



Photo Credit: NOAA.

KEY INFORMATION

Area(s) of Concern

Atlantic Ocean and adjacent seas

Year Identified as "Species of Concern"
2011

Factors for Decline

- Overfishing

Conservation Designations

IUCN: Western stock - Critically Endangered; Eastern stock - Endangered (1996)
COSEWIC: Endangered

** While category names may be similar, it is important to note that scientific and conservation organizations use different criteria to classify species conservation status. We have not generally adopted any of the rankings used by these organizations, however we do review the information they present as part of our proactive approach to species conservation.*

Current Status:

Demographic and Diversity Concerns:

Populations have undergone substantial declines in both the Eastern and Western Atlantic. Spawning stock biomass (SSB), the weight of Atlantic bluefin tuna that are of spawning age, declined dramatically between the early 1970s and early 1990s. Since then, SSB is estimated to have fluctuated between 21 and 29 percent of the 1970 level, with a gradual increase in recent years from the low of 21 percent in 2003 to 29 percent in 2009.

Existing Protections and Conservation Actions:

The International Commission for the Conservation of Atlantic Tunas (ICCAT) manages the international fishery for bluefin tuna population as two stocks (eastern and western), and takes into consideration scientific advice when recommending catch levels. The 2011 catch level is the lowest in recent years and is designed to allow for rebuilding of the stocks. Atlantic bluefin tuna are currently managed domestically by NMFS' Highly Migratory Species fishery management plan. NMFS now requires the use of "weak hooks" by longline fishers in the Gulf of Mexico. Weak hooks allow bluefin tuna to escape capture and reduce incidental catch of bluefin during longline fishing for swordfish and yellowfin tuna.

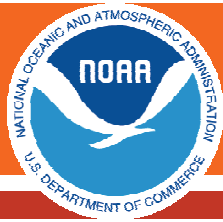
In March 2010, the U.S. supported Monaco's proposal to list North Atlantic bluefin tuna on Appendix I of the Convention on the International Trade of Endangered Species (CITES). Ultimately, Monaco's proposal was defeated on a vote of 72 to 43. The U.S. is currently evaluating proposals for the 2013 CITES meeting and has not yet taken a position on bluefin tuna.

In 2010 we were petitioned to list the species under the Endangered Species Act. After a status report and analysis it was determined in May 2011 that the species

did not warrant listing. However, because of remaining uncertainties regarding the effects of the Deepwater Horizon oil spill, Atlantic bluefin tuna were added to the Species of Concern program. The status review report can be found at http://www.nmfs.noaa.gov/stories/2011/05/docs/bft_srr_final.pdf. We intend to review the species' status in early 2013 once the oil spill damage analyses are finished.

Factors for Decline:

The main concerns about the status of Atlantic bluefin tuna stem from overfishing, oil and gas development, and the Deepwater Horizon oil spill. Fishing for bluefin tuna has occurred in the Mediterranean since the 7th millennium BC (Fromentin and Power 2005). Ancient fisheries primarily



Species of Concern

NOAA National Marine Fisheries Service

used handlines, beach seines, and other types of seine nets. Past management problems and illegal, unregulated, and unreported fishing led to overfishing. The total catch for the western Atlantic peaked at 18,671 tons (t) in 1964, with catches dropping sharply to less than 5,000 t thereafter. Following a catch of 3,319 t in 2002 (the highest since 1981), total catch in the western Atlantic declined steadily to 1,638 t in 2007 (the lowest level since 1982). The major harvesters of the western stock are Canada, Japan, and the United States. For the Eastern Atlantic/Mediterranean, Ravier and Fromentin (2002) estimated annual yields to be between 7,000 and 30,000 mt between 1910 and 1930. Catches peaked at over 50,000 t in 1996 and then decreased substantially, stabilizing at around 19,500 mt. Since 1997, “farming activities” in the Mediterranean have significantly changed the fishing strategy. These farming activities consist of catching Atlantic bluefin tuna, transporting them alive to net pen farms where the fish are fed and fattened and sold in the market. According to Fromentin and Ravier (2005) and Porch (2005), the development of the sushi-sashimi market in the 1980s made bluefin tuna significantly more profitable, and resulted in a large increase in fishery efficiency and capacity.

Oil platforms cause pollution associated with drilling, discharge of wastes associated with exploration and development, and the potential for spills caused by accidents, such as the 2010 Deepwater Horizon (DWH) spill, hurricanes, or alteration of food webs since the submerged portions of oil platforms attract various animals. Electronic tagging studies confirm that some Atlantic bluefin tuna have historically spent a portion of their time in the vicinity of the DWH spill area. Satellite imagery indicates the spill may have affected over 20 percent of the Gulf of Mexico spawning grounds.

Brief Species Description:

Bluefin tuna are spindle-shaped and robust with a pointed snout and a thin caudal peduncle. They reach lengths/weights of nearly 10 feet and 1,600 lbs and can live up to 30 years. They are counter-shaded with darker colors on the dorsal surface ranging from black to dark blue with iridescent gray or green. The belly, sides and cheeks are silvery, and can have gray spots and bands. There are two dorsal fins; the caudal fin is evenly lunate with pointed lobes. Finlets are yellow, edged in black. Atlantic bluefin tuna are highly migratory and pelagic and range across most of the North Atlantic and the Mediterranean Sea and Gulf of Mexico. While they dive frequently to deeper depths, they generally spend most of their time in waters less than 1600 ft, and often much shallower. Juvenile and adult Atlantic bluefin tuna are opportunistic feeders. Their diet may consist of fishes, crabs, octopus, jellyfish, salps, and sponges (Chase 2002, Collette and Klein-MacPhee 2002). Juveniles typically feed on crustaceans, fishes and cephalopods, while adults primarily eat available baitfish. They may reach maturity as early as age 3 or as late as age 9, depending on location. Atlantic bluefin tuna display strong homing behavior and spawning site fidelity. Atlantic bluefin tuna “lay” eggs and are multiple batch spawners. Western Atlantic bluefin tuna spawn primarily from April to June in the Gulf of Mexico and Eastern Atlantic bluefin tuna spawning usually takes place from late May to July.

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