Atlantic States Marine Fisheries Commission

Sciaenids Management Board

April 30, 2024
11:45 a.m. – 12:15 p.m.

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

1.	Welcome/Call to Order *(D. Haymans)*	11:45 a.m.
2.	Board Consent • Approval of Agenda • Approval of Proceedings from October 2023	11:45 a.m.
3.	Public Comment	11:50 a.m.
4.	Consider Spot Fishery Management Plan Review and State Compliance Reports for the 2022 Fishing Year *(T. Bauer)* **Action**	11:55 a.m.
5.	Progress Update on Red Drum, Atlantic Croaker, and Spot Benchmark Stock Assessments (*J. Kipp*)	12:05 p.m.
6.	Elect Vice-Chair **Action**	12:10 p.m.
7.	Other Business/Adjourn	12:15 p.m.

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click here for details

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

MEETING OVERVIEW

Sciaenids Management Board
April 30, 2024
11:45 a.m. – 12:15 p.m.
Hybrid Meeting

Chair: Doug Haymans (GA) Assumed Chairmanship: 02/24	Technical Committee Chairs: Black Drum: Harry Rickabaugh (MD) Atlantic Croaker: Somers Smott (VA) Red Drum: Ethan Simpson (VA) Spot: Harry Rickabaugh (MD)	Law Enforcement Committee Representative: Col. Matthew Rogers (VA)
Vice Chair: Vacant	Advisory Panel Chair: Craig Freeman (VA)	Previous Board Meeting: October 19, 2023
Voting Members: NJ, DE, MD, PRFC, VA, NC, SC, GA, FL, NMFS (10 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from October 2023

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Consider Spot Fishery Management Plan Review and State Compliance Reports for the 2022 Fishing Year (11:55 a.m.-12:05 p.m.) Action

Background

- Spot state compliance reports are due on November 1. New Jersey, Georgia, and Delaware have requested continued *de minimis* status (**Briefing Materials**).
- The Spot Plan Review Team (PRT) met on December 14, 2023, to discuss state compliance reports and the FMP review. The PRT can no longer recommend *de minimis* status for Delaware, as it is the third year in a row the state has been over the 1% *de minimis* threshold. Delaware's exceedance in 2022 was minimal at 1.05%, and has ranged between 1.05% and 1.20% in the past three years. Delaware requests to be allowed to remain *de minimis*.

Presentations

- 2022 FMP Review for Spot by T. Bauer

Board actions for consideration at this meeting

- Consider approval of the 2022 FMP Review and state compliance reports.
- Consider approval of New Jersey, Georgia, and Delaware's *de minimis* requests for spot.

5. Progress Update on the Red Drum, Atlantic Croaker, and Spot Benchmark Stock Assessments (12:05-12:10 p.m.)

Background

- Work on the red drum benchmark stock assessment was initiated in early 2023. In-person Assessment Workshops were held November 6-9, 2023, and March 11-14, 2024. The assessment is scheduled for completion in the fall of 2024.
- Work on the Atlantic croaker and spot benchmark stock assessments was initiated in early 2023. A Data Workshop was held virtually May 15-18, 2023. An Assessment Workshop was held virtually September 11-14, 2023. At their October 2023 meeting, the Policy Board agreed to decouple the spot and Atlantic croaker stock assessments due to the loss of a lead modeler, and move forward with the Atlantic croaker stock assessment to be completed in fall of 2024. Work on the spot stock assessment will resume once the Atlantic croaker assessment is completed and peer-reviewed. A sub-group of the Stock Assessment Subcommittee is meeting biweekly to discuss Atlantic croaker modeling progress.

Presentations

- Stock assessment update by J. Kipp

6. Elect Vice-Chair (12:10 – 12:15 p.m.) Action

7. Other Business/Adjourn

Sciaenids Management Board

Activity level: High

Committee Overlap Score: Moderate (American Eel TC, Cobia TC, Horseshoe Crab TC, Weakfish TC)

Committee Task List

- Red Drum SAS – Conduct Red Drum Benchmark Assessment
- Atlantic Croaker and Spot SAS – Conduct Atlantic Croaker and Spot Benchmark Assessments
- Black Drum TC – Update indicators
- Red Drum TC – Assist with the Red Drum Benchmark Assessment
- Atlantic Croaker TC – Assist with the Atlantic Croaker Benchmark Assessment
- Spot TC – Assist with the Spot Benchmark Assessment
- Atlantic Croaker TC/PRT – July 1: Compliance Reports Due
- Red Drum TC/PRT – July 1: Compliance Reports Due
- Black Drum TC/PRT – August 1: Compliance Reports Due
- Spotted Seatrout PRT – September 1: Compliance Reports Due
- Spot TC/PRT – November 1: Compliance Reports Due

Technical Committee Members:

Atlantic Croaker: Somers Smott (VA, Chair), Kristen Anstead (ASMFC), Tracey Bauer (ASMFC), Stacy VanMorter (NJ), Devon Scott (DE), Harry Rickabaugh (MD), Ingrid Braun (PRFC), Willow Patten (NC), Margaret Finch (SC), Dawn Franco (GA), Halie OFarrell (FL)

Black Drum: Harry Rickabaugh (MD, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Craig Tomlin (NJ), Jordan Zimmerman (DE), Ethan Simpson (VA), Chris Stewart (NC), Chris McDonough (SC), Ryan Harrell (GA), Shanae Allen (FL)

Red Drum: Ethan Simpson (VA, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Alissa Wilson (NJ), Matthew Jargowsky (MD), Cara Kowalchyk (NC, Vice-Chair), Joey Ballenger (SC), Chris Kalinowsky (GA), Sarah Burnsed (FL)

Spot: Harry Rickabaugh (MD, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Stacy VanMorter (NJ), Devon Scott (DE), Ingrid Braun (PRFC), Somers Smott (VA), Willow Patten (NC), Michelle Willis (SC), BJ Hilton (GA), Halie OFarrell (FL)

Plan Review Team Members:

Atlantic Croaker: Harry Rickabaugh (MD), Ingrid Braun (PRFC), Ethan Simpson (VA), Willow Patten (NC), Chris McDonough (SC), BJ Hilton (GA), Tracey Bauer (ASMFC)

Black Drum: Jordan Zimmerman (DE), Chris Stewart (NC), Chris McDonough (SC), Tracey Bauer (ASMFC)

Red Drum: Matthew Jargowsky (MD), Ethan Simpson (VA), Cara Kowalchyk (NC), Joey Ballenger (SC), Ray Rhodes (COFC), Matt Kenworthy (FL), Tracey Bauer (ASMFC)

Spot: Harry Rickabaugh (MD), Ethan Simpson (VA), Chris McDonough (SC), Dawn Franco (GA), Tracey Bauer (ASMFC)
Spotted Seatrout: Tracey Bauer (ASMFC), Samantha MacQuesten (NJ), Lucas Pensinger (NC), Brad Floyd (SC), Chris Kalinowsky (GA)

Stock Assessment Subcommittee Members:
Red Drum: Joey Ballenger (SC, Chair), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Angela Giuliano (MD), CJ Schlick (NC), Jared Flowers (GA), Chris Swanson (FL), Ethan Simpson (VA)
Atlantic Croaker and Spot: Kristen Anstead (ASMFC), Jeff Kipp (ASMFC), Tracey Bauer (ASMFC), Linda Barry (NJ), Harry Rickabaugh (MD), Brooke Lowman (VA), Somers Smott (VA), Margaret Finch (SC)

DRAFT PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

SCIAENIDS MANAGEMENT BOARD

Beaufort Hotel
Beaufort, North Carolina
Hybrid Meeting

October 19, 2023

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ATTENDANCE TO BE FILLED ON A LATER DATE

The Sciaenids Management Board of the Atlantic States Marine Fisheries Commission convened in the Rachel Carson Ballroom via hybrid meeting, in-person and webinar; Thursday, October 19, 2023, and was called to order at 12:05 p.m. by Chair Chris Batsavage.

