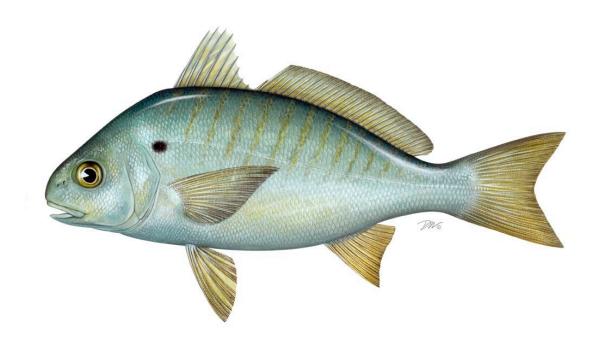
ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN FOR

SPOT (*LEIOSTOMUS XANTHURUS*)

2023 FISHING YEAR



Drafted by the Plan Review Team
Approved June 2025



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

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I. Status of the Fishery Management Plan

<u>Date of FMP Approval</u>: October 1987; Omnibus Amendment August 2011

Amendments and Addenda: Addendum II (2014); Addendum III (February 2020)

Management Area: The Atlantic coast distribution of the resource from Delaware

through Florida

Active Boards/Committees: Sciaenids Management Board; Spot Plan Review Team; Spot

Technical Committee; Spot and Atlantic Croaker Stock Assessment

Subcommittee; South Atlantic Species Advisory Panel

The Fishery Management Plan (FMP) for Spot was adopted in 1987 and includes the states from Delaware through Florida (ASMFC 1987). In reviewing the early plans created under the Interstate Fisheries Management Plan process, the ASMFC found the Spot FMP to be in need of evaluation and possible revision. A Wallop-Breaux grant from the U.S. Fish and Wildlife Service was provided to conduct a comprehensive data collection workshop for spot. The October 1993 workshop at the Virginia Institute of Marine Science was attended by university and state agency representatives from six states. Presentations on fishery-dependent and fishery-independent data, population dynamics, and bycatch reduction devices were made and discussed. All state reports and a set of recommendations were included in the workshop report (Kline and Speir 1993).

Subsequent to the workshop and independent of it, the South Atlantic State/Federal Fisheries Management Board (Management Board) reviewed the status of several plans in order to define the compliance issues to be enforced under the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA). The Management Board found recommendations in the plan to be vague and perhaps no longer valid, and recommended that an amendment be prepared to the Spot FMP to define the management measures necessary to achieve the goals of the FMP. In their final schedule for compliance under the ACFCMA, the ISFMP Policy Board adopted the finding that the FMP does not contain any management measures that states are required to implement. In August 2009, the Management Board expanded the initiated amendment to the Spanish Mackerel FMP to include spot and spotted seatrout, creating the Omnibus Amendment for Spot, Spotted Seatrout and Spanish Mackerel. The goal of the Omnibus Amendment was to update all three plans with requirements specified under the Atlantic Coastal Fisheries Cooperative Management Act (1993) and the Interstate Fishery Management Program Charter (1995). In August 2011, the Management Board approved the Omnibus Amendment for Spot, Spotted Seatrout, and Spanish Mackerel. This Amendment did not set specific management measures for spot but it did align management of the species with the requirements of ACFCMA.

In August 2014, the Board approved <u>Addendum II to the Omnibus Amendment</u>. The Addendum establishes use of a Traffic Light Analysis (TLA) to evaluate fisheries trends and develop state-specified management actions (e.g., bag limits, size restrictions, time and area closures, and gear restrictions) when harvest and abundance thresholds are exceeded.

In February 2020, the Board approved <u>Addendum III to the Omnibus Amendment</u>, which revised the TLA's trigger mechanism and management responses for the recreational and commercial fisheries. Under Addendum III, management action is triggered if harvest and abundance thresholds within a regional or coastwide TLA analysis are met or exceeded for any two of the three terminal years. If management action is triggered, the coastwide response includes recreational bag limits and quantifiable measures to achieve percent reductions in commercial harvest. Response requirements vary depending on which threshold is exceeded. Addendum III also defines the mechanism by which triggered management actions may be removed, after abundance characteristics are no longer triggering management action.

II. Status of the Stock

A benchmark stock assessment for spot was completed in 2017 but was not recommended for management use by the Peer Review Panel (ASMFC 2017). Therefore, stock status is unknown.

The stock is also monitored annually using the Traffic Light Analysis (TLA), as described below.

