

# DECISION DOCUMENT

## Spotted Seatrout Fishery Management Plan

### Amendment 1



This document was developed to help the MFC Advisory Committees track previous activity and prepare for upcoming actions for Spotted Seatrout FMP Amendment 1.

October 2024

# Summary

At their October 2024 meetings, the Marine Fisheries Commission (MFC) Northern, Southern, and Finfish Advisory Committees will review and provide input on the draft of Amendment 1 to the Spotted Seatrout Fishery Management Plan (FMP). They will receive public comment on the draft of Amendment 1 and vote on recommended management options for the MFC. At their November business meeting, Division staff will present a summary of public comment and any MFC Advisory Committee management recommendations to the MFC.

# Background

The [2022 stock assessment](#) indicated the Spotted Seatrout stock in North Carolina and Virginia waters is not overfished but overfishing is occurring. The North Carolina Fishery Reform Act of 1997 requires a Fishery Management Plan to specify a timeframe not to exceed two years from the date of adoption of the plan to end overfishing.

Amendment 1 to the Spotted Seatrout Fishery Management Plan is being developed to address overfishing in the Spotted Seatrout fishery. Although the 2022 stock assessment covers spotted seatrout in both North Carolina and Virginia waters, the management unit covered by Amendment 1 is limited to all Spotted Seatrout within the Coastal and Joint Fishing Waters of North Carolina. The Spotted Seatrout fishery is primarily a recreational fishery, with recreational harvest accounting for 86% of total harvest since 2012. Commercial harvest has accounted for 14% of total Spotted Seatrout harvest over the same period. However, harvest in both sectors increased sharply in 2019 and has remained high through 2022. As such, management measures to achieve sustainable harvest focus on both sectors.

# Amendment Timing

*(gray indicates a step is complete)*

March 2023	Division holds public scoping period
May 2023	MFC approves goal and objectives of FMP
May 2023 – March 2024	Division drafts FMP
April 2024	Division held workshop to review and further develop draft FMP with the Spotted Seatrout FMP Advisory Committee
May – July 2024	Division updates draft plan
August 2024	MFC Reviews draft and votes on sending draft FMP for public and AC review
October 2024	<b>MFC Regional and Standing Advisory Committees meet to review draft FMP and receive public comment</b>
November 2024	MFC selects preferred management options
December 2024 – January 2025	DEQ Secretary and Legislative review of draft FMP
February 2025	MFC votes on final adoption of FMP
TBD	DMF and MFC implement management strategies

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## Goals and Objectives

The goal of this plan is to manage the Spotted Seatrout (*Cynoscion nebulosus*) fishery to maintain a self-sustaining population that provides sustainable harvest based on science-based decision-making processes. The following objectives will be used to achieve this goal:

1. Implement management strategies within North Carolina that end overfishing and maintains the Spotted Seatrout spawning stock abundance and recruitment potential.
2. Promote restoration, enhancement, and protection of critical habitat and environmental quality in a manner consistent with the Coastal Habitat Protection Plan, to maintain or increase growth, survival, and reproduction of the Spotted Seatrout stock.
3. Monitor and manage the fishery in a manner that utilizes biological, socioeconomic, fishery, habitat, and environmental data.
4. Promote outreach and interjurisdictional cooperation regarding the status and management of the Spotted Seatrout stock in North Carolina and Virginia waters, including practices that minimize bycatch and discard mortality.

## Summary of Preliminary Management Recommendations

A summary of the DMF's preliminary recommendations can be found below. ***Please note: these are the Division's preliminary recommendations and are subject to change.***

The DMF recommends the following options that are projected to end overfishing with a greater than 70% probability of keeping spawning stock biomass (SSB) above the target:

### Recreational Recommendations

- 3-fish recreational bag limit ([Appendix 2: Sustainable Harvest Issue Paper](#))
- 14"–20" recreational slot limit with allowance for one fish >26" ([Appendix 2: Harvest Issue Paper](#))
- Jan–Feb statewide recreational harvest closure ([Appendix 2: Sustainable Harvest Issue Paper](#))
- Eliminate the captain/crew allowance on for-hire trips with no broader vessel limit ([Amendment 3: Supplemental Management Issue Paper](#))

### Commercial Recommendations

- Oct–Dec, 11:59 p.m. Friday to 12:01 a.m. Tuesday statewide commercial harvest closure ([Appendix 2: Sustainable Harvest Issue Paper](#))
- Jan–Feb statewide commercial harvest closure ([Appendix 2: Sustainable Harvest Issue Paper](#))
- Stop Net Management ([Appendix 2: Sustainable Harvest Issue Paper](#))
  - Stop nets are restricted to the Atlantic Ocean on Bogue Banks and maintain a 4,595 lb. Spotted Seatrout season quota.