CALL TO ORDER

CHAIR CHRIS BATSAVAGE: Good afternoon, everyone. I'll go ahead and call the Sciaenids Management Board meeting to order. My name is Chris Batsavage; I'm the Administrative Proxy for North Carolina, serving as Chair of the last meeting of the week. I'll try to move through as quickly as possible.

Helping me do that up at the front of the table is Tracey Bauer and Jeff Kipp. Make sure I'm getting through the agenda quickly, but not too quickly.

APPROVAL OF AGENDA

CHAIR BATSAVAGE: Right now, I am looking for Board consent on Approval of the Agenda. Is there any modifications or other changes needed for the agenda? Seeing none; I'll consider the agenda approved.

APPROVAL OF PROCEEDINGS

CHAIR BATSAVAGE: Next is approval of the proceedings from the May, 2023 meeting. Are there any changes, edits or modifications to those proceedings? Seeing none in the room and none online; we'll also consider those approved.

PUBLIC COMMENT

CHAIR BATSAVAGE: Next up is Public Comment. This is an opportunity for the public to provide any comments related to the Sciaenids Management Board for items that are not on the agenda.

Do we have anyone in the room or online that would like to provide public comment? Seeing none.

REVIEW ANNUAL UPDATE TO BLACK DRUM INDICATORS

CHAIR BATSAVAGE: We're going to move on to the next item, which is a Review of the Annual Update to Black Drum Indicators. We'll have Harry Rickabaugh, the TC Chair, providing that update. Harry, whenever you're ready.

MR. HARRY RICKABAUGH: First, I would like to thank all the people who submitted data for this. It comes from many locations, several states and also the ASMFC staff, for putting this together. Jeff, I know put together most of the slides., and updated some of the indices for us, so thanks. Following the last assessment, it was found that the black drum stock was not overfished, and overfishing was not occurring.

Data for that assessment ran through 2020. During that assessment, empirical indicators were identified that could be used to monitor the stock condition between assessments. Lack of contrast in the black drum datasets, coupled with some high uncertainty in the model, led the TC to recommend they are monitoring these empirical stock indicators annually. The Board agreed to annual monitoring of these empirical indicators, and tasked the TC to do so on an annual basis. This is to assess a new assessment only; it does not trigger management action. The next assessment is preliminarily schedule for 2027. The different indicators that we're looking at are in three different categories. The first one is the abundance indicators. These are made up of four indices from the Mid-Atlantic, which are all YOY.

The Mid-Atlantic region is from Virginia, north. There are three indices in the South Atlantic, which is North Carolina, south. Those include a YOY indices at Age 0-1 indices and a subadult indices. We also look at exploitable biomass, that is through an MRIP CPUE. We do not have a fishery independent index to track adult abundance.

The range expansion indicator is only for interpreting any potential changes of just that. Range expansion is not an indicator of overall stock abundance. Then we also look at some fishery catch metrics, just your

recreational live releases, recreational harvest in pounds, and commercial landings in pounds. Those are also structured regionally with the Mid-Atlantic region from Virginia, north and the South Atlantic from North Carolina, south.

The years to be updated in this go round are going to be 2021 and 2022, since again, the assessment only ran data through 2020. In all the figures we're about to see, there is going to be a time series mean that's the dotted dash line. On these slides, all of the abundance slides, the index is scaled to its mean, so that we can put multiple figures up at one time and compare them side by side. We're really looking at the trend here, so the absolute value isn't as important, so they're scaled to a mean.

For the Mid-Atlantic again, that is what is up there now, we have four indices, and once again they are all YOY. The upper left panel is the public service enterprise group seine survey, which is conducted in Delaware Bay in the upper Delaware River. The upper right panel and the lower left panel are the Delaware trawl surveys, which are conducted in the Delaware Bay, and the lower right is the Maryland seine.

For all the figures I'm going to show today, the black dots connected by the black line are the data that was used in the assessment through 2020. The red dots connected with the red line will be the updated years, so they just help you jump out, see what was used in the assessment and what is the new data.

Again, these Mid-Atlantic indicators all kind of vary around the timeseries means. The Delaware Bay indices being below their mean in 2021, and above in 2022, and the Maryland Coastal Bay Seine Survey being above the timeseries mean in 2021 and below in 2022. But they all varied within, sort of the range of their most recent values. There are a few more larger peaks in the early part of the timeseries that don't seem to be as apparent in recent years.

For the South Atlantic, the abundance indicators were mixed, as far as trend, with declines measured in the South Carolina Trawl Survey, which is an Age 0-1, and is in the left panel, and in the Georgia Trammel Survey, which is a YOY only survey, which is in the far-right panel. It varied around the time series in the North Carolina gillnet survey, the middle panel, which is a subadult survey, so primarily Ages 1 through 3. I had heard about the Georgia Trammel Survey, as there were some questions during the assessment about possible changes in catchability, due to a survey gear change in 2007, that will be explored further in the next assessment, to see whether that was really impacting those really large values you see prior to 2007. The exploitable abundance indicator is based off an MRIP CPUE. It declined below its time series mean for both of the update years. This is the only index we actually use within the model to track abundance, so this is the tuning index for the model.

As you can see through the model time period, the black dots that increased steadily, and then kind of leveled off in a high value. Now these last two years are below the mean, or dropped from where we were in the previous ten years or so. Similar to where we were in the mid-2000s, you can see two values back there, slightly lower than these two.

Not in an area we haven't been in the no-so-distant past, but it is a decline from the trajectory we had in the assessment. The range expansion indicator is from the New Jersey Trawl. Again, this is only to look at range expansion, not actually an indicator of stock status. It was not available in 2021, due to survey restrictions.

The 2022 value is below the time series mean. You can see there was a lot of variability in this early in the timeseries, near zero values and some higher values in more recent years, and pretty much some sort of catch. Certainly, they do seem to be more available, but it's not like a trend of increasing availability seen in this range expansion.

For these next few slides, we're moving to the catch indicators, and these are not scaled to their mean, these ones will be actual the mean, and in this case, this is the recreational live releases, so in millions of fish, and these releases have varied around their time series mean in the Mid-Atlantic with 2021 being above, and 2022 being just below., and above the

timeseries mean in the South Atlantic during the update years.

Live releases in the South Atlantic have continued to follow a declining trend that was observed at the end of the stock assessment. It is still above, as I mentioned its timeseries mean and the rate of decline seems to have slowed, but it is still on that trajectory. The recreational harvest is in millions of pounds, and again, as you can see from this scale, the South Atlantic does account for a higher proportion of the landings than the North Atlantic.

