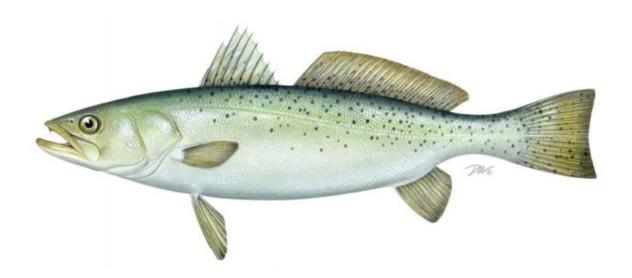
ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR SPOTTED SEATROUT (Cynoscion nebulosus)

2014 FISHING YEAR



Prepared by the Plan Review Team

Approved by the South Atlantic Management Board

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I. Status of the Fishery Management Plan

<u>Date of FMP Approval</u>: Original FMP – October 1984

Amendments: Amendment 1 – November 1991

Omnibus Amendment to Spanish Mackerel, Spot, and

Spotted Seatrout (Amendment 2)- August 2011

Management Area: The Atlantic coast distribution of the resource from

Maryland through the east coast of Florida

Active Boards/Committees: South Atlantic State/Federal Fisheries Management Board;

Spotted Seatrout Plan Review Team

The Atlantic States Marine Fisheries Commission (ASMFC) adopted the Fishery Management Plan (FMP) for spotted seatrout in 1984. The states of Maryland through Florida have a declared interest in the Commission's FMP for spotted seatrout. The ISFMP Policy Board approved Amendment 1 to this FMP in November 1991. In August of 2011, the South Atlantic State/Federal Management Board approved the Omnibus Amendment to Spanish Mackerel, Spot, and Spotted Seatrout FMPs. The Omnibus Amendment (Amendment 2) brought the Spotted Seatrout FMP under the authority of the Atlantic Coastal Fisheries Cooperative Management Act (1993) and the ASMFC Interstate Fishery Management Plan Charter (1995).

The goal of the management plan is "to perpetuate the spotted seatrout resource in fishable abundance throughout its range and generate the greatest possible economic and social benefits from its harvest and utilization over time." Plan objectives include: 1) attain over time optimum yield; 2) maintain a spawning potential ratio of at least 20% to minimize the possibility of recruitment failure; 3) promote conservation of the stocks in order to reduce the inter-annual variation in availability and increase yield per recruit; 4) promote the collection of economic, social, and biological data required to effectively monitor and assess management efforts relative to the overall goal; 5) promote research that improves understanding of the biology and fisheries of spotted seatrout; 6) promote harmonious use of the resource among various components of the fishery through coordination of management efforts among the various political entities having jurisdiction over the spotted seatrout resource; and 7) promote determination and adoption of standards of environmental quality and provide habitat protection necessary for the maximum natural protection of spotted seatrout. Amendment 2 to the Spotted Seatrout FMP added the following objectives in support of the compliance under the Act: 1) Manage the spotted seatrout fishery restricting catch to mature individuals; 2) manage the spotted seatrout stock to maintain sufficiently-high spawning stock biomass; 3) develop research priorities that will further refine the spotted seatrout management program to maximize the biological, social, and economic benefits derived from the spotted seatrout population.

Management measures include a minimum size limit of 12 inches total length (TL) with comparable mesh size regulations in directed fisheries, and data collection for stock assessments and monitoring the fishery. All states with a declared interest in spotted seatrout have implemented at least the recommended minimum size limit. In addition, each state has either initiated spotted seatrout data collection programs or modified other programs to collect

improved catch and effort data. Table 1 provides the states' recreational and commercial regulations for spotted seatrout through 2014.

II. Status of the Stock

A coastwide stock assessment of spotted seatrout has not been conducted given the largely non-migratory nature of the species and the lack of data on migration where it does occur. Instead, state-specific age-structured analyses of local stocks have been performed by several states. These stock assessments provide estimates of static spawning potential ratio (SPR), which is a measure of the effect of fishing pressure on the relative spawning power of the female stock. The FMP recommends a goal of 20% SPR; North Carolina, South Carolina, and Georgia have adopted this goal, and Florida has established a 35% SPR goal.

Florida's stock assessments are for separate northern and southern populations. Average static SPR estimates for Florida's spotted seatrout during 2007-2009 were 0.69 in the northeast region of the state's Atlantic coast and 0.51 in the southeast region (Murphy et al. 2011). This assessment provided the basis for some relaxation in the management of spotted seatrout in Florida (Table 1).

