conducted pursuant to NMFS ESA Permit No. 25864.

Sawfish Staging Comeback?

Scientists 'cautiously optimistic' Florida's smalltooth sawfish are rebounding

BY NATALIE VAN HOOSE

eports of smalltooth sawfish are on the rise, igniting hopes that the iconic Florida species is making a comeback 20 years after it was listed as endangered.

Sawfish have returned to the Indian River Lagoon after vanishing from the waterway more than four decades ago. They are also consistently spotted in

Southwest Florida, their core range, and occasionally reported in the northern Gulf of Mexico, said Gregg Poulakis, a fish biologist with the Florida Fish and Wildlife Conservation Commission.

Once common, smalltooth sawfish suffered dramatic declines in the 20th century. Coastal development imperiled sawfish habitat, and their protrud-

ing, toothed snout and large size made it easy for them to become entangled in fishing nets, where they perished as accidental bycatch.

The species previously inhabited warm coastal waters on both sides of the Atlantic, extending along West Africa and the southeastern U.S., throughout the Caribbean, and into Central and South America. Smalltooth sawfish likely disappeared from much of their range by the 1980s, Poulakis said. Today, they live primarily in Florida, with a small remnant population in the western Bahamas.

In 2003, smalltooth sawfish became the first cartilaginous fish to be federally listed under the Endangered Species Act, which celebrates its 50th anniversary this year. The ESA protects sawfish by making it illegal to harm, harass, or harvest them.

Florida scientists are now seeing promising signs that the state's saw-fish population has stabilized and may be increasing.

"We might be seeing the beginnings of recovery," said Poulakis, the state's representative on the National Marine Fisheries Service's Smalltooth Sawfish Recovery Implementation Team. "We're cautiously optimistic."

Scientists have yet to find a reliable way of estimating Florida's sawfish numbers. However, Poulakis and his team, with frequent help from Florida anglers, have noticed that sawfish are re-expanding into the northern Gulf of Mexico and the southern Indian River Lagoon, thought to be a nursery for the species in the past.

Poulakis is especially encouraged by an uptick in reports of young sawfish in the St. Lucie Estuary over the past few years. April and May are peak sawfish birthing months, and pregnant females faithfully return to the same nurseries every other year to give birth. Each female can have 7 to 14 pups—possibly as many as 21.

"That has a nice seeding effect,"
Poulakis said. "As long as those animals survive, we've potentially got a new nursery on our hands, and we think that is what's happening in the St.
Lucie."

Researchers have also identified sawfish nurseries in the Peace River, the Caloosahatchee River, and Florida Bay. Poulakis credits Everglades National Park and its longstanding ban on



commercial fishing as playing a key role in protecting the species.

Still, he estimates it may take two to three decades for sawfish to be plentiful enough to downgrade their conservation status.

PROTECTING ONE OF FLORIDA'S **MOST UNUSUAL SPECIES**

Although sawfish resemble sharks, they're actually rays. They use their long, hedge-trimmer-like "saw" to detect, sideswipe, and stun prey and to defend themselves against predators. Their freakish form inspired sailors' myths of sawfish cutting ships—and humans—in half.

"When you first see it, it seems like a cartoon," Poulakis said. "It's just so unusual. I feel fortunate that they're here in our backyard, and there are enough still left that we could try to start answering some questions about them."

One of those questions is just how big sawfish can get: At birth, they measure 21/2 feet long, doubling their length to five feet within their first year. The longest sawfish measured by scientists is a 16-foot female that washed ashore in the Kevs. but others have been estimated as even longer, Poulakis said.

Scientists aren't sure how many sawfish occupied Florida waters before their



decline. Very little research was done on the species when it was abundant, Poulakis said.

To close those knowledge gaps, FWC scientists have been tagging sawfish for the past two decades, often using a microchip that can be scanned when fish are recaptured. They've also inserted acoustic tags in a number of sawfish, which will ping as they pass one of hundreds of receivers deployed across state waters, allowing researchers to track sawfish whereabouts.

A vital component of sawfish recovery is protecting and preserving coastal habitat, particularly red mangroves, Poulakis said. Sawfish rely on mangrove shorelines that tend to hold small prey fish. Protecting sawfish habitat benefits anglers as well—these same ecosystems are favorite haunts of snook, tarpon, and redfish.

'There's always a competition with humans," Poulakis said. "Making sure there's enough of those habitats, especially associated with these high-use



Sawfish were once abundant in Florida waters but suffered from overharvest (early twentieth century photo) as well as bycatch mortality in commercial nets.

areas, is going to be really important in the future. Everything is connected."

ANGLERS ADVANCE SAWFISH SCIENCE

Anglers can make crucial contributions to sawfish research, particularly by reporting sawfish sightings or encounters to the U.S. Sawfish Recovery Hotline (1-844-4SAWFISH or sawfish@myfwc.com). Poulakis and his team often rely on leads from anglers to direct their efforts, and even a single sighting is a valuable data point, he said.

"All those ones add up when we start putting them on the map," Poulakis said. "We use angler information on a regular basis. Because of that, we've learned an incredible amount about the species."

Captain John Conway of Cape
Coral alerted Poulakis to a sawfish
hotspot he discovered near one of
his favorite tarpon fishing holes
—a conversation that kicked off
a collaboration. Conway shares
what he sees on the water with the

research team and occasionally joins the scientists to scout for the fish. On one such trip, the team caught a sawfish that had been tagged several years earlier as a juvenile, giving scientists insights into the species' growth rate.

Conway said he sees his partnership with Poulakis as a way of giving back: "I'm just a fishing guide that stumbled upon something that he needs. They're cool animals. I'm fascinated by them."

On the East Coast, Capt. Chris Britton began spotting sawfish in the Stuart area on a regular basis via his boat's sonar imaging technology. Poulakis' team used his reports to help direct tagging efforts, and Capt. Britton was able to assist them in recapturing a 12.7-foot sawfish in the St. Lucie Inlet that had been tagged near Everglades City on the Gulf Coast several years prior. The guide has now been working with scientists in the lagoon for a couple of years.

"I feel like I'm helping benefit a greater cause—helping sawfish come back to historical numbers," he said. FS

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