



Photo credit: Seinen Chow, Fishbase.

#### KEY INFORMATION

##### Areas of Concern

Western Atlantic.

##### Year Identified as “Species of Concern”

2002

##### Factors for Decline

- Bycatch
- Fishing

##### Conservation Designations

IUCN: Not Evaluated

#### Brief Species Description:

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 and are considered species of concern in the Western Atlantic (Figure 1). 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). Prey items include a variety of fishes, crustaceans, and cephalopods.

#### Rationale for “Species of Concern” Listing:

##### **Demographic and Genetic Diversity Concerns:**

Biomass has declined steadily since a peak in the mid 1960s (Figure 2). The estimated relative biomass ( $B_{2001}/B_{msy}$ ) 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 ( $F_{2000}/F_{msy}$ ) 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.



# Species of Concern

NOAA National Marine Fisheries Service

### Factors for Decline:

White marlin are mostly caught as bycatch in international longline fisheries. Total reported landings of white marlin peaked in 1965 at 5,000 metric tons (Figure 2) with catches for 2004 estimated at 610 mt (ICCAT 2006). Landed individuals, when recorded, are easily misidentified due to the removal of fins, tails, spines, and head, in addition to the carcass being frozen for easier transportation. Seventy to ninety percent of Atlantic white marlin landings are reported from longline fisheries that target tunas and swordfishes. However, the International Commission for the Conservation of Atlantic Tunas (ICCAT) reports indicate that recent international management recommendations have started stabilizing the stock biomass.

### White Marlin SOC Range

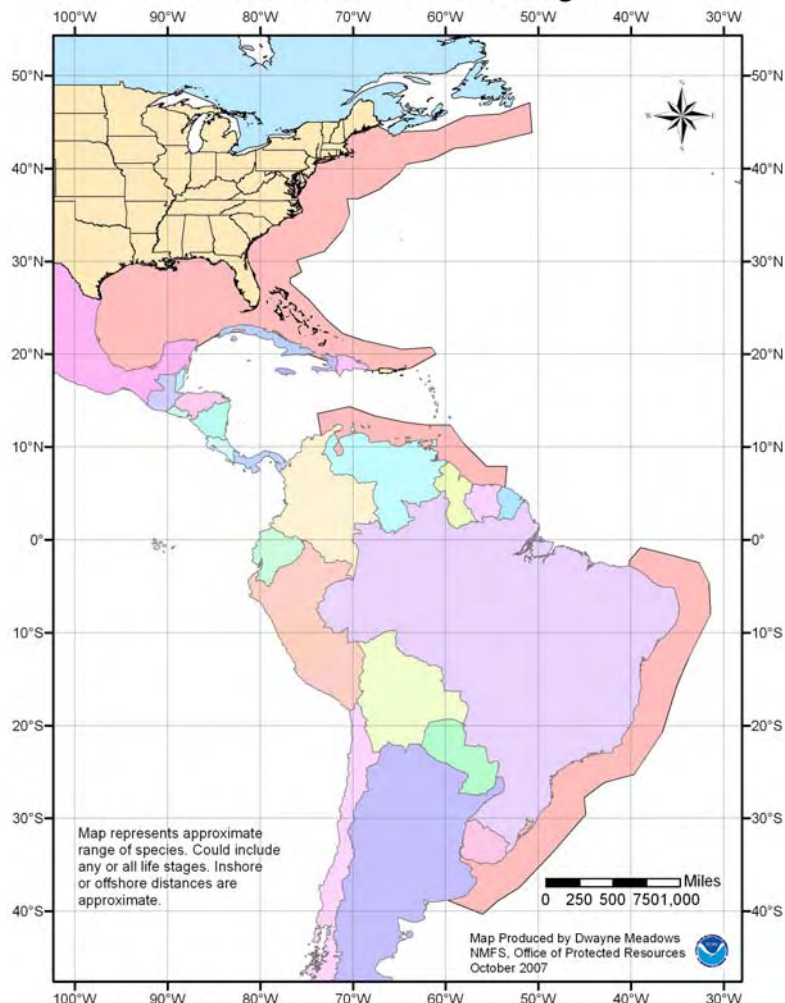


Figure 1. Western Atlantic range of the white marlin species of concern.

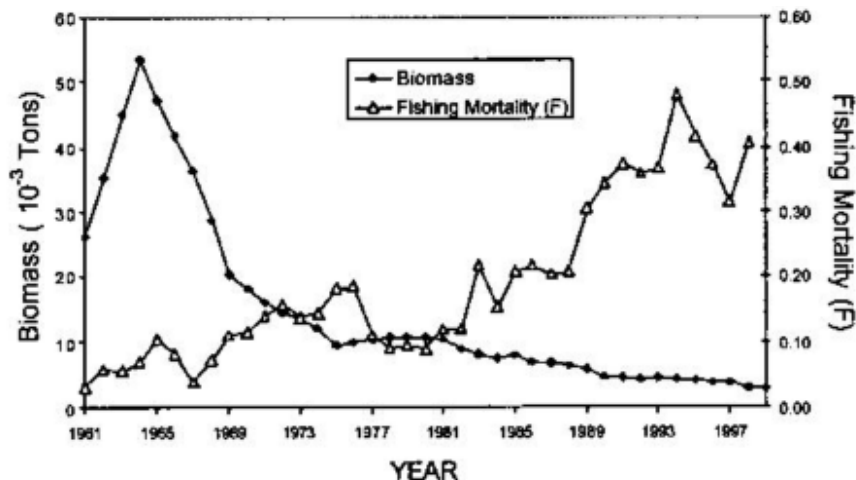


Figure 2. Biomass and fishing mortality vs. time for Atlantic white marlin.



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### Status Reviews/Research Underway:

NMFS conducted a status review of the Atlantic white marlin in 2002 and determined that listing white marlin as either threatened or endangered under the ESA was not warranted. Information presented in the status review revealed that the white marlin population has declined and therefore NMFS placed the white marlin on the Candidate Species list in 2002. White marlin is now considered to be a species of concern (rather than a candidate species). A [new status review](#) was initiated in December 2006 and was completed in December 2007.

### Data Deficiencies:

Better information on the fate and number of dead and alive releases is needed.

### 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.

### References:

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- Mooney-Seus, M.L. and G.S. Stone. 1997. The forgotten giants: giant ocean fishes of the Atlantic and the Pacific Ocean Wildlife Campaign, Washington, USA. New England Aquarium, Boston. 64 p.
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- White marlin status review. 2002. Atlantic White Marlin Status Review Document. Report to National Marine Fisheries Service, Southeast Regional Office. 49 p.
- White marlin biological review team. 2007. Atlantic White Marlin Status Review. Report to National Marine Fisheries Service, Southeast Regional Office. December 10, 2007, 88 p.

### Point(s) of contact for questions or further information:

For further information on this Species of Concern, or on the Species of Concern Program in general, please contact NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910, (301) 713-1401, [soc.list@noaa.gov](mailto:soc.list@noaa.gov); <http://www.nmfs.noaa.gov/pr/species/concern/>, or Alex Meyer, NMFS, Southeast Region, Protected Resources Division, 9721 Executive Center Drive, St. Petersburg, FL 33702, (727)570-5312, [Alex.Meyer@noaa.gov](mailto:Alex.Meyer@noaa.gov).