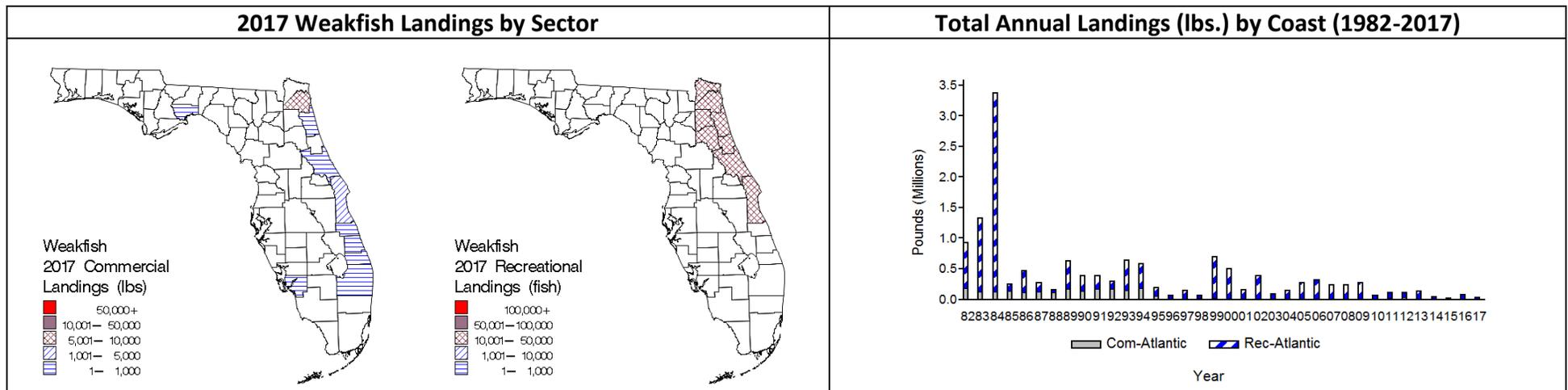


## Weakfish, *Cynoscion regalis* (Bloch & Schneider, 1801)



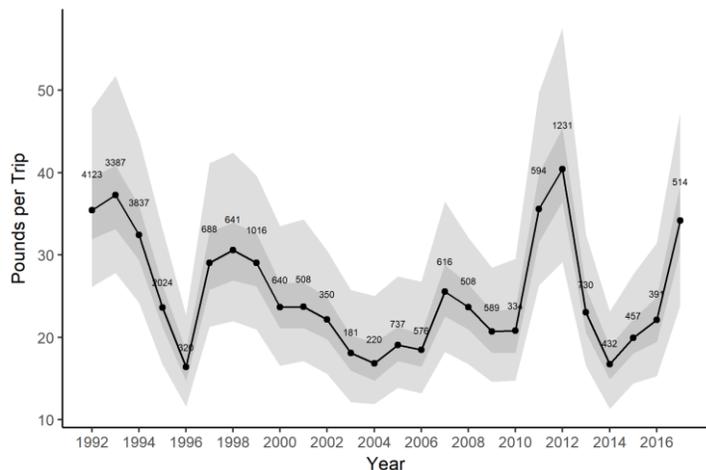
### Life History

Weakfish occur from Cape Cod south to southern Florida; although, few occur in nearshore waters south of the Indian River Lagoon. Weakfish juveniles are euryhaline and occur in coastal bays, lagoons, and rivers. Adults are found in estuaries, generally in deeper channels and holes, and in nearshore continental shelf waters. Past studies suggested the possible existence of more than one stock of Weakfish, but genetic analyses support the occurrence of only one genetic stock (Crawford *et al.* 1989; Graves *et al.* 1992b; Cordes and Graves 2003). Differences noted in otolith elemental and isotopic composition suggest important spatial structure of the Weakfish population in relation with natal estuaries, but sufficient exchanges exist even among estuaries with the highest levels of natal homing (Thorrold *et al.* 1998, 2001). Growth of Weakfish had been described using scale patterns to determine age. Lowerre-Barbieri *et al.* (1995) found, as has been shown for other fish species, that scales underestimated age. Weakfish attain a maximum age of at least 17 years and a maximum size or total length (TL) of about 33 inches (Lowerre-Barbieri *et al.* 1995). Females apparently attain sexual maturity at age 1 or 2 when their standard lengths (SL) are about 5.9–7.9 inches (Merriner 1976) or 7–12 inches TL (Lowerre-Barbieri *et al.* 1995). Spawning occurs in nearshore and estuarine waters from late spring through early fall. Juvenile Weakfish feed on mysids, shrimps, amphipods, isopods, and fishes such as anchovies, herrings, and drums (Merriner 1975; Stickney *et al.* 1975; Greccay, and Targett 1996). Older Weakfish feed more on herring-like fishes. The occurrence of Weakfish in waters off of Florida’s Gulf coast is unconfirmed. There have been specimens caught by recreational and commercial fishermen which show pigmented spots that resemble Weakfish in coloration, but no confirmation of these specimens as Weakfish (through genetics) has been made. In addition, because sand seatrout and Weakfish are known to hybridize off of northeast Florida (Tringali *et al.* 2001), any “Weakfish” identified based on morphology and meristics from Florida’s Gulf coast should be followed up with a genetic analysis for confirmation.