Just as a reminder, the South Atlantic fishery is primarily subadults, and the North Atlantic is primarily mature adult fish within the recreational harvest. In this case you have higher weight in the smaller fish in the South Atlantic, so by number it will be the greater, but we're showing this by weight, so we can compare it to commercial later.

Recreational harvest is also varied by region, with both update years below the time series mean in the Mid-Atlantic, and both update years above the timeseries in the South Atlantic. The commercial landings have showed a similar pattern to the recreational harvest, with both of the update years below the timeseries mean in the Mid-Atlantic, and both of the update years above the timeseries mean in the South Atlantic.

You can see here, this is in thousands of fish, so that commercial harvest is considerably lower than the recreational harvest, and in this case, even though it's larger fish in the north and smaller fish in the south, we're still kind of that split, even in the commercial fishery. The catches on average, the annual catches are very similar by weight. There was some discussion from the TC about the Mid-Atlantic reduction in harvest, particularly a commercial, is likely due to some reductions in effort. A lot of the Virginia fishery is bycatch within their commercial striped bass gillnet fishery that happens in the spring. There has been decreased effort in that fishery, and in Delaware they've had a reduction in effort, mainly due to a decline in market demand, so it's become less profitable, so there is less commercial fishing in the North Atlantic, most likely than in previous years.

The Black Drum TC met on September 26, to discuss the data that I just showed you, and to come up with recommendations for this Board at this meeting.

Overall, the indicators showed mixed signs of stability and declines since the assessment. The TC did discuss that it's only two years of additional data, and the black drum is a long-lived species. Also, many of our indicators, are their juvenile indices or a lot of the indicators in the South Atlantic, the harvest and releases are on subadult and juvenile fish, so we're kind of looking more at that part of the population.

We do not have an adult index. There are not a lot of surveys up and down the coast that target adult black drum, so that is one piece of information we are missing. Recruitment for black drum is highly variable, and our indices have been relatively low, particularly in the South Atlantic, so it's not real surprising that some of the other indicators are also a little low, since that is part of the population and bulk of the fishery is targeting in the South Atlantic.

The level of hours we are seeing are within the historical range of values we've seen, so we're not into an area we haven't been before that the stock hasn't recovered from. But we do have some declining trends, the TC does feel that's something we need to monitor in the future. It does not feel that initiating an updated stock assessment is necessary at this time. With that I can take any questions.

CHAIR BATSAVAGE: Thank you, Harry, any questions for Harry on the black drum stock indicators? Okay, seeing no questions, just an FYI for the Board, and it's in our compliance report, which you'll see in the FMP review later. But looking at recreational harvest in North Carolina, it did increase by quite a bit in 2022 compared to 2021. It was, I think three and a half higher than it was the previous year, and it was highest since the FMP required bag and size limits were implemented back in like 2014, I think.

We've heard some anglers voice concerns over increased black drum fishing effort in recent years in North Carolina, so we're just kind of monitoring the

trends in the fishery. I think these indicators also help kind of guide us and the rest of the states, as far as any impacts, you know changes in harvest or fishing effort might have on the stock.

Just wanted to share that with everyone. The TC isn't recommending any changes to the stock assessment schedule, based on the indicators being mixed, and also this is the first time we've used these indicators. I'll just look to sese if there is anyone one on the Board who feels like anything other than what the TC recommended should be done. If not, then I think we'll just, yes, Shanna.

MS. SHANNA MADSEN: I don't think anything else should be done, but I did have a question. How often does the TC expect to be bringing back these indicators, because it looks like, you know we've got the two-years that we're looking at right now, they have a time series of them. But I do note the TC's point that this is an extremely long-lived species, so I'm just wondering how often a reevaluation of the indicators will be brought to the Board.

MS. TRACEY BAUER: Currently, as far as I'm aware, the plan was annually.

CHAIR BATSAVAGE: Okay, thanks. I guess, would that be something, Tracey, that as the TC goes through this exercise and the Board reviews, that if we felt it was appropriate to look at it maybe not annually, but maybe every two years, or based on life history of the fish, that would be a change that we could just make through Board action or consensus.

MS. BAUER: Yes, yes, absolutely. This is all new for all of us, these black drum indicators. If we find something that works better for the Board, then we can do that.

CHAIR BATSAVAGE: Any follow up on that, Shanna, or is that good.

MS. MADSEN: I think I'm good for now, but I kind of agree that maybe at another time, once the TC brings this back. I feel like yearly is a little bit excessive again, for such a long-lived species. Not that it takes up a ton of our time, but I feel like it could take up some time for the TC, so maybe a biannual situation might be better in the future. But let's see how this goes, since it's new for all of us.

CHAIR BATSAVAGE: Erika.

MS. ERIKA BURGESS: On the same topic, I would be interested in the TCs thoughts on potentially doing this every three years.

CHAIR BATSAVAGE: I guess, Tracey, that would be something that the next time the TC meets to review these indicators, that could be something that we ask the TC to discuss at that time, and then report back to the Board, probably this time next year.

MS. BAUER: Yes, absolutely, we can have them discuss that next year if that works for everyone on the Board.

CHAIR BATSAVAGE: Okay, does that seem like a reasonable ask? Yes, I'm seeing heads nodding, so yes, we can do that. Yes, thanks, Erika, I think just to kind of provide something a little more concrete from the Board to get input from the TC would be good.

CONSIDER APPROVAL OF ATLANTIC CROAKER, RED DRUM, AND SPOTTED SEATROUT FISHERY MANAGEMENT PLAN REVIEWS AND STATE COMPLIANCE FOR THE 2022 FISHING YEAR

CHAIR BATSAVAGE: If nothing else on this, we'll move on to the next agenda item, which is to Consider Approval of the Atlantic Croaker, Red Drum and Spotted Seatrout FMP Reviews and State Compliance Reports for the 2022 Fishing Year. Tracey is going to go through each one individually, she is going to pause for questions after each, but then we'll take up motions after she's done presenting all three FMP reviews. Tracey, whenever you're ready.

MS. BAUER: Good afternoon, everyone. Like he said, I'm going to be going through the Red Drum, Atlantic Croaker and Spotted Sea Trout FMP Reviews. The Black Drum one is actually finished as well, but you'll

get that one through an e-mail vote, so we're not going through so many at this meeting.

I'm going to start off the presentation today by going through the red drum FMP Review. Red Drum are managed by the Commission through Amendment 2 to the Interstate FMP in Addendum I. The Addendum required states to implement recreational creel and size limits to achieve at least a 40 percent static spawning potential ratio, and included a maximum size limit of 27 inches, and maintained existing commercial regulations.

Then Addendum I, which went into effect in 2013 updated Amendment 2's habitat section to include current information on red drum spawning habitat and habitat by life. It also describes key habitats and habitats of concern, including threats and ecosystem considerations. On this slide I'm just going to touch on a couple of the more recent red drum assessments.

As you guys are all probably aware, the 2017 red drum stock assessment and peer review report indicated that overfishing was not occurring for either the northern or southern stocks of red drum. But that assessment was not able to determine an overfished or not overfished status, because of the population abundance could not be reliably estimated, due to limited data for the older ages. That assessment had a terminal year of 2013.