Traffic Light Analysis

As part of the requirements under the 2011 Omnibus Amendment, for years in-between benchmark stock assessments, the Spot PRT was tasked with conducting annual monitoring analyses. These trigger exercises compared five data sources to the 10th percentile of the data sets' time series. If two terminal values of the five data sources (at least one of which must be fishery independent) fell below the 10th percentile, the Management Board would be prompted to consider management action.

In August 2014, the Board approved Addendum II to the Omnibus Amendment. The Addendum established the TLA as the new precautionary management framework to evaluate fishery trends and develop management actions. The TLA framework replaces the management trigger stipulated in the Omnibus Amendment after concern that the triggers were limited in their ability to illustrate long-term declines or increases in stock abundance. In contrast, the TLA is a statistically-robust way to incorporate multiple data sources (both fishery-independent and dependent) into a single, easily understood metric for management advice. It is an effective method to illustrate long-term trends in the fishery.

The TLA was originally developed as a management tool for data poor fisheries. The name comes from assigning a color (red, yellow, or green) to categorize relative levels of population indicators. When a population characteristic improves, the proportion of green in the given year increases. Harvest and abundance thresholds of 30% and 60% red were established in Addendum II, representing moderate and significant concern for the fishery. If thresholds for both adult population characteristics achieve or exceed a threshold for two out of the most recent three years, then management action is enacted. Under recently approved Addendum III, management action will be triggered if harvest and abundance thresholds within a regional or coastwide TLA analysis are met or exceeded for any two of the three terminal years. Management measures were triggered at the 30% threshold after reviewing the 2020 TLA (2019 terminal year).

III. Status of the Fishery

Total landings of spot in 2023 are estimated at 3.5 million pounds, a decline of 9% from 2022 (3.9 million pounds) and below the 10 year average of 7.0 million pounds (Tables 1 and 2). It should be noted that recreational and commercial regulations implemented in 2021 and 2022 may be a contributing factor for declines observed in both sectors in 2022 and 2023. The recreational fishery harvested more than the commercial fishery (62% and 38% respectively, in 2023, by pounds). Although historical harvests were more evenly split between sectors, since 2005 harvests have been heavily recreational (roughly 30% commercial and 70% recreational, by pounds).

From 1950-2023, commercial spot landings have ranged between 617,288 pounds in 2016 and 14.52 million pounds in 1952 (Figure 1). In 2023, 1.3 million pounds were harvested commercially. North Carolina landed approximately 56% of the commercial harvest in 2023, followed by Virginia with 26% (Table 1). Spot are a major component of Atlantic coast scrap landings (NCDMF 2001). A scrap fishery is one in which fish species that are unmarketable as food, due to size or palatability, are sold unsorted, usually as bait. A large proportion of spot removals is presumed to come from the South Atlantic shrimp trawl fishery discards (ASMFC 2017).

The recreational harvest of spot along the Atlantic coast from 1981 to 2023 has varied between 8.8 million fish in 2023 and 54.4 million fish in 1985 (or 2.2 and 17.3 million pounds; Figures 1 and 2). Recreational harvest has fluctuated widely throughout the time series. Harvest has generally declined from the most recent peak in 2014, with the lowest harvest in the time series occurring in 2023. In 2023, recreational landings in numbers declined by approximately 30% from 2022 and 49% from the 10-year average (2014-2023; Tables 2 and 3). Anglers in Virginia harvested 36% of the coastwide number of fish in 2023, followed by anglers in Maryland (34%). Many anglers are known to catch spot to use as bait, as well as for other recreational purposes. The estimated number of spot released annually by recreational anglers has varied between 4.7 million fish in 2002 and 30.4 million fish in 2013, with 2023 releases estimated at 14.3 million fish. Releases have generally been increasing annually since a low in 2018 (Figure 2, Table 4).

IV. Status of Assessment Advice

A benchmark stock assessment for spot was completed in 2017 but was not recommended by the Peer Review Panel for management use because of uncertainty in biomass estimates due to conflicting signals among abundance indices and catch time series, as well as sensitivity of model results to assumptions and model inputs (ASMFC 2017). The Review Panel recommended continued annual monitoring of spot through the TLA, with incorporation of shrimp trawl discard estimates, and another benchmark assessment in 2024. Work on the new benchmark stock assessment began in early 2023. The completion of this assessment has been delayed due to the loss of a lead modeler from the joint stock assessment subcommittee, until after the completion of the the Atlantic Croaker benchmark assessment.

