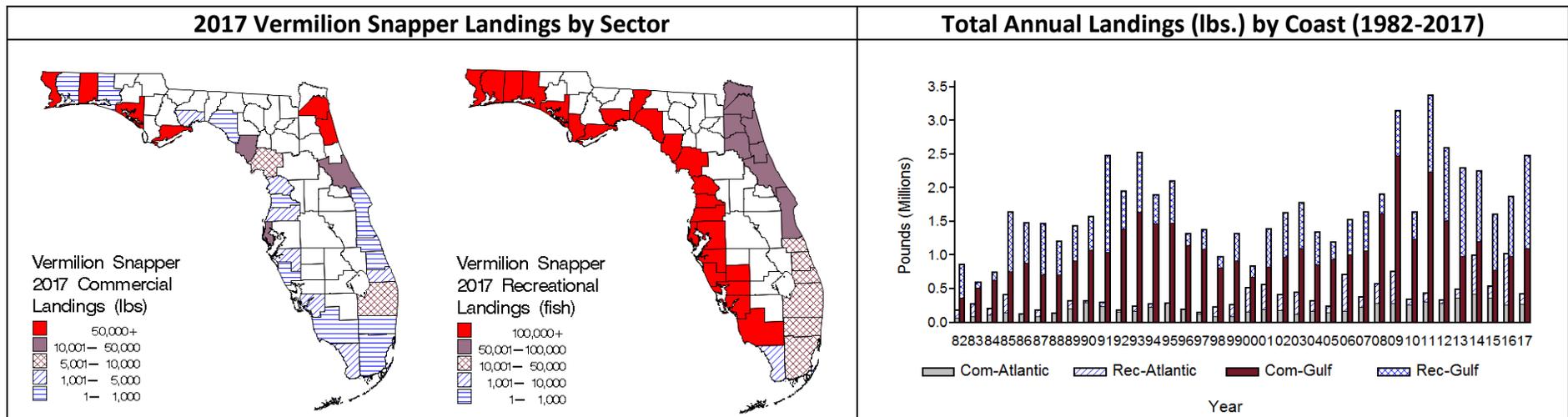


Vermilion Snapper, *Rhomboplites aurorubens* (Cuvier, 1829)



