Species Profile: Summer Flounder

States Explore Changes to Recreational Management to Allow for More Equitable Harvest Opportunities Throughout Species Range

Introduction

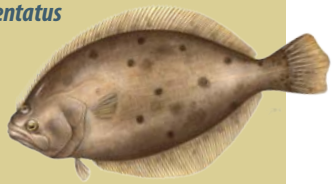
Highly valued by both recreational and commercial fishermen, summer flounder have been jointly managed by the Commission and Mid-Atlantic Fishery Management Council (MAFMC) for more than two decades. The population is now fully rebuilt in response to the joint management program, with current spawning stock biomass estimated at 125.97 million pounds, slightly below the target of 137.55 million pounds. Summer flounder are not overfished and overfishing is not occurring. The Commission and MAFMC established a 21.94 million pound total allowable landings (TAL) for the 2014 fishing season, with the recreational harvest limit (RHL) set at 7.01 million pounds and the commercial quota set at 10.51 million pounds. Up to three percent of the TAL is allocated to the Research Set Aside program in 2014.

There has been a growing concern that current summer flounder management measures (as established under the Fishery Management Plan) are not providing recreational fishermen along the coast with equitable harvest opportunities. Those measures, involving state-specific recreational management measures under conservation equivalency are increasingly being viewed as problematic due to reliance upon recreational harvest estimates for a single year (1998) as the basis for individual state targets, and changes in both resource abundance and the socio-economic characteristics of the fishery. To address these issues, the Commission approved Draft Addendum XXV for public comment in December. Draft Addendum XXV includes options that allow for management measures by region and the sharing of unused RHL – both with the intent of providing more equity in recreational harvest opportunities along the coast (see page 6 for more information on the Draft Addendum).

Paul Caruso (MA DMF) and Jessica Coakley (MAFMC) with a summer flounder caught off of Cape Cod, MA. Photo by ASMFC.

Species Snapshot

Summer Flounder
Paralichthys dentatus



Management Unit: Massachusetts - North Carolina

Common Name: Fluke

Interesting Facts:

- Left-eyed flatfish (both eyes on left side of body when viewed from above with top fin facing up).
- Summer flounder begin with their eyes on both sides of their body; the right eye migrates to the left side in 20-32 days.
- Summer flounder are called chameleons of the sea because of their ability to match the bottom on which they are found.

Largest Recorded: 30 pounds, 48 inches (Source: MD DNR).

Age at Maturity: 50% mature at age 1 (9.8 inches) for males and age 1.5 (11 inches) for females.

Stock Status: Rebuilt; not overfished or experiencing overfishing

Life History

Summer flounder are found in inshore and offshore waters from Nova Scotia, Canada to the east coast of Florida. In the U.S., they are most abundant in the Mid-Atlantic region from Cape Cod, Massachusetts to Cape Fear, North Carolina. Summer flounder usually begin to spawn at age two or three, at lengths of about ten inches. Spawning occurs in the fall while the fish are moving offshore. Spawning migration is linked to sexual maturity, with the oldest and largest fish migrating first. Following the seasonal migrations, spawning summer flounder in the northern portion of the geographic range spawn and move offshore (depths of 120 to 600 feet) earlier than those in the southern part of the range. Larvae migrate to inshore coastal and estuarine areas from October to May. The larvae, or fry, move to bottom waters upon reaching the coast and spend their first year in bays and other inshore areas. At the end of their first year, some juveniles join the adult offshore migration.

Adults spend most of their life on or near the sea bottom burrowing in sandy substrate. Flounder lie in ambush and wait for their prey. They are quick and efficient predators with well-developed teeth allowing them to capture small fish, squid, sea worms, shrimp, and other crustaceans. A great fishing technique to take advantage of their ambush behavior is to fish close to bottom with moving bait.

Recreational & Commercial Fisheries

Summer flounder are one of the most sought after commercial and recreational fish along the Atlantic coast, with landings at approximately 19.62 million pounds in 2012. Using baseline data from 1980 to 1989, the current plan allocates the summer flounder quota on a 60/40 percent basis to commercial and recreational fisheries, respectively.

Two major commercial trawl fisheries exist — a winter offshore and a summer inshore. Summer flounder are also taken by pound nets and gillnets in estuarine waters. Throughout the 1980s, commercial landings ranged from 21 to 38 million pounds. By 1990, landings reached a low of nine million pounds and have since fluctuated between nine and 17 million pounds. In 1993, the coastwide quota was implemented for the first time, setting a commercial landings limit of 12.35 million pounds. Commercial quotas have since ranged from 9.46 to 18.18 million pounds. Commercial landings (which are limited by the quota) have ranged from 8.81 million pounds to 18.17 million pounds since 1993. 2012 commercial landings were estimated at 13.33 million pounds.

Summer flounder are also highly prized in the recreational fishery. Anglers catch summer flounder from the shore, piers, and boats with hook and line. From 1980 through 2004, recreational landings varied widely from a high of 38 million pounds in 1980 to a low of three million pounds in 1989. Starting in 1993, harvest limits were implemented for the recreational fishery. From 1993 to 2011, landings ranged from 5.1 to 16.5 million pounds. 2012 recreational harvest was estimated at 6.29 million pounds (Figure 1).

