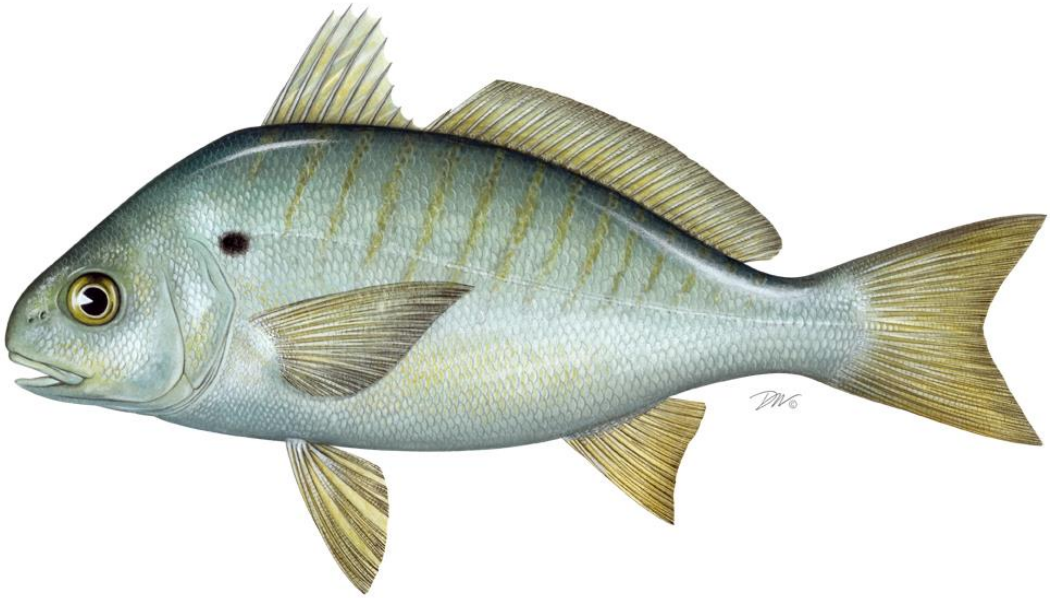
ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR

SPOT
(*LEIOSTOMUS XANTHURUS*)

2019 FISHING YEAR



Drafted by the Plan Review Team
Approved March 2021

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

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I. Status of the Fishery Management Plan

Date of FMP Approval: 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: South Atlantic State/Federal Fisheries Management Board; Spot Plan Review Team; Spot Technical Committee; 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 The Management Board found recommendations in the plan to be vague and perhaps no longer valid, and recommended that an amendment be prepared to the Spot FMP to define the management measures necessary to achieve the goals of the FMP.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 Addendum II to the Omnibus Amendment. 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 Addendum III to the Omnibus Amendment, 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 monitored annually using the Traffic Light Analysis, described below.

Traffic Light Approach

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 Traffic Light Approach (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 achieved or exceeded a threshold for a two year period, then management action was 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.

III. Status of the Fishery

This report includes updated recreational estimates from the Marine Recreational Information Program's transition to the mail-based Fishing Effort Survey (FES) on July 1, 2018. Therefore, recreational estimates will likely be different from those shown in past FMP Reviews and state compliance reports through 2018. All figures, tables, and text only show data based on the FES and its calibration.

Total landings of spot in 2019 are estimated at 6.4 million pounds, an increase from 2018 (4.2 million pounds) and the third lowest total harvest on record (Tables 1 and 3). The recreational fishery harvested more than the commercial fishery (73% and 27% respectively, by pounds). Although historical harvests were more evenly split between sectors, over the last 10 years, harvests have been more heavily recreational (30% commercial and 70% recreational, by pounds).

Commercial spot landings have ranged between 617,288 and 14.52 million pounds from 1950-2019 (Figure 1). In 2019, 1.7 million pounds were harvested commercially. Virginia landed approximately 42% of the commercial harvest in 2019, followed by North Carolina with 37% (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. The majority of removals for spot come from the South Atlantic shrimp trawl fishery discards (ASMFC 2017).

