

5.7 EXISTING PLANS, STATUTES, AND RULES

5.7.1 EXISTING PLANS

The 2005 Southern Flounder FMP is the only plan that applies specifically to the southern flounder fishery in North Carolina. The 2005 plan implemented several management measures that required changes to existing rules on September 1, 2005 and included:

- a closure period from December 1 to December 31 for the commercial fishery;
- a 14-inch minimum size limit for the commercial fishery;
- a 14-inch minimum size limit and an 8 fish bag limit for the recreational fishery;
- an exemption for flounder aquaculture operations from size and season requirements;
- implementation of a 200-yard limit between gill nets and active pound nets coast wide with the exception of the Albemarle Sound, excluding tributaries, west of a line between Caroon Point and Powell Point, from August 15 to December 31, when the minimum distance will be 500 yards;
- implementation of a 3,000-yard maximum limit coast wide on all large mesh flounder gill nets per fishing operation;
- implementation of a minimum mesh size of 5.5-inch stretched mesh coast wide for all large mesh gill nets from April 15 to December 15;
- the requirement of recreational/commercial gear (RCGL) license holders to attend their large mesh gill nets at all times from south of the NC Highway 58 bridge at Emerald Isle to the South Carolina state line;
- the requirement of escape panels with 5.5-inch stretched mesh in pound nets coast wide; and
- proclamation authority to the Fisheries Director to specify a minimum mesh size of 4-inch stretched mesh for crab trawls in western Pamlico Sound and tributaries and a minimum mesh size of 3-inch stretched mesh for crab trawls on the eastern side of Pamlico Sound (jointly recommended in the 2004 Blue Crab FMP and 2005 Southern Flounder FMP).

The Southern Flounder FMP AC made a recommendation to the Shrimp FMP AC to address the issue of the discard of sublegal southern flounder in the shrimp trawl fishery. This resulted in rule changes on July 1, 2006 through the Shrimp FMP and includes:

- the prohibition of shrimp trawls in the Pungo River above Wades Point and Abel Bay;
- the prohibition of shrimp trawls in the Pamlico River above Goose Bay and Wades Point and;
- the prohibition of shrimp trawls in the Neuse River above Cherry Point and Wilkerson Point.

The summer flounder (*Paralichthys dentatus*) fishery of the Atlantic Coast is managed jointly by the Atlantic States Marine Fisheries Commission (ASMFC) and the Mid-Atlantic Fishery Management Council (MAFMC) FMP, and this FMP has an impact on southern flounder. Due to the difficulty in distinguishing between the two closely related species, flounder in North Carolina are managed by area of occurrence rather than by species. Summer flounder occur primarily in the ocean waters and around the inlets and are commercially

harvested almost exclusively with flounder trawls. In contrast, the main commercial fisheries for southern flounder, are from gill nets, pound nets, and gigs, and take place in the sounds and rivers. Therefore, regulations stemming from the federal summer flounder FMP, including harvest limits, size restrictions, and closures, only apply to commercially caught ocean flounder in North Carolina, regardless of the species. However, recreational size limits for summer flounder do affect the southern flounder recreational fishery in certain inshore areas of the state.

5.7.2 STATUTES

All management authority for North Carolina's southern flounder fishery is vested in the State of North Carolina. General authorities that are noted in Section 5.1 provide the NCMFC and the NCDMF with the regulatory powers to manage the southern flounder fishery. Although most southern flounder harvest is taken from coastal and joint waters, the limited harvest from inland waters falls under the jurisdiction of the North Carolina Wildlife Resources Commission (WRC).

Selected North Carolina General Statutes that relate to management and enforcement of regulations relative to southern flounder include:

G.S. 113-168.2	Standard Commercial Fishing License
G.S. 113-168.3	Retired Standard Commercial Fishing License
G.S. 113-168.4	Sale of Fish
G.S. 113-168.6	Commercial fishing vessel registration
G.S. 113-173.	Recreational Commercial Gear License
G.S. 113-174.2	Coastal Recreational Fishing License
G.S. 113-182.	Regulations of fishing and fisheries
G.S. 113-182.1	Fishery Management Plans
G.S. 113-268.	Injuring, destroying, stealing, or stealing from nets, seines, buoys, pots, etc.
G.S. 113-143B-279.8	Coastal Habitat Protection Plans.

5.7.3 RULES

15A NCAC 03J .0101 FIXED OR STATIONARY NETS

It is unlawful to use or set fixed or stationary nets:

- (1) In the channel of the Intracoastal Waterway or in any other location where it may constitute a hazard to navigation;
- (2) So as to block more than two-thirds of any natural or manmade waterway, sound, bay, creek, inlet or any other body of water;
- (3) In the middle third of any marked navigation channel;
- (4) In the channel third of the following rivers: Roanoke, Cashie, Middle, Eastmost, Chowan, Little, Perquimans, Pasquotank, North, Alligator, Pungo, Pamlico, and Yeopim.

History Note: Authority G.S. 113-134; 113-182; 143B-289.52;
Eff. January 1, 1991.

used for collection of individual catch and discard data for calculation of catch rate at the species level. Creel clerks collect intercept data from January through December (in two-month waves) by interviewing anglers completing fishing trips in one of the four fishing modes (man-made structures, beaches, private boats, and for-hire vessels (charter boat and headboat)). Results from both component surveys are combined at the state, area, fishing mode and wave level to provide estimates of the total number of fish caught, released, and harvested, the weight of the harvest, the total number of trips, and total participation in marine recreational fishing. All estimates generated through MRFSS include the proportional standard error (PSE), which is a measure of the precision of the estimate. The PSE is calculated by dividing the standard error of the estimate by the estimate to express the standard error as a percentage allowing the reader to make quick comparisons of precision among surveys. Small PSEs indicate precise estimates while high PSEs are less reliable. Estimates with a PSE of 20 or less are considered reliable while PSEs greater than 20 are less reliable (NCDMF 2008a).

