



20cm

Photo credit: Maria Luiza Delgado Assad, Fishbase.

**Current Status:**

**KEY INFORMATION**

**Areas of Concern**

Central and South America.

**Year Identified as “Species of Concern”**

1988 (removed in 1997, returned to list in 1999).

**Factors for Decline**

- Bycatch
- Fishing
- Habitat degradation

**Conservation Designations**

IUCN: Critically Endangered

AFS: Endangered

Species of Greatest Conservation Need:

TX, FL

**Demographic and Genetic Diversity Concerns:**

Simpfendorfer (2000) estimated a relatively slow intrinsic rate of increase for large-toothed sawfish of from 0.05 to 0.07 per yr, with population doubling times of 10.3 to 13.6 years. Musick et al. (2000) noted that intrinsic rates of increase less than ten percent (0.1) were low, and make a species particularly vulnerable to excessive mortalities and rapid population declines, after which recovery may take decades.

Large-toothed sawfish historically inhabited warm-temperate to tropical marine waters in the Atlantic and eastern Pacific Ocean, possibly in the eastern Mediterranean, and freshwater habitats in Central and South America and Africa. Historical occurrences of large-toothed sawfish in North America were much more limited than those of the related small-toothed sawfish and were strictly confined to shallow (< 33 feet), near-warm-temperate and tropical (>64-86 °F), estuarine localities, partly enclosed lagoons, and similar situations. Thorson noted large catches of

large-toothed sawfish during visits to Lake Nicaragua in 1963 (Cook *et al.*, 2006). Directed fisheries removed an estimated 60,000 to 100,000 sawfishes between 1970 and 1975 (Thorson 1976), and sawfish are now rare in Nicaragua. In the United States, large-toothed sawfish were reported mainly along the Texas coast and east into Florida waters, but now it is considered extirpated in the United States. The last confirmed record of large-toothed sawfish in U.S. waters was in Port Aransas Texas in 1961.

**Existing Protections and Conservation Actions:** Large-toothed sawfish are a prohibited species in Florida, Louisiana, and Alabama. Texas Parks and Wildlife Division has listed large-toothed sawfish as endangered under the Parks and Wildlife Code Chapter 68, due to the extreme difficulty that fishermen have in distinguishing the small-toothed sawfish from the large-toothed sawfish.



## Species of Concern

NOAA National Marine Fisheries Service

### Factors for Decline:

Sawfish are extremely vulnerable to overexploitation due to their exceptional propensity for entanglement in net gear, their restricted habitat, and their low intrinsic rate of increase. Habitat degradation likely impacts the species given their inshore distribution.

### Status Reviews/Research Underway:

A petition was submitted by Wild Earth Guardians in April 2009 to list the species throughout its range. NMFS issued a positive 90-day finding that listing may be warranted in July 2009 (74 FR 37671), A 12 month finding determining whether listing under the ESA is warranted is expected to be finalized in April 2010.

### Brief Species Description:

Sawfishes are generally a tropical marine and estuarine **elasmobranch**. All modern sawfishes appear in some respects to be more shark-like than ray-like, with only the trunk and especially the head ventrally flattened. The presence of a rostrum having laterally protruding teeth separates sawfishes from skates and rays (Figure 1). The rostrum has a saw-like appearance and hence the name of sawfish. The largetooth sawfish and the smalltooth sawfish (*P. pectinata*) are similar in appearance. The two species can usually be differentiated by noting the number of teeth on one side of the rostrum. Largetooth sawfish can have between 14 and 21 rostral teeth on one edge of the saw whereas smalltooth sawfish usually have 23 to 34 (Compagno and Last 1999).

These two species can also be distinguished by noting that the first dorsal fin in largetooth sawfish originates anterior to the pelvic fins, while in smalltooth sawfish the first dorsal fin originates along the same axis as the pelvic fins. The pectoral fins of *P. perotteti* are proportionally larger than those of *P. pectinata*. Only largetooth sawfish have a distinct lower lobe on its caudal fin (Compagno and Last 1999). Maximum size of largetooth sawfish is 21.3 feet (6.5 m) length with weights between 1100 and 1300 pounds (500 to 600 kg) (Thorson 1976). Studies of largetooth sawfish in Lake Nicaragua (Thorson 1976) report litter sizes of 1 to 13 individuals, with a mean of 7.3 individuals. The gestation period for largetooth sawfish is approximately 5 months, and females likely produce litters every second year.

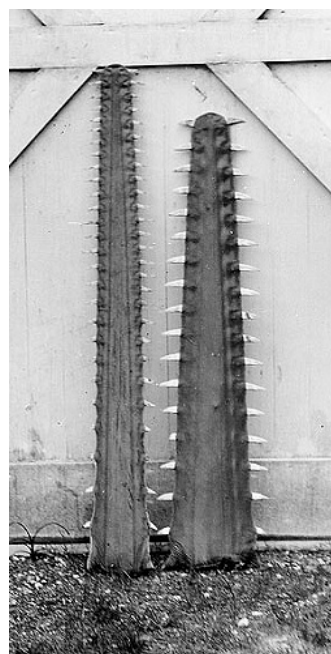


Figure 1. A comparison of smalltooth sawfish rostrum (left) and largetooth sawfish rostrum (right). Photo courtesy George Burgess, Florida Museum of Natural History.

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