Fairly recently, I just wanted to touch on more local or state-specific stock assessment in Florida. They had completed that in 2020, with a terminal year of 2019, and on the Atlantic coast estimates of current escapement rates, in the formerly defined northeast region, had exceeded their target of 40 percent, where the formerly defined southeast region of Florida exceeded the escapement rate in the terminal year, but the three-year-average did not meet the current escapement rate management target. Now moving on to reviewing the status of the fishery.

I wanted to start off with a high-level overview of the red drum fishery in 2022, so 5.8 million pounds of red drum were harvested in 2022, which is slightly lower than the previous year at 6.2 million pounds. In 2022, 56 percent of the total landings were from the southern region and 44 percent were from the northern region. This close to equal split of the total landings between the north and the south regions is a somewhat recent trend, whereas in the past the majority of the landings were always from the south.

This is something we've been seeing maybe since 2019 or so. There is no commercial harvest in the southern region, obviously, so the commercial landings given on the slide are all from the northern region, and were about 192,000 pounds in 2022, which was a slight decrease from 2021, when it was about 220,000 pounds.

This harvest, the 192,000 pounds is about 7 percent of the total landings in the northern region. Now I'm going to focus specifically on the recreational landings as the majority of the harvest. In this figure, the orange bars are recreational landings in millions of pounds from the northern region, and the blue bars are recreational landings from the southern region. Just as a reminder, I've been talking about the northern region and southern region a lot. The northern region is New Jersey to North Carolina, and the southern region is South Carolina to Florida. In the northern region recreational landings were estimated to be 2.4 million pounds in 2022, which was just a very slight decrease from the previous year at 2.6.

North Carolina was estimated to have the most recreational landings, followed by Virginia. In the southern region, recreational landings were estimated to be 3.3 million pounds in 2022, which was very similar to 2021, when it was 3.4 million pounds. Florida was estimated to have the most pounds of recreational landings in this region, followed by Georgia.

Just a note that recreational landings declined in Florida by 35 percent, but increased in Georgia by 113 percent, and increased in South Carolina by 32 percent. This figure shows the total removals compared to the number of fish released in both the southern and northern region. The purple bars are total removals, and the red line is releases, both from

the northern region, and then in the southern region the maroon bars are the total removals, and the orange line is releases. That is all in millions of fish.

About 500,000 fish were harvested in the recreational fishery in the northern region in 2022, which was a decline about 13 percent from 2021, and 2.9 million fish were released in the northern region, which was a decline of 23 percent from 2021. Since it is estimated to, at least the current estimate that we're using in the stocks assessments and such of 8 percent of released fish size at the result of being caught.

This results in an estimate of dead discards of about 236,000 red drum in 2022 in the northern region. Recreational removals from the fishery are best estimated to be about 736,000 fish in 2022 in the northern region. Moving on to the southern region, about 1.23 million fish were harvested in the recreational fishery in the southern region, which was a slight increase in recreational harvest in 2021, and 7.3 million fish were released in the southern region, which is a slight decrease from 2021.

With that 8 percent discard mortality rate, this results in an estimated about 583,000 dead discarded fish in 2022 in the southern region, and so recreational removals in the southern region are estimated to be about 1.8 million fish in 2022. I next just wanted to briefly touch on and give a high-level overview of one change in Florida's management measures that occurred last year.

In 2022, Florida adopted a more holistic approach to red drum management, to really focus on better capturing regional differences and improved angler satisfaction. Each year, they will be evaluating the red drum stock in each of their management regions using set metrics. Results will be summarized in annual reviews.

Regulations before then may be changed based on the results of these reviews. When I did this for the first time, last year, 2022, reviewing the metrics and getting subsequent stakeholder feedback, regulation changes were approved for red drum in state waters, and went into effect on September 1, 2022. Those regulations changes for the areas on the Atlantic coast are on the slide, but they are mainly reduced bag limits and vessel limits, though in one region the Indian River Lagoon region, is now currently catch and release only. Finally, PRT recommendations. The PRT, when reviewing the compliance reports found no inconsistencies among states, with regards to the FMP requirements. Both New Jersey and Delaware requested de minimis status through the annual reporting process, and as a reminder, Amendment 2 currently does not include a specific method to determine whether a state qualifies for de minimis.

The PRT has chosen in the past and now to evaluate an individual state's contribution to the fishery, by comparing the two-year average of total landings of the state to that of the management unit. New Jersey and Delaware each harvested zero landings, zero percent of the two-year average of total landings, so they both met those requirements.

Additional research and monitoring recommendations can be found in the FMP review document, and in a simulation assessment and peer review report. I won't spend time going through those today, but you can touch base with me if you have any questions. But that's where I will end for red drum, if anyone has any questions.

CHAIR BATSAVAGE: Thanks, Tracey, any questions on the red drum FMP review? Seeing none; move on to the next one, which is croaker.

MS. BAUER: We're going to be going pretty quickly through the Atlantic croaker FMP review. Atlantic croaker, as a reminder, is currently managed under Amendment 1 to the Atlantic croaker FMP, and then Addenda I through III, which was 2011, 2014, and 2020. Amendment 1 did not require any specific measures restricting harvest, but encouraged states with conservative measures to maintain them.

It also established a set of management triggers. However, Addenda II and III established and revised that traffic light analysis, and the resulting management responses to replace that original set of management triggers. Then Addendum I had

revised the management programs biological reference points to assess stock condition on a coastwise basis, as recommended by the 2010 stock assessment.

Really briefly, review current stock status information for Atlantic croaker. The most recent peer reviewed stock assessment is that 2010 stock assessment, with a terminal year of 2008, and found that croaker was not experiencing overfishing. Overfished status could not be determined. As a reminder, the assessment completed in 2017, was not recommended for peer review, so current stock status is unknown.

But as you guys all know, in the absence of a recent peer reviewed assessment we're using the traffic light analysis at this time. Moving on to the status of the fishery. We'll start to look at Atlantic croaker landings. In this figure the black line is commercial landings, and the red dashed line is recreational landings, both in millions of pounds.

Total Atlantic croaker harvest from New Jersey through the east coast of Florida in 2022, was estimated to be 2.8 million pounds, and the commercial and recreational fishery harvested 25 percent and 75 percent of the 2022 total respectively. About 684,000 pounds of Atlantic croaker were harvested commercially in 2022, which is the lowest of the time series, dating back to 1950. Within the management unit, the majority of the 2022 commercial landings came from North Carolina, followed by Virginia and Florida. I will now review the Atlantic croaker recreational landings and releases. In this figure, the blue bars represent landings of Atlantic croaker in millions of fish, and the red bars are fish released alive.

Then the black line is percent of fish that were released out of the total catch. In 2022, anglers released 30.5 million fish, which is an increase from the 27.4 million fish released in 2021. Anglers also released a slightly greater percentage of the total recreational catch in 2022, compared to 2021.

An estimated 85.5 percent of the total recreational croaker catch was released in 2022, which is the highest percentage on record for a second year in a row. Last year was just slightly lower, 84 percent. The 2022 recreational landings were estimated at 5.1 million fish, and 2.1 million pounds, which was pretty similar to the previous year. The PRT recommendations are pretty straightforward.