The South Carolina Department of Natural Resources packaged three state-specific assessments into a report in 2001; however, these assessments were not peer reviewed. This initial assessment of South Carolina spotted seatrout covered 1986-1992 and indicated that female SPR was just above the 20% goal in the terminal year (Zhao and Wenner 2001). This assessment led to an increase in the minimum size limit and decrease in the creel limit for spotted seatrout in South Carolina. A more recent assessment of the population of South Carolina spotted seatrout was conducted for the period 1981-2004, but not peer reviewed (de Silva, Draft 2005). Two modeling approaches were used, and both models indicated that the current spawning stock biomass is below what would be required to maintain 20% SPR.

Assessments in North Carolina and Georgia spotted seatrout covered 1981-1997 and 1986-1995, respectively, and both indicated that female SPR was below the 20% goal in the terminal year (Zhao and Burns 2001, Zhao *et al.* 2001). A more recent assessment of spotted seatrout in Georgia has been performed; however, it remains unpublished. This 2002 Georgia assessment is unpublished because the results were highly questionable due to data deficiencies and changing methodologies.

North Carolina completed a peer reviewed stock assessment of spotted seatrout covering 1991-2008, which included all spotted seatrout caught in North Carolina and Virginia (Jensen 2009). The assessment indicated that SPR has been below 20% SPR in recent years. Jensen (2009) recommended the implementation of management measures to account for recent increases of recreational fishing and discard mortality and maintain a sufficiently large spotted seatrout population to act as a buffer against the effects of future cold stun events. Based on the assessment, North Carolina developed a draft state FMP for spotted seatrout, with the final version approved in April 2012.

A peer-reviewed stock assessment of spotted seatrout in Virginia and North Carolina waters was completed in 2014, incorporating data from 1991-2013 (NCDMF 2014). The results of the

assessment suggest that the age structure of the spotted seatrout stock expanded during the last decade; however, there was a sharp decline in recruitment after 2010. Spawning stock biomass peaked in 2007 and then declined. These declines may be attributed to cold stun events. Spawning stock biomass in 2012 was greater than the currently defined threshold which suggests the stock is not overfished. Additionally, fishing mortality is below the threshold suggesting the stock is not experiencing overfishing.

A statewide assessment is scheduled in Florida for 2016.

III. Status of the Fishery

Both commercial and recreational fishermen regularly catch spotted seatrout from Maryland through the east coast of Florida (except in South Carolina where spotted seatrout has been declared a gamefish and can only be taken by recreational means). Landings from states north of Maryland are minimal and/or inconsistent from year to year. All catch estimates in this section include those in the management area only (MD-FL). Total recreational landings have surpassed total commercial landings every year since recreational landings have been recorded in 1981 (Figure 1). In 2009, recreational landings were more than five times the commercial landings. A coastwide (VA, NC, SC) winter mortality event in 2000/2001 likely contributed to the sudden decline in commercial and recreational landings in 2001 and 2002.

Commercial Fishery

The National Marine Fisheries Service (NMFS) compiles commercial spotted seatrout landings. The data are cooperatively collected by the NMFS and state fishery agencies from state mandated trip-tickets, landing weigh-out reports from seafood dealers, federal logbooks, shipboard and portside interviews, and biological sampling of catches. See Table 2.

Atlantic coast commercial landings of spotted seatrout (1960-2014) have ranged from 154,000 pounds to 1.38 million pounds (Figure 1). Historically, commercial landings primarily came from North Carolina and Florida, with Virginia and Georgia accounting for a small portion of the total. From 1960 to 1976, annual commercial landings of spotted seatrout averaged 1.07 million pounds, but then declined due to increased regulation and possible declines in abundance. Significant changes to regulations include the 1987 designation of spotted seatrout as a gamefish in South Carolina, and the 1995 prohibition on the use of entangling nets in Florida's coastal waters. From 2005 to 2014, commercial landings averaged approximately 339,311 pounds. North of Florida, variability in annual harvest was typical and paralleled the climatic conditions of the preceding winter and spring. In 2014 the commercial landings were estimated at 346,587 pounds, representing over a 100,000 lb decrease from 2013. North Carolina accounted for approximately 70% of the total coastwide commercial catch, with Virginia and Florida responsible for approximately 19% and 10% of the 2014 commercial landings, respectively.

Recreational Fishery

Recreational catch statistics are collected by the NMFS recreational fisheries survey. Effort data are collected through telephone interviews. Catch data are collected through access-point angler intercept surveys. Catch per trip estimates are produced for each type of fish encountered, either observed or reported, and these estimates are combined with the effort estimates by sampling stratum to produce the catch and harvest estimates. See Tables 3, 4, and 5.