- A maximum of four stop nets are allowed between Beaufort Inlet and Bogue Inlet at any one time and each combined fishing operation is limited to a maximum of two stop nets at any one time.
- The season will open no sooner than October 15 and close when the Spotted Seatrout quota is reached or no later than December 31.
- Stop net crews must contact N.C. DMF Marine Patrol Communication each time a stop net is set and two hours prior to each time a stop net is fished.
- The same day a stop net is fished and the catch is landed at the fish house, a representative of the stop net crew must contact DMF Fisheries Management Section to report the daily total of Spotted Seatrout harvest in pounds as it appears on the trip ticket. Same day reporting is required even if zero Spotted Seatrout are harvested.
- Failure to follow reporting requirements will result in an immediate closure of the stop net fishery.
- Additional gear and setback requirements from previous proclamations will continue.

## General Recommendations

### Adaptive Management

The adaptive management framework allows for adjusting management measures outside of an updated stock assessment to ensure compliance with and effectiveness of management strategies adopted in Amendment 1 and is a tool to respond to concerns with stock conditions and fishery trends. Upon evaluation by the division, if the management strategy implemented to achieve sustainable harvest (either through Amendment 1 or a subsequent revision) is not achieving the intended purpose, management measures may be revised or removed and replaced using adaptive management; provided it conforms to part 2.

- Management measures that may be adjusted using adaptive management include:
  - a. Season closures
  - b. Day of week closures
  - c. Trip limits
  - d. Size limits
  - e. Bag limits
  - f. Gear restrictions in support of the measures listed in a-e

### Cold Stun Management

- Extend fishery closure until June 30th following a cold stun
- Adaptive Management Framework

# Management Options

*(Options recommended by DMF are outlined in blue)*

## Sustainable Harvest

These management options attempt to strike a balance between access to the fishery for both sectors, the necessary harvest reduction to end overfishing, accounting for potential harvest recoupment, and maintaining the current abundance of Spotted Seatrout available. Additionally, management in the recently adopted Amendment 2 to the Striped Mullet Fishery Management Plan was considered as there is a high degree of overlap in the seasonality and gear types used in the commercial Striped Mullet and Spotted Seatrout fisheries. These options are predicted to reduce harvest of Spotted Seatrout in ways that are quantifiable using existing data.

A 19.9% reduction in total harvest relative to 2019–2022 total harvest is required to reach the fishing mortality threshold and meet the statutory requirement to end overfishing while a harvest reduction of 53.9% is required to reach the fishing mortality target. Because of spikes in effort across both sectors in recent years and the potential for harvest recoupment from some management measures, the Division recommends a precautionary approach to increase the likelihood of achieving sustainable harvest.

## Option 1: Size Limits

*(Refer to pp. 47-51 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

Changing the current Spotted Seatrout minimum size of 14” is unlikely to reach the needed harvest reduction to meet statutory requirements. Additionally, the reduction from increasing the minimum size is most likely to be achieved in the short term while the long term harvest reduction is lower with some portion of harvest being recouped. A delay in harvest could provide non-quantifiable benefits by allowing more fish to spawn prior to harvest. However, Spotted Seatrout growth rates would likely minimize these non-quantifiable benefits as sub-legal fish grow quickly back into the fishery. Harvest reduction from a slot limit is more likely to be realized in the long term as Spotted Seatrout would grow out of the fishery relatively quickly. Implementing a slot limit for the commercial sector would likely increase dead discards. Pairing a slot limit with corresponding changes to allowable mesh sizes could prove ineffective at reducing dead discards due to the lack of size selectivity across various mesh sizes (Page 30 of Draft Amendment 1). A very narrow slot limit, even if implemented for just the recreational sector, could theoretically reduce total harvest more than the 19.9% reduction needed to reach  $F_{\text{Threshold}}$  (Page 51 of draft Amendment 1, Table 2.3). However, size limit changes alone will not address the potential for increased dead discards, the high recoupment potential if commercial harvest shifted toward larger fish, and the recent trend of increased effort in both sectors. For a full discussion of size limits, see pp. 46–52 in draft Amendment 1.

