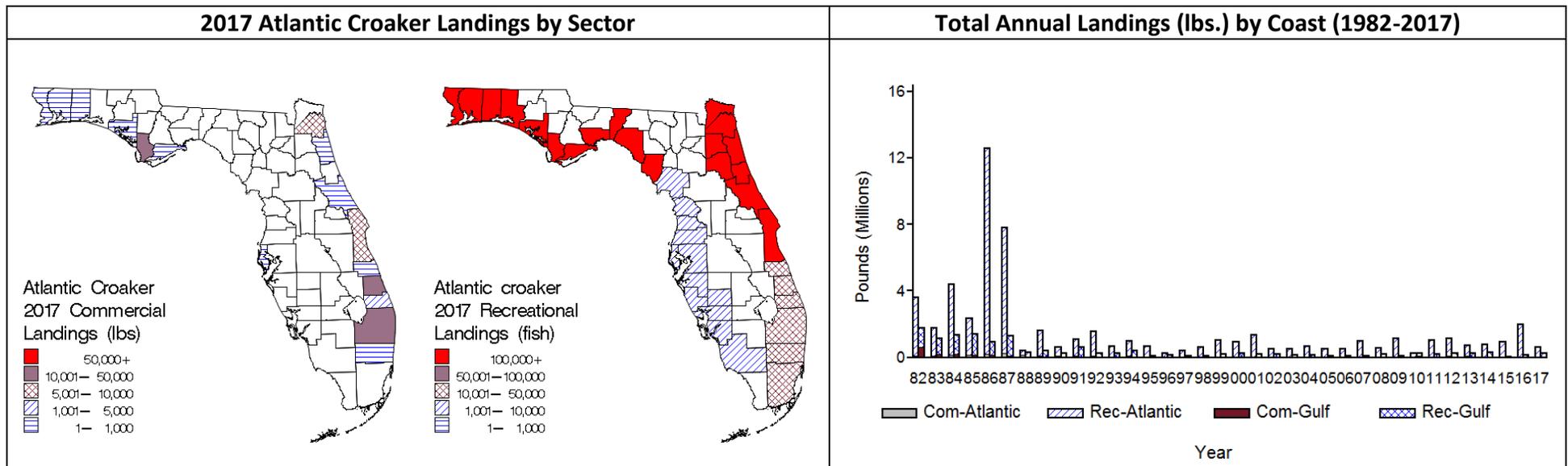


## Atlantic Croaker, *Micropogonias undulatus* (Linnaeus, 1766)

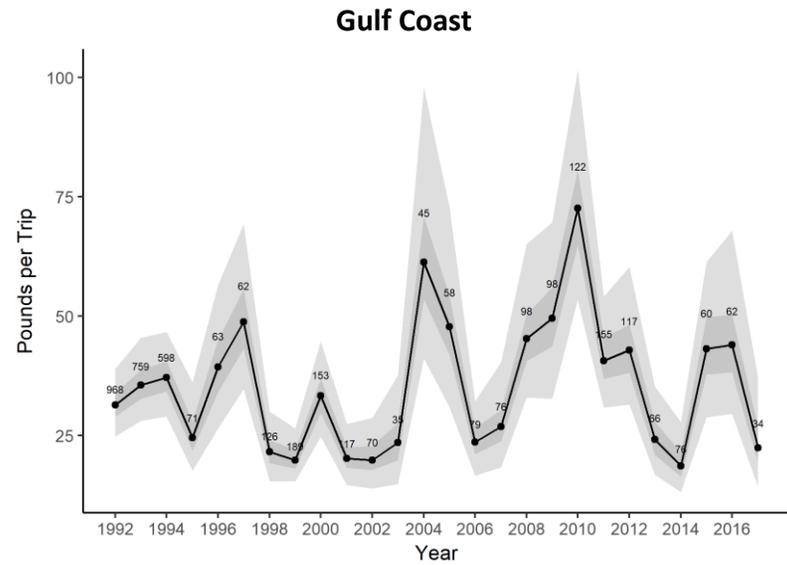
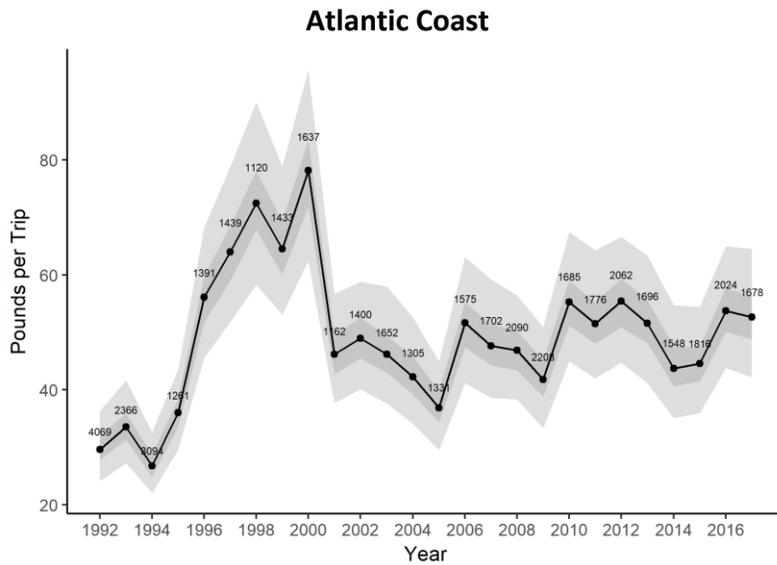