Over the last 33 years, the recreational catch of spotted seatrout (kept and released) has shown an upward trend, increasing from 1.1 million fish in 1981 to a peak of 8.8 million fish in 2012. In 2014, recreational catch declined to 5.9 million fish (Figure 2). The recreational harvest of spotted seatrout has remained relatively stable throughout the time series with an average of 1.3 million fish. Recreational harvest in 2014 was 1.127 million fish with North Carolina (39%) and Florida (27%) making up the largest shares of this harvest. Due in part to recreational size and creel limits and closed seasons, as well as the encouragement of catch and release practices, the percentage of caught fish being released increased to 75-87 percent of the catch since 2000. In 2014, the release percentage (81.1%) was similar to the previous 10-year average (78.99%). Recreational catches are generally made with rod and reel, but some are taken by recreational nets and by gigging, where these methods are permitted. Most recreational fishing is conducted from private boats and the majority of the catch is taken from nearshore waters.

IV. Status of Assessment Advice

A coastwide stock assessment of spotted seatrout has not been conducted and the Plan Review Team (PRT) does not recommend that one be completed due to the life history of the fish and the availability of data. Several states have performed age-structured analyses on local stocks of spotted seatrout. Recent stock assessments for spotted seatrout provide divergent trends on the status of the species. The 2005 stock assessment in South Carolina indicated an increasing population trend but a status level that is still below target spawning stock biomass levels (de Silva 2005). The 2014 North Carolina and Virginia stock assessment showed declines in recruitment since 2010. The PRT supports the continuation of state-specific assessments, yet recognizes the difficulty most states face to attain sufficient data of a quality that can be used in the assessment process and personnel who can perform the necessary modeling exercises.

The lack of biological and fisheries data for stock assessment and effective management of the resource was recognized in the 1984 FMP and continues to be a hindrance. Some states are increasing their collection of biological and fisheries data, which should provide insight on stock status over time.

V. Status of Research and Monitoring

In addition to the commercial and recreational fishery-dependent data collected and/or compiled through the National Marine Fisheries Service, Fisheries Statistics Division, some states have implemented fishery-independent or additional fishery-dependent monitoring programs.

The Florida Fish and Wildlife Conservation Commission (FWC) implemented a juvenile finfish monitoring program in the northern Indian River Lagoon in the spring of 1990 and in the estuarine reaches of the St. Johns, St. Marys, and Nassau Rivers in northeast Florida in the spring of 2001 (FWC-FWRI 2013). Florida also initiated a stratified random sampling program in 1997 on the Atlantic coast that utilizes a 183-m haul seine to catch exploitable-sized fishes. This has been conducted in the northern Indian River and southern Indian River since initiation and in northeast Florida since 2001. Trends in the YOY abundance have seen a decline since a strong recruitment evident in 2011. Recent relative abundance of adults (>199 mm SL) have also declined in both the central and north regions since 2011 and 2012, respectively. Samples have not yet been processed for the 2014 sampling program.

Florida's fishery-dependent sampling includes commercial trip-ticket information and biostatistical sampling of the commercial and recreational catch. A voluntary angler logbook program was implemented in 2002 to collect information on the lengths of spotted seatrout released alive by anglers. Recently (2011) this program changed to 'postcard' program enlisting anglers encountered at sites visited during the MRIP angler intercept survey.

Georgia collects fishery-dependent data through a Marine Sportfish Carcass Recovery Program. Data collected through this survey are used to examine trends in the size and age composition of the recreationally harvested population, valuable information for future stock assessments. For 2014, a total of 3,659 fish carcasses were donated through the program. Approximately 60% (2,212) of the carcasses were seatrout, with an average centerline (CL) length of 365.9 mm CL (minimum: 247 mm CL; maximum: 554 mm CL), were reported from 11 recovery locations.

Georgia also collects fishery-independent data through the Marine Sportfish Population Health Study, was implemented in 2003 to provide age and sex specific estimates of relative abundance in two Georgia estuaries: Wassaw Sound and the Altamaha Sound region. This trammel net survey is conducted monthly, September through November, and utilizes a hybrid random-stratified and fixed station design in which each station is sampled once in a given month. For 2014, the average centerline length in Wassaw was 337.7 mm CL and 349.3 mm CL in Altamaha.

South Carolina has an extensive directed research program on this species. Current project objectives include determining the size and age composition of the recreational catch by sampling independent angler and fishing tournament catches as well as a carcass program, and producing fisheries independent relative abundance estimates from trammel net surveys along the South Carolina coast. The latter is a stratified random sampling design and has been conducted monthly since November 1990. South Carolina also has an electrofishing survey of upper estuarine waters. It uses a stratified random design and has been operating monthly since 2001. In 2014, a total of 87 spotted seatrout were captured by 286 random electrofishing sets. with a mean overall CPUE of 0.3 spotted seatrout per set. CPUE has generally declined in the electrofishing survey since 2009. In contrast to electrofishing, the trammel net survey, catches some YOY as well as older seatrout (S. Arnott, Personal Communication, 2011). During 2014, a total of 2580 spotted seatrout were captured in 857 random trammel net sets, with an overall mean CPUE of 3.0 spotted seatrout per trammel set. Additionally, South Carolina also has ongoing seatrout parasite studies (Moravec et al. 2006). Catch rates, size composition, and subsamples of the catch on a bi-monthly basis are used for generating age-length keys for cohort specific indices of abundance. Roumillat and Brouwer (2004) have described the reproductive dynamics of female spotted seatrout in South Carolina.