The recreational harvest of spot along the Atlantic coast from 1981 to 2019 has varied between 12.8 and 54.4 million fish (or 3.3 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 time series low harvest occurring in 2018. In 2019, recreational landings were 15 million fish (4.7 million pounds), an increase of 2.2 million fish (1.4 million pounds) from 2018 (Tables 3 and 4). Anglers in Virginia harvested 51% of the coastwide number of fish in 2019, followed by anglers in North Carolina (19%). 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 and 30.4 million fish, with 2019 releases estimated at 11.5 million fish, a 4 million fish increase from 2018. Releases have shown a declining trend since 2013, but increased significantly in 2019 (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.

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, North Carolina, South Carolina, Georgia, and SEAMAP (covering North Carolina through Florida). These surveys, in addition to the Northeast Fisheries Science Center 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.

Traffic Light Approach

The harvest composite TLA index was broken into the two regional components: Mid-Atlantic and South Atlantic. Analysis of the harvest composite index for 2019 shows that the population characteristic tripped for two out of the three consecutive years at the 30% threshold in the Mid-Atlantic (Figure 3) and in the South Atlantic (Figure 4). The mean proportion of red color in the Mid-Atlantic from 2017-2019 was 40.4%, and the mean proportion of red color in the South Atlantic from 2017-2019 was 35.6%. The harvest composite index was comprised of commercial and recreational landings.

The abundance composite TLA index is also broken into the two regional components based on age composition. Due to a delay in recalibration of the ChesMMAP survey, which is used in the annual TLA reviews, no data points were available for spot in 2019 for juvenile and adult abundance indices for the Mid-Atlantic region. Even without data points for 2019, the Mid-Atlantic adult composite index was generated from the NEFSC and ChesMMAP surveys and has been above the 30% threshold since 2011 (Figure 5). Atlantic adult composite index was generated from SEAMAP and SCDNR trammel net survey and had a relatively high proportion of green (Figure 6). The South Atlantic adult composite characteristics did not exceed the 30% level in 2019, or in two of the three last consecutive years.

Overall, there is a continued trend of disconnect between the harvest and abundance indices with the harvest metric exhibiting a decreasing trend, while the abundance metric had an increasing trend, specifically in the South Atlantic. However, because harvest indices for both regions and abundance indices for the Mid-Atlantic were above 30% in 2 of the last 3 years, management response as outlined in Addendum III management guidelines will be enacted. All

non-*de minimis* states will be required to implement a 50 fish per person per day bag limit and a 1% reduction in commercial harvest from their 10 year average.

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 28% of captured spot less than six inches in length.

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. Georgia has a spot creel limit (25 fish, 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.).

<u>Omnibus Amendment (Interstate)</u>

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.

Addendum II

In August 2014, the Board approved Addendum II which establishes a new management framework (i.e., Traffic Light Approach) 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.

Addendum III

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

No changes in 2019

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.

VII. De Minimis Requests

New Jersey and Georgia request *de minimis* status, and both states meet the requirements.

VIII. Implementation of FMP Compliance Requirements for 2019

All states within the management unit have submitted compliance reports for the 2019 fishing year. The PRT found no compliance issues.

IX. Recommendations of the Plan Review Team

The PRT recommends that the Board consider changing the *de minimis* process and criteria. 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 minimi*s structure, but provide more state flexibility for managing their commercial and recreational fisheries.