### Life History

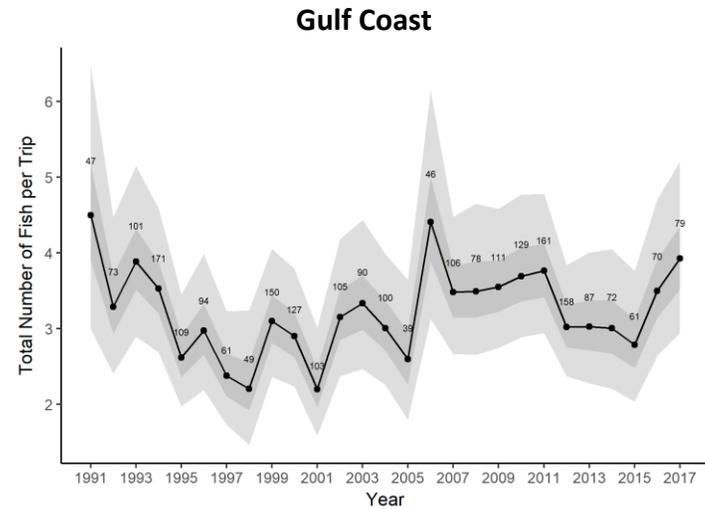
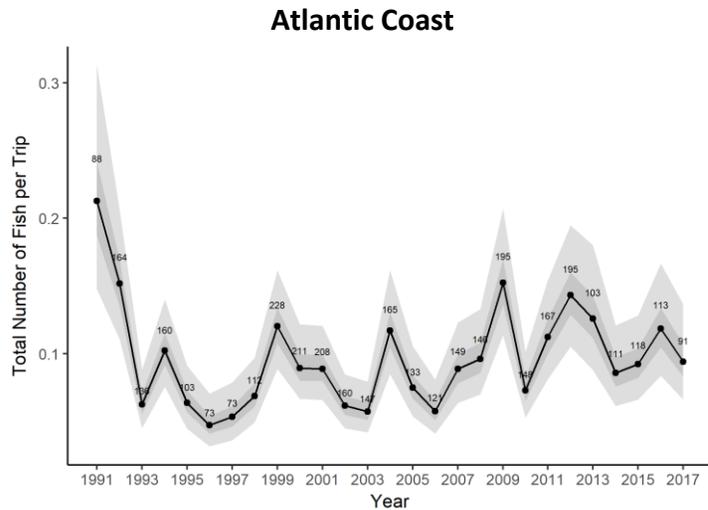
Although Atlantic Croaker occur throughout much of Florida, they are seldom found south of Tampa Bay on the gulf coast or south of the Indian River Lagoon on the Atlantic coast. Lankford *et al.* (1999) found that the genetic population structure of Atlantic Croaker in U.S coastal waters consisted of separate, weakly differentiated stocks in the Atlantic and Gulf of Mexico. Atlantic Croaker are medium-sized members of the drum family. Most individuals are less than 14 inches long when caught. Young Atlantic Croaker use estuaries as nursery and feeding grounds (Arnoldi *et al.* 1974), but by the time they are 3–4 inches long, they begin to migrate into nearshore waters (Parker 1971). Adults are often found over mud bottoms in areas of low to moderate salinity. The maximum reported age is 17 years (ASMFC 2010). Atlantic Croaker reach 7–10 inches at age 1 and 12–17 inches at age 5 (Barger 1985; Ross 1988; Barbieri *et al.* 1994). They mature at the end of their first or second year, when they are 6 to 10 inches in total length (White and Chittenden 1977). Spawning occurs over the nearshore continental shelf during the late fall and winter. The major prey of young-of-the-year Atlantic Croaker are polychaetes, copepods, and mysids; adult Atlantic Croaker primarily feed on crustaceans, molluscs, and fish (Mercer 1989). Predators of Atlantic Croaker include larger piscivorous species such as Striped Bass, Southern Flounder, sharks, Spotted Seatrout, Atlantic Croaker, Red Drum, Sheepshead, Bluefish, and Weakfish (Levine 1980; Mercer 1989).



