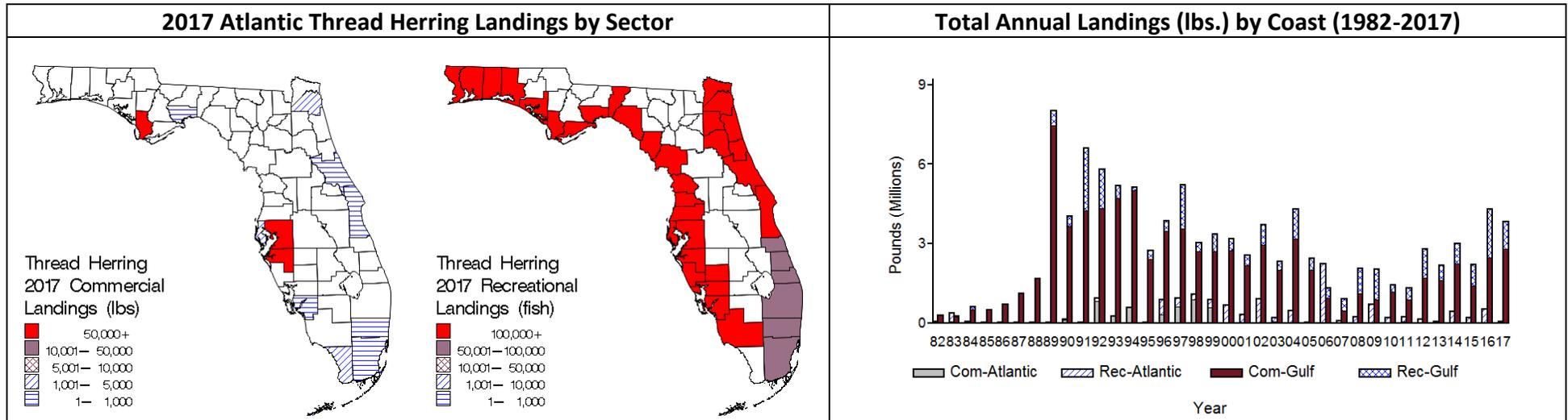


## Atlantic Thread Herring, *Opisthonema oglinum* (Lesueur, 1817)



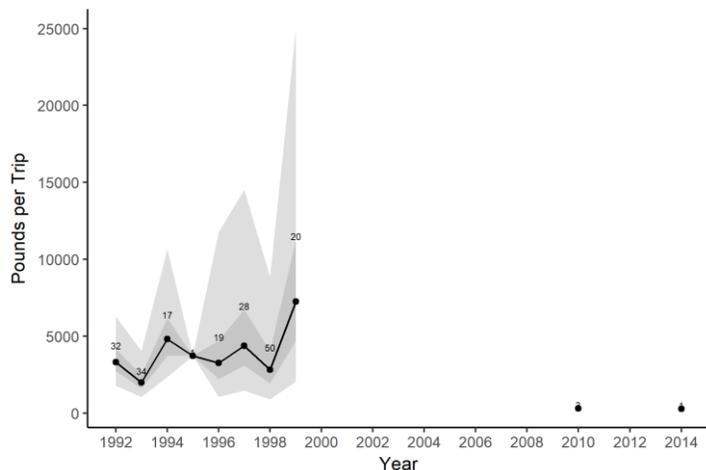
### Life History

Atlantic Thread Herring are widely distributed in the western Atlantic from the Gulf of Maine to Bermuda and throughout the Gulf of Mexico and West Indies southward to Brazil (Berry and Barrett 1963). In the northeastern Gulf of Mexico, they are found at depths less than 120 feet (Klima 1971). Schools of Thread Herring generally prefer shallow coastal waters and occur most frequently in the upper 3 meters of the water column. Adults generally follow an inshore-offshore, north-south movement pattern in response to water temperature (Fuss *et al.* 1969). Fork length (FL) of Thread Herring, taken from trawl surveys conducted between 1994 and 2001 along west central Florida, ranged from 4.1 inches to 7.9 inches. Atlantic Thread Herring mature at 4.7–5.7 inches FL when age 1 or 2 (Berkeley and Houde 1984). Spawning occurs in nearshore shelf waters (to depth of about 100 feet) during March–July (Prest 1971). Adult Thread Herring feed on a variety of phytoplankton and zooplankton, which the herring strain from water through their numerous gill rakers. Dominant food organisms from fish collected off Fort Myers, Florida, included copepods, pelecypods, gastropods, larval barnacles, plant detritus, fish scales, and sediments (Fuss and Kelly 1968). The Atlantic Thread Herring is an important prey species eaten by many piscivorous fish, sea birds, and marine mammals (Reintjes 1979). Mackerel, bluefish, and crevalle jack have shown a preference for eating schooling fish such as herrings. Beaumariage (1973) found that 59% of the food eaten by king mackerel in Florida waters consisted of Atlantic Thread Herring and scaled sardine. Thread Herring were a prey item eaten by bluefish off southeast Florida, south Florida, and northwest Florida (Naughton and Saloman 1984).

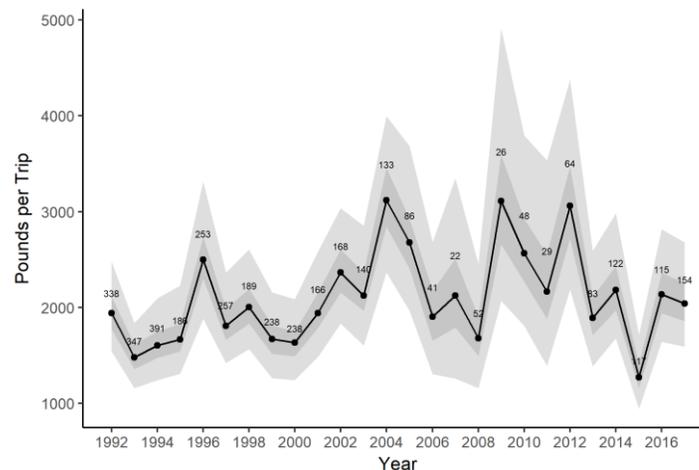


Fishers landed 3,880,336 pounds in 2017 which were 22.9% higher than the previous 5-year average (2012-2016). Coastwide, 98.5% of these were from the Gulf and 1.5% were from the Atlantic. Commercial landings constituted 72.3% of the total landings and reflect the distribution of the baitfish purse-seine fishery in the state: located just west of Cape San Blas, off Tampa Bay, and off Charlotte Harbor.

