



SPECIES FACT SHEET

Tiger shark *Galeocerdo cuvier*

Classification

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| Kingdom: | Animalia |
| Phylum: | Chordata |
| Class: | Chondrichthyes |
| Order: | Carcharhiniformes |
| Family: | Carcharhinidae |
| Genus: | <i>Galeocerdo</i> |
| Species: | <i>cuvier</i> |



Conservation Status: Near Threatened

Identification: Tiger sharks are one of the largest shark species possibly reaching 5.5 m long and weights of over 800 kg although most are under 4.5 m. The tiger shark is recognizable by its dark stripes and white ventral surface. The dorsal markings become less prominent with age in some locations. Relative to most sharks, tiger sharks have a very broad head and blunt snout. Their mouth is positioned at the end of the snout, which helps them take large prey. Tiger shark teeth are very distinctive. They are curved and heavily serrated allowing them to cut through turtle shells and bone. The body narrows fairly abruptly after the origin of the first dorsal fin. There is an interdorsal ridge present between the first and second dorsal fin as well as lateral keels on the caudal peduncle. The tail is heterocercal (top and bottom lobes of unequal length) and both lobes generally show the dark grey dorsal coloration.

Distribution: The tiger shark is generally considered a cosmopolitan coastal pelagic species and can be found in almost all tropical and warm temperate seas between the 40° parallels. It is absent from the Mediterranean Sea. They can be found in a variety of habitats including shoals, reefs, sand flats, seagrass beds, and the open ocean. Although tiger sharks usually are found from the surface down to 200 m, they have been documented at depths up to 350 m. Individual tiger sharks are thought to have very large home ranges – likely covering thousands of square kilometers. Shark Bay, Western Australia, boasts a very large population of tiger sharks, however, the abundance of sharks in the inner gulf varies throughout the year with low densities in winter. Similar trends occur for tiger sharks in other locations with movements into higher latitudes in summer as waters warm.

Growth and Age: Tiger sharks are the largest shark in the family Carcharhinidae, Newborn pups are born at 40-90 cm and grow quickly in their first years. It is thought that they may double their length in the first year (equating to a 40-90 cm/year growth rate!). Gradually slowing after this initial spurt, growth rates are estimated at around 35 cm/year for a 2 m tiger and 10 cm/year for a 3 m tiger. Age and growth models show tiger shark growth slowing considerably between 3-4 m. Biologists aren't sure what the maximum lifespan of tiger sharks might be, but they probably can live for 30-50 years and possibly longer.

Reproduction: Little is known about reproduction in tiger sharks. Females mature at 330-345 cm total length and males mature between 270-300 cm. Gestation is thought to be between 13-16 months and breeding and pupping probably occur during the summer months. Tiger sharks are the only carcharhinid to exhibit ovovivipary (aplacental vivipary) – most exhibit placental vivipary – and give birth to 10-80 pups at a time every two or three years. Unlike many species of coastal sharks, young tiger sharks are not found in nearshore nurseries.

Diet: Tiger sharks have been found with a wide variety of food items in their stomachs and are sometimes referred to as the dumpsters of the sea. However, the diversity of foods found in their stomachs (including human refuse and other bizarre objects on occasion) reveals their incredible adaptability in foraging. In fact, tiger sharks show major differences in diets among habitats that reflect the types of prey that are available and they shift their diets as they grow from fishes to increasing reliance on larger prey like turtles and marine mammals. In Shark Bay, tiger sharks consume sea snakes, bony fishes, sea turtles, smaller elasmobranches (sharks and rays), and dugongs.

Ecological Importance: Tiger sharks are true top predators once they reach their adult sizes. Because they consume other large species including those that exert strong influences on community structure (like turtles and dugongs) they probably play an important role in maintaining healthy marine ecosystems. However, we still know relatively little about the impact of tiger shark predation on populations of their prey. Understanding the impact of tiger sharks on their prey and communities is one of the major research focuses of SBERP.

SBERP Research: Since 1997 SBERP has tagged more than 700 tiger sharks and tracked 50 individuals for periods of hours to months. We have found that tiger shark abundance changes predictably through the year with high numbers in summer and lower numbers in winter. The abundance of large tiger sharks (over 3.5 m) seems to be driven at least partially by the number of dugongs in the bay. When they are present, tiger sharks prefer to spend their time in shallow habitats – especially along the edges of banks – where their prey is most abundant. The mere presence of tiger sharks has a large impact on the habitat use patterns of many of their prey, which may ultimately affect the dynamics of the seagrass communities themselves. For more information on the responses of particular prey species see their Species Fact Sheets or follow this link (www.SBERP.org) to the SBERP website.