North Carolina has collected age, growth, and maturity data for spotted seatrout caught in fishery-dependent and fishery-independent sampling programs since 1991. A fishery-independent monitoring program was initiated in May 2001, supported by USFWS Sports Fish Restoration funds. The program utilizes a stratified random, multi-mesh size gill net survey along North Carolina's Outer Banks, the bays of western Pamlico Sound, the Neuse, the Pamlico, Pungo, New and Cape Fear Rivers, and the Atlantic Ocean. Project objectives include

calculating annual indices of abundance for important recreational fish (spotted seatrout included); supplementing samples for age, growth, and reproductive studies; evaluating catch rates and species distribution for identifying and resolving bycatch problems; and characterizing habitat utilization. Additional areas of the Neuse and Pamlico-Pungo Rivers contribute to the Pamlico Sound Area Independent Gill Net Survey, with common objectives and sampling design. Hydrophone work was conducted in North Carolina to characterize critical spawning habitats for spotted seatrout in Pamlico Sound. For the 2013 surveying program, the overall spotted seatrout CPUE was 0.71 (n=209) for Pamlico Sound (second highest in the time series); 0.44 (n=138) for surveys in the Pamlico-Pungo, and Neuse rivers; and 0.60 (n=71) for surveys in the Cape Fear and New Rivers (second highest in time series). Hook-and-line and estuarine gill net discard mortality studies were conducted in North Carolina in 1998-2001, supported by Atlantic Coastal Fisheries Cooperative Management Act funds.

The VMRC Biological Sampling Program collects biological data from Virginia's commercial and recreational fisheries. In 2014 there were 885 lengths, 878 weights, and 300 otoliths taken from spotted seatrout sampled from Virginia's commercial fisheries. Of the 885 length samples, 57 were from the commercial hook-and-line gear, 475 from haul seine, 15 from pound nets, 295 from gill nets, and 43 by-hand. Sample lengths ranged from 8 to 33 inches total length (TL), with an average of 19 inches TL. The average weight of spotted seatrout sampled from the commercial landings was 2.7 pounds. The spotted seatrout sampled from the commercial fishery ranged in age from 0 to 8 years.

The VMRC introduced its Marine Sportfish Collection Project in June 2007. There were 62 spotted seatrout donated by recreational fishermen to the project in 2014. A total of 62 lengths, and 62 otoliths were taken from the recreational spotted seatrout donations. The lengths of spotted seatrout sampled from the recreational fishery ranged from 15 to 28 inches TL. The average length of the spotted seatrout recreational fishery samples was 20.0 inches TL. The spotted seatrout sampled from the recreational fishery ranged in age from 1 to 6 years. Virginia also has a Game Fish Tagging Program which tagged and released 5,659 spotted sea trout in 2014. 84 of those fish were recaptured to date.

MD DNR fisheries biologists sampled commercial pound nets weekly in Maryland's portion of the Chesapeake Bay from May 27, 2014 through September 2, 2014. Four spotted seatrout were encountered from the onboard pound net survey in 2014, with a mean length of 499 mm TL. A low number of juvenile spotted seatrout are encountered in the coastal bays seine survey and the Chesapeake Bay blue crab trawl survey as bycatch, indicating the species utilizes these areas as nursery habitat.

VI. Status of Management Measures and Issues

Changes to State Regulations

Maryland

On April 14, 2014 the regulations were modified to a 4 fish creel limit for recreational anglers, and a 14 inch TL minimum size limit and 150 pound per day or trip (whichever is longer) limit for commercial fishermen. The recreational size limit did not change.

Virginia

The VMRC recreational season was closed from March 1 through July 31. This season was a one-time event requested by the recreational fishing community to protect the stock, in response to an assumed large winter mortality event. The daily possession limits during the open seasons was 5 spotted seatrout per day from 14 to 24 inches total length, with one fish allowed over 24 inches.

North Carolina

Both the commercial and recreational fishery were closed from February 5 through June 14, 2014 as a result of a cold stun event. This was a one-time closure.

De minimis Guidelines

A state qualifies for *de minimis* status if its past 3-years' average of the combined commercial and recreational catch is less than 1% of the past 3-years' average of the coastwide combined commercial and recreational catch. Those states that qualify for *de minimis* are not required to implement any monitoring requirements, none of which are included in the plan.

De Minimis Requests

The states of New Jersey and Delaware requests continuation of *de minimis* status. The PRT notes these states meet the requirements of *de minimis*.