**Atlantic Coast**

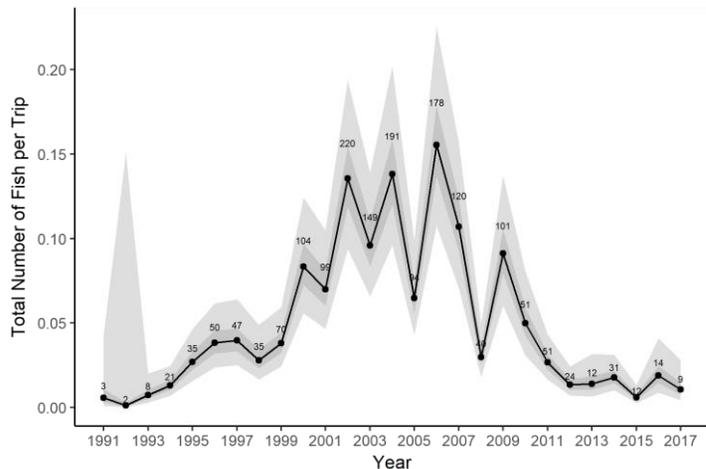


**Gulf Coast**

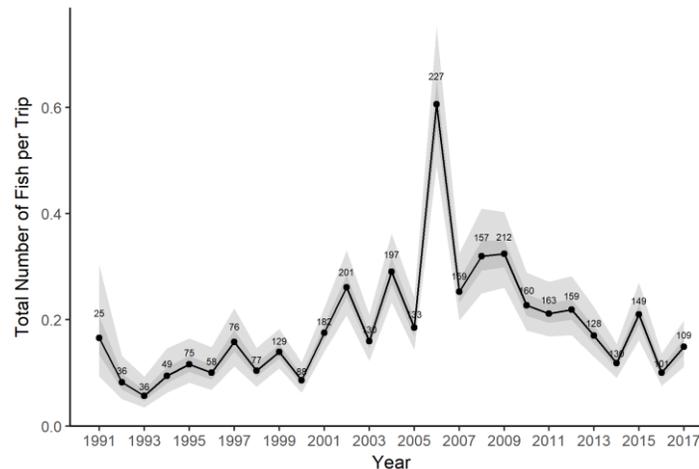


**Standardized Commercial Catch Rates:** Atlantic coast commercial purse seine landings rates are relatively high in some earlier years although they are highly variable and intermittent throughout the time series. Gulf coast commercial landings rates variably increased through 2004, fluctuated through 2012, then began to decline again. Hold capacity of the