- a. *Status Quo – no change to commercial size limit. Consider recreational size limit changes as a part of the overall management strategy to achieve sustainable harvest but not as a single solution option.*

- b. *Recreational 16”–20” slot limit with allowance for one fish over 24” and commercial 16” minimum size limit*

## Option 2: Seasonal Closures

*(Refer to pp. 51-52 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

Seasonal closures can be an effective way of limiting harvest, especially when closures are at the end of the biological year to prevent recoupment of harvest. It is possible to end overfishing through a closure that spans the spawning season (p. 54 of draft Amendment 1, Table 2.4), however; it is likely some amount of recoupment would occur after the season closure. A spawning season closure would also have to be longer than a winter closure (i.e., a closure at the end of the biological year) to reduce harvest to a level that will meet management objectives. Closures not at the end of the biological year should be extended or paired with other management options to increase the likelihood of reaching management objectives. Day of the week closures are a type of season closure and could be used for the commercial sector to reduce harvest. Similar to other seasonal closure options not at the end of the biological year, there is the potential for harvest recoupment if commercial effort shifts to days when the fishery is open. Day of the week closures could be considered in tandem with other management measures to ensure management objectives are met. See pp. 52-56 of draft Amendment 1 for a full discussion of seasonal closures.

- a. *Status Quo – manage fishery without seasonal harvest closure*
- b. *Dec 16 – Feb 28/29 harvest closure (both sectors)*
- c. *11:59 p.m. Friday–12:01 a.m. Tuesday commercial harvest closure October 1–December 31 and Jan 1–February commercial harvest closure. Consider recreational seasonal closures as a part of the overall management strategy to achieve sustainable harvest but not as a single solution option.*
- d. *Nov 1 – Feb 28/29 harvest closure (both sectors)*

## Option 3: Bag and Trip Limits

*(Refer to pp. 55-58 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

It is possible to reduce total Spotted Seatrout harvest to reach the  $F_{\text{Threshold}}$  by decreasing the recreational bag and commercial trip limits, but it is not possible to reduce total harvest to reach the  $F_{\text{Target}}$  through changes to the bag or trip limits alone (draft Amendment 1 pp. 56 and 58, Tables 2.6 and 2.7). Any recreational bag or commercial trip limit would be a daily limit. Recreational bag and commercial trip limit changes could be accompanied by gear changes or limits to allowable gear (See Amendment 1 Appendix 1 and Appendix 3) to minimize the probable increase in dead discards caused by bag or trip limit changes. For a full discussion of bag and trip limit options, see pp. 56-59 of draft Amendment 1.

- a. *Status Quo – manage fishery without changes to current trip limit and consider recreational bag limit changes as a part of the overall management strategy to achieve sustainable harvest but not as a single solution option.*

- b. *Reduce recreational bag limit to 2 fish and commercial trip limit to 45 fish*

## Option 4: Stop Nets

*(Refer to pp. 58-59 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

The stop net fishery is a modification of a traditional beach seine that primarily targets Striped Mullet and is unique to Bogue Banks. The 2012 Spotted Seatrout FMP implemented a 75 fish trip limit, but the MFC tasked the DMF Director with addressing the stop net fishery outside the 2012 FMP. Since 2012, the Bogue Banks stop net fishery has opened and closed by proclamation and operates with a 4,595 lb. Spotted Seatrout quota with various reporting requirements outlined in a Memorandum of Agreement (MOA) signed by a party of the fishery and the DMF Fisheries Management Section Chief. Due to the strict existing management of this fishery, the potential for additional harvest reduction from the recently adopted Amendment 2 to the Striped Mullet FMP, and the low contribution to Spotted Seatrout landings under current management, additional harvest restrictions may not be necessary for the stop net fishery. However, formalizing current management of the stop net fishery should be considered in this amendment. See Spotted Seatrout FMP Amendment 1 pp. 58–59 for a full discussion of stop net management.

- a. *Status quo – 4,595 lb. season quota with terms and conditions of stop net fishery and responsibilities of the stop net crew outlined in Memorandum of Agreement.*
- b. *Stop nets are restricted to the Atlantic Ocean on Bogue Banks and maintain a 4,595 lb. Spotted Seatrout season quota. A maximum of four stop nets are allowed between Beaufort Inlet and Bogue inlet at any one time and each combined fishing operation is limited to a maximum of two stop nets at any one time. The season will open no sooner than October 15 and close no later than the sooner of December 31 or when the Spotted Seatrout quota is reached. Any weekend closures to commercial harvest implemented in Option 2 will also apply to the Bogue Banks stop net fishery. Stop net crews must contact N.C. DMF Marine Patrol Communication each time a stop net is set and at least two hours prior to each time a stop net is fished. The same day a stop net is fished and the catch is landed at the fish house, a representative of the stop net crew must contact DMF Fisheries Management Section to report the daily total of Spotted Seatrout harvest in pounds as it appears on the trip ticket. Same day reporting is required even if zero Spotted Seatrout are harvested. Failure to follow reporting requirements will result in an immediate closure of the stop net fishery. Additional gear and setback requirements from previous proclamations will continue.*

