



Species of Concern

NOAA National Marine Fisheries Service

Sand tiger shark

Carcharius taurus



Photo credit: Paula Whitfield, NOAA.

KEY INFORMATION

Areas of Concern

Western Atlantic - south Atlantic, Gulf of Mexico, Caribbean.

Year Identified as "Species of Concern"
1997

Factors for Decline

- Fishing
- Pollution
- Low fecundity
- Bycatch

Conservation Designations

IUCN: Vulnerable

American Fisheries Society: Vulnerable

** While category names may be similar, it is important to note that scientific and conservation organizations use different criteria to classify species conservation status. We have not generally adopted any of the rankings used by these organizations, however we do review the information they present as part of our proactive approach to species conservation.*

12/28/2010

Current Status:

Demographic and Genetic Diversity Concerns:

Sand tiger sharks have been fished throughout their range. The species is highly regarded as a food fish in Japan, but not in the Western Atlantic. Increased exploitation of sharks along the U.S. east coast in the 1980s and 1990s resulted in abundance declines of 90% from virgin conditions (Musick et al. 1993, Castro et al. 1999). Their aggregating behavior, slow growth, late maturity, and low productivity make them susceptible to exploitation.

Existing Protections and Conservation Actions:

The sand tiger shark is managed by the Highly Migratory Species Fishery Management Plan (FMP). Under this FMP, it has been illegal to land (both commercially and recreationally) this species or any parts (fins, meat, jaws, etc) on the Atlantic coast of the U.S. since 1997. Under the Shark Interstate Fisheries Management Plan for State waters, implemented in 2010, all states from Florida to Maine ban the retention or possess of sand tiger sharks. The Southeast Science Center of NMFS completed a status update in February 2009 (Carlson and Castro 2009). The authors concluded that the sand tiger shark should be retained as a species of concern because of the species low productivity.



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Factors for Decline:

As described above, the shark is known to be caught for food in Japan. They are of variable economic importance regionally. U.S. fishermen have not been authorized to retain sand tiger sharks since 1997. However, they are still caught primarily as bycatch with line fishing gear, but are also caught as bycatch in longlines, bottom-set gillnets, and in pelagic and bottom trawls. Sand tiger sharks are also used for fishmeal, oil (from its liver), and its fins are used in shark-fin trade. Sand tigers are very susceptible to fishery exploitation because they aggregate in large numbers during the mating season in specific coastal areas. These aggregations have been targeted by fisheries in the past. Additionally, low fecundity (e.g., maturity at 10 years for females) in combination with other life history characteristics makes this species extremely vulnerable to overfishing.

Brief Species Description:

The sand tiger shark is a bulky shark with a flattened-conical snout; the eyes are small and do not have nictitating eyelids, and the mouth is long -- extending behind eyes with three rows of large upper anterior teeth. The anal and both dorsal fins are equally large and broad based; first dorsal fin on back is closer to pelvic fins than pectorals. In coloring they are light brown, often with darker reddish or brownish spots scattered on body. Maximum length is about 10.4 feet (318 cm). Sand tiger sharks occur as solitary individuals, but may also occur in small to large schools. They are a Species of Concern in the Western Atlantic and Northern Gulf of Mexico. Sand tiger sharks range from the surf zone, in shallow bays and around coral and rocky reefs down to depths as great as 626 feet. They are often found near the bottom, but have been found throughout the water column. Sexual maturity for males is reached at the size of 6 feet (1.9 m) or 6 to 7 years; females mature at 7 feet (2.2 m) or 9 to 10 years (Goldman *et al.* 2006). They live up to 17 years. The species is ovoviviparous (young develop as unattached embryos within the uterus, with energy supplied by large egg yolks) and exhibit intra-uterine cannibalism. The gestation period may be 8 to 9 months (Compagno 1984). Aggregations of individuals occur for feeding, courtship, mating, and birth. In North America, mating is thought to occur in alternate years between late March and April with an average litter of size of one to two pups. The sand tiger is migratory within its region, moving poleward during the summer while making equatorial movements during the fall and winter months. Prey items include bony fishes, small sharks, rays, squid, crabs and lobsters.

Video:

In North Carolina (1:01) <http://www.youtube.com/watch?v=SbMJueC8C4w>

Male with remoras (0:30) <http://www.arkive.org/sand-tiger-shark/carcharias-taurus/video-09.html>

Contact Information

For sand tiger shark, contact:

Calusa Horn
SOC Coordinator Southeast Region
NOAA Fisheries
Protected Resources Division
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312

Calusa.Horn@noaa.gov

<http://www.nmfs.noaa.gov/pr/species/concern>

For Species of Concern, contact

NOAA Fisheries
Office of Protected Resources
1315 East West Highway
Silver Spring, MD 20910
(301) 713-1401

soc.list@noaa.gov

References:

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