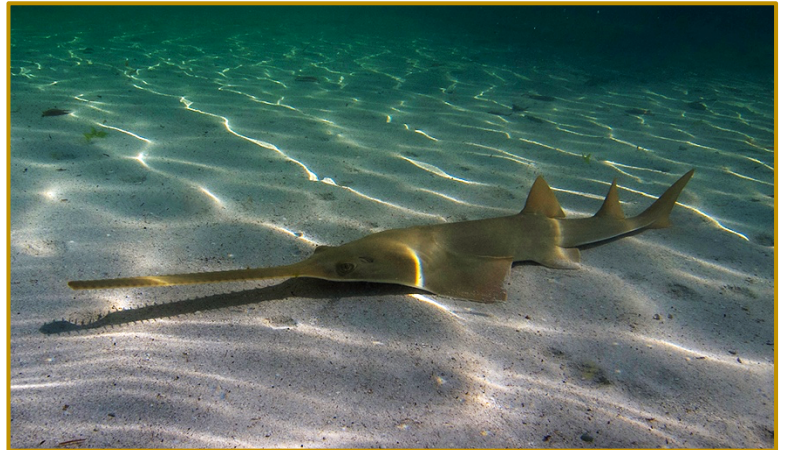


# Protecting Endangered Sawfishes:

## Opportunities for Western Central Atlantic Fishery Commission (WECAFC) Members



Smalltooth Sawfish, © Mark Weeter.

### Overview

The sawfishes are the Western Central Atlantic's most threatened marine fish. The two species once widespread throughout the region -- Smalltooth Sawfish (*Pristis pectinata*) and the Largetooth Sawfish (*Pristis pristis*) - are now classified by the International Union for the Conservation of Nature (IUCN) as Critically Endangered. Fishing is the main threat to sawfish. Degradation of key habitats also jeopardizes sawfish survival. Despite multiple international conservation commitments, sawfishes remain seriously under-protected as their risk of extinction rises.

### Biology and Distribution

Sawfishes are shark-like rays that feed mainly on bony fishes and invertebrates. Individuals can grow to more than six meters. Like other rays and closely related sharks, sawfishes have relatively low reproductive rates and are therefore inherently vulnerable to overexploitation.

Sawfishes occupy shallow coastal and estuarine waters. Largetooth Sawfish also spend time in freshwater rivers and lakes. Reliance on a variety of habitat types throughout their lives makes them susceptible to a range of anthropogenic impacts. Smalltooth Sawfish have an affinity for mangrove forests and are particularly threatened by their loss. Largetooth Sawfish are particularly affected by dams and other river modifications that alter flow and restrict migration.

Smalltooth and Largetooth Sawfish were once found from the United States to south of Brazil. Smalltooth Sawfish are now reliably encountered only in the U.S. and the Bahamas. The species is rare but present in Cuba, and possibly Honduras, Panama, Belize and/or Mexico. In the Western Atlantic, Largetooth Sawfish are now regularly reported only in Brazil and Nicaragua. They may still be present in Costa Rica, French Guiana, Suriname, and/or Guyana.



Largetooth Sawfish, Costa Rica ©Carlos Araya.

### Exploitation

Sawfish populations have been dramatically depleted by overfishing. Their long, tooth-studded snouts (rostra) are easily entangled in fishing gear, particularly gillnets and trawls. Sawfish meat has been used for food. Rostra are sold as curios. Fins are exported to Asia for use in shark fin soup. Rostral teeth are a preferred material for cockfighting spurs.

## Amazing Facts

- Ancient Mayans buried their dead with sawfish rostral teeth.
- Panama's indigenous Guna people consider sawfish as protectors that patrol the coasts repelling dangerous animals, such as sharks and crocodiles.
- Sawfish have been found in the Amazon, more than 1000 km from the sea.
- In the 1970s, more than 60,000 sawfish were fished from Lake Nicaragua.
- The Bahamas was the site for only successful sawfish captive breeding (2012).
- In 2016, a sawfish was caught off Mexico for the first time in 10 years.
- The first tagging of a sawfish in the Bahamas' Abaco Islands took place in 2019.



Sawfish Mola from Panama, ©Matthew McDavitt.

## Conservation

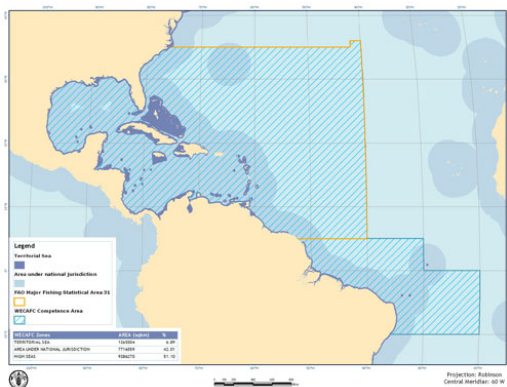
Sawfishes are nationally protected in just a fraction of historical range states around the world, including: Brazil, Costa Rica, Guinea, Mexico, and the U.S. The Bahamas, Cuba, and Nicaragua have adopted partial protections.

Recommendations and obligations to protect sawfish have been made through various international bodies:

- Advice from the WECAFC Shark Working Group (2017)
- Listing on the Cartagena Convention Protocol Concerning Specially Protected Areas and Wildlife Annex II (2017, 2019)
- Inclusion in the Convention on Migratory Species (CMS) Appendices I and II (2014)
- Listing on Appendix I of the Convention on International Trade in Endangered Species (CITES) (2007).

## IUCN Analysis

In 2017, the IUCN Shark Specialist Group (SSG) updated its 2014 Global Strategy for Sawfish Conservation and revisited priorities for sawfish protection. The U.S., which has protected Smalltooth Sawfish and associated critical habitats relatively well, was deemed a “lifeboat” for the species. The group highlighted a few significant sawfish populations in the Western Central Atlantic that, if protected soon, could represent “beacons of hope.”



For this region, the SSG recognized the U.S. and the Netherlands for efforts to champion sawfish conservation, and identified the following countries as priorities for sawfish research and/or improved protections:

- |           |              |            |             |
|-----------|--------------|------------|-------------|
| ▪ Bahamas | ▪ Colombia   | ▪ Cuba     | ▪ Nicaragua |
| ▪ Brazil  | ▪ Costa Rica | ▪ Honduras | ▪ Panama    |

## Opportunities for WECAFC Members

To fulfill international commitments and turn the tide for sawfishes, range countries should prioritize:

- Regulations to specifically prohibit fishing, killing, retaining, selling, and trading of sawfishes
- Education and enforcement programs to implement protections and promote safe sawfish release
- Continued work by the WECAFC Shark Working Group, including updated advice by 2020
- Regional cooperation through platforms provided by WECAFC, SPAW, and CMS
- Research and protections for critical sawfish habitats, particularly mangroves.

Information in this factsheet is based on IUCN Red List assessments, and:

- Fordham, S.V., Jabado, R., Kyne, P.M., Charvet, P., Dulvy, N.K. 2018. *Saving Sawfish: Progress and Priorities*. IUCN Shark Specialist Group, Vancouver, Canada.
- Harrison, L.R., Dulvy, N.K. 2014. *Sawfish: A Global Strategy for Conservation*. IUCN Shark Specialist Group, Vancouver, Canada.



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