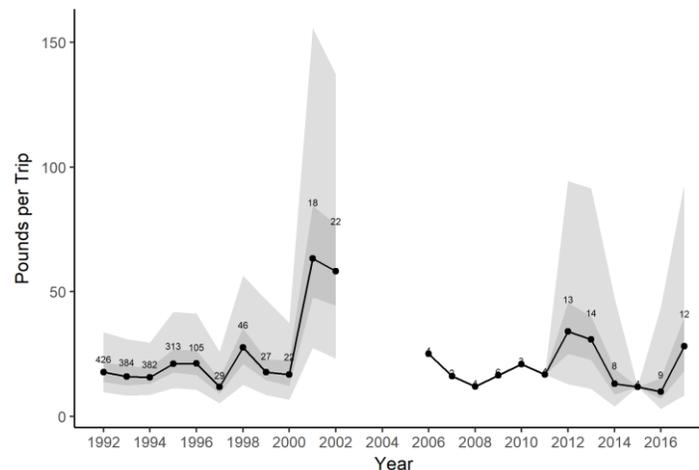


Fishers landed 31,729 pounds in 2017 which were 58% lower than the previous 5-year average (2012-2016). Coastwide, 99.6% of these were from the Atlantic coast. Recreational and commercial landings constituted 53.2% and 46.78%, respectively, of the total landings.

**Atlantic Coast**

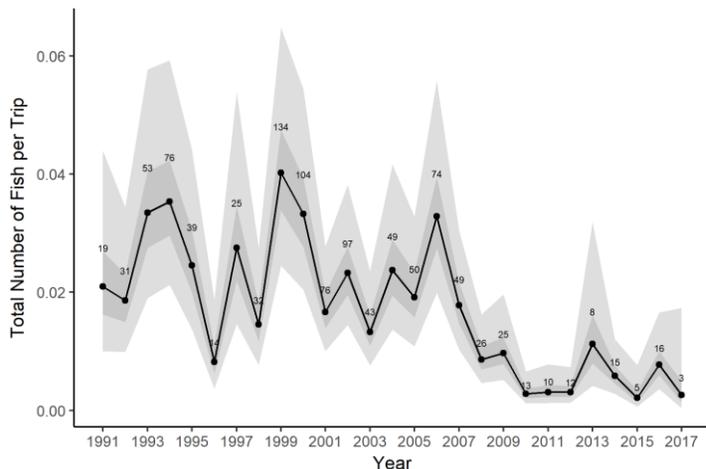


**Gulf Coast**



**Standardized Commercial Catch Rates:** Commercial landings-per-trip showed declines on the Atlantic coast from 1993-1996, 1998-2004, and 2007-2010 with rebounding peaks in 1997-1998, 2007, and 2011-2012. Recent catches (2017) on the Atlantic coast have increased to just above average. Gulf coast commercial landings have remained stable although there were several years of missing information. Dark grey ribbons represent first and third quartiles while the light grey ribbons represent the 2.5% – 97.5% quantiles.