Research and Monitoring Recommendations

High Priority

- Expand collection of life history data for examination of lengths and age, especially fishery-dependent data sources.
- Organize an otolith exchange and develop an ageing protocol between ageing labs.
- Increase observer coverage for commercial discards, particularly the shrimp trawl fishery. Develop a standardized, representative sampling protocol and pursue collection of individual lengths and ages of discarded finfish. Investigate if shrimp trawl fishery operating within sounds has more of an impact on recruitment than effort in offshore areas.
- Continue state and multi-state fisheries-independent surveys throughout the species range and subsample for individual lengths and ages. Ensure NEFSC trawl survey continues to take lengths and ages. Examine potential factors affecting catchability in long-term fishery independent surveys.
- Continue to develop estimates of length-at-maturity and year-round reproductive dynamics throughout the species range. Assess whether temporal and/or density-dependent shifts in reproductive dynamics have occurred.
- Re-examine historical ichthyoplankton studies for an indication of the magnitude of estuarine and coastal spawning, as well as for potential inclusion as indices of spawning stock biomass in future assessments. Pursue specific estuarine data sets from the states (NJ, VA, NC, SC, DE, ME) and coastal data sets (MARMAP, EcoMon).

Medium Priority

- Develop and implement sampling programs for state-specific commercial scrap and bait fisheries in order to monitor the relative importance of spot. Incorporate biological data collection into program.
- Conduct studies of discard mortality for commercial fisheries. Ask commercial fishermen about catch processing behavior for spot when trawl/gillnets brought over the rail to determine if the discard mortality rate used in the assessment is reasonable.
- Conduct studies of discard mortality for recreational fisheries.
- Collect data to develop gear-specific fishing effort estimates and investigate methods to develop historical estimates of effort.
- Identify stocks and determine coastal movements and the extent of stock mixing, via genetic and tagging studies.
- Investigate environmental and recruitment/ natural mortality covariates and develop a time series of potential covariates to be used in stock assessment models.
- Investigate environmental covariates in stock assessment models, including climate cycles (e.g., Atlantic Multi-decadal Oscillation, AMO, and El Nino Southern Oscillation, El Nino) and

recruitment and/or year class strength, spawning stock biomass, stock distribution, maturity schedules, and habitat degradation.

- Investigate the effects of environmental changes (especially climate change) on maturity schedules for spot, particularly because this is an early-maturing species, and because the sSPR estimates are sensitive to changes in the proportion mature.
- Investigate environmental and oceanic processes in order to develop better understanding of larval migration patterns into nursery grounds.
- Investigate the relationship between estuarine nursery areas and their proportional contribution to adult biomass. I.e., are select nursery areas along Atlantic coast contributing more to SSB than others, reflecting better juvenile habitat quality?
- Develop estimates of gear-specific selectivity.

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. Spot Stock Assessment Peer Review Report. ASMFC, Stock Assessment Peer Review Report, 12 p.

ASMFC. 2019. 2019 Traffic Light Analysis of Spot (*Leiostomus xanthurus*) for the Atlantic States Marine Fisheries Commission Fishery Management Plan Review: 2018 Fishing Year & Proposed Changes to TLA Management Scheme. 21 p.

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.