Figure 1. Summer Flounder Commercial Landings & Recreational Harvest
Source: Personal communication NMFS Fisheries Statistics Division, Silver Spring, MD, 2013

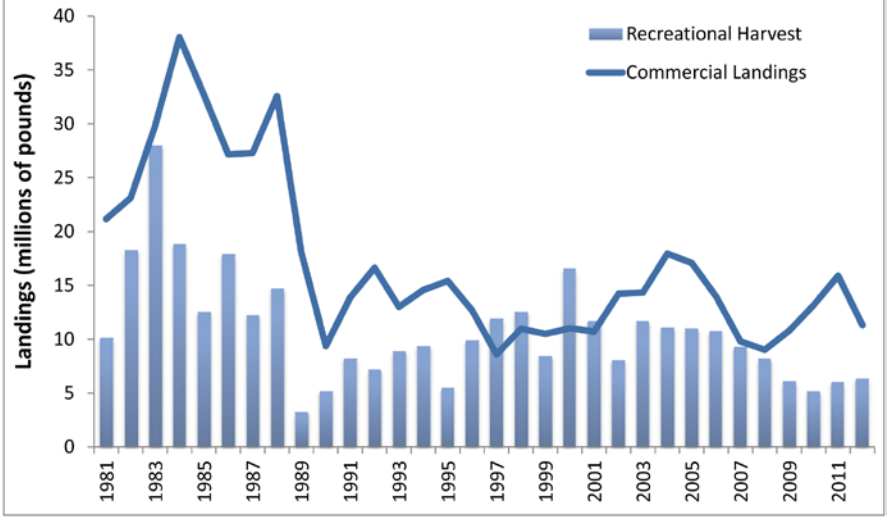
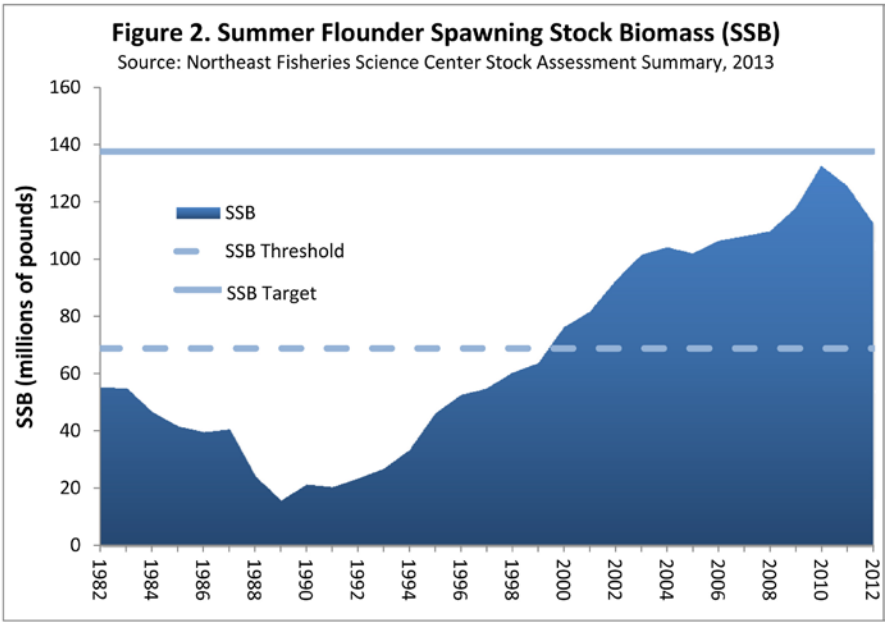


Figure 2. Summer Flounder Spawning Stock Biomass (SSB)
Source: Northeast Fisheries Science Center Stock Assessment Summary, 2013



Timeline of Management Actions: FMP ('88); Amendment 1 ('91); Amendments 2-5 ('93); Amendment 6 ('94); Amendment 7 ('95); Amendment 8 & 9 ('96); Amendment 10 ('97); Amendment 11 ('98); Amendment 12 ('99); Amendment 13 ('03); Addenda VIII & XV ('04); Addenda XVI & XVII ('05); Addendum XVIII ('06); Addendum XIX ('07)

Stock Status

The 2013 benchmark stock assessment indicates the stock was not overfished and overfishing was not occurring in 2012 relative to the biological reference points. The fishing mortality rate was estimated to be 0.285 in 2012, well below the threshold fishing mortality reference point of 0.309. Spawning stock biomass was estimated to be 125.97 million pounds in 2012, just below the biomass target of 137.55 million pounds. The stock was determined to be rebuilt in 2010 (Figure 2).

Since 1982, average recruitment (the number of juvenile fish that will be able to reproduce that year) has been 43 million fish. The largest class was in 1983 at 76 million fish and the lowest was in 1988 at 10 million fish. The 2012 year class is estimated to be 37 million fish.

Atlantic Coastal Management

The Commission approved the first Fishery Management Plan (FMP) for Summer Flounder in 1982, followed by a similar FMP approved by the MAFMC in 1988. Since then, both agencies have made significant revisions to the plan, increasing the protection of juvenile fish and ensuring the maintenance of an adequate spawning population. This increased protection was achieved through the implementation of larger minimum size limits across all

sectors, increased mesh sizes, and decreased recreational possession limits. Cumulatively, these changes have contributed to rebuilding the resource. This is not to say that challenges in managing this species do not still exist. Issues related to sector allocation and annual harvest levels persist.

Through Draft Addendum XV, which is currently out for public comment, managers are considering regional management measures and allowing for the sharing of additional RHL for the 2014 fishery with a possible extension of measures into 2015. A working group of Commissioners has been established to seek long-term solutions that recognize the changing characteristics of the fishery with the intent of maximizing recreational harvest opportunities (see page XX for more information on Draft Addendum XV). It is anticipated a review of the commercial management process will be conducted in 2014.

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