PALM BEACH DOLPHIN PROJECT FACT SHEET

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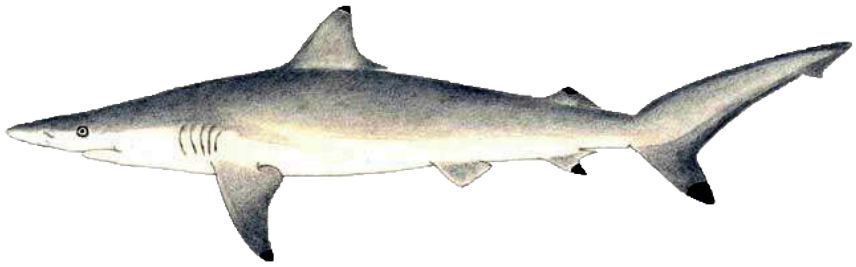
SPINNER SHARK

Carcharhinus brevipinna

CLASS:	Chondrichthyes
ORDER:	Carcharhiniformes
FAMILY:	Carcharhinidae
GENUS:	Carcharhinus
SPECIES:	brevipinna



Spinner sharks are a fast-swimming species of shark which often jumps out of the water (hence the name!). The reason for their "spinning" or spiral motion is the way in which they catch their prey. Climbing quickly within a shoal of fish, they snap on all sides while turning. Then they leap through the water's surface, making no attempt to slow down before reaching the top.

PHYSICAL DESCRIPTION: Spinner sharks are large and slender and have a pointed snout. The first dorsal fin is relatively small and begins at the same height as the end of the pectoral fin or slightly behind it. Spinner sharks have no interdorsal ridge.

COLOR: Their back is gray-bronze and their belly is white, and they have a thin white band along their flanks. Very noticeable are the black tips on both dorsal fins, pectoral and anal fins, as well as the lower lobus of the tail fin. Individuals smaller than 70 cm have no dark markings.

LENGTH AND WEIGHT: Males mature at 5.2 to 6.7 ft [1.59 to 2.03 m], females mature at 5.6 to 6.6 ft [1.7 to 2 m], maximum length of 9.8 ft. [2.78 m], but the average size of these sharks is about 6.4 ft [1.95 m] and 123 pounds [56 kg].

TEETH: This species has a narrow jaw and small narrow-cusped teeth of a fish-eating shark.

FEEDING: They feed mainly on small fish, preferring swarm fish such as sardines or herring. However, their food spectrum is very wide and also include tuna, grunt fish, lizard fish, etc., as well as mollusks, small sharks and rays. This species employs an unusual method of hunting, which involves swimming rapidly through schools of fish, spinning on its axis, and snapping in all directions at the scattering prey, culminating in an impressive leap from the water surface. Although high-up in the food chain, the spinner shark does occasionally fall prey to larger shark species, with the smaller juveniles and sub-adults being especially vulnerable.

DISTRIBUTION AND MIGRATION: Spinner sharks have a wide range and make seasonal migrations. They are found almost worldwide over the continental shelf, preferring shallow waters (less than 30 meters), but have also been seen in depths of approximately 75 meters. Populations of the spinner shark found in the Gulf of Mexico and off the coasts of Florida and Louisiana are known to be highly migratory, forming schools that move inshore during the spring and summer to reproduce and feed.

NATURAL HISTORY: Like other requiem sharks, the spinner shark is viviparous. Adult females have a single functional ovary and two functional uteri; each uterus is divided into compartments, one for each embryo. The embryos are initially sustained by a yolk sac. When the embryo grows to around 19 cm (7.5 in) long, the supply of yolk has been exhausted and the empty yolk sac

develops into a placental connection through which the mother provides nutrients for the remainder of gestation. Females give birth to three to 20 (usually seven to 11) pups every other year, after a gestation period of 11–15 months. Mating occurs from early spring to summer, and parturition from March to April in the northwestern Atlantic. Young are birthed in coastal nursery areas such as bays, beaches, and high-salinity estuaries in water deeper than 5 m (16 ft).
The length at birth is 66–77 cm (26–30) in the northwestern Atlantic. Spinner sharks are relatively fast-growing sharks: 30 cm (12 in) per year for newborns, 25 cm (9.8 in) per year for one-year-olds, 10 cm (3.9 in) per year for adolescents, and 5 cm (2.0 in) per year for adults. In the northwestern Atlantic, males mature at 1.3 m (4.3 ft) long and females at 1.5–1.6 m (4.9–5.2 ft) long, corresponding to ages of 4–5 years and 7–8 years, respectively. The maximum lifespan has been estimated at 15–20 years or more.
The spinner shark is a fast, active swimmer that sometimes forms large schools, segregated by age and sex. Young individuals prefer cooler water temperatures than adults. Off South Africa, females are found close to shore year-round while males only appear during the summer. Smaller spinner sharks may be preyed upon by larger sharks. Known parasites infest the shark's gills, the skin, the nares and the rear margins of the fins.

THREATS: Due to the fact that the spinner shark is a common, widespread species found in near-shore habitats, it suffers from heavy recreational and commercial fishing pressure, especially in the north-west Atlantic. The meat is used for human consumption, the liver for vitamin oil production, and the fins are likely to be sold in the oriental shark trade. This exploitation is compounded by the fact that the spinner shark's nursery grounds are found inshore. Therefore a large proportion of sharks caught may be pregnant females, while the estuary-dwelling pups may suffer significantly from the effects of human-induced habitat degradation. Classified as Near Threatened (NT) on the IUCN Red List. North-west Atlantic subpopulation classified as Vulnerable (VU).

HUMAN INTERACTION: Ordinarily, spinner sharks do not pose a substantial danger to humans; they do not perceive large mammals as prey, as their small, narrow teeth are adapted for grasping rather than cutting. However, they can become excited by the presence of food, so caution is warranted if this species is encountered while spearfishing. As of 2008, the International Shark Attack File listed 16 unprovoked attacks and one provoked attack attributable to the spinner shark, none of them fatal.

BIBLIOGRAPHY: For further details about bottlenose dolphins you may want to consult the following literature:

- Sharks of the World. Campagno et al. 2005. Princeton University PressLads before the Wind. Karen Pryor
- Sharks, Rays and Chimaeras: The Status of the Chondrichthyan Fishes. International Union for Conservation of Nature and Natural Resources. Musick, 2005.
- Sharks of the World: An Annotated and Illustrated Catalogue of Shark Species Known to Date. Rome: Food and Agricultural Organization. Campagno 1984.

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There is no seam between the doings of wild animals and human affairs.
We can't go on losing them and not loose part of ourselves.
Kenneth S. Norris