purse seine boats (30,000–40,000 pounds) is occasionally met, therefore commercial catch rates may not reflect the abundance or availability of Atlantic Thread Herring. Dark grey figure lines represent first and third quartiles while the light grey lines represent the 2.5% – 97.5% quantiles.

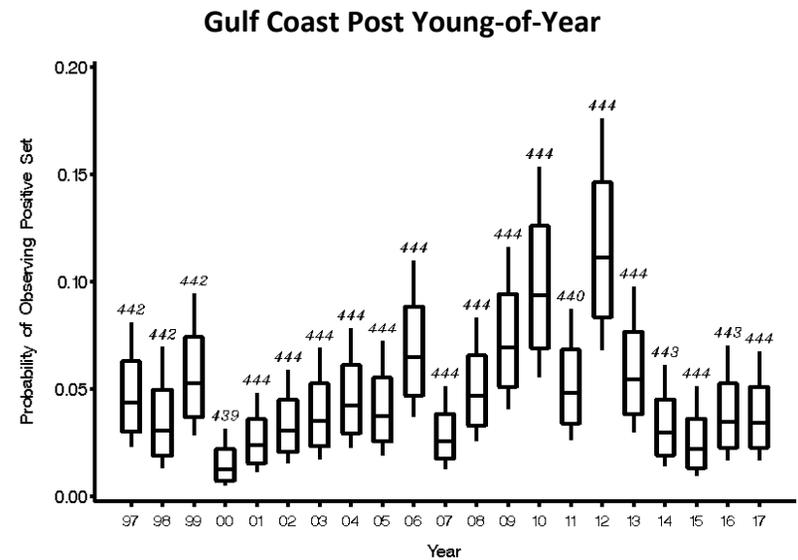
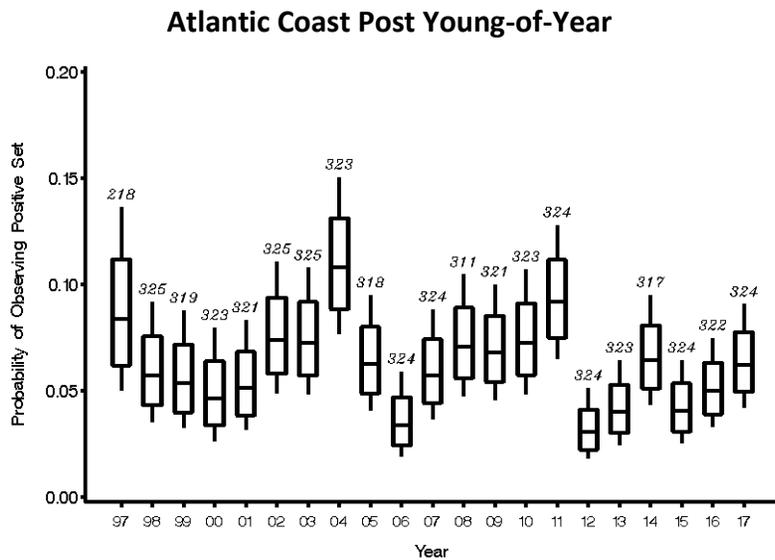
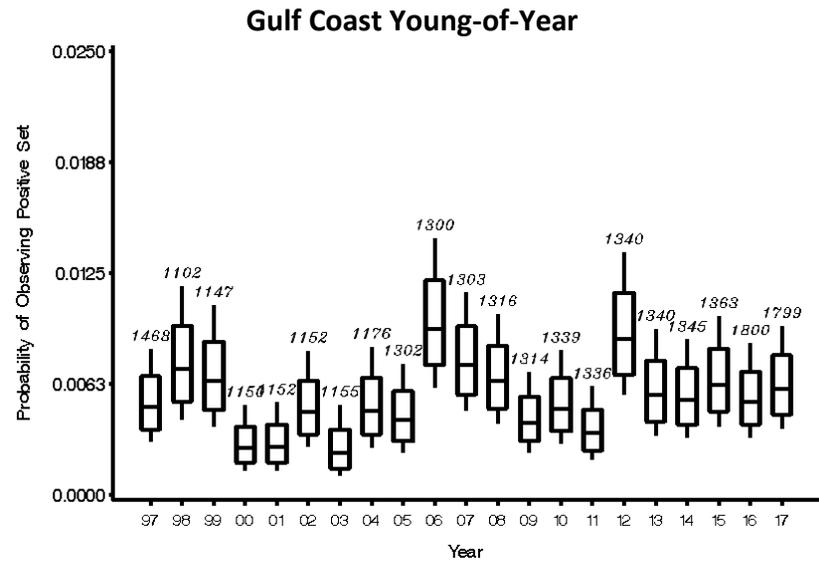
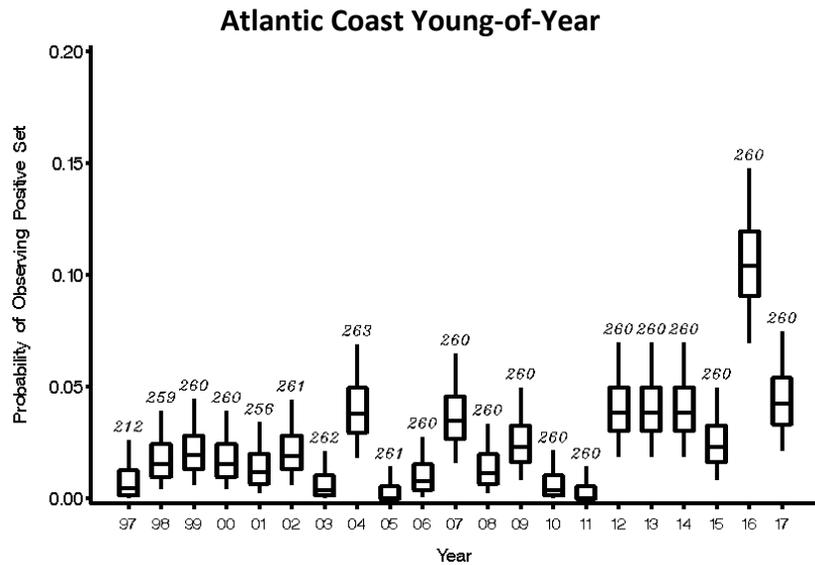
**Atlantic Coast**