They found no inconsistencies among states, in regard to the FMP requirements, and again as a reminder, states are permitted to request de minimis status if for the three previous years which data are available, their average commercial landings or recreational landings by weight constitute less than 1 percent of the coastwide commercial or recreational landings for the same three-year period.

A state seemed to qualify for de minimis in either its recreational or commercial sector, or both, but will only qualify for exemptions in the sector which qualify for de minimis. This year, New Jersey, Delaware, South Carolina and Georgia requested de minimis status for their commercial fisheries, and New Jersey and Delaware requested de minimis for the recreational fishery.

The PRT found that these states met all the requirements of de minimis for the sectors they requested it for. Again, additional research and monitoring recommendations can be found in the FMP Review Document. I'll stop there for any questions.

CHAIR BATSAVAGE: Any questions on the Atlantic croaker FMP review? Okay, seeing none; we'll move on to spotted sea trout.

MS. BAUER: All right, thanks, Mr. Chair. Lastly, Spotted Sea Trout FMP Review. Spotted sea trout is currently managed under the Omnibus Amendment to the Spanish mackerel, spot and spotted sea trout FMPs. This amendment established a 12-inch total length minimum size limit, or a comparable mesh size requirement. It also established de minims and applies guidelines, keeping the FMP in line with ASMFC guidelines and established adaptive management.

I'll briefly review what is known about the spotted

sea trout stock status through these state-specific stock assessments. There has been no coastwide assessment of spotted sea trout, as the PRT has not recommended one due to the life history of the species and availability of data. In 2019, the Florida stock assessment update on Florida's Atlantic coast used the regional base assessed model to estimate current transitional spawning potential ratios. It estimated 31 percent in the northeast management region, which was below their 35 percent management target, and then 34 percent in the southeast management region, which was just below or at the management target. Work on a new benchmark stock assessment is underway in Florida, and is scheduled to be completed in the fall of 2024.

Then there was a recently completed, just last year, a benchmark stock assessment for spotted sea trout in North Carolina and Virginia waters. It was completed and approved for management use in North Carolina in late 2022. The assessment indicated the spotted sea trout stock in North Carolina and Virginia wasters was not overfished, but overfishing was occurring.

A review of the North Carolina FMP is currently underway, and Amendment 1 to the North Carolina spotted sea trout FMP will focus on management to end overfishing, and ensure sustainable harvest. Again, I'll move into a brief summary of the status of the fishery, starting with an overview of the commercial and recreational harvest.
This figure shows coastwide recreational and commercial harvest for spotted sea trout by year in millions of pounds. In 2022, the commercial landings totaled about 681,000 pounds, which is an 11 percent decrease from 2021, and North Carolina accounted for a majority of the commercial landings with 88 percent, followed by Virginia at 10 percent.

Total recreational landings with the past total commercial landings every year since recreational landings were first recorded in 1981. Recreational harvest has in general remained stable throughout the time series, with an average of 4 billion fish in the last four years, the last five years, and recreational harvest in 2022 was 6.5 million pounds or 3.8 million fish, with North Carolina, Georgia and Florida responsible for the largest shares in numbers of fish.

I will now focus on the recreational catch and releases. In this figure it shows coastwide recreational catch in millions of fish, with harvest shown on the gray line and releases shown on the black dash line. In 2022, recreational catch totaled 25.9 million fish, which was a 17 percent increase from 2021.

The percent of fish released in 2022, 83 percent was about equal to the percent of fish released in 2021. The number of fish released has averaged 18.9 million fish in the last ten years, and in 2022, 22.1 million fish were released, which is the third highest number released in the time series, and the highest since 2018. Finally, a slide sea trout PRT recommendations. The PRT found no inconsistencies among states with regard to the FMP requirements, and recommended approval of the state compliance reports and de minimis status for New Jersey and Delaware.

For spotted sea trout, a state qualifies for de minimis status if it's previous three-year average of combined commercial and recreational harvest is less than 1 percent of the previous three-year average coastwide. The PRT found that both New Jersey and Delaware met these requirements, so again additional research monitoring recommendations are found in the FMP review document, and I can take any questions.
CHAIR BATSAVAGE: Any questions on the Spotted Sea Trout FMP Review? Joe Cimino.

MR. JOE CIMINO: I was just curious. I know groups tend to look at tagging data for red and black drum. But has there ever been kind of like a review of tagging data for speckled trout, just to get some idea of movement and interstate activity?

MS. BAUER: I know I could speak towards North Carolina's effort. Spotted sea trout tagged in North Carolina have been found up the Chesapeake Bay, up into Virginia and Maryland waters. I'm not sure they've gone any farther than that though. My

information is about a year or so out of date. I don't know if Virginia has any information about theirs.

CHAIR BATSAVAGE: Shanna.

MS. MADSEN: We have, I mean we obviously still continue tagging. We have our tagging program. I don't know who has necessarily been reviewing it, in order see if trends have been changing, or anything like that. But if it's something that you would be interested in, we can definitely look into it.

CHAIR BATSAVAGE: Erika.

MS. BURGESS: Joe, are you interested in it for a stock unit understanding, or are you interested in movement?

MR. CIMINO: A little of both. I'm just wondering if New Jersey has interest in having new regulations, and I'm just trying to kind of understand where our fish are coming from.

MS. BURGESS: I doubt they are coming from Florida, but we have a genetic analysis of the stock units in our state, if you're interested.

CHAIR BATSAVAGE: Good, thanks, yes, I guess this is something, oh we don't have a TC, this is a Plan Review Team, right for speckled trout.

MS. BAUER: Yes, correct, spotted sea trout only has a PRT.

CHIAR BATSAVAGE: Okay, so I guess if it was an interest to the Board and at a future meeting to have some analysis or information on tagging movements. Is that something that could possibly be done, Tracey? It kind of falls out of the typical realm where you have a TC that provides this information. In this case, it could be the individual states providing information, or it could be just kind of done more informally, to where maybe the states can provide, Joe can reach out offline to those states. I'll look to Joe.

MR. CIMINO: That's fine. I'll reach out to the states, I appreciate that.

CHAIR BATSAVAGE: Yes, it might be the easiest solution. Any other questions on spotted sea trout? Okay, then we are at a point for motions. Tracey, I don't know if it's a one large motion, or do we have individual motions for each FMP review?

MS. BAUER: I think we've settled on individual motions for each FMP review.

CHAIR BATSAVAGE: Okay, that makes perfect sense. Starting off, I guess in order with Red Drum. Get a motion up on the board, see who would like to make it. Lynn Fegley.

MS. LYNN FEGLEY: I **would move to approve the Red Drum FMP Review for the 2022 fishing year, state compliance reports and de minimis status for New Jersey and Delaware.**

CHAIR BATSAVAGE: Okay, Erika Burgess seconds the motion. Any discussion on the motion? **Any opposition to the motion? Motion passes unanimously.** Next up will be Croaker. Get it up on the board. Okay, see who would like to make a motion for this. Shanna, want to read that into the record, please?

