

KINGFISH, *Menticirrhus americanus*, *M. littoralis*, *M. saxatilis*



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Life History

Three species of kingfishes occur in North Carolina: southern (*Menticirrhus americanus*), Gulf (*M. littoralis*), and northern kingfishes (*M. saxatilis*). Kingfish refers to a single species while kingfishes refers to multiple species. Kingfishes are demersal (living near and feeding on the bottom) members of the drum family. Southern kingfish is the most abundant kingfish species from North Carolina to the east coast of Florida and Gulf of Mexico with a range extending as far as Cape May, New Jersey southward to Buenos Aires, Argentina. Northern kingfish is the most abundant kingfish species from Massachusetts to North Carolina, with a range extending from the Gulf of Maine into the Gulf of Mexico. Gulf kingfish is the most abundant kingfish species in the surf zone south of Cape Hatteras, North Carolina, and has a range extending from Virginia to Rio Grande, Brazil. The northern and southern kingfishes prefer mud or sand-mud bottom types while Gulf kingfish prefer the sandy bottoms of the surf zone. Kingfishes move from estuarine and nearshore ocean waters to deeper offshore waters as water temperature cools. Spawning takes place in the ocean from April to October. The kingfishes have many regional names including sea mullet, king whiting, king croaker, sea mink, roundhead, hard head, whiting, hake, Carolina whiting and Virginia mullet.

Fisheries

The commercial gears that harvest the majority of kingfishes are fish trawls, gill nets and shrimp trawls. From 1950 to 1979, most kingfish landings were from the fish trawl fishery. The gill net fishery for kingfishes became a major gear in 1981 and has since remained the dominant gear for commercial harvest of kingfishes in North Carolina. Landings have

remained steady in the commercial fishery in the past ten years without much variation from year to year; landings in 2016 were above their 10 year average. (Figure 1).

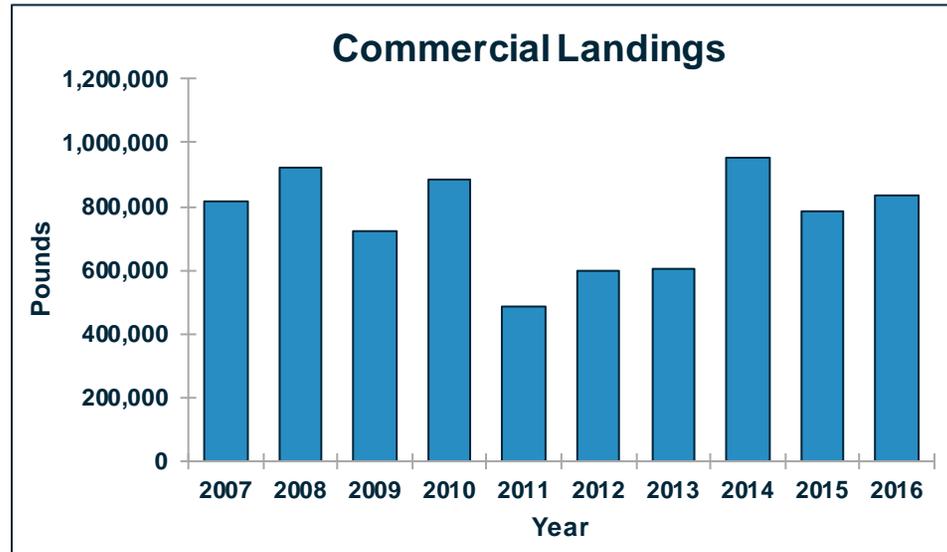


Figure 1. Annual commercial landings of kingfishes in North Carolina, 2007-2016.

Kingfishes are highly sought after recreationally along the U.S. Atlantic coast. They are generally caught by anglers with bottom fishing rigs using natural baits such as sand fleas, bloodworms or shrimp. Total recreational landings have been on an increasing trend since 1983. However, recreational harvest in 2016 was down 46 percent from 2015 (Figure 2).

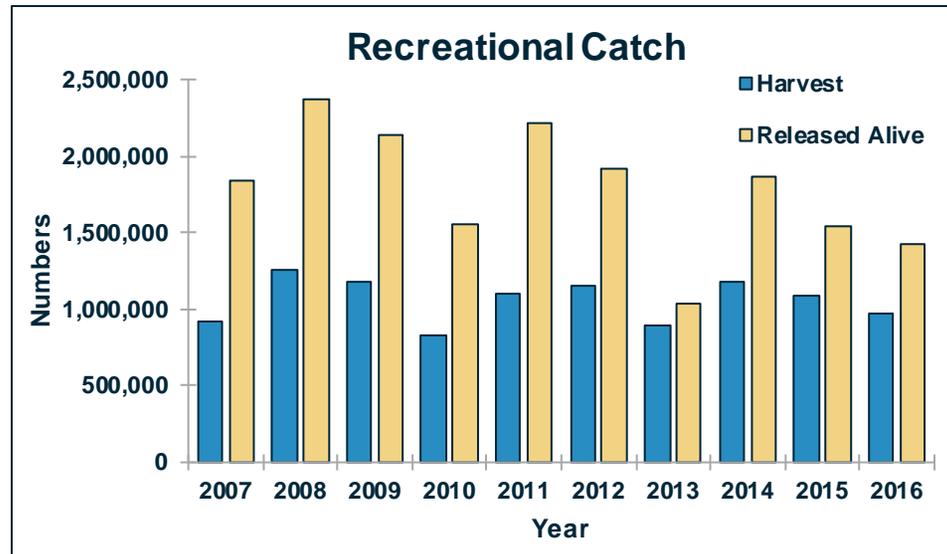


Figure 2. Annual recreational catch of kingfishes in North Carolina, 2007-2016.