VII. Implementation of FMP Compliance Requirements for 2013

The PRT notes that all states have met the compliance requirements.

VIII. Recommendations of Plan Review Team

Management and Regulatory Recommendations

• Increase observer coverage in states that have a commercial fishery for spotted seatrout.

Prioritized Research Recommendations

High Priority

- Conduct state-specific stock assessments to determine the status of stocks relative to the plan objective of maintaining a spawning potential of at least 20%.
- Collect data on the size or age of spotted seatrout released alive by anglers and the size and age of commercial discards.
- Research release mortality and how this changes with season and depth.
- Continue work to examine the stock structure of spotted seatrout on a regional basis, with particular emphasis on advanced tagging techniques.
- Research effects of winter on the population.
- Utilize telemetry technology to better understand life history characteristics.
- More research is needed on the significance of age-specific fecundity changes (ie: environment impacts on spawning output of population)
- Develop state-specific juvenile abundance indices.
- Increase observer coverage in states that have a commercial fishery for spotted seatrout.

Medium Priority

- Identify essential habitat requirements.
- Initiate collection of social and economic aspects of the spotted seatrout fishery.

IX. References

- de Silva, JA. 2005. Draft. Stock assessment of spotted seatrout, *Cynoscion nebulosus*, in South Carolina with recommendations on the management of the recreational fishery. South Carolina Department of Natural Resources, Marine Research Institute, Charleston, South Carolina.
- Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute (FWC-FWRI). 2013. Species Profile: Spotted Seatrout. *In*: R.H. McMichael, editor) Fisheries-independent monitoring program, 2012 annual data summary report, St. Petersburg.
- Jensen CC. 2009. Stock Status of Spotted Seatrout, *Cynoscion nebulosus*, in North Carolina, 1991-2008. Morehead City (NC): North Carolina Division of Marine Fisheries. 89 p.
- Moravec F, de Buron I, Roumillat WA. 2006. Two new species of Philometra (Nematoda: Philometridae) parasitic in the perciform fish *Cynoscion nebulosus* (Sciaenidae) in the estuaries of South Carolina, USA. Folia Parasitologica, 53: 63-70
- Murphy MD, D.Chagaris, and D. Addis. 2011. An assessment of the status of spotted seatrout in Florida waters through 2009. Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Institute. In-House Report 2011-002, St. Petersburg.
- NCDMF 2014. Stock Assessment of Spotted Seatrout, *Cynoscion nebulosus*, in Virginia and North Carolina Waters. North Carolina Department of Environment and Natural Resources, Division of Marine Fisheries, Morehead City, NC.
- Roumillat WA, Brouwer MC. 2004. Reproductive dynamics of female spotted seatrout (*Cynoscion nebulosus*) in South Carolina. Fisheries Bulletin, 102: 473-487
- Zhao B, Burns B. 2001. Stock assessment of the spotted seatrout, *Cynoscion nebulosus*, on the North Carolina Coast, 1981-1997. In: South Carolina Department of Natural Resources. Cooperative Research on the Biology and Assessment of Nearshore and Estuarine Fishes along the Southeast Coast of the U.S: Part III. Spotted Seatrout, *Cynoscion nebulosus*. Charleston (SC): SC DNR. Final Report, Grant NA77FF0550.
- Zhao B, Wenner C. 2001. Stock assessment of the spotted seatrout, *Cynoscion nebulosus*, on the South Carolina Coast, 1986-1992. In: South Carolina Department of Natural Resources. Cooperative Research on the Biology and Assessment of Nearshore and Estuarine Fishes along the Southeast Coast of the U.S: Part III. Spotted Seatrout, *Cynoscion nebulosus*. Charleston (SC): SC DNR. Final Report, Grant NA77FF0550.
- Zhao B, Wenner C, Nicholson N. 2001. Stock assessment of the spotted seatrout, *Cynoscion nebulosus*, on the Georgia Coast, 1986-1995. In: South Carolina Department of Natural Resources. Cooperative Research on the Biology and Assessment of Nearshore and Estuarine Fishes along the Southeast Coast of the U.S: Part III. Spotted Seatrout, *Cynoscion nebulosus*. Charleston (SC): SC DNR. Final Report, Grant NA77FF0550.

