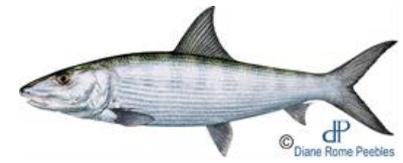
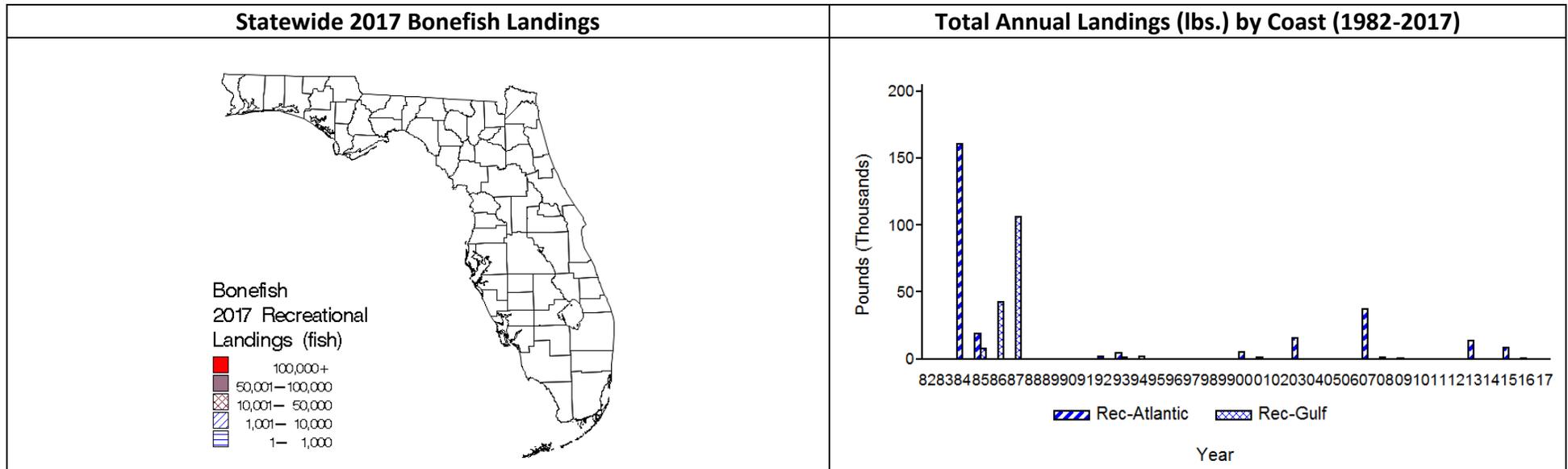


Bonefish, *Albula vulpes* (Linnaeus, 1758)



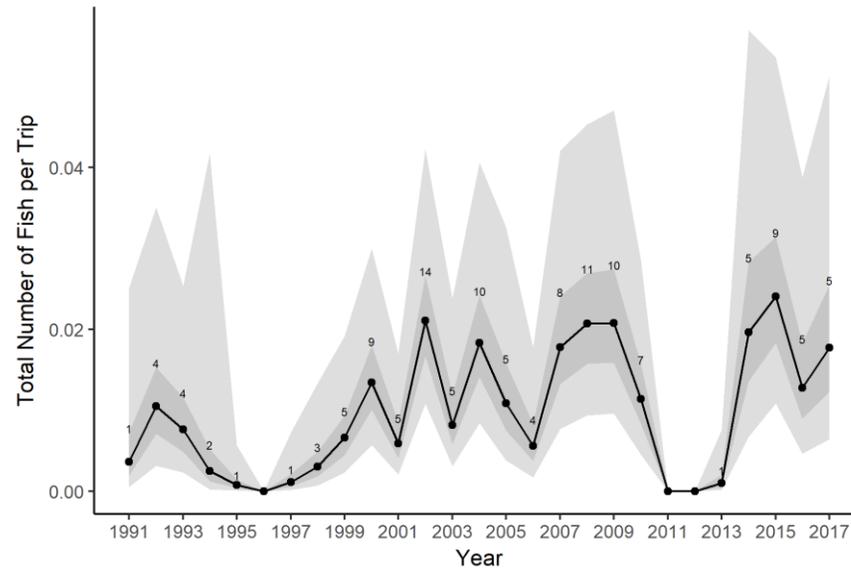
Life History

Bonefish occur in the coastal and inshore waters of tropical seas worldwide. In the western Atlantic, Bonefish occur in the Florida Keys, the Bahamas, and throughout the Caribbean. Bonefish have leptocephalus larvae that develop in nearshore waters and recruit to inshore areas at about 40–70 days of age and just before transforming into juveniles (Mojica *et al.* 1995). Recruitment into bays and sounds occurs during winter and spring, especially during periods when flood tides coincide with dark, moonless nights (Mojica *et al.* 1995; Harnden *et al.* 1999). Growth is rapid through age 6 then slows considerably (Crabtree *et al.* 1996). Predicted mean fork lengths (FL) at age for female Bonefish are as follows: 11.2" at age 1, 15.0" at age 2, 17.9" at age 3, 20.0" at age 4, and 25.6" at age 10. Males are slightly smaller-at-age than females. The maximum observed age for Bonefish is 19 years. Bonefish mature to spawn at age 3 or 4 with 50% of males mature at 16.5" FL and 50% of females mature at 19.2" (Crabtree *et al.* 1997). Spawning appears to occur during November–May, probably in deep water. Bonefish diets consist of a variety of benthic and epibenthic organisms, including crustaceans, mollusks, and bony fishes. In south Florida, xanthid crabs, gulf toadfish *Opsanus beta*, portunid crabs, alphaeid shrimp, and penaeid shrimp made up most of the diets of Bonefish of 228–702 mm fork length (Crabtree *et al.* 1998).



In 2017, no Bonefish were observed landed in the Florida survey. The Marine Recreational Information Program provides the only statewide estimates of Bonefish landings made in Florida. However, this survey provides very imprecise estimates of landings rates because few anglers who catch Bonefish are interviewed each year. Many anglers catching Bonefish release these fish back into the wild and do not retain even the bag limit allowed.

Statewide Recreational Catch Rates



Standardized Recreational Total Catch Rates: Standardized recreational catch rates pooled across both coasts of Florida fluctuated with an overall slightly increasing trend, barring a few years of unobserved catches by the survey. Dark grey figure lines represent first and third quartiles while the light grey lines represent the 2.5% – 97.5% quantiles.

Stock Status

Current Condition: not overfished

Management History: In June 2013, FWC Commissioners approved measures to make Bonefish a catch-and-release only fishery. This includes the elimination of a tournament exemption permit. This exemption allowed tournament anglers with the proper permit to temporarily possess Bonefish for transport to a tournament scale. This change went into effect Sept. 1, 2013. The use of a multiple hook in conjunction with live or dead natural bait to harvest or attempt to harvest Bonefish was also prohibited Sept. 1, 2013. Bonefish can be caught year-round in the Florida Keys, but peak season is about March through October.

Empirical estimates of total mortality for Bonefish collected during 1989–1995 were not different than theoretical estimates of natural mortality deduced from observed maximum age. This suggests that there was low fishing mortality on Bonefish in Florida (Crabtree *et al.* 1996). A 2011 stock assessment of Bonefish in south Florida incorporated a length-based REEFS model that suggested that Florida’s Bonefish stock is moderately exploited, and an age-structured production model (catch-free assessment model) that indicated a large stock decline had occurred over the past 60 years and the current stock size is bordering an overfished benchmark. However, both models estimated stock status in 2010 to be currently not overfished (Larkin 2011).