## Option 5/6: Combination Management Measures

*(Refer to pp. 59-62 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

Combining multiple strategies to achieve management goals is common in fisheries management. Multiple management measures rather than a single, standalone management

measure allow for more specific, targeted management to account for a variety of factors including species life history and biology, differences in the fishery (e.g., industry, regional, etc.), or competing interests in the fishery, and better minimize recoupment. As there are few standalone management measures to end overfishing in the Spotted Seatrout fishery, combination measures will help ensure management is realistic and management objectives are more likely to be achieved. See pp. 59–62 of the Spotted Seatrout FMP Amendment 1 for a full discussion of combination management measures.



## Combination Management Measures

Table 2.8. Combination management measures to end overfishing and achieve sustainable harvest. The Total % Reduction column shows the total percent reduction if no changes to commercial management are implemented. Unless otherwise noted, season closures or bag limit reductions include the entirety of the month. \*Total reduction does not reduce F to the 19.9% threshold (options 1.a, and 1.b). Harvest reduction in pounds is based on 2019–2022 average recreational harvest.

Option #	Season Closure	Bag Limit (number of fish)	Size Limit	Recreational Reduction (lb)	Recreational Reduction (%)	Total % Reduction
5.a	Jan-Feb	Oct-Dec 3 fish	-	738,113	22.1	18.9*
5.b		Nov-Feb 3fish	16" minimum	741,453	22.2	19.0*
5.c	-	Oct-Feb 3 fish	14-20", 1 over 26"	824,950	24.7	21.1
5.d	Jan 16-Feb	-	14-20", 1 over 26"	935,166	28.0	23.9
5.e	Dec 16-Feb	3 fish	-	1,015,323	30.4	26.0
5.f	Jan-Feb	-	14-20", 1 over 26"	1,078,781	32.3	27.6
5.g	Jan-Feb	Oct-Dec 3 fish	14-20", 1 over 26"	1,205,696	36.1	30.9
5.h	Apr-Jun	3 fish	14-20", 1 over 26"	1,292,533	38.7	33.1
5.i	Jan-Feb	3 fish	14-20", 1 over 26"	1,319,252	39.5	33.8
5.j	Dec 16-Feb	3 fish	14-20", 1 over 26"	1,436,148	43.0	36.7
5.k	Apr-Jul	3 fish	14-20", 1 over 26"	1,439,488	43.1	36.8
5.l	Dec-Feb	2 fish	14-20", 1 over 26"	1,923,770	57.6	49.2

Table 2.9. Combination management measures to end overfishing and achieve sustainable harvest. The Total % Reduction column shows the total percent reduction if no recreational management changes are implemented. No management options applied solely to the commercial sector reduce *total* harvest to a level where F meets the 19.9% threshold. Unless otherwise noted, seasonal closures include the entirety of the month. Harvest reduction in pounds is based on 2019–2022 average commercial harvest.

Option #	Season Closure	Trip Limit (number of fish)	Size Limit	Commercial Reduction (lb)	Commercial Reduction (%)	Total % Reduction
6.a	Jan 16-Feb	60	-	131,210	23.1	3.4
6.b	Jan-Feb	65	-	145,979	25.7	3.7
6.c	Jan-Feb	-	16" min	149,955	26.4	3.8
6.d	Feb	45	-	164,155	28.9	4.2
6.e	Jan 16-Feb	45	-	193,124	34.0	4.9
6.f	Jan-Feb	50	-	197,100	34.7	5.0
6.g	Dec 16-Feb	60	-	202,780	35.7	5.2
6.h	Dec-Feb	40	-	314,110	55.3	8.0

## Option 7: Adaptive Management

The current Spotted Seatrout adaptive management framework needs to be updated. Adaptive management is a structured decision-making process when uncertainty exists, with the objective of reducing uncertainty through time with monitoring. Adaptive management provides flexibility to incorporate new information and accommodate alternative and/or additional actions.

