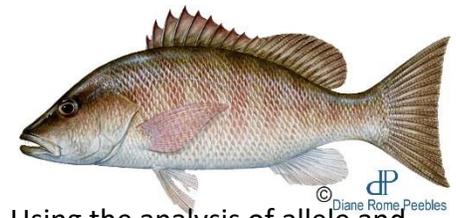
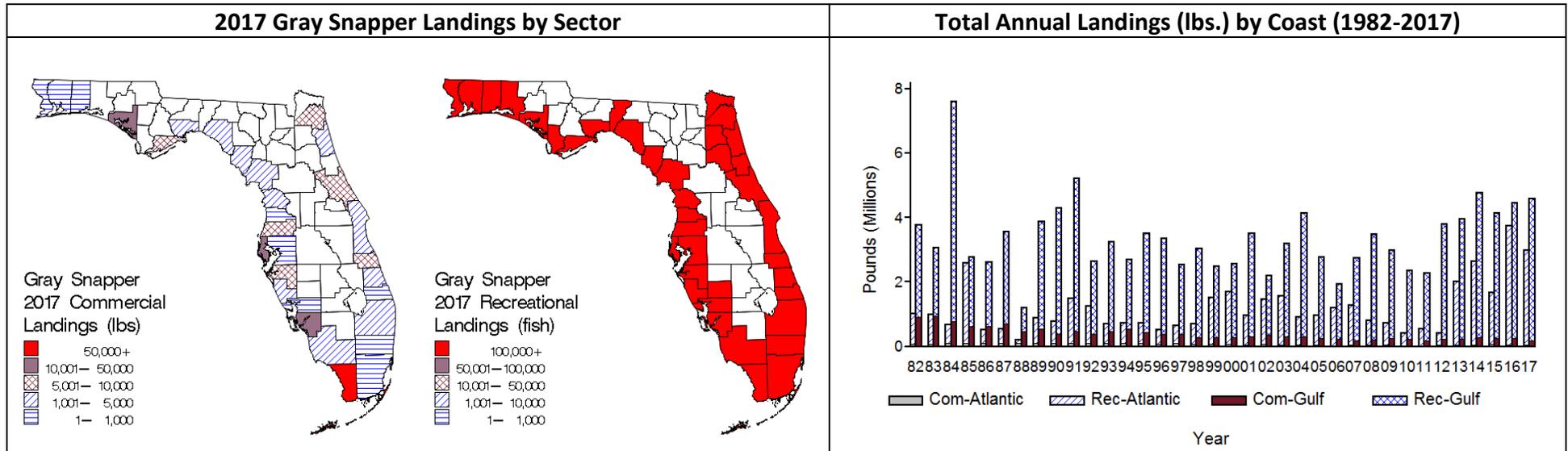


Gray Snapper, *Lutjanus griseus* (Linnaeus, 1758)