**Atlantic Coast**



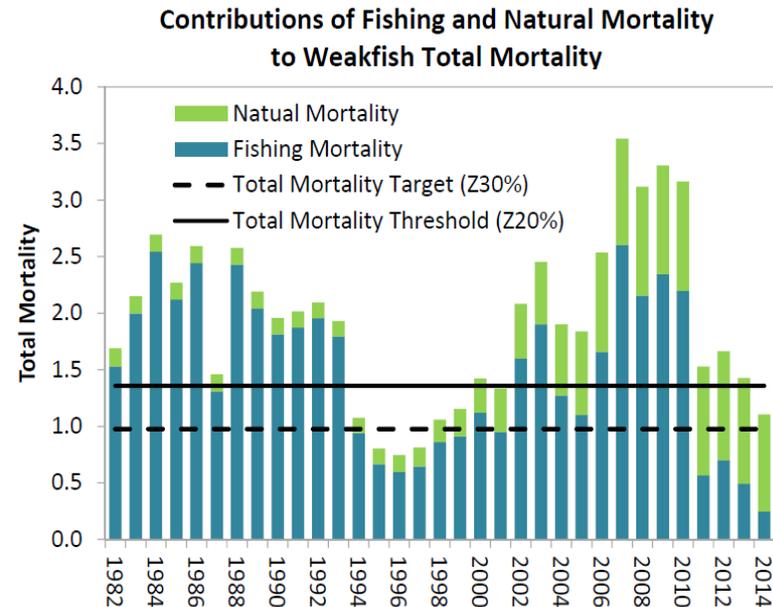
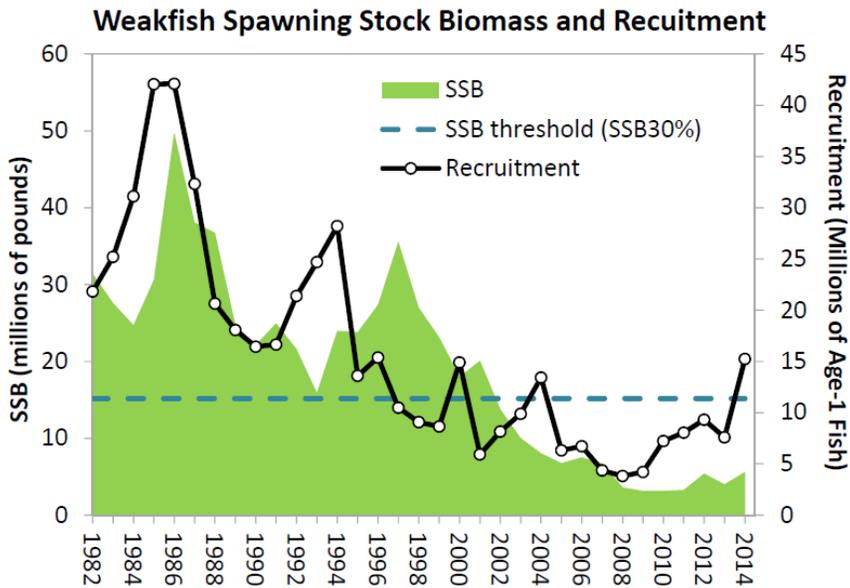
**Standardized Recreational Total Catch Rates:** Standardized catch rates for the recreational fishery have remained relatively stable from 1991 to 2009, except for peaks seen during the late 1990s and 2006. Catch rates in recent years have been low, with the exception of an increase in 2013. Dark grey ribbons represent first and third quartiles while the light grey ribbons represent the 2.5% – 97.5% quantiles.

## Stock Status

**Current Condition:** The most recent Weakfish stock assessment in 2016 showed that the Weakfish stock is depleted and has been for the past 13 years (ASMFC 2016).

**Management History:** Weakfish are managed under an Interstate Fishery Management Plan developed by the Atlantic States Marine Fisheries Commission. Florida currently complies with this management plan through its implementation of a 12-inch minimum size, 1-fish recreational bag limit, a commercial trip limit of 100 lbs per vessel, and the constitutional amendment that regulates inshore nets. The management area was created in 2010 and is made up of parts of Nassau County and the St. Mary’s River and tributaries. Since 1995, Florida has been granted *de minimus* status because Florida accounts for less than 1% of U.S. coastwide Weakfish landings. Florida-specific assessments have been made for Weakfish and despite Weakfish’s coastwide distribution, may be of value to assessing local population changes.

The assessment found that the estimated spawning stock biomass was less than the threshold of 30% (15.17 million lbs.) and that overfishing was not occurring, as total mortality in 2014 (1.11) was below the threshold of 1.36. Another startling conclusion of the assessment indicated that natural mortality has been increasing since the mid-1990s, from approximately 0.16 in the early 1980’s to an average of 0.93 from 2007-2014. Therefore, high levels of total mortality have prevented the stock from recovering, even though fishing mortality has been at low levels in recent years (ASMFC 2016).



Figures Source: ASMFC. 2016. Weakfish Stock Assessment and Peer Review Report. Atlantic States Marine Fisheries Commission, Stock Assessment Report, 435 p. ASMFC Stock Assessment Overview: Weakfish.