1. The adaptive management framework allows for adjusting management measures outside of an updated stock assessment to ensure compliance with and effectiveness of management strategies adopted in Amendment 1 and is a tool to respond to concerns with stock conditions and fishery trends. Upon evaluation by the division, if the management strategy implemented to achieve sustainable harvest (either through Amendment 1 or a subsequent revision) is not achieving the intended purpose, management measures may be revised or removed and replaced using adaptive management; provided it conforms to part 2.
2. Management measures that may be adjusted using adaptive management include:
  - a. Season closures
  - b. Day of week closures
  - c. Trip limits
  - d. Size limits
  - e. Bag limits
  - f. Gear restrictions in support of the measures listed in a-e

## Supplemental Management

As a result of the popularity of Spotted Seatrout as a targeted species; Marine Fisheries Commission (MFC) commissioners, MFC Advisory Committee members, and the public have mentioned a wide variety of potential recreational and commercial management strategies that could benefit the Spotted Seatrout stock but the scope of which are not immediately quantifiable. The increase in recreational trips targeting Spotted Seatrout and increased total Spotted Seatrout harvest in recent years combined with the presence of a dedicated catch and release segment of the recreational fishery suggest that even management measures lacking immediately quantifiable benefits are worth exploring. Additionally, there are management measures that could provide supplementary benefits when paired with sustainable harvest measures discussed in Appendix 2.

## Option 1: Vessel Limits

*(Refer to pp. 71-72 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

Limiting the harvest of fish through a vessel limit less than the sum of individual bag limits when multiple anglers are on a vessel or by eliminating the allowance for captain and crew to keep a

recreational limit when on for-hire trips are common practices in many state and federal fisheries. For a full discussion of vessel limits, see pp. 68–69 of draft Amendment 1.

- a. Status Quo – Manage fishery without changes to vessel limit or for-hire captain/crew allowance
- b. Eliminate captain/crew allowance for Spotted Seatrout on for-hire trips with no broader vessel limit
- c. Implement 8 fish Spotted Seatrout vessel limit with captain/crew allowance on for-hire trips counted as part of vessel limit.

## Cold Stun Management

Spotted Seatrout are susceptible to periodic cold stun events which occur when water gets so cold that it slows down a fish’s body functions, making them sluggish or unable to move. In North Carolina, Spotted Seatrout are more likely than other commercially and recreationally important fish species to experience population-level effects from these events. Cold stun events can occur because of snow and ice melt following a winter storm or by sudden and-or prolonged periods of cold temperatures. At their February 2012 business meeting, the Marine Fisheries Commission (MFC) directed the division to remain status quo regarding spotted seatrout cold stun management, with the assumption that in the event of a “catastrophic” cold stun the director would use proclamation authority to enact a temporary closure. The objective of a spotted seatrout fishery closure after a cold stun event is to allow surviving fish an opportunity to spawn during their spring spawning season, potentially increasing recruitment the following year. Cold stun management options include size limits (draft Amendment 1 pp. 79–80), recreational bag and commercial trip limits (draft Amendment 1 pp. 80–81), seasonal closures (draft Amendment 1 pp. 81-82), area closures (draft Amendment 1 pp. 82–83), and an adaptive management framework (draft Amendment 1 pp. 83–84).

### Option 1: Season Closures

*(Refer to pp. 83-84 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

- a. Status quo – fishery closed until June 15 following a cold stun
- b. Extend fishery closure until June 30 following a cold stun
- c. Extend fishery closure until October 15 following a cold stun

### Option 2: Size Limits

*(Refer to pp. 79-80 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

- a. Status quo – no size limit change following a cold stun
- b. Temporary adjustment of size and-or slot limits following a cold stun

### Option 3: Bag and Trip Limits

*(Refer to pp. 84-85 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

- a. Status quo – no recreational bag or commercial trip limit changes following a cold stun
- b. Temporary adjustment of recreational bag or commercial trip limits following a cold stun

### Option 4: Adaptive Management Framework

*(Refer to pp. 86-87 in the Draft Spotted Seatrout FMP Amendment 1 for additional details)*

1. If a severe cold stun event occurs the Director will close the spotted seatrout fishery statewide through the date adopted in this Amendment
2. Temporary measures that may be implemented through adaptive management to aid in stock recovery after the standard closure period following a cold stun event include:
  - a. recreational bag limit
  - b. commercial trip limit
  - c. size limit changes
  - d. seasonal closure
  - e. gill net yardage restrictions
  - f. Use of adaptive management to further aid in stock recovery once the fishery reopens following a cold stun event is contingent on approval by the Marine Fisheries Commission.

## Next Steps

The Division will consider input received during the public comment period and AC review prior to finalizing recommendations. Comments received during the comment period and AC recommendations, as well as the Division's final management recommendations, will be presented to the MFC during their November business meeting. At that meeting, the MFC will select their preferred management options.