MS. MADSEN: **Move to approve the Atlantic Croaker FMP Review for the 2022 fishing year, state compliance report and de minimis status for New Jersey, Delaware, South Carolina and Georgia commercial fisheries, and New Jersey and Delaware recreational fisheries.**

CHAIR BATSAVAGE: Okay, Roy, I saw your hand go up too at the same time, you second that? Okay. **Any discussion on the motion? Any opposition to the motion? That motion also carries unanimously**. Last but not least Spotted Sea Trout. All hands go up. Ingrid, read that in the record, please?

MS. INGRID BRAUN: **Move to approve the Spotted Seatrout FMP review for the 2022 fishing year, state compliance reports, and de minimis status for New Jersey and Delaware.**

CHAIR BATSAVAGE: I'll allocate the second, I saw John Clark's hand go up, so second by John Clark**. Is**

there any opposition to the motion? That motion also passes unanimously.

PROGRESS UPDATE ON 2024 RED DRUM, ATLANTIC CROAKER, AND SPOT BENCHMARK STOCK ASSESSMENTS

CHAIR BATSAVAGE: Next item to cover is the Progress Update on the 2024 Red Drum, Atlantic Croaker, and Spot Benchmark Stock Assessment. I'll turn to Jeff Kipp to give us an update.

MR. JEFF J. KIPP: There are three items I'll be covering for this agenda item. The first two will be progress updates on the ongoing Red Drum, Spot and Atlantic Croaker assessments. It will require no Board action. The third item will be to consider an update to the Atlantic Croaker and Spot Stock Assessment Subcommittee, which is an action item.

The Red Drum Assessment kicked off earlier this year with data gathering. The TC and SAS met for a virtual data workshop in June, to review the available datasets and identify data development tasks to support the assessment. A particular development from the Data Workshop of interest to the Board was the decision to switch from a calendar year to a fishing year from September through August, for tracking the stocks in the assessment models.

All population estimates and stock status will be based on this fishing year definition. This decision will provide some benefits like matching the model's age structure to the biological age structure, but did require recalculating datasets, so I did want to acknowledge the TC for taking on the additional workload.

The next milestones will be an assessment workshop in a few weeks in Charleston, South Carolina. The SAS will meet to review follow ups from the Data Workshop and model development. For the remainder of the process, we'll have a second assessment workshop in March, to finalize the model results and stock status determinations. A peer review workshop in August, which will be coordinated by SEDAR, and the assessment and peer review will be presented to the Board at the annual meeting next year.

REVIEW AND CONSIDER RECOMMENDED CHANGES TO THE TIMELINE FOR THE SPOT AND ATLANTIC CROAKER BENCHMARK STOCK ASSESSMENTS

MR. KIPP: Now moving to the Spot and Croaker Assessments, which are going through the assessment process together, with a joint Stock Assessment Subcommittee.

The original timeline was similar to the Red Drum Assessment. We started off earlier this year with data gathering. The TCs and SAS met in May for a virtual data workshop, to review datasets and identify data development tasks. Following the Data Workshop and before our first Assessment Workshop, we did have an unscheduled item come up, which was the lead analyst for the Croaker Assessment model, Laura Lee from NCDMF taking a new position, and she will no longer be able to serve as the lead analyst role.

This development created a personnel and experience bottleneck that required the SAS to revise the assessment timeline and request additional support on the SAS during the Policy Board meeting at the Commission's August meeting. We did not find a new lead analyst, but we did receive a nomination for our SAS member, with stock synthesis expertise that could support our remaining lead analyst for the assessment.

We did move forward with an assessment workshop in September, to review follow ups on data workshop items, and to begin development of a model for croaker, anticipating the delay for the Spot Assessment. I won't go into the top of the slide here, given that this was just presented and approved at the Policy Board. We did modify the assessment timeline, but for a few additional details on the remaining croaker timeline. We do have an assessment workshop in February, and a peer review in the summer of next year.

The assessment and peer review will be presented to

the Board at the annual meeting next year, along with Red Drum. Then the new Spot timeline will delay the assessment until November of 2024, when we will revisit updated data. There will be an assessment workshop in February of 2025, and the assessment will be peer reviewed in the summer of 2025.

The assessment and peer review will be presented to the Board at the 2025 annual meeting. I do want to note that this is a fairly aggressive timeline to get both of these assessments completed, following the loss of expertise and support that we experienced, and it will be dependent on having the TCs and SAS fully engaged throughout both assessments over the next several years.

As I noted a few slides back, we did receive a nomination for a new SAS member to help support the assessment. That nomination for your consideration is Trey Mace from Maryland DNR. If approved, Trey would be joining the existing SAS membership listed on the screen, and would fill the spot vacated by Laura Lee. That concludes my presentation, I can take any questions on the assessment.

CHAIR BATSAVAGE: Thanks, Jeff, any questions? Yes, Spud.

MR A. G. "SPUD" WOODWARD: Thank you, Jeff. Obviously, the Data Workshops were conducted before this FES issue was revealed to us. Do you anticipate during the assessment workshops that there are going to be some discussions about the possible bias in some of that data, and how to address it? I think all of us are going to be a little concerned that we may have some distorted results in these assessments, because of that unknown, but probably existing bias.

MR. KIPP: Yes, thanks for that question. We do anticipate having discussions about that. We did proactively meet with MRIP staff, and did discuss some potential sensitivity runs that we could explore during our Assessment Workshops to help understand what the potential implications would be, noted that some of these assessments will be completed before those adjusted data are available.

We don't anticipate major complications, because what was covered at that MRIP presentation was that MRIP expects these effort changes to be consistent across years. What we think we're going to see is a scaling effect, where we have a lower magnitude in catch, but a similar trend through time.

In terms of the assessment stock and stock status, we would expect certainly the population biomass and abundance estimates to decrease, with effort changes that decrease. But the overall trends in those population estimates should be similar. But we will certainly include those sensitivity runs, to better understand that, and that will be part of that assessment package.

CHAIR BATSAVAGE: Yes, follow up, Spud.

MR. WOODWARD: I'm just looking ahead into the future. We did the sensitivity runs; we make an evaluation of where there is a risk. I guess I'm making erroneous management decisions. I guess the other question is going to be, when we get the results of this expanded FES study, should that affect the timing of when we do the next assessments? I mean if we find something that is of great concern to us, are we going to need to maybe make some adjustments, and update those stock status determinations, maybe earlier than we would have done otherwise?

MR. KIPP: Yes, definitely. I think the SAS can consider that we do have a Term of Reference for the assessment that makes it the responsibility of the SAS and TC to make recommendations on future assessment updates and benchmarks. I think certainly, with some of those preliminary sensitivity runs.

Having an understanding there that will help play into those recommendations, and we could start and make a recommendation to update those assessment models a year or two after, once those updated MRIP data become available, if it does look like there is going to be some implications.

CHAIR BATSAVAGE: Yes, I guess that could probably also have potential implications for future management too. Where if there was a management response that was being considered from the assessment. I guess we would have to look at the results and see how that is impacted by the new FES estimates, to determine whether, do the assessment update before considering management, but I guess we'll cross that bridge when we get to it. But I think those are good questions and things to consider over the next few years. Any additional questions for Jeff? Seeing none.

REVIEW AND POPULATE ATLANTIC CROAKER AND SPOT STOCK ASSESSMENT SUBCOMMITTEE MEMBERSHIP

CHAIR BATSAVAGE: Then what we have before us then is to Consider Approval of the Stock Assessment Subcommittee nomination for spot and croaker for Trey Mace. I'll be looking for a motion for that. Lynn.