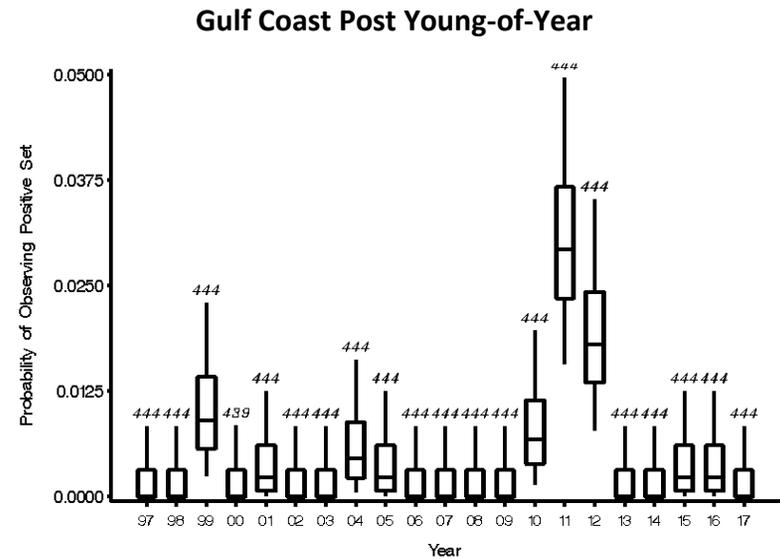
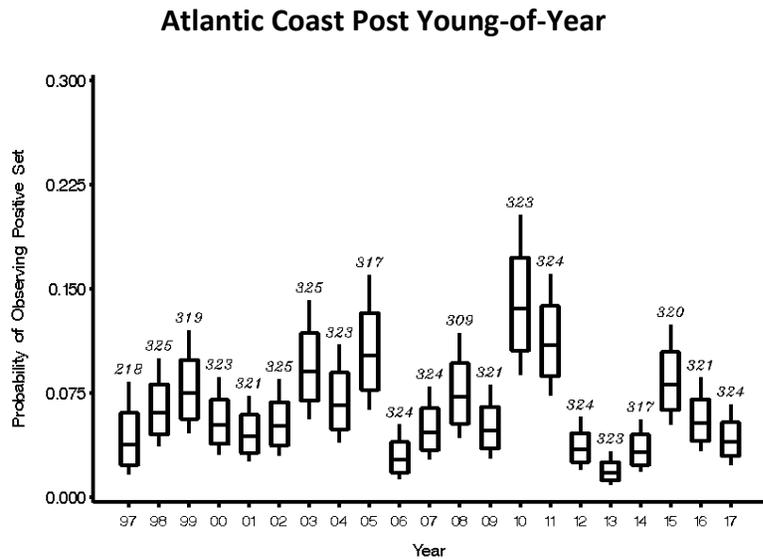
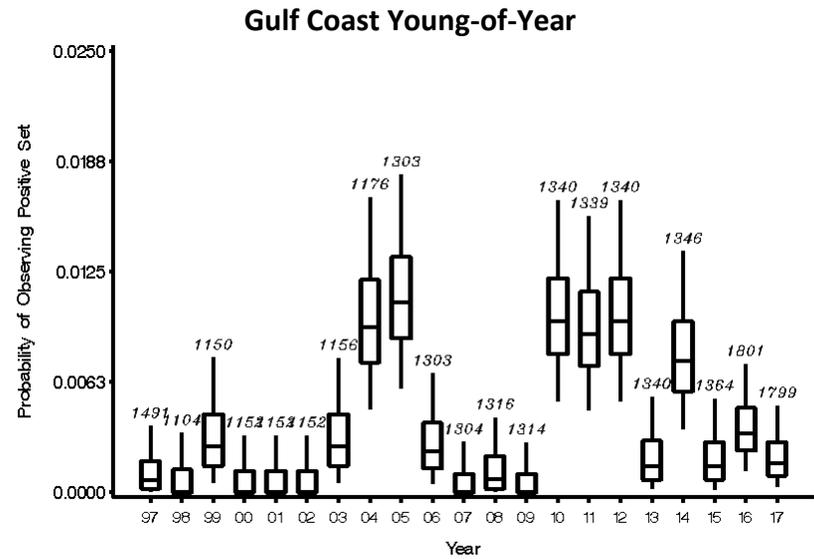
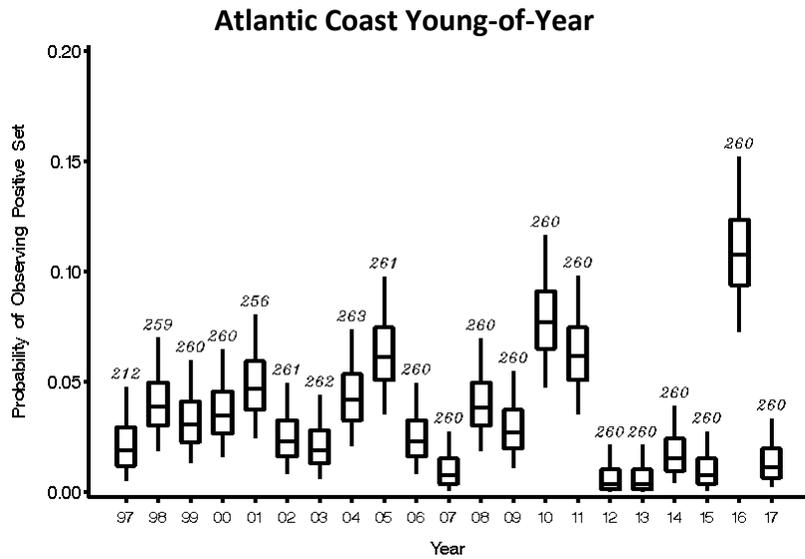
Fishers landed 813,451 pounds in 2017 which were 36.9% lower than the previous 5-year average (2012-2016). Coastwide, 73.5% of these were from the Atlantic and 26.5% were from the Gulf. Recreational landings constituted 93.3% of the total landings.



