

# **Species of Concern**

NOAA National Marine Fisheries Service

Atlantic white marlin Tetrapturus albidus



Photo credit: Seinen Chow, Fishbase.

# **KEY INFORMATION**

### Areas of Concern Western Atlantic.

Year Identified as "Species of Concern" 2002

#### **Factors for Decline**

- Bycatch (longline fishing)
- Fishing

# Conservation Designations IUCN: Not Evaluated

# **Current Status:**

#### Demographic and Genetic Diversity Concerns:

Biomass has declined steadily since a peak in the mid 1960s (Fig. 1). The estimated relative biomass of Atlantic white marlin is approximately 12 percent of the biomass at maximum sustainable yield (range 6 – 25%) and is believed to be declining. The estimated fishing mortality rate is approximately 8.28 (range 4.5 - 15.8). In recent years, the **stock** has declined by an average of six percent a year. Recently, another species has been identified that used to have been considered part of this species (Shivji et al. 2006); thus population sizes are likely to be lower than previously thought.

#### **Existing Protections and Conservation Actions:**

White marlin are managed under the International Commission for the Conservation of Atlantic Tunas (ICCAT). Circle hooks are required for billfish tournaments and recommended for other recreational fishing. Minimum size is 66 inches. Annual recreational take is limited to 250 fish.



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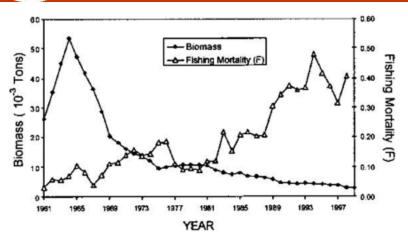


Fig. 1. Biomass and fishing mortality vs. time for Atlantic white marlin.

#### Status Reviews/Research Underway:

NMFS conducted a status review of the Atlantic white marlin in 2002 and determined that listing under the ESA was not warranted but placed them on the Candidate Species list. A <u>new status review</u> was completed in December 2007.

#### **Brief Species Description:**

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White marlin are large, elongated fish with a large upper jaw that forms a spear which is round in cross-section. They have two dorsal fins: the first is long and low posteriorly, the second is small. White marlin are found in offshore waters throughout the tropical and temperate Atlantic Ocean and adjacent seas. Unlike blue marlin and sailfish, white marlin occur only in the Atlantic Ocean. They are dark blue to chocolate-brown in color dorsally, brownish-silvery-white laterally, and silvery white ventrally. White marlin usually do not have bars or spots on the body, but the dorsal fin membrane is usually covered with small blue-black spots. They are distinguished from the blue marlin (Makaira nigricans) by their rounded first dorsal fin. Although generally considered to be a rare and solitary species relative to other similar fish, white marlin occur in small groups consisting of several individuals. Average size is 45 to 65 lbs (20-30 kg). Females grow faster and reach a larger size than males with sexual maturity reached at 61 inches (155 cm) for females and 55 inches (140 cm) for males. White marlin preferred habitat is deep blue water over 330 feet (100m) deep with salinity around 35 ppt and a surface temperature of about 72°F (22°C). The species is usually found above the thermocline (temperature boundary layer) and migrates to high latitudes in the warm season. They reproduce while in the subtropics; spawning in early summer in deep, oceanic waters warmer than 68°F (20°C). Prev items include a variety of fishes, crustaceans, and cephalopods.

For Species of Concern, contact

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#### **References:**

- ICCAT 2006. Report of the 2006 ICCAT Billfish stock assessment. SCI-012 2006. <u>http://www.iccat.int/Documents/SCRS/DetRep/DET\_w</u> <u>hm.pdf</u>
- Jones, C.D., et al. 1998. Lowell Wakefield Fish. Symp Ser. 15: 99-120.
- Robins, C.R., et al. 1986. A field guide to Atlantic coast fishes of North America. Houghton Mifflin Company, Boston, U.S.A. 354 pp.

Shivji, M.S., et al. 2006. Bull. Mar. Sci. 79:483-491.

White marlin status review. 2002. Report to National Marine Fisheries Service, Southeast Regional Office.