X. Figures

Figure 1. Commercial landings (1960-2014) and recreational landings (1981-2014), in pounds, from Maryland to Florida (See Tables 2 and 4 for values and sources)

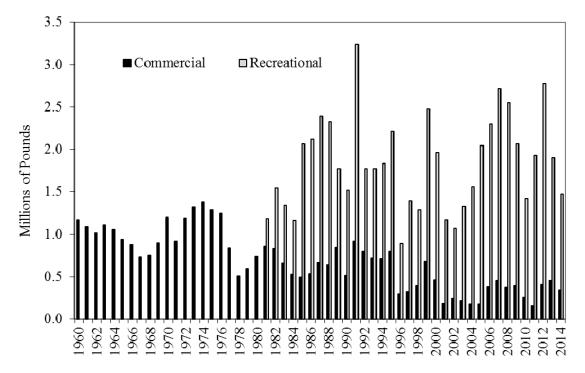
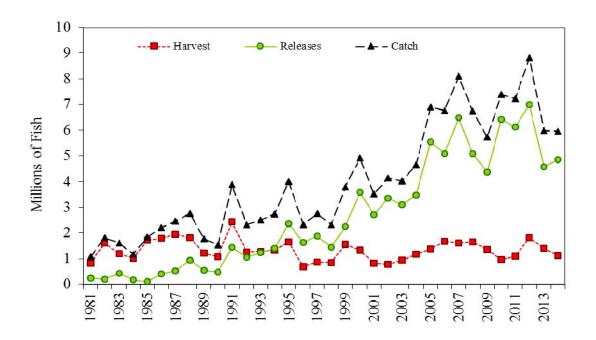


Figure 2. Recreational catch (numbers), 1981-2014, from Maryland to Florida (See Tables 3 and 5 for values and sources)



XI. Tables

Table 1. Summary of state regulations for spotted seatrout in 2014

State	Recreational	Commercial
New Jersey	13" TL; 1 fish	Gill net: 13"; open 1/1-5/20 & 9/3-10/19 & 10/27-12/31; 100 lb possession limit; 100 lb bycatch limit; mesh ≥3.25" stretched except 2.75 - 3.25" stretched allowed within 2nm for permitted fishermen doing monthly reporting. Trawl: 13"; open 1/1-7/31 & 10/13-12/31; mesh ≥3.75" diamond or 3.375 square; 100 lb possession limit' 100 lb bycatch limit. Pound net: 13"; open 1/1/-6/6 & 7/1-12/31; 100 lb bycatch limit.
Delaware	12" TL	12" TL
Maryland	14" TL; 4 fish	14" TL. 150 pound limit per day or trip (whichever is longer)
PRFC	14" TL; 10 fish	14" TL
Virginia	5 fish per day between 14-24" TL; 1 fish per day over 24"	14" TL except pound nets and haul seines allowed 5% by weight less than 14". Hook & line - 5 fish limit. Quota: 51,104 lbs (Sept. 1-Aug. 31).
North Carolina	14" TL; 4 fish	14" TL; hook & line - 75 fish limit. Unlawful to possess or sell from midnight on Friday to midnight on Sunday
South Carolina	14" TL; 10 fish. May be taken by rod & reel year-round or gigging March-November.	Gamefish status since 1987: native caught fish may not be sold.
Georgia	13" TL; 15 fish	13" TL; 15 fish. Commercial fishing license to sell. BRD requirement for trawl; gear mesh regulations.
Florida	Slot limit: 15-20" TL with 1 fish >20" allowed; north region: 6 fish limit; south region: 4 fish limit; hook & line or cast net only	15-24" TL; May 1-September 30 season in south and June 1-November 30 in the north; 75 fish per day but 150 fish limit with two or more licensed fishermen on board

Note: A commercial fishing license is required to possess spotted seatrout for sale in all states with a fishery.

Table 2. Commercial landings (pounds) of spotted seatrout by state, 1981-2014 (Source: State Compliance Reports, 2015). Starred boxes represent confidential data.

Year	MD	VA	NC	SC	GA	FL	Total
1981	0	4,000	113,304		629	736,026	853,959
1982	0	3,400	83,847	1,944	4,994	732,278	826,463
1983	0	4,400	165,360	4,479	5,795	481,535	661,569
1984	0	3,000	152,934	2,374	4,348	367,541	530,197
1985	0	8,302	109,048	1,770	7,149	369,756	496,025
1986	0	18,500	191,514	12,214	8,691	307,261	538,180
1987	0	13,300	315,380	11,941	10,739	317,044	668,404
1988	0	15,500	296,538	486	9,110	315,947	637,581
1989	0	18,500	451,909	33	10,565	361,973	842,980
1990	0	21,435	250,634	1,095	5,942	236,453	515,559
1991	98	21,200	660,662	0	7,380	225,812	915,152
1992	0	10,395	526,271	0	11,310	247,189	795,165
1993	868	38,033	449,886	0	8,550	223,931	721,268
1994	690	44,636	412,458	0	5,112	247,666	710,562
1995	668	28,722	574,410	0	8,482	184,269	796,551
1996	12,742	3,897	226,668	0	7,501	48,254	299,062
1997	15,199	11,639	232,583	0	7,621	57,316	324,358
1998	16,993	21,235	307,777	0	2,845	41,556	390,346
1999	29,419	35,055	546,775	0	3,244	61,802	676,295
2000	18,419	15,463	376,657	0	1,997	45,392	457,928
2001	25,161	19,039	105,797	0		30,234	180,231
2002	*	8,792	175,643	*	*	44,640	240,357
2003	816	5,299	181,529	0		27,075	214,719
2004	*	10,705	130,961	*	*	29,605	172,487
2005	*	7,341	129,601	*	*	36,762	176,043
2006	*	30,218	312,620	*	*	36,687	379,820
2007	*	34,166	374,722	*	*	46,838	455,740
2008	*	44,275	304,430	*	*	20,887	369,861
2009	*	23,880	320,247	*	*	46,297	390,600
2010	*	17,271	200,822	*	*	39,374	258,492
2011	*	14,728	75,239	*	*	63,592	154,144
2012	*	76,963	265,017	*	*	61,664	405,534
2013	*	28,223	367,412	*	*	58,221	456,284
2014	*	66,504	241,995	*	*	37,710	346,587