**Standardized Commercial Catch Rates:** Atlantic coast commercial catch rates increased during 1992–2000, showed a sharp decline in 2001, and has since shown cyclic catch rate patterns in 2002-2005, 2006-2009, and 2010-2015. Gulf coast commercial landings rates varied widely without long-term trend with higher rates in 1997, 2004, and 2010. Rates then declined in trend through 2017. Dark grey figure lines represent first and third quartiles while the light grey lines represent the 2.5% – 97.5% quantiles.

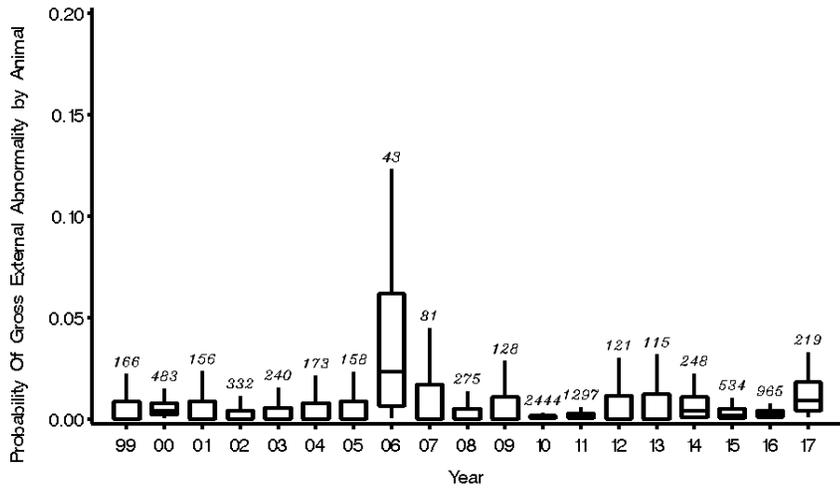


**Standardized Recreational Total Catch Rates:** Total catch rates for recreational anglers on the Atlantic coast have also shown cyclic patterns. On the Gulf, total catch rates display a variable declining trend from 1991 through 2001, followed by a variable overall increase in trend. Dark grey figure lines represent first and third quartiles while the light grey lines represent the 2.5% – 97.5% quantiles.