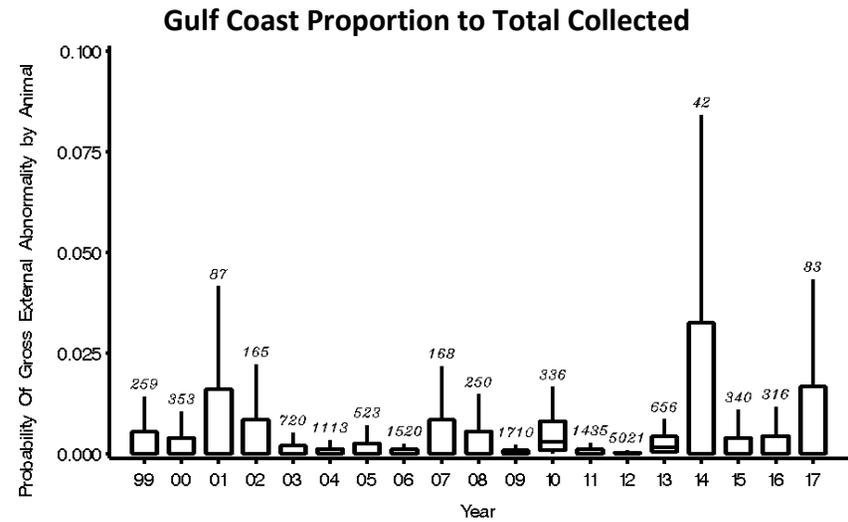
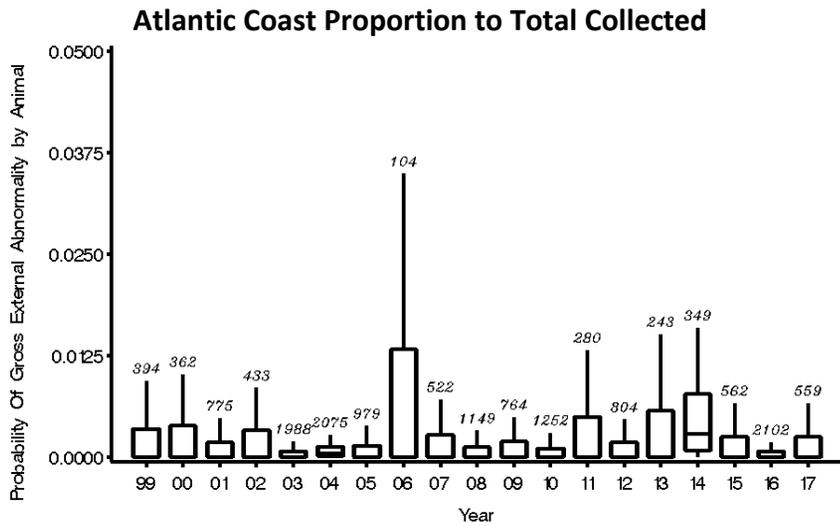
**Gulf Coast**