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

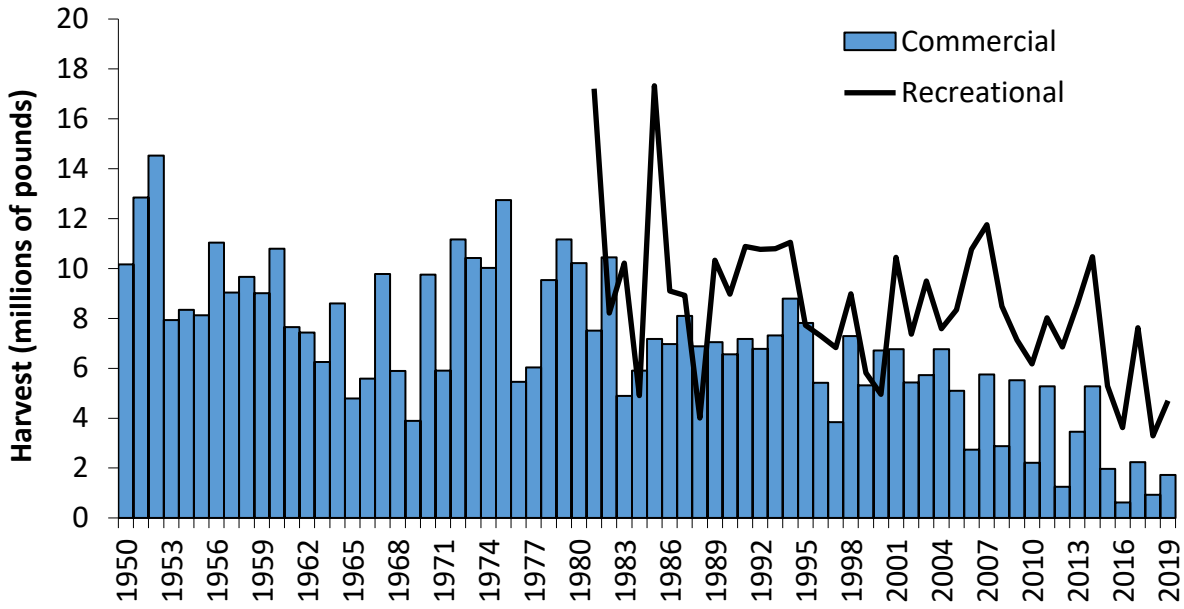

Figure 1. Spot commercial and recreational landings (pounds), 1950-2019. (Recreational landings available from 1981-present; see Tables 1 and 3 for state-by-state values from 2010-2019 and data sources)

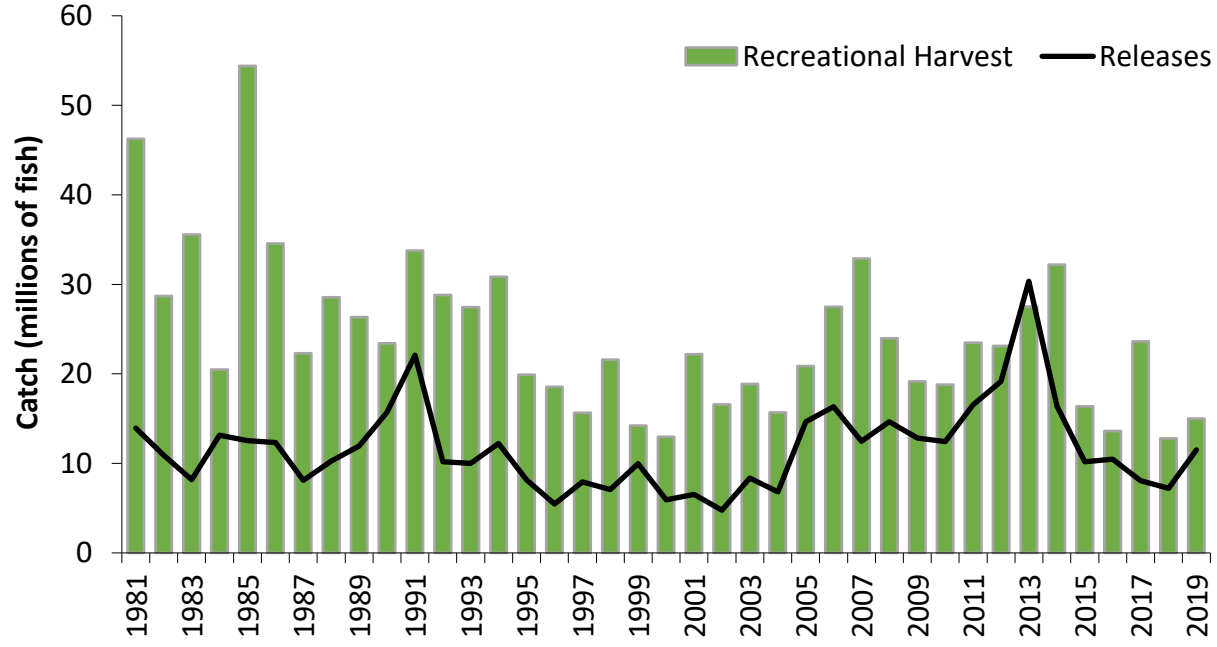

Figure 2. Spot recreational harvest and releases (numbers of fish), 1981-2019. (See Tables 4 and 5 for state-by-state values from 2010-2019 and data source)