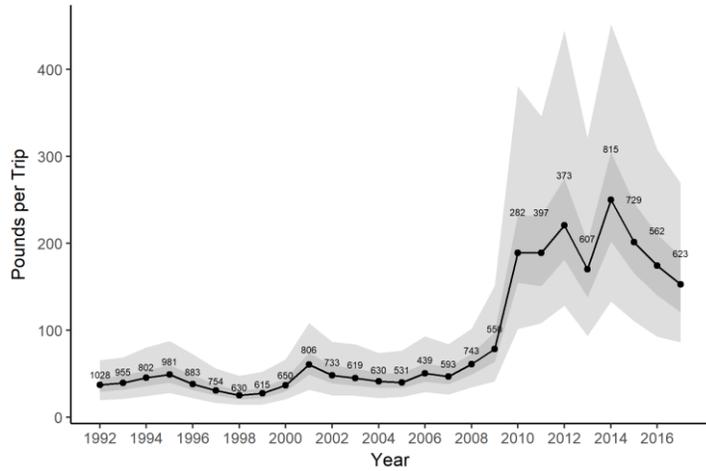
Life History

Vermilion Snapper occur over shelf and upper-slope waters of the western Atlantic Ocean from Cape Hatteras south through southeastern Brazil, as well as Bermuda, the Gulf of Mexico, and the West Indies. Bagley *et al.* (1999) found that genetic differentiation of Vermilion Snapper collected in southeastern U.S. waters and the Gulf of Mexico was so small it is likely that only one stock of Vermilion Snapper occurs in U.S. waters. Individual Vermilion Snapper can spawn several times during the period April through September; although, spawning can occur year-round in tropical Caribbean waters (Goodyear and Schirripa 1991). Zhao and McGovern (1997) and Zhao *et al.* (1997) documented a downward shift in size and age at maturity between 1979 and 1981 and again during 1985–1987. During the most recent period, the median total length (TL) at maturity was 5.5 inches for males and 5.9 inches for females. All males and nearly half of the females in the samples collected by Zhao and McGovern (1997) were mature at age 1. However, recent work on Vermilion Snapper growth in the U.S. South Atlantic region suggests the findings of Zhao *et al.* (1997) may reflect changes in sampling gear between 1979 and 1981 and again between 1985 and 1987 rather than actual changes in growth (Potts *et al.* 1998). Growth of Vermilion Snapper is highly variable, but expected lengths at age are 8.3–8.6 inches TL at age 1 and only 11.4–19.5 inches at age 10 (Hood and Johnson 1999; Potts *et al.* 1998). Johnson *et al.* (2010) performed a length-at-age analysis between male and female Vermilion Snapper that resulted the finding that females were significantly larger than males for fish older than 8 years, with average lengths estimated to be 21.2 inches TL for age-9+ females and 19 inches TL for age-9+ males. Maximum reported age of Vermilion Snapper is 20 years (Johnson *et al.* 2010). Data on the stomach contents of Vermilion Snapper indicate that they are primarily invertivores. They prey mainly on benthic and pelagic invertebrates, as well as small fishes to a lesser extent. Invertebrates consisting mostly of tunicates, amphipods, squillids, crabs, mysids, and polychaetes appeared in the diet of vermilion found off the west Florida coast to Mississippi (Johnson *et al.* 2010).

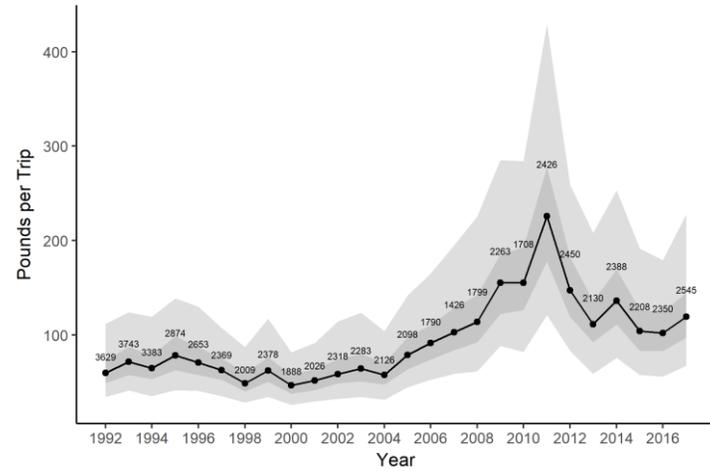


Fishers landed 2,887,766 pounds in 2017 which were 3.4% higher than the previous 5-year average (2012-2016). Coast wide, 86% of these were from the Gulf and 14% were from the Atlantic. Recreational landings constituted 52.8% of the total landings.