V. Status of Research and Monitoring

There are no research or monitoring programs required of the states except for the submission of an annual compliance report. Catch and effort data are collected by the commercial and recreational statistics programs conducted by the states and the National Marine Fisheries Service (NMFS). Biological characterization data from fishery landings are also available from several states. Specifically, age data are now available from Maryland, Virginia, North Carolina, and South Carolina. Recruitment indices are available from surveys in Delaware, Maryland, Virginia, North Carolina, and South Carolina. Adult or aggregate (mix of juvenile and older spot) relative abundance indices are available from New Jersey, Delaware, Maryland, North Carolina, South Carolina, Georgia, and the Southeast Area Monitoring and Assessment Program (SEAMAP) (covering North Carolina through Florida). These surveys, in addition to the Northeast Fisheries Science Center (NEFSC) Bottom Trawl Survey, the Northeast Area Monitoring and Assessment Program (NEAMAP), the Chesapeake Bay Multispecies Monitoring and Assessment Program (ChesMMAP), and the Chesapeake Bay Fishery-Independent Multispecies Survey (CHESFIMS), collect a variety of biological data elements. Many of these surveys were either suspended or interrupted in 2020, and to a lesser extent in 2021, due to the COVID-19 pandemic.

Traffic Light Analysis

The Traffic Light Analysis was updated for spot in 2024 with data through 2023.

Harvest Composite Index (Figure 3 and Figure 4)

- The Mid-Atlantic harvest metric exceeded the red threshold at 30% in two of the three terminal years.
- The South Atlantic harvest metric exceeded the red threshold at 30% in all three terminal years.
- The harvest metrics in 2023 cannot be used as a trigger mechanism since they represent years with catch restrictions in place.

Abundance Composite Index (Figure 5 and Figure 6)

 The abundance metric did not trigger in two of the three terminal years for both the Midand South Atlantic.

Conclusions

- Harvest exceeded the 30% threshold in the South Atlantic in all three years and two out
 of the three terminal years in the Mid-Atlantic.
- Harvest restrictions put in place in 2021 were still in effect and so the harvest metric cannot be used as a trigger mechanism in 2023.
- The abundance composite metrics did not trigger in either the Mid-Atlantic or South Atlantic.
- The TC recommends maintaining current management measures.

VI. Status of Management Measures and Issues

The FMP for spot identified two management measures for implementation: 1) promote the development and use of bycatch reduction devices through demonstration and application in trawl fisheries, and 2) promote increases in spot yield per recruit by delaying their entry into the fishery until age one or older.

Considerable progress has been made in developing bycatch reduction devices (BRDs) and evaluating their effectiveness. Proceedings from a 1993 spot and Atlantic croaker workshop summarized much of the experimental work on bycatch reduction, and many states have conducted subsequent testing. For example, North Carolina Division of Marine Fisheries (NCDMF) conducted research on the four main gear types (shrimp trawl, flynet, long haul seine, and pound net) responsible for the bulk of the scrap fish landings in order to reduce the catch of small fish. State testing of shrimp trawl BRDs achieved finfish reductions of 50-70% with little loss of shrimp, although total bycatch numbers relative to shrimp fishery effort are still unknown. The Virginia Marine Resources Commission investigated the use of culling panels in pound nets and long haul seines to release small Atlantic croaker, spot, and weakfish. The Potomac River Fisheries Commission (PRFC) also investigated the use of culling panels in pound nets, finding that the panels allowed the release of 42% of captured spot less than eight inches in length (Hager 2001).

Following favorable testing, devices have been made mandatory or recommended in several state fisheries. The use of BRDs is required in all penaeid shrimp trawl fisheries in the South Atlantic. The PRFC recommends the use of culling panels in pound nets and allows those nets with panels to keep one bushel of bycatch of flounder and weakfish. In North Carolina, escapement panels have been required in the bunt nets of long haul seines in an area south and west of Bluff Shoals in the Pamlico Sound since April 1999. However, evaluation of the beneficial effects of BRDs to spot stocks continues to need further study.

General gear restrictions, such as minimum mesh sizes or area trawling bans, have helped protect some age classes of spot. Florida banned the use of entangling nets in nearshore and inshore waters in 1995. Georgia banned the use of gillnets (except for shad fishing) in 1957 and banned trawling in the sounds in 1990. Some states had implemented creel limits to regulate harvest prior to 2021. Georgia has had a 25-fish spot creel limit (both recreational and commercial, except for shrimp trawlers). South Carolina has an aggregate bag limit (50 fish) for hook and line fishing of spot, Atlantic croaker, and kingfish/whiting (*Menticirrhus* sp.).