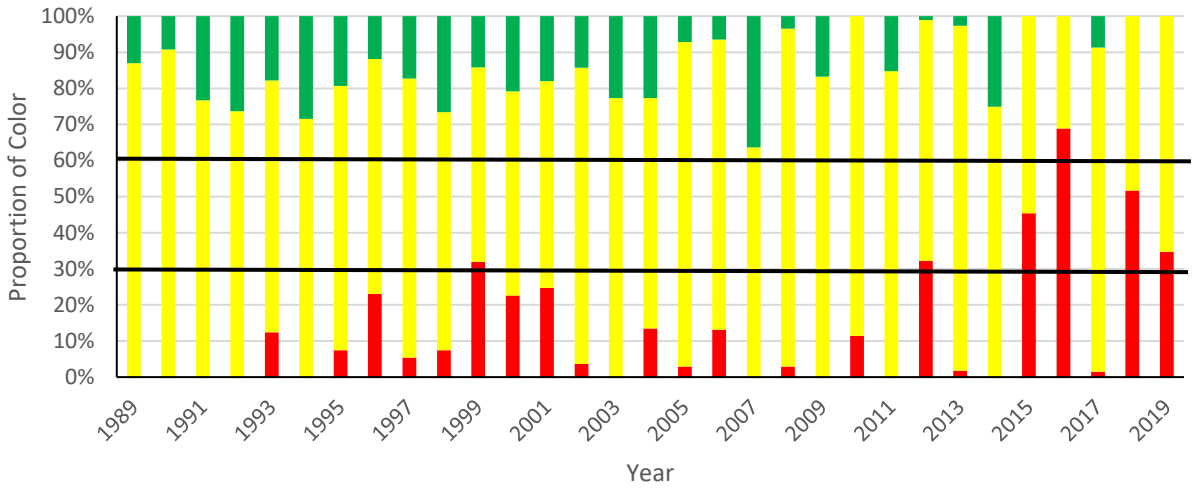

Figure 3. Annual color proportions for the Mid-Atlantic (NJ-VA) harvest composite for spot from the 2019 Traffic Light Approach.