Management

The original 2007 Kingfish Fishery Management Plan developed management strategies that ensure long term sustainable harvest for recreational and commercial fisheries of North Carolina. The plan established the use of trend analysis with management triggers to monitor the viability of the stock. The North Carolina Marine Fisheries Commission gave proclamation authority to the North Carolina Division of Marine Fisheries director for the flexibility to impose restrictions on season, areas, quantity, gear or size of kingfish, if needed. An Information Update was completed for the Kingfish plan in November 2015. The best available data and techniques used for the trend analysis and management triggers were refined and modified to better assess population trends as part of this plan Information Update and are updated annually.

Stock Status Overview

A stock assessment could not be completed for kingfishes due to lack of migration data. Instead, trend analyses with management triggers are used to monitor stock conditions and advise management on the potential need for

regulations. Trends monitored include relative fishing mortality and several fishery independent indices for both adult and juvenile kingfish. Three of the management triggers were activated in 2016, but since none of the management triggers were activated in 2015, no action is required at this time and the stock is considered viable. Commercial landings were above their 10 year average, while recreational landings were down 46 percent from 2015. The majority of the commercial landings occurred in the ocean sink net fishery.

The Pamlico Sound Survey provides juvenile abundance indices for kingfish. This survey samples 52 randomly selected stations based on depth and location in June and again in September in the Pamlico Sound. Tow duration and gear configurations have remained the same throughout the sampling time series. The annual catch per unit effort for kingfish have been variable with no clear trend for the past ten years (Figure 3).

The Coastal Survey is conducted by the South Carolina Department of Natural Resources and is a long standing component of the Southeast Area Monitoring and Assessment Program – South Atlantic survey activity. The goal of this survey is to provide long term information on fish stocks off the coast of southeastern United States. Since 1990, the sampling design has remained consistent. Data from this survey were used to produce adult abundance indices for kingfish. The annual catch per unit of effort for kingfish has been variable but generally increasing since 2007 (Figure 3).

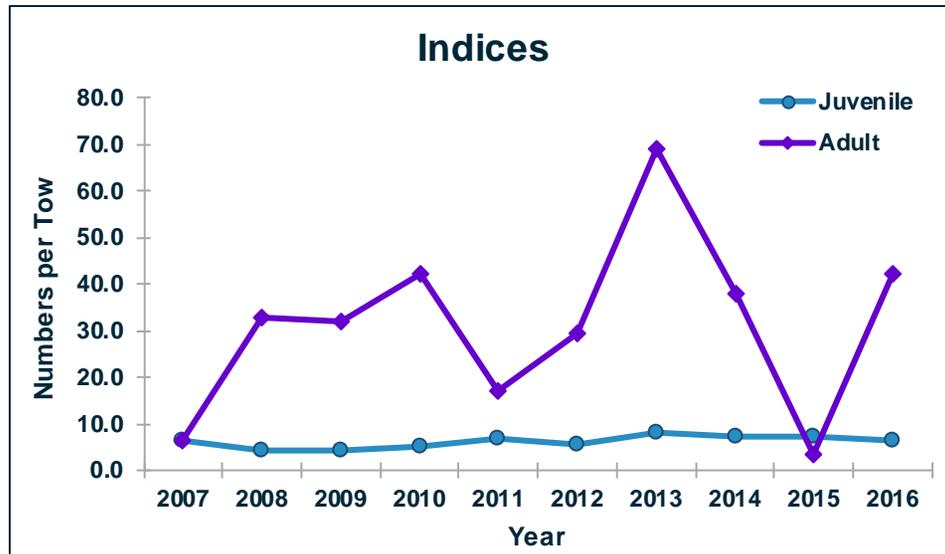


Figure 3. Annual indices of relative juvenile and adult abundance of kingfish in the NCDMF Pamlico Sound Independent Gill-Net Survey, 2007-2016.

Research Needs

Research needs include studies to determine distribution, stock structure, and composition of the three kingfish species found in North Carolina. Further research is needed on the species' habitat use, movement, maturity, age and growth, and the validation of a juvenile abundance index.

Links

Management Agencies

[North Carolina Division of Marine Fisheries](#)

Fishery Management Plans, Amendments, Revisions, & Supplements

[North Carolina Fishery Management Plan](#)

Contacts

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