Please see the below section "Recent Changes in State Regulations" for more information on the management measures that were put into place in 2021 or 2022 after management action was triggered at the 30% threshold in the 2020 TLA.

Omnibus Amendment (Interstate)

In August 2011, the Management Board approved the development of an amendment to the Spot FMP to address three issues: compliance measures, consistency with federal management in the exclusive economic zone, and alignment with Commission standards. The updated FMP's objectives are to: 1) Increase the level of research and monitoring on spot bycatch in other fisheries, in order to complete a coastwide stock assessment; 2) Manage the spot fishery stock to maintain the spawning stock biomass above the target biomass levels; 3) Develop research priorities that will further refine the spot management program to maximize the biological, social, and economic benefits derived from the spot population. The Omnibus Amendment does not require specific fishery management measures in either the recreational or commercial fisheries for states within the management unit.

<u>Addendum II</u>

In August 2014, the Board approved Addendum II which establishes a new management framework (i.e., Traffic Light Analysis) to evaluate fisheries trends and develop state-specified management actions (i.e., bag limits, size restrictions, time & area closures, and gear restrictions) when harvest and abundance thresholds are exceeded over two years. Management measures would remain in place for two years.

<u>Addendum III</u>

In February 2020, the Board approved Addendum III, which revises the TLA and requires coastwide management action if harvest and abundance thresholds are exceeded in two of the three most recent years. Management measures would remain in place for a minimum of two years and until abundance characteristics are no longer triggering management action.

Recent Changes in State Regulations

Due to the triggering of the 2020 TLA at the moderate 30% threshold, non *de minimis* states were required to implement a 50-fish recreational bag limit and implement commercial regulations that would have reduced the average 10 year commercial harvest by 1%. New regulations were required to be in place by the end of 2021. A summary of spot regulations that were implemented as of January 1, 2023 can be found in Table 5.

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, and are not required to implement TLA triggered regulations outlined in Addendum III.

VII. De Minimis Requests

New Jersey and Georgia request *de minimis* status. New Jersey and Georgia meet the requirements, and so the <u>PRT recommends that the Board approve the *de minimis* requests from New Jersey and Georgia.</u>

VIII. Implementation of FMP Compliance Requirements for 2023

All states within the management unit have submitted compliance reports for the 2023 fishing year. The PRT found no inconsistences among states with regards to the requirements of the Omnibus Amendment and Addendum III. However, the PRT notes Delaware will now be required to implement the 50 fish bag limit for their recreational fishery and implement commercial regulations that would have reduced the average 10 year commercial harvest by 1% since they have not requested *de minimis* in their compliance report.

IX. Recommendations of the Plan Review Team

Following the next assessment or when a new management document is initiated, whichever comes first, the PRT recommends that the Board consider changing the *de minimis* process and criteria for spot following the procedures in the recently approved ASMFC *De Minimis* Policy. The PRT would like to see separate commercial and recreational *de minimis* measures in place, rather than the combined recreational and commercial *de minimis* criteria. A change here will not only mirror Atlantic croaker *de minimis* structure, but provide more state flexibility for managing their commercial and recreational fisheries.

Research and Monitoring Recommendations

Additional research recommendations can be found in the most recent stock assessment peer review report found here. The PRT had the additional research recommendations:

- Expand collection of life history data (age, growth, and reproduction data) from fishery dependent sources while maintaining these collections from ongoing state level fishery independent sources as well as multistate monitoring surveys. In addition, investigate identification of coastal stocks and their movement through tagging and genetic studies.
- Increase efforts to characterize commercial discards through expanded observer
 coverage, particularly within the shrimp trawl fishery, and develop a standardized bycatch protocol with collection of lengths and ages of discards and by-catch. Other
 sources for discard mortality studies include scrap and bait fisheries, commercial gears
 and recreational gear, and direct research and engagement of commercial harvesters.
- Investigate environmental impacts of temperature shifts, climate change, and large scale oceanic cycles (e.g., Atlantic Multi-decadal Oscillation [AMO] and El Nino Southern Oscillation [El Nino]) on recruitment, SSB, stock distribution and maturity schedules for incorporation into stock assessment models.

X. References

Atlantic States Marine Fisheries Commission (ASMFC). 1987. Fishery Management Plan for Spot. Washington (DC): ASMFC. Fisheries Management Report #11. 90 p.

ASMFC. 2017. <u>Spot Stock Assessment Peer Review Report</u>. ASMFC, Stock Assessment Peer Review Report, 12 p.