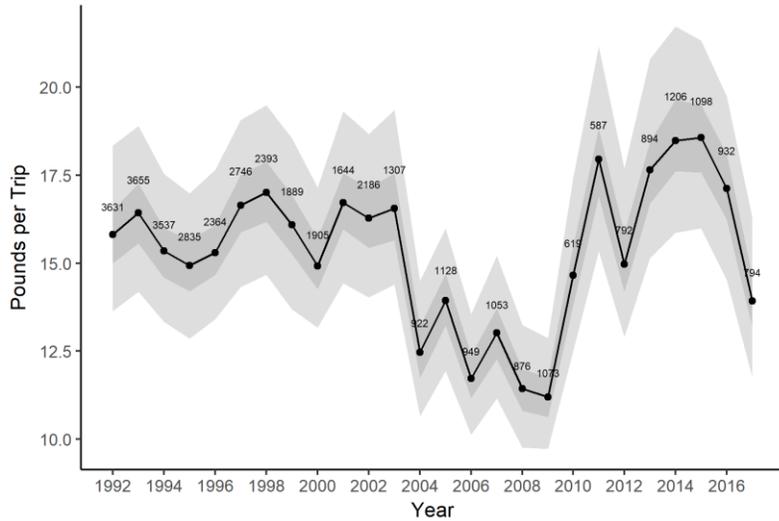
Life History

Gray Snapper are tropical, marine reef fish that occur from the U.S. mid-Atlantic south to Rio de Janeiro, Brazil. Using the analysis of allele and genotype distributions at 13 microsatellites and mitochondrial (mt) DNA haplotype distributions, Gold *et al.* (2009) found three distinct genetic groups of Gray Snapper collected from U.S. waters: northwestern and northcentral/northeastern Gulf groups, and an east coast Florida group. Juveniles are common to inshore waters throughout Florida, and adults are found in areas of moderate to high relief on the continental shelf. Spawning occurs during summer (June–September) in offshore waters around reefs, wrecks, and other bottom structures (Stark 1971; Domeier *et al.* 1996). Maturity occurs at about 7.5" standard length (Koenig 1993), which is probably the size when some Gray Snapper reach age-1 or age-2 (Manooch and Matheson 1981). Gray Snapper reach about 3.7"–5.8" total length (TL) at age 1, can grow to about 30", and can live at least 25 years (Manooch and Matheson 1981; Johnson *et al.* 1994). Burton (2001) noted that growth rates for Gray Snapper in northeast and southeast Florida differed: fish from northeast Florida attained a greater maximum size and age than those from southeast Florida. Catch curves showing estimates of total annual mortality ranged from 0.35 in northeast Florida to 0.94 in southeast Florida (Burton 2001). Adult Gray Snapper are nocturnal predators that forage away from their reef habitats. Juveniles feed diurnally among seagrass beds (Bortone and Williams 1986) and feed primarily on penaeid shrimp and crabs (Rutherford *et al.* 1989a). Adult Gray Snappers feed on fish (largely grunts), shrimp, and crabs. (Harrigan *et al.* 1989; Hettler 1989).

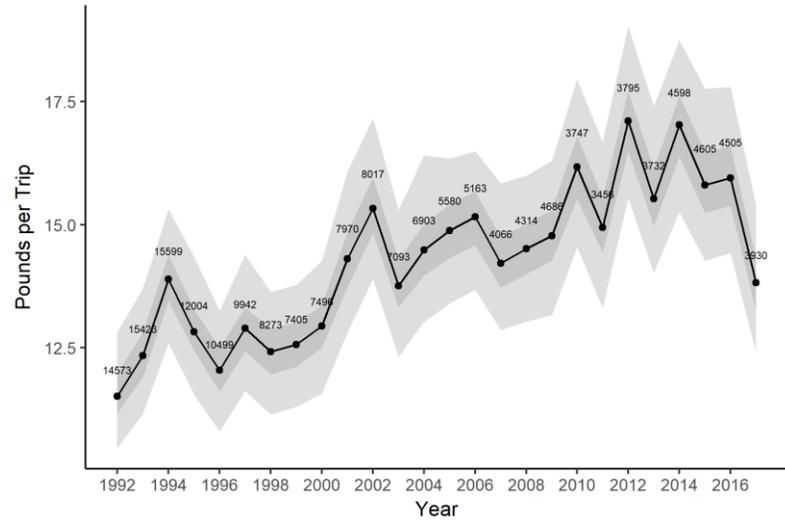


Fishers landed 7,559,303 pounds in 2017 which were 19.7% higher than the previous 5-year average (2012-2016). Coast wide, 60% of these were from the Gulf and 40% were from the Atlantic. Recreational landings constituted 97.2% of the total landings.