Table 3. Recreational harvest (numbers of fish) of spotted seatrout by state, 1981-2014 (Source: NMFS Fisheries Statistics Division)

Year	MD	VA	NC	SC	GA	FL	Total
1981			30,037	20,934	189,080	576,847	816,898
1982			112,023	849,634	226,758	426,378	1,614,793
1983			91,956	121,940	325,655	645,120	1,184,671
1984			90,262	95,281	114,403	700,876	1,000,822
1985			263,878	347,851	251,764	866,162	1,729,655
1986	7,507	82,671	270,867	477,136	401,490	550,591	1,790,262
1987	29,295	17,415	320,977	392,329	439,782	744,330	1,944,128
1988	20,769	288,705	420,115	355,547	389,276	331,709	1,806,121
1989	151,986	66,033	181,149	174,011	448,767	198,617	1,220,563
1990	20,416	67,939	251,088	113,160	368,787	249,824	1,071,214
1991	17,995	69,032	316,895	438,502	1,204,116	385,817	2,432,357
1992	3,235	30,091	333,990	200,030	338,175	363,238	1,268,759
1993	7,038	103,131	206,523	222,144	463,702	274,118	1,276,656
1994	33,511	115,025	457,636	139,551	337,965	255,216	1,338,904
1995	19,198	90,838	325,927	223,751	607,095	381,884	1,648,693
1996	35,765	46,098	151,380	137,530	171,676	148,571	691,020
1997	19,951	92,725	256,719	111,576	167,287	228,096	876,354
1998	13,620	34,623	294,501	125,038	197,293	189,621	854,696
1999	2,112	138,492	410,321	101,260	655,407	241,096	1,548,688
2000	1,634	90,135	250,450	219,740	486,673	288,443	1,337,075
2001	0	13,447	182,124	63,452	309,487	250,987	819,497
2002	0	16,303	197,484	84,777	271,357	206,310	776,231
2003	2,091	102,484	106,415	123,027	425,993	169,587	929,597
2004	0	68,409	316,894	247,156	336,254	199,523	1,168,236
2005	1,954	22,062	512,262	268,467	231,429	337,744	1,373,918
2006	4,860	43,530	577,537	294,096	453,394	299,337	1,672,754
2007	0	159,244	525,156	122,419	499,709	302,625	1,609,153
2008		103,880	584,024	175,975	623,619	160,455	1,647,953
2009	7,933	22,635	509,416	147,266	478,895	182,752	1,348,897
2010	3,146	17,417	195,065	101,053	384,077	251,455	952,213
2011	3,058	247,736	215,922	66,207	289,950	286,501	1,109,374
2012	6,032	125,627	500,522	234,921	526,604	427,469	1,821,175
2013	0	55,151	649,158	126,351	237,551	335,547	1,403,758
2014	4,755	46,524	433,978	77,669	256,068	308,133	1,127,127

Table 4. Recreational harvest (pounds of fish) of spotted seatrout by state, 1981-2014 (Source: NMFS Fisheries Statistics Division)