In 2008 NCDMF along with the National Oceanic and Atmospheric Administration (NOAA) began a pilot survey project using the North Carolina Coastal Recreational Fishing License (CRFL) list in a new program, the Angler License Directory Survey (ALDS) to parallel the CHTS in a dual frame survey approach to improve the efficiency in collecting effort information. NCDMFs' efforts in securing this pilot project were to fulfill the obligation to use the CRFL data to better estimate impacts from recreational anglers.

7.2.3 RECREATIONAL COMMERCIAL GEAR LICENSE SURVEY

Fishermen who hold a RCGL must abide by the same size and creel limits as other recreational fishermen and are not allowed to sell their catch. This license was implemented in July 1999, and a monthly mail survey was initiated in March 2002 to gather catch and effort data from RCGL holders. Questionnaires were mailed to randomly selected individuals from the RCGL population at a sampling rate of 30% of the total RCGL holders. Approximately 45% of questionnaires distributed were completed and returned to the NCDMF. Types of information collected through the survey include gears and quantity used, number of trips, estimates of the number and poundage of each species harvested, and estimated numbers of each species discarded. Total effort and catch were computed for the subsample and extrapolated to the entire RCGL population. This survey does not capture individual lengths or weights of fish reported. This survey also did not collect species specific flounder harvest estimates. The NCDMF fishery dependent sampling of the commercial estuarine gill net fishery provided annual proportions of southern flounder from the catches; these proportions were applied to the RCGL flounder harvest and discard estimates to get southern flounder harvest and discard estimates for the RCGL fishery. Reliable RCGL harvest estimates prior to 2002 were unavailable because of considerable changes in the behavior of RCGL fishermen over the years (C. Wilson, NCDMF, personal communication). Because reliable RCGL harvest estimates were unavailable for the entire time series and because RCGL harvest of southern flounder was minimal compared to the total annual harvest, RCGL harvest was not included in the 2009 stock assessment (Takade-Heumacher and Batsavage 2009).

7.2.4 REGULATORY AND MANAGEMENT HISTORY

Many of the regulations for the recreational fishery have been the result of summer flounder management, but these regulations have had some impact on the southern flounder recreational fishery. An 11-inch minimum size limit with no creel limit was implemented for the recreational fishery on January 1, 1979. The minimum size limit for the recreational harvest of flounder in estuarine and ocean waters increased from 11 inches to 13 inches on September 1,

1988 with no creel limit. This regulation for estuarine waters remained in effect through September 30, 2002. The minimum size limits, creel limits, and seasons changed on a nearly annual basis in the ocean because of Amendment 2 of the Mid Atlantic Fishery Management Council's Summer Flounder FMP (ASMFC 2006). These regulations were designed to constrain the recreational harvest of summer flounder to end overfishing and rebuild the spawning stock. Minimum size limits ranged from 14 inches to 15 ½ inches and creel limits ranged from six to 10 fish per person per day from 1994 to 2007 (Table 7.6). Closed seasons for the ocean were implemented in 2001 and 2002 to meet required recreational harvest reductions for summer flounder. The minimum size limit for flounder in internal waters increased to 14 inches on October 1, 2002 with the exception of the western Pamlico Sound and its tributaries, where the minimum size limit remained 13 inches. The 2005 Southern Flounder FMP implemented a 14-inch minimum size limit for recreationally caught flounder and implemented an eight fish per person per day creel limit throughout the estuaries (NCDMF 2005). The FMP also required that participants in the recreational gig fishery be licensed, which occurred when the CRFL was implemented on January 1, 2007. In addition, RCGL holders were required to attend their large mesh gill nets (5 ½ inches stretched mesh and greater) at all times from the NC Highway 58 bridge at Emerald Isle south to the South Carolina state line to minimize bycatch (NCDMF 2005).

Table 7.6 Recreational flounder regulations in North Carolina, 1993-2007.

Year	Estuarine Waters			Ocean Waters		
	Size Limit	Bag Limit	Closed Season	Size Limit (TL)	Bag Limit	Closed Season
1993	13"	---	---	13"	---	---
1994	13"	---	---	14"	8 (1/1-10/31)/ 6 (11/1-12/31)	---
1995	13"	---	---	14"	8	---
1996	13"	---	---	14"	8	---
1997	13"	---	---	14" (1/1-3/31)/ 14.5" (4/1-12/31)	8 (1/1-3/31)/ 10 (4/1-12/31)	---
1998	13"	---	---	14.5" (1/1-6/6)/ 15" (6/7-12/31)	10 (1/1-6/6)/ 8 (6/7-12/31)	---
1999	13"	---	---	15"	8	---
2000	13"	---	---	15"	8	---
2001	13"	---	---	15.5"	8	5/1-5/14
2002	13" (1/1-9/30)/ 14" (10/1-12/31)*	---	---	15.5"	8	4/3-7/4
2003	14"	---	---	15"	8	---
2004	14"	---	---	14"	8	---
2005	14"	8 (4/1-12/31)	---	14"	8	---
2006	14"	8	---	14"	8	---
2007	14"	8	---	14.5"	8	---

* 13-inch minimum size limit in western Pamlico Sound and tributaries until April 1, 2005

7.2.5 HOOK AND LINE FISHERY

7.2.5.1 MRFSS HARVEST ESTIMATES

Southern flounder are harvested in the recreational hook and line fishery along the Atlantic coast of the United States from Virginia to Florida (Table 7.7). Overall, the east coast of Florida