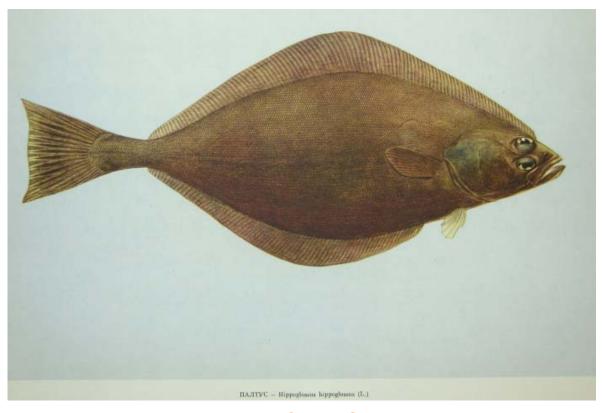
Species of Concern NOAA National Marine Fisheries Service

Atlantic halibut

Hippoglossus hippoglossus



Credit: NOAA photo library.

KEY INFORMATION

Area of Concern

From Labrador to southern New England in the northwest Atlantic.

Year Identified as "Species of Concern" 2004

Factors for Decline

Fishing

Conservation Designations

IUCN: Endangered

American Fisheries Society: Threatened

Current Status:

Demographic and Genetic Diversity Concerns:

Atlantic halibut are very large, with low to very low productivity. The Northeast Fishery Science Center (NEFSC) spring and autumn survey data show that biomass within the Gulf of Maine and Georges Bank remains very low. Population size indices have fluctuated considerably since the 1960s, and overall have declined (NEFSC 2002). The Gulf of Maine and Georges Bank population is considered a transboundary stock, and conservation measures may be needed from both Canada and the U.S.

Existing Protections and Conservation Actions:

Atlantic halibut was added to the Northeast Multispecies Fishery Management Plan (FMP) in October 1999. No directed fishing mortality is permitted until the stock is rebuilt. Amendment 9 to the FMP (1999) implemented a 1 fish halibut possession limit for both commercial and recreational (party/charter) vessels with a minimum size of 36 inches.

Factors for Decline:

Atlantic halibut were heavily overfished in the 19th century, and there are no signs of recovery to date (Brodziak 2000). Landings data are available from the late 1800s to the present. These data indicate that landings have declined from a high of 4908 mt in 1896 to a low of 17 mt in 1998 and 2000. In 2004, total reported commercial landings increased to 25 mt (Mayo and Terceiro 2005). According to Mayo and Terceiro (2005), in 2004, 36 % of the total landings (9 mt) were landed by U.S. fishermen while the remainder (16 mt) was landed by Canadian fishermen. No estimates of fishing mortality exist; however, exploitation rate indices (annual landings/5-year moving average of survey index) suggest that exploitation rates were relatively stable between the 1970s and 1980s and declined in the 1990s (Mayo and Terceiro 2005). The fall exploitation rate index increased to 0.09 in 2004 (a 28% increase from 0.07 in 2000), but this is still much lower than the rates observed during the 1970s and 1980s (Mayo and Terceiro 2005). The Gulf of Maine-Georges Bank Atlantic halibut stock remains overfished (Mayo and Terceiro 2005). Because estimates of fishing mortality are unavailable, overfishing status is unknown (Mayo and Terceiro 2005).

Brief Species Description:

Atlantic halibut can be distinguished from other right-eyed flounders by their large size, concave caudal fin, large, gaping mouth, and arched lateral line. This is a long lived species that is slow to mature. Average age at maturity is about 10 years. This is one of the largest fish found in the Gulf of Maine, surpassed only by swordfish, tuna, and some larger sharks. The largest halibut recorded was taken off Cape Ann and weighed 620 pounds (280 kg) eviscerated. These fish live in coastal to upper slope areas. According to Collette and Klein-MacPhee (2002), these large fish are rare; full grown females average 100 to 150 pounds (45.5 to 68 kg) while males tend to be smaller. Females are

batch spawners, producing several batches of eggs each year. In Canadian waters, Atlantic halibut spawn from late winter to early spring, while spawning can last through September for fish from Georges Bank to the Grand Banks (Collette and Klein-MacPhee 2002). Fish up to 12 inches (30 cm) in length feed almost exclusively on invertebrates, fish 12 to 31.5 inches (30-80 cm) in length feed on both invertebrates and fishes, and those greater than 31.5 inches (80 cm) feed almost exclusively on fishes (Collette and Klein-MacPhee 2002).



Photo credit: Marine Biological Laboratory.

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References:

Brodziak, J. 2002. A report of the Groundfish Assessment Review Committee. In: Assessment of 20 Northeast Groundfish Stocks through 2001 - Atlantic halibut. NEFS, Woods Hole, MA. p. 206.

Collette, B.B. and G. Klein-MacPhee. 2002. Fishes of the Gulf of Maine. Smith Inst Press. Washington.

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