Year	MD	VA	NC	SC	GA	FL	Total
1981			63,036	14,808	138,720	967,921	1,184,485
1982			120,045	588,999	177,847	660,295	1,547,186
1983			96,359	138,442	323,889	784,531	1,343,221
1984			39,861	116,118	141,306	866,077	1,163,362
1985			288,088	509,551	234,704	1,032,344	2,064,687
1986	4,960	64,394	328,439	587,570	440,774	695,168	2,121,305
1987	22,511	38,495	366,442	592,612	491,317	883,707	2,395,084
1988	36,629	460,378	390,836	448,473	536,959	453,063	2,326,338
1989	184,318	112,344	259,726	277,489	608,009	328,338	1,770,224
1990	39,059	121,136	282,872	174,845	423,815	475,045	1,516,772
1991	34,753	121,604	472,397	628,011	1,449,853	534,371	3,240,989
1992	7,802	56,685	508,760	227,210	430,946	543,491	1,774,894
1993	12,800	201,562	307,151	268,055	586,426	392,827	1,768,821
1994	26,764	175,184	679,996	183,343	412,392	357,441	1,835,120
1995	31,464	148,544	478,674	247,987	667,379	642,670	2,216,718
1996		77,269	197,261	171,727	196,487	249,898	892,642
1997	32,963	261,911	311,891	163,771	242,506	380,276	1,393,318
1998	37,189	61,888	444,441	151,718	262,896	329,793	1,287,925
1999		290,694	690,606	146,277	916,860	428,061	2,472,498
2000	2,972	195,544	385,190	267,297	565,903	545,202	1,962,108
2001		26,733	213,438	58,885	369,083	502,254	1,170,393
2002		28,882	274,100	111,954	302,559	353,693	1,071,188
2003	3,494	218,061	145,936	140,276	502,278	316,279	1,326,324
2004		138,841	386,918	168,468	383,237	482,853	1,560,317
2005	5,491	55,901	721,914	326,501	273,204	665,467	2,048,478
2006	10,674	107,770	794,372	369,165	444,228	574,081	2,300,290
2007	0	380,281	927,942	278,529	615,694	512,885	2,715,331
2008	0	239,743	936,652	242,405	777,690	354,409	2,550,899
2009	9,006	44,761	940,769	172,848	596,182	303,281	2,066,847
2010	6,724	30,176	404,438	138,514	425,854	411,495	1,417,201
2011	4,664	550,157	435,954	116,979	353,472	464,863	1,926,089
2012	10,257	226,556	810,589	388,105	518,189	819,009	2,772,705
2013		126,291	626,628	228,014	282,362	637,881	1,901,176
2014	10,633	84,838	433,978	111,194	283,282	546,335	1,470,260

Table 5. Recreational releases (number of fish) of spotted seatrout by state, 1981-2014 (Source: NMFS Fisheries Statistics Division)

Year	MD	VA	NC	SC	GA	FL	Total
1981				5,522	36,853	209,059	251,434
1982				8,007	17,645	171,093	196,745
1983			16,579	32,860	12,038	367,881	429,358
1984			30,173	44,436	16,174	76,346	167,129
1985			16,578	6,409	22,917	66,960	112,864
1986	13,639	28,606	19,792	115,315	189,798	35,646	402,796
1987		30,070	136,104	130,253	176,415	41,391	514,233
1988	26,999	148,934	74,818	78,568	182,628	431,665	943,612
1989	52,859	11,977	82,909	54,279	167,025	187,406	556,455
1990	4,874	23,435	84,235	35,223	114,624	203,439	465,830
1991	21,811	40,550	169,921	51,415	369,972	789,779	1,443,448
1992	701	19,855	139,616	97,813	192,261	597,254	1,047,500
1993		65,605	149,744	92,101	146,665	780,573	1,234,688
1994	32,466	243,463	207,262	220,941	125,421	574,629	1,404,182
1995	157,530	327,643	277,896	194,996	327,835	1,074,703	2,360,603
1996	51,594	165,169	153,051	107,691	63,585	1,081,893	1,622,983
1997	4,826	168,964	98,377	89,147	61,148	1,449,278	1,871,740
1998	49,460	74,569	73,024	151,935	100,059	1,005,443	1,454,490
1999	7,082	152,120	253,442	92,792	160,801	1,577,378	2,243,615
2000	4,805	264,550	90,070	368,332	547,765	2,310,491	3,586,013
2001		110,308	194,982	38,709	365,140	1,995,635	2,704,774
2002		136,265	385,162	147,962	357,953	2,326,420	3,353,762
2003		207,270	131,619	314,642	737,730	1,707,957	3,099,218
2004	9,430	257,996	300,025	333,537	608,193	1,969,884	3,479,065
2005	4,612	192,091	817,036	395,483	678,057	3,446,336	5,533,615
2006	9,721	82,935	559,786	666,865	872,395	2,889,495	5,081,197
2007	2,231	362,809	973,516	560,272	957,682	3,623,247	6,479,757
2008		366,566	1,005,298	850,006	719,622	2,140,752	5,082,244
2009	30,381	171,028	1,213,526	398,971	915,301	1,641,702	4,370,909
2010	107,017	550,118	1,684,872	407,228	742,215	2,937,411	6,428,861
2011	7,685	1,214,620	1,916,249	279,969	552,123	2,141,212	6,111,858
2012	55,183	428,540	1,646,512	817,017	1,029,479	3,025,556	7,002,287
2013	0	291,070	1,427,410	600,607	321,461	1,939,475	4,580,023
2014	26,438	291,070	960,570	389,153	773,940	2,399,792	4,840,963

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