Hager, C. 2001. Efficiency of haul-seine cull panels: A comparison of size selectivity and relative release second season. Fishery Resource Grant FRG 2000-06. Virginia Institute of Marine Science, William & Mary. https://scholarworks.wm.edu/reports/2220

Kline LL, Speir H (editors). 1993. Proceedings of a Workshop on Spot (*Leiostomus xanthurus*) and Atlantic Croaker (*Micropogonias undulatus*). Washington (DC): Atlantic States Marine Fisheries Commission. Special Report #25. 175 p.

North Carolina Division of Marine Fisheries (NCDMF). 2001. Assessment of North Carolina commercial finfisheries, 1997–2000. Final Report, North Carolina Department of Environment and Natural Resources, Division of Marine Fisheries, Award Number NA 76 FI 0286, 1-3.

Spot Plan Review Team (PRT). 2012. Spot Data Availability and Stock Monitoring Report. 2009. Washington (DC): Atlantic States Marine Fisheries Commission. Report to the South Atlantic State-Federal Fisheries Management Board. 85 p.

XI. **Figures ■**Commercial Recreational Harvest (millions of pounds)

Figure 1. Spot commercial and recreational landings (millions of pounds), 1950-2023. (Recreational landings available from 1981-present; see Tables 1 and 2 for state-by-state values from 2014-2023 and data sources).

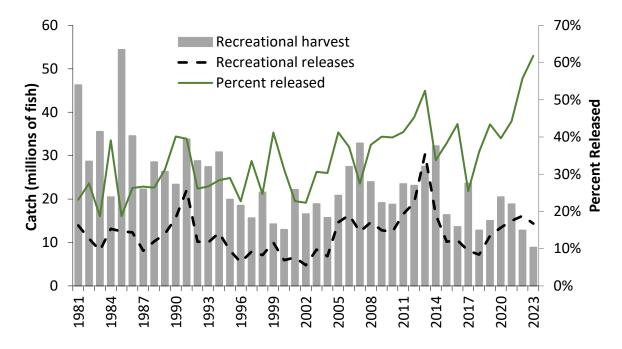


Figure 2. Spot recreational harvest and releases (millions of fish), as well as percent of the total catch that was released, 1981-2023. (See Tables 3 and 4 for state-by-state values from 2014-2023 and data sources).



Figure 3. Annual TLA for spot harvest composite (commercial and recreational landings) in the Mid-Atlantic (NJ-VA) from 1989-2023 using a 2002-2012 reference period.

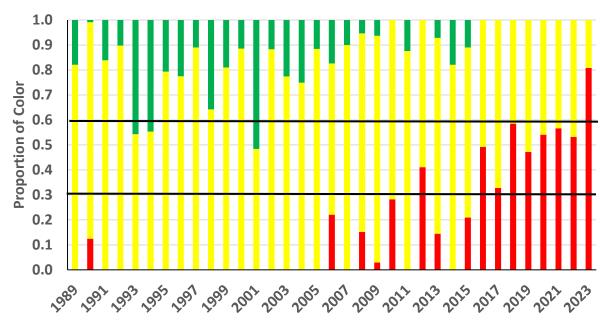


Figure 4. Annual TLA for spot harvest composite (commercial and recreational landings) in the South Atlantic (NC-FL) from 1989-2023 using a 2002-2012 reference period.

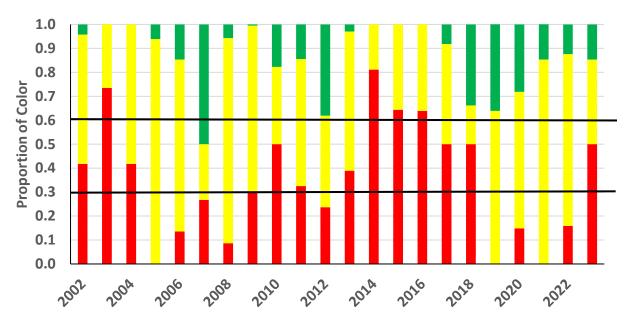


Figure 5. Annual TLA for adult (age 1+) spot composite abundance index in the Mid-Atlantic (NJ-VA; NEFSC and ChesMMAP) from 2002-2023 using a 2002-2012 reference period.

