



Photo credit: Virginia Institute of Marine Science.

Current Status:

KEY INFORMATION

Areas of Concern

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

Year Identified as "Species of Concern"
1997

Factors for Decline

- Fishing
- Bycatch (tuna longline)

Conservation Designations

IUCN: Vulnerable

American Fisheries Society: Vulnerable

Demographic and Genetic Diversity Concerns:

Historically, night sharks comprised a significant proportion of the artisanal Cuban shark fishery, making up to 60 to 75% of the catch from 1937 to 1941 (Martinez 1947). However, beginning in the 1970's with the development of the swordfish fishery, anecdotal evidence has demonstrated a substantial decline in the abundance of this species. In addition, sport fishermen in the 1970s would catch night sharks when more desirable species, such as marlins, were not biting. Photographic evidence from marlin tournaments in south Florida in the 1970's show that large night sharks were caught daily but today are rarely captured (J.I. Castro, personal observation). Consequently, this species is rarely captured today along the southeastern coast of the U.S. Night sharks comprised 26.1% of the shark catch in the **pelagic** longline fishery from 1981-1983 (Berkeley and

Campos 1988) but this declined to 0.3% and 3.3% of the shark catch in 1993 and 1994 based on observer data (L. Beerkircher, unpublished data), even though shark catch was not changing drastically. Also, Guitart-Manday (1975) documented a decline in the mean weight per unit of effort for night sharks from 118 pounds in 1971 to 47 pounds in 1973. However, there has been a recent increase in night shark numbers.

Further, quantitative biological information (e.g., age, growth, longevity, age-at-maturity) for **stocks** off the US east coast and Gulf of Mexico are lacking, which prevents development of any type of demographic models which could be used to predict the productivity of the stock and ensure that they are harvested at sustainable levels. They have a low rate of population increase.



Species of Concern

NOAA National Marine Fisheries Service

Existing Protections and Conservation Actions:

In 1993, a Fishery Management Plan for Sharks (NMFS 1993) was developed for the management of shark populations in waters of the U.S. Atlantic and Gulf of Mexico. Because species-specific catch and life history information was limited, sharks were grouped and managed under three categories: large coastal, small coastal, and pelagic; this was done based on known life history, habitat, market, and fishery characteristics (NMFS 1993). Under the revised Fishery Management Plan of the Atlantic tunas, swordfish and sharks (NMFS 1999), NMFS further prohibited the retention of 19 species of sharks based on a precautionary approach for species with little or no biological information and thought to be highly susceptible to overexploitation. Because of the current lack of biological data and its rarity in surveys, the night shark, *Carcharhinus signatus*, is listed as a Prohibited Species. It was originally added to the Candidate Species List under the Endangered Species Act in 1997. The December 24, 2003, Amendment 1 to the FMP for Atlantic tunas, swordfish and sharks also prohibits retention of night sharks.

Brief Species Description:

The night shark is a deep water species found at 900 to 1200 feet (275 - 365 m) during the day that migrates up in the water column at night to depths around 610 feet (185 m). They are characterized by a rather stout streamlined body with large eyes and an elongated snout. Their dorsal fins are both low, with the origin of the anterior fin over or slightly behind the free rear tips of the pectoral fins. The second dorsal is very low and much smaller than the first with an origin opposite the anal fin. Eyes of living sharks are green in color. Body color is gray-blue and grayish brown above, with a white to grayish white underbelly; sometimes with black spots. Maximum size is 9.2 feet (280 cm) TL and maximum weight is 169 pounds (76.7 kg). They live up to 17 years. Sexual maturity of a female is at 6.7 feet (200 cm) TL; males are mature at about 6.2 feet (190 cm) TL. Little is known about the reproductive biology of this species: breeding is believed to occur in the summer, and they are viviparous (placental live birth). Litter size ranges from 12-18 pups of 4 to 24 inches (10-60 cm) TL. Night sharks forage primarily on squids, small fishes, and shrimp.

Contact Information

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