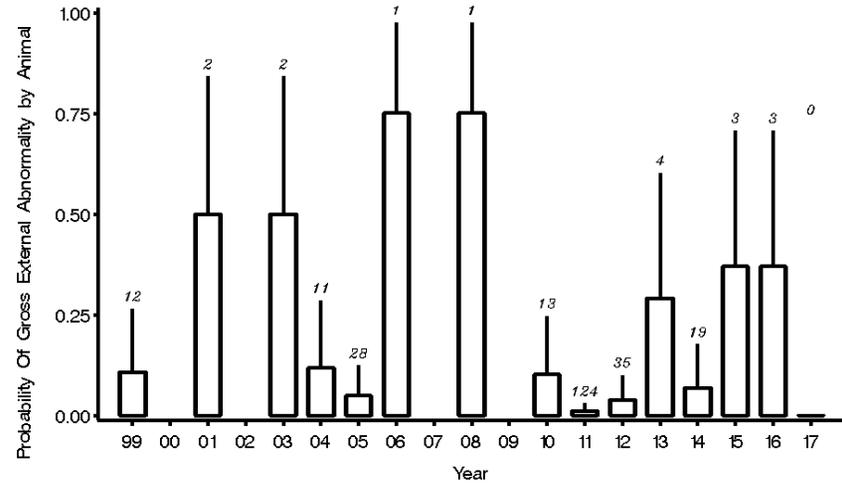


**Fishery-Independent Monitoring:** Atlantic coast indices of abundance for young-of-the-year (YOY) Atlantic Croaker were cyclical with highs in 2001, 2005, 2010-2011, and 2016. Post-YOY indices show peaks in 1999, 2003, 2005, 2010-2011, and 2015. On the Gulf coast, YOY indices were relatively low throughout the time series with evidenced strong year classes in 2004-2005, 2010-2012, and 2014. Post-YOY indices were also low for the majority of the timeseries with increases in 1999 and 2011-2012.

**Atlantic Coast Proportion to Total Collected**

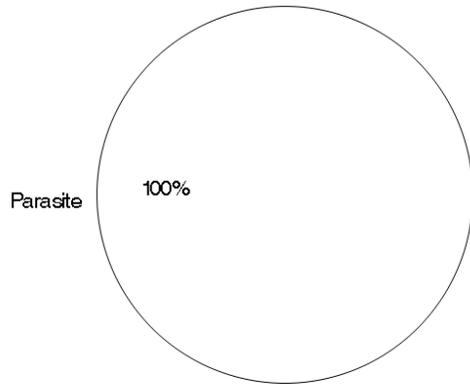


**Gulf Coast Proportion to Total Collected**



**Atlantic Coast Percentage of Abnormality Types**

Percentage of gross external abnormalities



**Gulf Coast Percentage of Abnormality Types**

No Data Available

**Fish Health:** The proportion of Atlantic croaker captured with gross external abnormalities was the highest in 2006 on the Atlantic coast, and proportions have no trend on the Gulf coast. Parasites occurred on the Atlantic coast during 2017.

## **Stock Status**

**Current Condition:** Unknown

**Management History:** In Florida, Atlantic Croaker are termed “unregulated” recreational species but which still carry a two fish or 100 pounds per person per day (whichever is more) regulation established by Florida Statute.

There have been no specific stock assessments developed for Atlantic Croaker in Florida. Simple equilibrium yield-per-recruit analyses for Atlantic Croaker in Chesapeake Bay showed that they had a high biological capacity to resist growth overfishing (Kline 1993, Barbieri *et al.* 1997). While it was estimated that current fishing rates had reduced stock biomass by two-thirds in Chesapeake Bay, nothing is known about how this had affected the reproductive capacity of the stock. There have been four inter-state assessments of the Atlantic coast stock (Hightower *et al.* 2000; ASMFC 2005, 2010, 2017). The 2010 and 2017 assessments found the majority of annual removals for Atlantic Croaker were discards from the shrimp trawl fishery, followed by commercial landings and recreational harvest. Removals, while annually variable, have been relatively stable since the series peak in 1991, ranging from approximately 125,000 to 225,000 metric tons. The relative stability of total removals in the mid-1990s coincides with the requirement of bycatch reduction devices (BRDs) across shrimp trawl fisheries. Shrimp trawl bycatch accounted for 81-99% of annual Atlantic Croaker removals and averaged 91.6% of all removals. The current stock status of Atlantic Croaker could not be determined because the 2017 assessment results were sensitive to conflicting indices of abundance and to certain modeling assumptions, particularly those regarding fishery and survey gear selectivity (i.e., commercial fleet, NMFS/Northeast Fisheries Science Center fall groundfish trawl survey). Although the current stock status could not be inferred with confidence, the Review Workshop Panel noted the base model and all sensitivity runs evaluated suggested the spawning biomass was increasing and therefore agreed that recent removals are likely sustainable (i.e., unlikely to result in further depletion of Atlantic Croaker), and no immediate management actions are required. The Panel recommended continued use of the annual traffic light analysis (TLA), established in 2014 to monitor fishery and resource trends, and implement management measures as needed (ASMFC 2017).