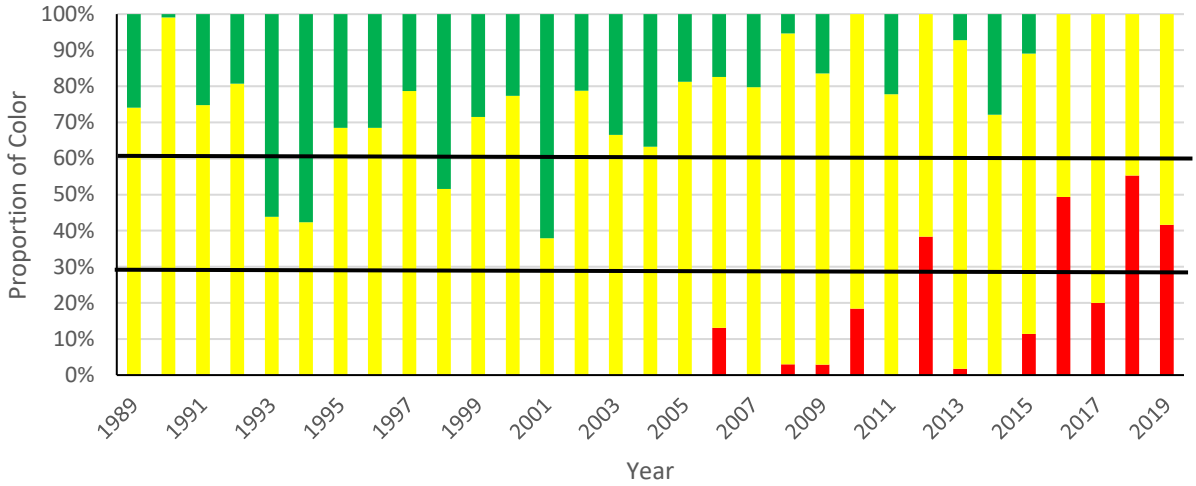

Figure 4. Annual color proportions for the South Atlantic (NC-FL) harvest composite for spot from the 2019 Traffic Light Approach.

Figure 5. Adult (age 1+) spot TLA composite characteristic index for the Mid-Atlantic (NEFSC and ChesMMAP).

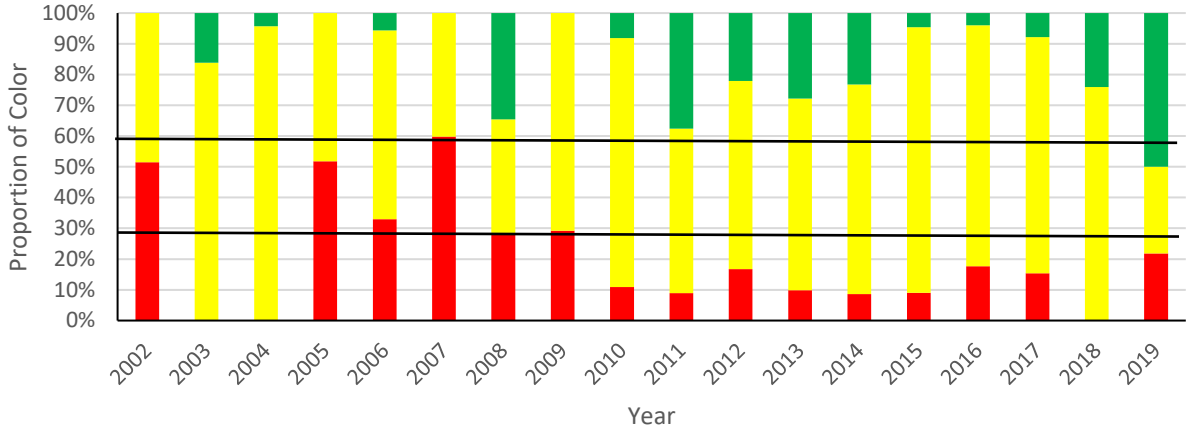

Figure 6. Adult (age 1+) spot TLA composite characteristic index for the Mid-Atlantic (SEAMAP and NCDMF Program 195).

XII. Tables

Table 1. Commercial landings (pounds) of spot by state 2010-2019. (Source: ACCSP for 2018 and earlier for all jurisdictions, except PRFC; annual compliance reports for 2019 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
2010	447	6,048	C	587,028	44,025	984,892
2011	C	54,890	C	618,569	60,106	3,687,377
2012	95,850	9,935	C		14,563	600,351
2013	179,980	48,324	C	335,462	41,286	2,044,538
2014	2,112	29,683	C	348,435	148,908	3,843,869
2015	1,600	86	C	96,102	86,972	1,369,520
2016	1,880	26	C	18,105	8,480	266,859
2017	12,269	2,418	C	117,279	41,748	1,596,523
2018	4,696	10,809	C	58,480	41,747	558,932
2019	C	C	C	33,043	C	1,094,523

	NC	SC	GA	FL		Total
2010	572,315	3,957	C	13,420		2,212,132
2011	936,970	12,162		33,889		5,272,523
2012	489,676	541		36,744		1,247,659
2013	768,592	2,446		31,368		3,451,995
2014	765,824	5,917	C	16,742		5,281,330
2015	377,135	1,619		27,969		1,963,850
2016	238,003	1,059		82,875		617,288
2017	413,995	3,200		47,304		2,237,922
2018	167,678	4,514		68,864		915,720
2019	392,067	C		108,346		1,722,091