Atlantic Coast

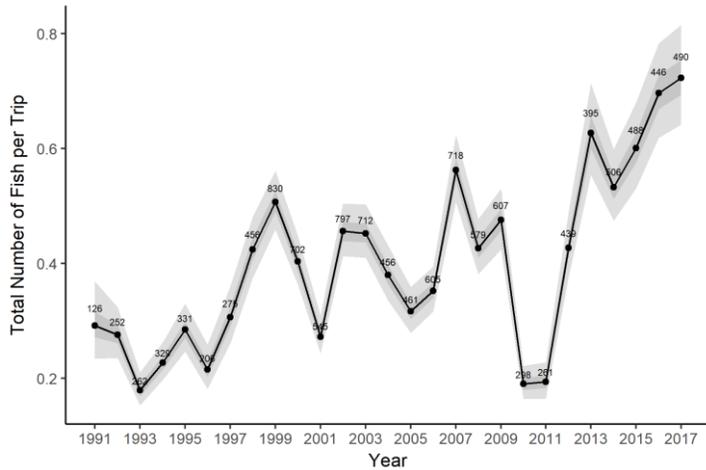


Gulf Coast

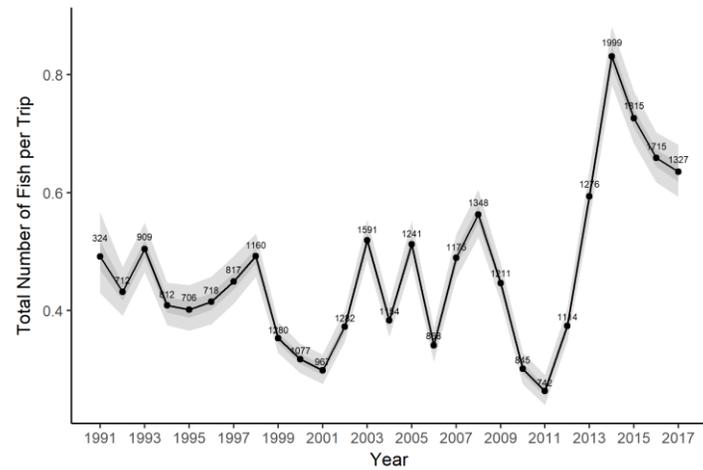


Standardized Commercial Catch Rates: Commercial landings rates on the Atlantic coast remained relatively stable from 1982-2003, fell to slightly lower values in 2004-2009, increased during 2010 -2015 but have since fallen. Gulf coast commercial landings rates have trended upwards steadily from 1982-2015. Dark grey ribbons represent first and third quartiles while the light grey ribbons represent the 2.5% – 97.5% quantiles.

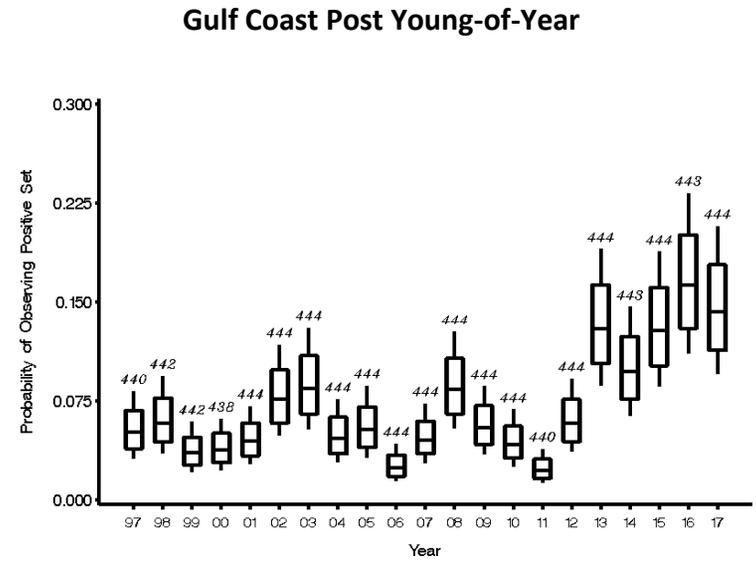
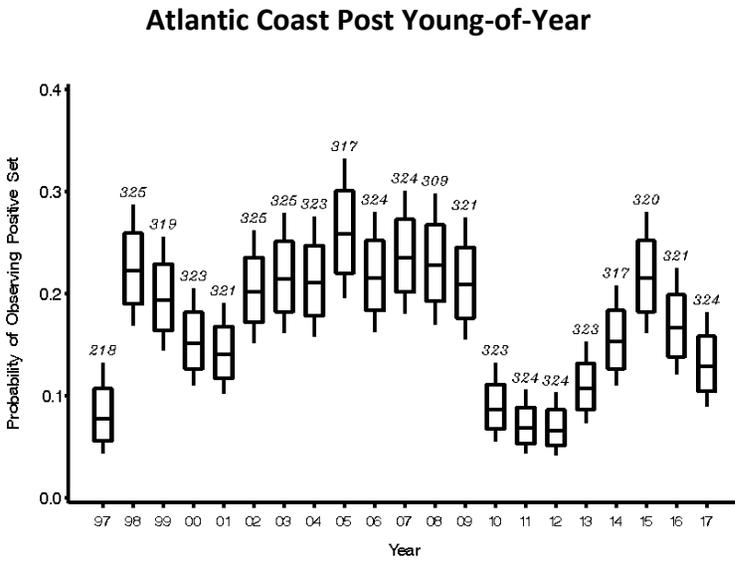
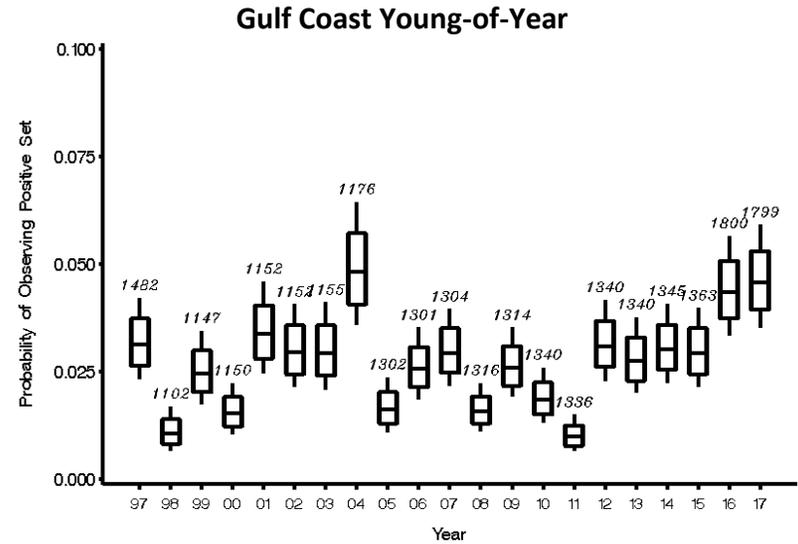
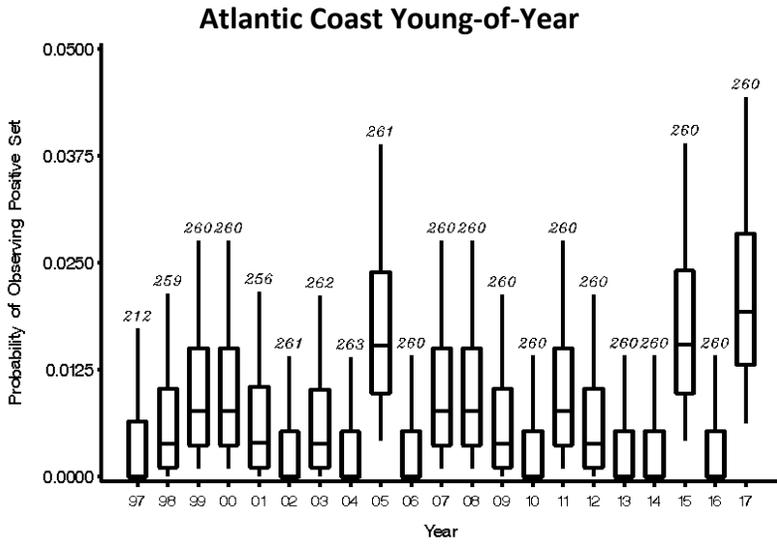
Atlantic Coast