MS. FEGLEY: I am thrilled to **nominate Trey Mace to the Spot and Atlantic Croaker Stock Assessment Subcommittee.**

CHAIR BATSAVAGE: Okay, and second by Malcolm Rhodes. **Any discussion on the motion? Any objection or opposition? Seeing none; the motion carries.** Greatly appreciate Trey joining the SAS, definitely could use as much stock assessment help as we can, to get both these assessments done, in addition to the other assessments going on too.

ADJOURNMENT

CHAIR BATSAVAGE: That leaves us with Other Business. Is there any other business to come before the Sciaenids Board? Okay, seeing none; this should be my last meeting as Board Chair for the Sciaenids Board.

I appreciate the opportunity to do this over the last couple years. Next time we meet we'll be under the capable leadership of Doug Haymans. Doug, you've got your work cut out for you with a few assessments coming up. I think we'll be fine. Look for a motion to adjourn. Plenty of hands, we are adjourned, thanks everyone and safe travels home.

(Whereupon the meeting adjourned at 1:00 p.m. on October 19, 2023)

DRAFT FOR BOARD REVIEW

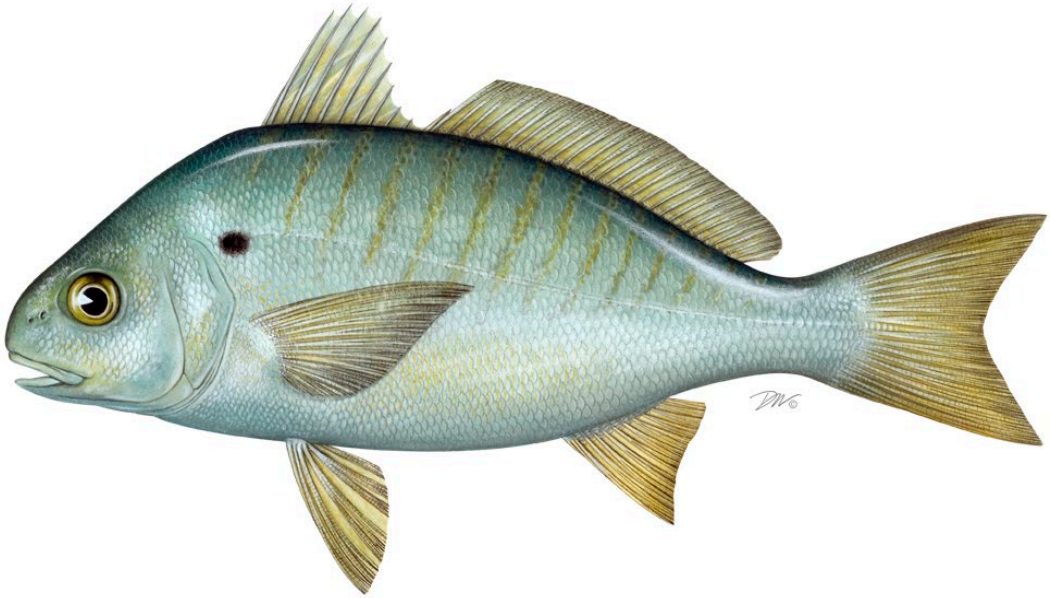
ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR

SPOT
(*LEIOSTOMUS XANTHURUS*)

2022 FISHING YEAR



Drafted by the Plan Review Team
Drafted January 2024

Sustainable and Cooperative Management of Atlantic Coastal Fisheries

DRAFT FOR BOARD REVIEW

Table of Contents

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: 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 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 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 2022 are estimated at 3.9 million pounds, a decrease of 45% from 2021 (7.1 million pounds) and below the 10 year average of 8.3 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. The recreational fishery harvested more than the commercial fishery (62% and 38% respectively, in 2022, 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 1950-2022, commercial spot landings have ranged between 632,950 pounds in 2016 and 14.52 million pounds in 1952 (Figure 1). In 2022, 1.5 million pounds were harvested commercially. Virginia landed approximately 55% of the commercial harvest in 2022, followed by North Carolina 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. The majority of estimated 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 2022 has varied between 12.8 million fish in 2022 and 54.4 million fish in 1985 (or 2.4 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 2022. In 2022, recreational landings declined by approximately 2.6 million fish from 2021, or a decline of about 52% (Tables 2 and 3). Anglers in Virginia harvested 70% of the coastwide number of fish in 2022, followed by anglers in Maryland (13%). 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 2022 releases estimated at 16.1 million fish, a 1.1 million fish increase from 2021. Releases have 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, but the completion of this assessment has

been delayed until after the completion of the the Atlantic Croaker benchmark assessment, due to the loss of a lead modeler from the joint stock assessment subcommittee.

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 not conducted in 2023 so the TC could focus on working on the 2025 benchmark stock assessment. A summary of last year's TLA can be found in last year's FMP Review here, or in the report here.

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.

Addendum II

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.

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

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, none of which are included in the plan, and are not required to implement TLA triggered regulations outlined in Addendum III.

VII. *De Minimis* Requests

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

Delaware exceeds the 1% threshold for the third year in a row. In the FMP review for fishing year 2021, the PRT stated that if Delaware exceeded the percentage for *de minimis* for a third year, they would no longer recommend *de minimis* status for Delaware. However, Delaware's exceedance for fishing year 2022 was extremely minimal at 1.05%, and has ranged between 1.05% and 1.20% in the last three years. Delaware has historically been *de minimis*.

In requesting continued *de minimis*, Delaware notes the following: 1) Delaware's recreational harvest has been below 1% of the coastwide harvest since 2016; 2) Delaware's exceedance of the 1% combined recreational and commercial harvest threshold is due to Delaware's commercial harvest exceeding 1% of coastwide harvest for a majority of the past 10 years; 3) Delaware's exceedance of the 1% *de minimis* threshold for combined harvest over the past few years is due to the coastwide decline in recreational landings being larger than the coastwide decline in commercial landings, thus increasing the importance of commercial landings in the

combined *de minimis* calculations; and 4) Delaware's recreational and commercial harvest are closer to those of the *de minimis* states than to the states responsible for most of the spot harvest.

The PRT does not recommend *de minimis* status for Delaware. In addition to Delaware total harvest being over the 1% threshold for the third year in a row, the PRT notes that the preliminary estimate of 2023 spot recreational harvest in Delaware is nearly 12 times the amount of 2022 harvest, and so Delaware will likely not qualify for *de minimis* in the following year either.

VIII. Implementation of FMP Compliance Requirements for 2022

All states within the management unit have submitted compliance reports for the 2022 fishing year. The PRT found no inconsistences among states with regards to the requirements of the Omnibus Amendment and Addendum III.