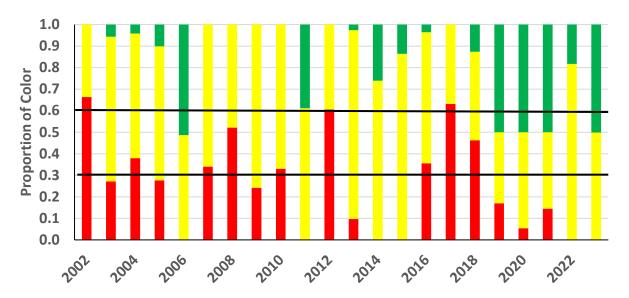


Figure 6. Annual TLA for adult (age 1+) spot composite abundance index in the South Atlantic (NC-FL; SEAMAP and NCDMF Program 195) from 2002-2023 using a 2002-2012 reference period.

Table 1. Commercial landings (pounds) of spot by state 2014-2023. (Source: ACCSP for 2022 and earlier for all jurisdictions, except PRFC; annual compliance reports for 2023 and for all PRFC years. "C" values are confidential. Total values adhere to the ACCSP rule of 3, i.e. totals are reflective of the true total if 0 or at least 3 states' data are confidential in a given year. Otherwise, they are sums of non-confidential data.)

Year	N of NJ	NJ	DE	MD	PRFC	VA
2014	С	29,683	С	348,435	148,908	3,843,869
2015	1,600	86	С	96,102	86,972	1,369,520
2016	1,880	С	С	18,105	8,480	266,859
2017	12,269	С	С	117,279	41,748	1,596,523
2018	4,696	С	С	58,480	41,747	558,932
2019	22,976	С	С	33,043	С	1,094,523
2020	684	С	С	73,669	С	1,512,946
2021	14,646	С	С	50,033	37,503	1,293,353
2022	3,171	С	С	30,912	35,346	816,464
2023	105,650	17,875	20,297	51,597	12,960	348,895
		•				
	NC	SC	GA	FL		Total
2014	NC 766,224	SC 5,917	GA C	FL 16,742		Total 5,281,330
2014 2015						
	766,224	5,917	С	16,742		5,281,330
2015	766,224 376,979	5,917 1,619	C 0	16,742 27,969		5,281,330 1,963,850
2015 2016	766,224 376,979 241,044	5,917 1,619 1,059	C 0	16,742 27,969 82,875		5,281,330 1,963,850 617,288
2015 2016 2017	766,224 376,979 241,044 415,465	5,917 1,619 1,059 3,200	C 0 0 0	16,742 27,969 82,875 47,304		5,281,330 1,963,850 617,288 2,239,392
2015 2016 2017 2018	766,224 376,979 241,044 415,465 167,696	5,917 1,619 1,059 3,200 4,514	C 0 0 0 0 0	16,742 27,969 82,875 47,304 68,864		5,281,330 1,963,850 617,288 2,239,392 960,299
2015 2016 2017 2018 2019	766,224 376,979 241,044 415,465 167,696 392,206	5,917 1,619 1,059 3,200 4,514 C	C 0 0 0 0 0 0 0	16,742 27,969 82,875 47,304 68,864 108,346		5,281,330 1,963,850 617,288 2,239,392 960,299 1,727,341
2015 2016 2017 2018 2019 2020	766,224 376,979 241,044 415,465 167,696 392,206 542,870	5,917 1,619 1,059 3,200 4,514 C	C 0 0 0 0 0 0 0 0 0	16,742 27,969 82,875 47,304 68,864 108,346 22,424		5,281,330 1,963,850 617,288 2,239,392 960,299 1,727,341 2,255,189