Gulf Coast

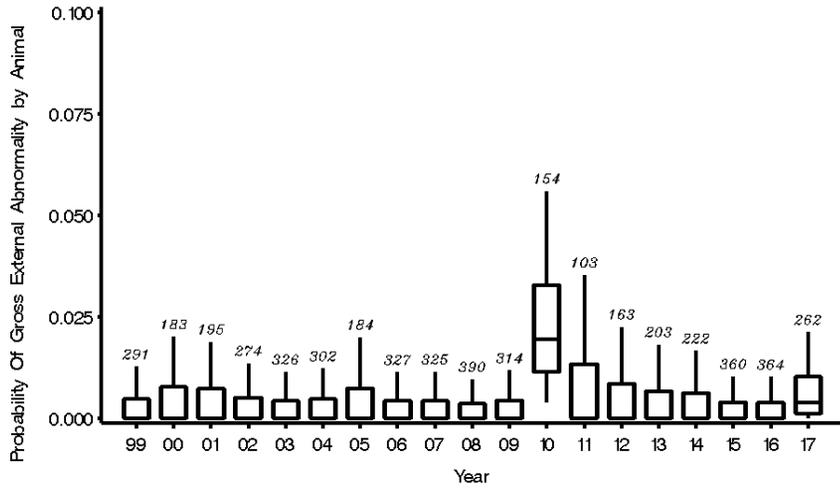


Standardized Recreational Total Catch Rates: Recreational total catch rates on the Atlantic coast remained relatively stable from 1991-2015 , with lows in 1993-1995, 2005-2006, and 2010-2011 and highs in 1991, 1996-1999, 2013, and 2015. Gulf coast recreational total catch rates have also remained relatively stable from 1991-2015 with lows in 1999-2002, 2004, 2006, and 2009-2012 and highs in 1991, 1993, 1997, and 2014-2015. Dark grey ribbons represent first and third quartiles while the light grey ribbons represent the 2.5% – 97.5% quantiles.