Atlantic Coast

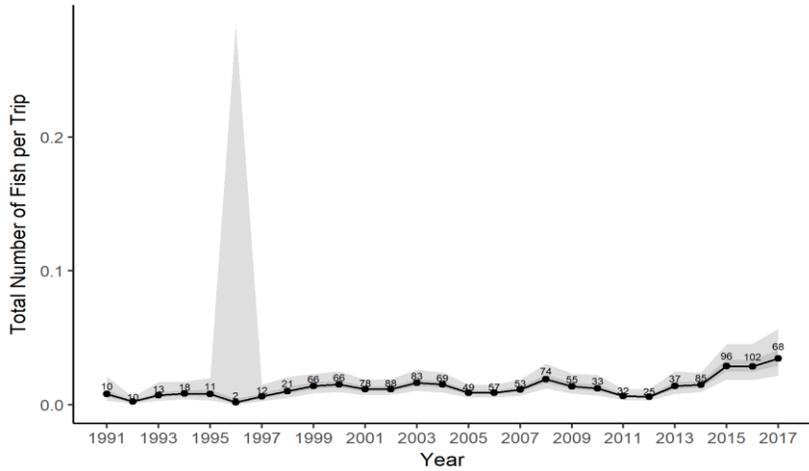


Gulf Coast

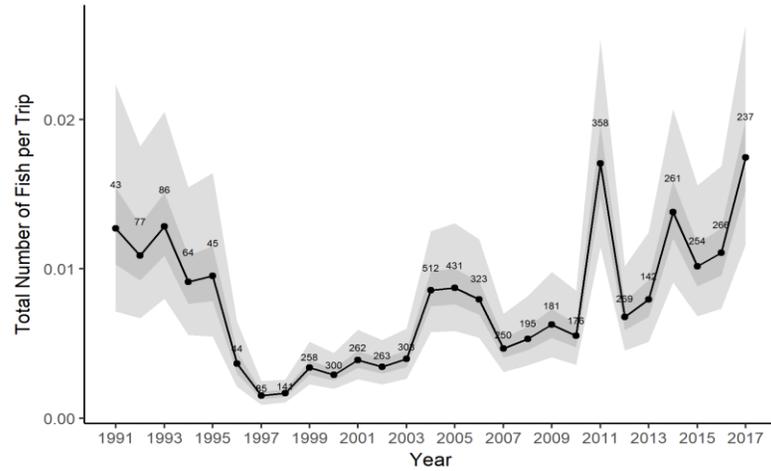


Standardized Commercial Catch Rates: Atlantic coast commercial catch rates were relatively stable through 2009 followed by an upward shift in harvest from 2010-2017. Gulf coast rates were relatively stable through 2004, trended upwards from 2005-2011, then decreased again through 2017. Dark grey ribbons 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: The total catch rate estimates for Atlantic coast recreational fishers come from low numbers of intercepts and are imprecise, especially from 1995-1997. On the Gulf coast, anglers’ total catch rates show a downward trend between 1992 and 1998 and then an overall variable but increasing trend through 2017 to early 1990s rates. Dark grey ribbons represent first and third quartiles while the light grey ribbons represent the 2.5% – 97.5% quantiles.

Stock Status

Current Condition: Neither the Atlantic or Gulf coast stocks of Vermilion snapper are overfished or subject to overfishing (SEDAR 45, SEDAR 55).

Management History: Vermilion snapper on the Atlantic coast is managed under the Fishery Management Plan (FMP) Snapper Grouper Fishery of the South Atlantic Region which establishes a management regime for the fishery for snappers, groupers and related species of the Continental Shelf of the southeastern United States in the exclusive economic zone (EEZ). There is a 12-inch total length size limit for both the commercial and recreational fisheries in the South Atlantic. There is a current recreational bag limit of 5 per person/day in addition to the aggregate snapper bag limit part of the FMP of 10 per person/day. Atlantic coast Vermilion Snapper are managed at an ACL of 431, 460 pounds whole weight (ww) from January 1 – June 30 and 467, 574 pounds ww from July 1 – December 31 for the recreational and commercial fisheries.

Vermilion snapper on the Gulf coast is managed under the Gulf of Mexico (GoM) Reef Fish FMP. Management extends from the United States-Mexico border in the west GoM. In 1997, Gulf coast Vermilion Snapper was included in the 20-reef fish aggregate bag limit developed in Amendment 12 of the FMP. Shortly thereafter, Amendment 15 (1998) increased the minimum size limit from 8 to 10 inches TL. In October 2001, assessment scientists deemed that stock biomass was below the minimum stock size threshold (MSST) and deemed the Gulf coast stock of Vermilion Snapper as overfished in October 2003. A plan to end overfishing and rebuild the Gulf coast Vermilion Snapper stock was outlined in Amendment 23. This plan specified that the stock should be rebuilt in ten years. But a benchmark review in 2006 indicated that the stock had never been overfished so a regulatory amendment repealed the regulations from Amendment 23. The size limit was reduced to 10 inches and a 10 fish Vermilion snapper bag limit in the reef fish aggregate was eliminated (SEDAR 45).