Table 2. Recreational harvest (pounds) of spot by state, 2010-2019. (Source: MRIP for 2018 and earlier and annual compliance reports for 2019. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2010		748,219	249,186	1,053,775	1,964,995
2011		532	169,341	732,588	3,437,094
2012	121,071	544,509	80,962	755,265	3,091,344
2013	18,889	423,887	244,253	720,315	3,443,742
2014		27,847	352,714	1,465,861	4,322,812
2015	0	0	30,693	469,462	551,389
2016		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

	NC	SC	GA	FL	Total
2010	1,173,173	654,184	1,011	333,254	6,177,797
2011	2,201,947	1,118,599	790	358,943	8,019,834
2012	760,276	1,332,541	305	165,523	6,851,796
2013	1,789,251	1,708,520	10,525	213,949	8,573,331
2014	2,877,483	415,937	15,371	992,221	10,470,246
2015	833,390	2,539,187	2,573	861,523	5,288,217
2016	558,799	1,437,534	20,727	102,356	3,620,388
2017	909,796	522,645	8,282	76,502	7,625,192
2018	597,511	272,501	5,481	257,594	3,291,982
2019	841,998	105,650	24,107	534,214	4,698,989

Table 3. Recreational harvest (numbers) of spot by state, 2010-2019. (Source: MRIP for 2018 and earlier and annual compliance reports for 2019. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2010		2,312,612	727,390	2,839,870	5,630,976
2011		1,206	486,289	2,125,025	10,128,581
2012	168,109	2,189,239	213,687	2,120,554	10,147,723
2013	51,903	1,177,944	581,699	2,456,346	11,733,669
2014		54,853	590,613	4,396,291	13,652,625
2015	0	0	90,796	1,352,278	1,731,063
2016		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

	NC	SC	GA	FL	Total
2010	3,830,384	2,521,398	4,584	912,677	18,779,891
2011	6,480,714	3,174,678	1,792	1,096,887	23,495,172
2012	2,677,082	5,003,162	1,230	590,701	23,111,487
2013	6,120,985	4,704,723	41,546	660,760	27,529,575
2014	8,343,467	1,258,300	68,852	3,847,994	32,212,995
2015	2,572,738	7,538,334	8,489	3,081,786	16,375,484
2016	1,928,716	4,974,300	61,252	203,651	13,624,096
2017	2,418,331	1,897,506	19,789	100,975	23,635,036
2018	2,068,865	895,830	15,553	1,039,402	12,806,334
2019	2,822,884	312,635	97,526	1,154,227	15,024,160

Table 4. Recreational releases (numbers) of spot by state, 2010-2019. (Source: MRIP for 2018 and earlier and annual compliance reports for 2019. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2010		562,172	289,178	2,772,655	4,080,918
2011		1,206	190,002	783,417	7,290,971
2012	237,028	1810472	184,949	3,291,874	6,371,367
2013	2,203	2,737,742	537,632	7,620,695	7,549,286
2014		34,941	237,395	2,206,814	4,125,116
2015	1,585	167,129	38,523	642,459	1,896,698
2016		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

	NC	SC	GA	FL	Total
2010	3,615,808	577,998	1,193	545,687	12,445,609
2011	4,993,544	1,289,038	23,411	1,989,115	16,560,704
2012	2,995,879	673,292	10,110	3,571,066	19,146,037
2013	5,513,732	5,891,165	32,719	466,583	30,351,757
2014	4,043,710	1,908,552	74,795	3,781,382	16,412,705
2015	2,984,629	2,818,378	220,253	1,409,895	10,179,549
2016	1,831,415	3,421,589	335,695	1,296,190	10,476,037
2017	1,902,281	368,988	86,668	79,660	8,081,118
2018	2,062,163	315,406	70,598	649,404	7,206,932
2019	2,356,120	263,939	234,016	691,731	11,514,781