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 minimi*s 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 by-catch 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. Spot Stock Assessment Peer Review Report. 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

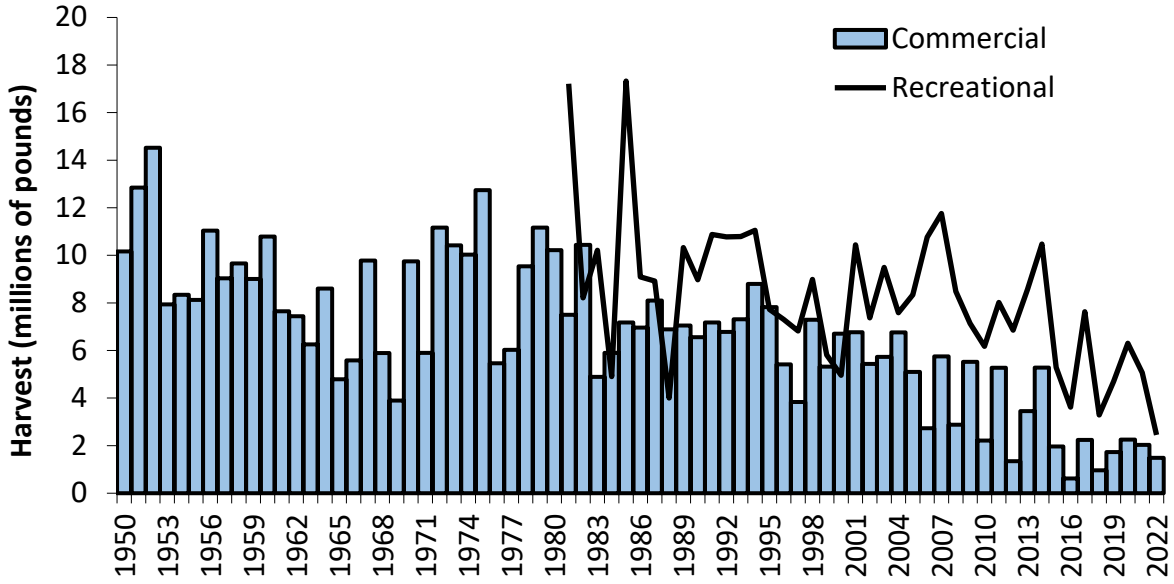


Figure 1. Spot commercial and recreational landings (millions of pounds), 1950-2022. (Recreational landings available from 1981-present; see Tables 1 and 2 for state-by-state values from 2013-2022 and data sources).

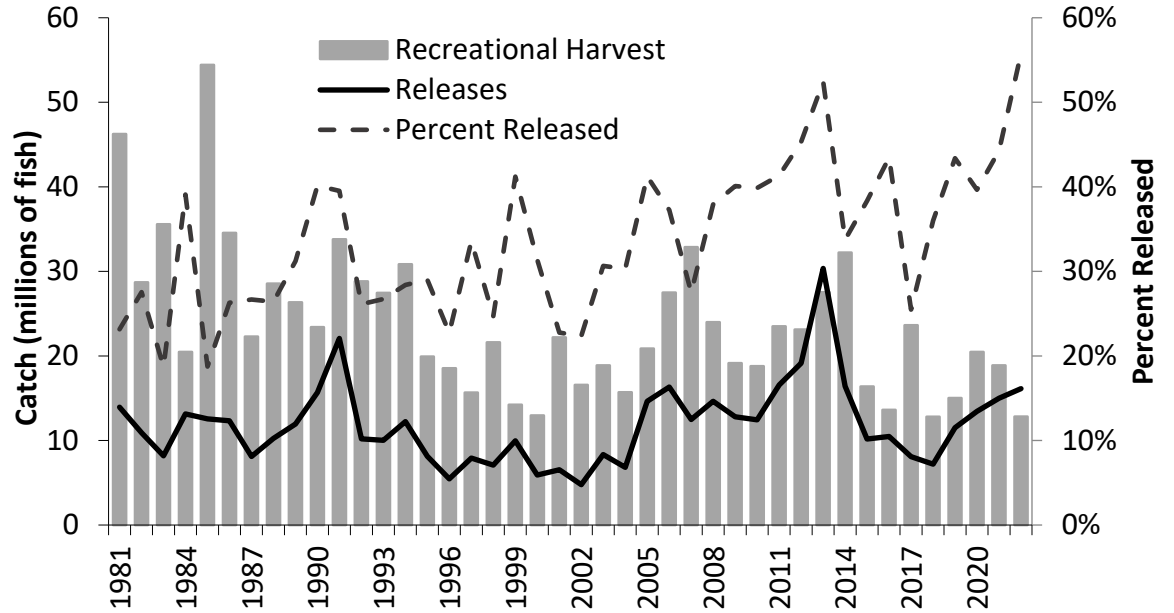


Figure 2. Spot recreational harvest and releases (millions of fish), as well as percent of the total catch that was released, 1981-2022. (See Tables 3 and 4 for state-by-state values from 2013-2022 and data sources).

Table 1. Commercial landings (pounds) of spot by state 2013-2022. (Source: ACCSP for 2021 and earlier for all jurisdictions, except PRFC; annual compliance reports for 2022 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
2013	179,980	48,324	C	335,462	41,286	2,044,538
2014	C	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	22,976	C	C	33,043	C	1,094,523
2020	684	25,882	C	73,669	C	1,512,946
2021	14,646	C	C	50,033	37,503	1,293,353
2022	3,171	C	C	30,912	35,346	816,464

	NC	SC	GA	FL		Total
2013	768,592	2,446	0	31,368		3,451,995
2014	766,224	5,917	C	16,742		5,281,330
2015	376,979	1,619	0	27,969		1,963,850
2016	241,044	1,059	0	82,875		617,288
2017	415,465	3,200	0	47,304		2,237,922
2018	167,696	4,514	0	68,864		960,299
2019	392,206	C	0	108,346		1,727,341
2020	542,870	C	0	22,424		2,255,189
2021	527,468	C	0	39,374		2,029,019
2022	543,104	C	0	22,992		1,487,230

Table 2. Recreational harvest (pounds) of spot by state, 2013-2022. (Source: MRIP for 2021 and earlier and annual compliance reports for 2022. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2013	18,889	423,887	244,253	720,315	3,443,742
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

	NC	SC	GA	FL	Total
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
2020	297,813	131,952	7,377	234,040	6,300,383
2021	435,231	171,999	3,337	78,463	5,065,989
2022	375,168	281,240	12,712	20,586	2,450,241

Table 3. Recreational harvest (numbers) of spot by state, 2013-2022. (Source: MRIP for 2021 and earlier and annual compliance reports for 2022. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2013	51,903	1,177,944	581,699	2,456,346	11,733,669
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

	NC	SC	GA	FL	Total
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
2020	920,512	391,298	24,225	457,671	20,464,083
2021	1,199,080	639,579	14,320	224,910	18,869,782
2022	1,197,145	747,290	43,773	68,340	12,811,389

Table 4. Recreational releases (numbers) of spot by state, 2013-2022. (Source: MRIP for 2021 and earlier and annual compliance reports for 2022. Data dating back to 1981 are available upon request to the NMFS Fisheries Statistics Division.)

Year	N of NJ	NJ	DE	MD	VA
2013	2,203	2,737,742	537,632	7,620,695	7,549,286
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

	NC	SC	GA	FL	Total
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
2020	1,673,676	384,252	115,347	281,175	13,444,225
2021	2,357,567	977,296	45,746	968,972	14,993,887
2022	2,331,484	192,706	310,532	59,608	16,131,642

Table 5. Summary of state regulations for spot in 2022, 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)