



ATLANTIC BLUEFIN TUNA

Bluefin tuna are remarkable creatures, able to dive to 3,000 feet and migrate thousands of miles each year across the ocean.¹ Since the Second World War, industrialized fishing techniques and growing fleets of large fishing vessels have steadily reduced populations of these ocean giants, bringing them precariously close to collapse. The western stock of mature Atlantic bluefin has declined 82 percent since 1970.² Only about 41,000 reproductively mature bluefin are left in the Western Atlantic, down from about 222,600 in 1970.³ Swift and decisive action must be taken to protect Atlantic bluefin tuna.

Biology

Atlantic bluefin tuna can live for 40 years, grow to 14 feet long and weigh up to 1,600 pounds.⁴ Bluefin inhabit the entire North Atlantic Ocean, the Gulf of Mexico and the Mediterranean Sea.⁵ Feeding chiefly on bait fish such as herring and sand lances, Atlantic bluefin are found in more regions of the Atlantic than any other tuna.⁶ This population consists of two distinct stocks, the Eastern Atlantic and the Western Atlantic. Their distribution overlaps in the Northern Atlantic, and many individuals are known to migrate between both sides of the ocean.⁷

Atlantic bluefin have two known spawning grounds—the Gulf of Mexico and the Mediterranean. Their annual return to these regions makes protection of spawning areas an urgent priority for conservation.⁸

Older and larger female fish produce more eggs than younger ones. A 15- to 20-year-old spawning female produces as many as 45 million eggs, whereas a five-

year-old may produce only 5 million eggs.⁹ Protection of these giant females is extremely important for the future of the species.

History

Archeological evidence shows that humans have hunted bluefin tuna since the seventh century B.C. The Romans and Phoenicians fished for it with traps and hand lines. Fishing practices remained essentially unchanged and relatively few of the fish were taken until the twentieth century, when the introduction of canning technology created high demand for bluefin tuna. Driven by the potential for higher profits, fishermen began using larger purse seines, harpoons and longer open-ocean fishing lines. Since the introduction of sonar, radar and spotting planes, commercial fishing has caught bluefin tuna faster than nature can replace them.

In the 1980s, the Japanese market for sushi and sashimi exploded, driving the value of these coveted fish even higher. The largest fish are exported directly to Japan for immediate sale; others are caught for tuna farms in the Mediterranean. Juvenile bluefin tuna are raised to a marketable size, but larger bluefin tuna are held for a few months to increase the fat content in their flesh to command a higher market value. Select bluefin tuna can sell for upwards of \$100,000.¹⁰

A Species on the Brink

The best science shows that populations of Atlantic bluefin tuna are on the brink of collapse. With sound management practices, we can prevent the commercial extinction of this remarkable species and rebuild stocks for future fishing, but time is short.

1 R. W. Brill et al., 2001, "Horizontal and vertical movements of juvenile bluefin tuna (*Thunnus thynnus*) in relation to oceanographic conditions of the western North Atlantic, determined with ultrasonic telemetry," *Fishery Bulletin*, 100:155-167 cited in J. M. Frometin, International Commission for the Conservation of Atlantic Tunas (ICCAT), *Field Manual Chapter 2.1.5, "Atlantic Bluefin,"* www.iccat.int/Documents/SCRS/Manual/CH2/2_1_5_BFT_ENG.pdf.

2 ICCAT, "TABLE 4. Spawning Stock Fecundity and Recruitment," *Report of the 2008 Atlantic Bluefin Tuna Stock Assessment Session*, 2008, pp. 167-8, www.iccat.int/en/assess.htm.

3 *Ibid.*, pp. 164-6.

4 R. W. Brill et al., in J. M. Frometin, ICCAT Field Manual, p. 3.

5 J. M. Frometin and J. Powers, "Atlantic Bluefin Tuna: Population Dynamics, Ecology, Fisheries and Management," *Fish and Fisheries*, vol. 6 (2005), p. 283.

6 *Ibid.*, p. 283.

7 *Ibid.*

8 *Ibid.*, p. 288.

9 *Ibid.*, p. 287.

10 *Ibid.*, p. 282.

For more information, please contact:

Lee Crockett | Director of Federal Fisheries Policy | Pew Environment Group | 202-552-2065 | lcrockett@pewtrusts.org.
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