**Standardized Recreational Total Catch Rates:** Recreational standardized catch rate estimates may not accurately reflect the use of Atlantic Thread Herring as bait because bait fish catches may not be accurately recalled, reported, or identified by anglers after the end of their fishing trips. Also bait fish may be released (i.e., not landed) and not available for inspection during recreational surveys. Dark grey figure lines represent first and third quartiles while the light grey lines represent the 2.5% – 97.5% quantiles.



**Fishery-Independent Monitoring:** The index of abundance for young-of-the-year (YOY) Atlantic Thread Herring on the Atlantic coast has varied without major trend since 1997 but with notable peaks in 2004, 2007, 2012-2014, and 2016. Gulf coast YOY abundance trends were cyclic with high abundances in 1998, 2005, and 2012. Post-YOY abundance follows a cyclical pattern on the Atlantic coast with highs in 1997, 2004, 2011, 2014, and 2017. The Gulf coast post-YOY index is also cyclic with highs in 1999, 2006, and 2012.



Atlantic Coast Percentage of Abnormality Types

No Data Available

Gulf Coast Percentage of Abnormality Types

No Data Available

**Fish Health:** Occurrences of gross external abnormalities are low and variable on both coasts, the highest occurred in 2014 on the Atlantic coast. No information is currently available on the type of abnormalities afflicting Atlantic thread herring.

## **Stock Status**

**Current Condition:** unknown

**Management History:** No formal stock assessment of Atlantic Thread Herring is available at this time. Despite significant reductions in Florida's west coast commercial landings since 1995, the analysis of fishery-independent trawl-acoustic surveys (1994–2003) indicated no increase in the abundance of important baitfish species (i.e., Spanish sardine, round scad, and Atlantic Thread Herring) in recent years (Mahmoudi *et al.* 2002, B. Mahmoudi FWC-FWRI, pers. comm.). Mean trawl catch rates for Atlantic Thread Herring catch rates varied without trend. Catch rates were lowest in 2001. These findings suggest that factors other than fishing may have caused changes in population abundance of Atlantic Thread Herring in the survey area. A multivariate ANOVA model, relating acoustic baitfish density and environmental variables, indicated that the baitfish density significantly increased in waters with lower salinities and lower temperatures. These relationships may explain reasons for low baitfish trawl catch rates in 1997, 2001, and 2002 when the salinity was at its maximum range (Mahmoudi *et al.* 1999).