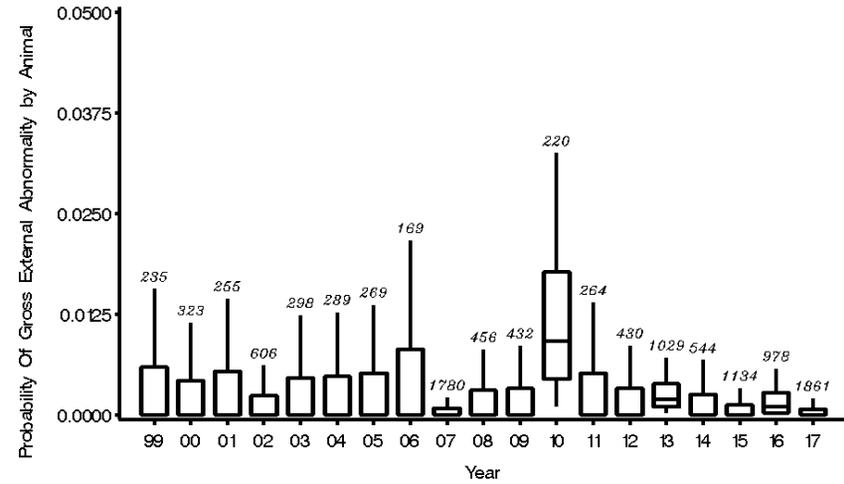


Fishery-Independent Monitoring: Relative abundance indices from fishery-independent-monitoring demonstrate that young-of-the-year (YOY) Gray Snapper are only occasionally caught on the Atlantic coast. On the Gulf coast YOY Gray Snapper are captured much more frequently; the index showed a general increasing trend to a peak in 2004 and have shown a decreasing trend through 2011, with stable rates in 2012-2017. Post-YOY abundances show a general increase from 2000-2005 on the Atlantic coast, flattened out, have dropped in 2010-2011, with a marked increase through 2015 and then decrease in 2017. On the gulf coast post-YOY abundances have varied without trend but were noticeably higher in 2002-2003, 2008, and 2013-2017.

Atlantic Coast Proportion to Total Collected

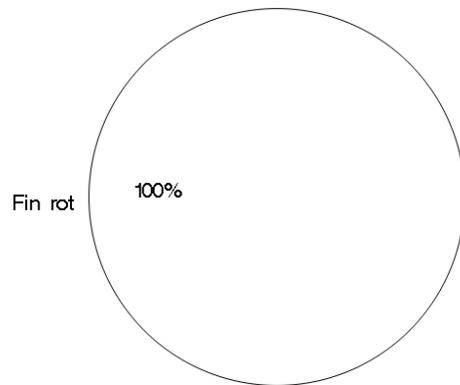


Gulf Coast Proportion to Total Collected



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 Gray Snapper >75 mm with gross external abnormalities was highest in 2010 and 2017 on the Atlantic Coast and highest in 2010 on the Gulf coast. In 2017, all of the observed gross external abnormalities were from fin rot.

Stock Status

Current Condition: not overfished however, the stock is currently undergoing overfishing (SEDAR 51).

Management History: Gray Snapper has been managed under the Reef Fish Fishery Management Plan implemented in 1984. Historically, there has been a 12-inch total length minimum size limit on Gray Snapper. Currently, Gray Snapper is included in the 20 reef fish recreational aggregate bag limit. There is an ongoing annual catch limit (ACL) of 2.49 mp ww (wet weight) and an annual catch target (ACT) of 2.08 mp ww for Gray Snapper that was determined in the 2011 Generic ACL AM Amendment which includes landings and discards. No formal stock assessment had been conducted for Gulf of Mexico Gray Snapper before the SEDAR 51 assessment in 2018.

In the SEDAR 51 assessment, SPR30% was used to calculate stock status. According to the assessment, the current stock status is not overfished ($SSB_{2015}/SSB_{SPR30} = 0.703$) but the stock is currently undergoing overfishing ($F_{current}/F_{SPR30} = .1.20$; SEDAR 51). The SEDAR assessment estimated that spawning biomass and spawning potential (egg production) have decreased throughout the time series, and are currently estimated near lowest annual value. Fishing mortality for all fleets has declined since 2010 but the stock has shown little evidence of rebound. Despite regulations placed on the recreational fishery Gray Snapper abundance has not increased. This may be a result of unexpectedly high discards from the commercial and recreational fleets that may have resulted from the implementation of the size limit.