Table 2. Recreational harvest (pounds) of spot by state, 2014-2023. (Source: MRIP for 2022 and earlier and annual compliance reports for 2023. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2014	0	27,847	352,714	1,465,861	4,322,812
2015	0	0	30,693	469,462	551,389
2016	0	678	9,606	278,994	1,211,694
2017	0	1,064	340	1,086,667	5,019,896
2018	8,054	45,879	23,968	327,930	1,753,064
2019	3,719	13,451	72,556	809,736	2,283,558
2020	1,000	450	19,392	1,019,065	4,589,353
2021	0	19,765	54,021	1,071,972	3,231,201
2022	0	26,411	21,381	427,557	1,285,186
2023	18,524	26,194	242,352	638,790	770,060
	<u> </u>			-	-
	NC	SC	GA	FL	Total
2014	NC 2,877,483	SC 415,937	GA 15,371	FL 992,221	Total 10,470,246
2014 2015			_		
	2,877,483	415,937	15,371	992,221	10,470,246
2015	2,877,483 833,390	415,937 2,539,187	15,371 2,573	992,221 861,523	10,470,246 5,288,217
2015 2016	2,877,483 833,390 558,799	415,937 2,539,187 1,437,534	15,371 2,573 20,727	992,221 861,523 102,356	10,470,246 5,288,217 3,620,388
2015 2016 2017	2,877,483 833,390 558,799 909,796	415,937 2,539,187 1,437,534 522,645	15,371 2,573 20,727 8,282	992,221 861,523 102,356 76,502	10,470,246 5,288,217 3,620,388 7,625,192
2015 2016 2017 2018	2,877,483 833,390 558,799 909,796 597,511	415,937 2,539,187 1,437,534 522,645 272,501	15,371 2,573 20,727 8,282 5,481	992,221 861,523 102,356 76,502 257,594	10,470,246 5,288,217 3,620,388 7,625,192 3,291,982
2015 2016 2017 2018 2019	2,877,483 833,390 558,799 909,796 597,511 841,998	415,937 2,539,187 1,437,534 522,645 272,501 105,650	15,371 2,573 20,727 8,282 5,481 24,107	992,221 861,523 102,356 76,502 257,594 534,214	10,470,246 5,288,217 3,620,388 7,625,192 3,291,982 4,698,989
2015 2016 2017 2018 2019 2020	2,877,483 833,390 558,799 909,796 597,511 841,998 297,813	415,937 2,539,187 1,437,534 522,645 272,501 105,650 131,952	15,371 2,573 20,727 8,282 5,481 24,107 7,377	992,221 861,523 102,356 76,502 257,594 534,214 234,040	10,470,246 5,288,217 3,620,388 7,625,192 3,291,982 4,698,989 6,300,383

Table 3. Recreational harvest (numbers) of spot by state, 2014-2023. (Source: MRIP for 2022 and earlier and annual compliance reports for 2023. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2014	0	54,853	590,613	4,396,291	13,652,625
2015	0	0	90,796	1,352,278	1,731,063
2016	0	2,052	29,700	1,145,272	5,279,153
2017	0	2,412	1,057	3,250,553	15,944,413
2018	39,083	106,332	70,390	1,209,971	7,360,908
2019	17,517	108,765	220,296	2,643,233	7,647,077
2020	6,046	2,133	58,294	3,640,484	14,963,420
2021	0	72,091	195,688	4,037,517	12,486,597
2022	0	108,648	79,460	1,638,380	8,928,353
2023	101,811	94,585	669,372	3,083,906	3,265,598
	•	•	· ·	,	
	NC	SC	GA	FL	Total
2014	·	SC 1,258,300	GA 68,852		Total 32,212,995
2014 2015	NC			FL	
	NC 8,343,467	1,258,300	68,852	FL 3,847,994	32,212,995
2015	NC 8,343,467 2,572,738	1,258,300 7,538,334	68,852 8,489	FL 3,847,994 3,081,786	32,212,995 16,375,484
2015 2016	NC 8,343,467 2,572,738 1,928,716	1,258,300 7,538,334 4,974,300	68,852 8,489 61,252	FL 3,847,994 3,081,786 203,651	32,212,995 16,375,484 13,624,096
2015 2016 2017	NC 8,343,467 2,572,738 1,928,716 2,418,331	1,258,300 7,538,334 4,974,300 1,897,506	68,852 8,489 61,252 19,789	FL 3,847,994 3,081,786 203,651 100,975	32,212,995 16,375,484 13,624,096 23,635,036
2015 2016 2017 2018	NC 8,343,467 2,572,738 1,928,716 2,418,331 2,068,865	1,258,300 7,538,334 4,974,300 1,897,506 895,830	68,852 8,489 61,252 19,789 15,553	FL 3,847,994 3,081,786 203,651 100,975 1,039,402	32,212,995 16,375,484 13,624,096 23,635,036 12,806,334
2015 2016 2017 2018 2019	NC 8,343,467 2,572,738 1,928,716 2,418,331 2,068,865 2,822,884	1,258,300 7,538,334 4,974,300 1,897,506 895,830 312,635	68,852 8,489 61,252 19,789 15,553 97,526	FL 3,847,994 3,081,786 203,651 100,975 1,039,402 1,154,227	32,212,995 16,375,484 13,624,096 23,635,036 12,806,334 15,024,160
2015 2016 2017 2018 2019 2020	NC 8,343,467 2,572,738 1,928,716 2,418,331 2,068,865 2,822,884 920,512	1,258,300 7,538,334 4,974,300 1,897,506 895,830 312,635 391,298	68,852 8,489 61,252 19,789 15,553 97,526 24,225	FL 3,847,994 3,081,786 203,651 100,975 1,039,402 1,154,227 457,671	32,212,995 16,375,484 13,624,096 23,635,036 12,806,334 15,024,160 20,464,083

Table 4. Recreational releases (numbers) of spot by state, 2014-2023. (Source: MRIP for 2022 and earlier and annual compliance reports for 2023. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2014	0	34,941	237,395	2,206,814	4,125,116
2015	1,585	167,129	38,523	642,459	1,896,698
2016	0	2,705	16,620	713,418	2,858,405
2017	150	15,321	11,768	2,280,482	3,335,800
2018	15,467	37,739	69,619	943,468	3,043,068
2019	23	21,801	125,656	3,311,565	4,509,930
2020	0	36,591	235,832	5,560,590	5,156,762
2021	592	365,908	221,027	6,529,999	3,526,780
2022	0	1,324,071	473,868	3,671,723	7,767,650
2023	423,503	1,044,086	342,448	4,060,882	4,192,568
	NC	SC	GA	FL	Total
2014	NC 4,043,710	SC 1,908,552	GA 74,795	FL 3,781,382	Total 16,412,705
2014 2015			_		
	4,043,710	1,908,552	74,795	3,781,382	16,412,705
2015	4,043,710 2,984,629	1,908,552 2,818,378	74,795 220,253	3,781,382 1,409,895	16,412,705 10,179,549
2015 2016	4,043,710 2,984,629 1,831,415	1,908,552 2,818,378 3,421,589	74,795 220,253 335,695	3,781,382 1,409,895 1,296,190	16,412,705 10,179,549 10,476,037
2015 2016 2017	4,043,710 2,984,629 1,831,415 1,902,281	1,908,552 2,818,378 3,421,589 368,988	74,795 220,253 335,695 86,668	3,781,382 1,409,895 1,296,190 79,660	16,412,705 10,179,549 10,476,037 8,081,118
2015 2016 2017 2018	4,043,710 2,984,629 1,831,415 1,902,281 2,062,163	1,908,552 2,818,378 3,421,589 368,988 315,406	74,795 220,253 335,695 86,668 70,598	3,781,382 1,409,895 1,296,190 79,660 649,404	16,412,705 10,179,549 10,476,037 8,081,118 7,206,932
2015 2016 2017 2018 2019	4,043,710 2,984,629 1,831,415 1,902,281 2,062,163 2,356,120	1,908,552 2,818,378 3,421,589 368,988 315,406 263,939	74,795 220,253 335,695 86,668 70,598 234,016	3,781,382 1,409,895 1,296,190 79,660 649,404 691,731	16,412,705 10,179,549 10,476,037 8,081,118 7,206,932 11,514,781
2015 2016 2017 2018 2019 2020	4,043,710 2,984,629 1,831,415 1,902,281 2,062,163 2,356,120 1,673,676	1,908,552 2,818,378 3,421,589 368,988 315,406 263,939 384,252	74,795 220,253 335,695 86,668 70,598 234,016 115,347	3,781,382 1,409,895 1,296,190 79,660 649,404 691,731 281,175	16,412,705 10,179,549 10,476,037 8,081,118 7,206,932 11,514,781 13,444,225

Table 5. Summary of state regulations for spot in 2023, unless otherwise stated. For states that implemented regulations in 2021 or 2022, the date those regulations became effective is given.

State	Recreational	Commercial
NJ	None	None
DE	None	None
MD	50 fish/day, with additional charter live bait allowance (effective 6/14/21)	Open 4/10 to 11/24 (effective 6/14/21)
PRFC	50 fish/day (effective 1/1/22)	Open 1/1 to 10/28 (effective 1/1/22)
VA	50 fish/day, with additional charter live bait allowance (effective 4/15/21)	Open 4/15 to 12/8 (effective 4/15/21)
NC	50 fish/day (effective 4/15/21), recreational use of commercial gears with license and gear restrictions	Open 4/5 to 12/9 (effective 4/15/21)
SC	Mandatory for-hire logbooks, small Sciaenidae species aggregate bag limit of 50 fish/day	Small Sciaenidae species aggregate bag limit of 50 fish/day
GA	25 fish/day	25 fish/day limit except for trawlers harvesting shrimp for human consumption (no limit)
FL	50 fish/day (effective 12/1/21)	2,200 lbs vessel limit (effective 12/1/21)