

#### **Mid-Atlantic Fishery Management Council**

800 North State Street, Suite 201, Dover, DE 19901 Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman Christopher M. Moore, Ph.D., Executive Director

# **MEMORANDUM**

**Date:** March 27, 2020

**To:** Chris Moore, Executive Director

From: Julia Beaty, staff

**Subject:** Scoping Plan for Black Sea Bass Commercial Allocation Amendment

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) are working on a joint amendment/addendum to consider changes to the allocations of the black sea bass commercial quota among states and to consider whether these allocations should be added to the Council's FMP. The state allocations are currently included only the Commission's FMP. More information on this developing action is available at: <a href="http://www.mafmc.org/actions/bsb-commercial-allocation">http://www.mafmc.org/actions/bsb-commercial-allocation</a>.

Following discussions at the February 2020 Council meeting, Council leadership agreed to move forward with one webinar scoping hearing on this amendment. An extensive scoping period with multiple hearings is not recommended as many potential alternatives for this amendment have already been partially developed and discussed at multiple public meetings, including eight Council and/or Board meetings and one Advisory Panel meeting.

The proposed webinar scoping meeting will provide an additional formal public comment opportunity prior to finalization of a range of alternatives, which is planned for the June 2020 joint Council and Board meeting.

During their upcoming April 2020 meeting, the Council will be asked to approve a scoping document for this amendment. A draft scoping document is attached. The example alternatives included in the draft document are based on the recommendations of the Commission's Plan Development Team. Council staff advise against making notable changes to these alternatives until after considering scoping comments and additional Plan Development Team input during a future joint meeting with the Board. As this is a joint action, it is preferable for notable changes to the types of alternatives under consideration to be made after joint discussions between the Council and Board.





# Black Sea Bass Commercial State Allocation Amendment/Addendum

**DRAFT** Scoping Document

March 2020



# What is scoping?

Scoping is the process of identifying issues, potential impacts, and a reasonable range of alternatives associated with fisheries management actions. It provides an early opportunity for the public to make suggestions and raise concerns about developing actions and helps determine which management alternatives are further developed and analyzed.

This action is unique in that development of certain management alternatives began before the action was formally initiated. These alternatives have already been discussed at several public meetings; however, the final range of alternatives to be considered has not yet been identified. The scoping process will provide an additional opportunity for the public to provide input on the alternatives currently under consideration, as well as other potential management approaches, before the final range of management alternatives is approved.

Please comment on which types of alternatives may or may not be useful or practical for meeting the goal of this action and explain your reasoning. Please also comment on any other relevant issues that should be considered regarding this action.

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# List of acronyms and abbreviations

ASMFC or Commission Atlantic States Marine Fisheries Commission

Board The ASMFC's Summer Flounder, Scup, and Black Sea Bass

Management Board

FMP Fishery Management Plan

ITQ Individual Transferable Quota

MAFMC or Council Mid-Atlantic Fishery Management Council

NMFS National Marine Fisheries Service

# 1) Introduction

The Atlantic States Marine Fisheries Commission (Commission or ASFMC) and the Mid-Atlantic Fishery Management Council (Council or MAFMC) jointly manage commercial black sea bass fisheries from Maine through Cape Hatteras, North Carolina. The Council develops regulations for federal waters while the Commission and member states develop regulations for state waters. The National Marine Fisheries Service (NMFS) serves as the federal implementation and enforcement agency.

As described in more detail below, the Commission and Council are seeking public input on a management action to consider potential modifications to the allocations of the black sea bass commercial quota among the states of Maine through North Carolina. This action will also consider whether the state allocations should be included in both the Commission and Council's Fishery Management Plans (FMPs). Currently, the state allocations are only included in the Commission's FMP.

# 2) What are the current state allocations of the black sea bass commercial quota and how were they developed?

The black sea bass commercial quota is managed on a coastwide basis in federal waters. In state waters, it is allocated among the states of Maine through North Carolina using the percentages shown in Table 1. These percentages were loosely based on landings data from 1980-2001.

These allocations are currently managed through the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass FMP. They are not currently included in the Council's FMP; however, the Council was closely involved in their initial development.

State quota allocations for black sea bass were first proposed by the Council and Commission in 1996 through Amendment 9 to the FMP; however, the National Marine Fisheries Service disapproved this aspect of the amendment due to implementation and enforcement concerns. The Commission and Council considered state quota allocations a second time through Amendment 13, which was approved by both groups in 2002. Of all the quota options considered in Amendment 13, a state-by-state quota system implemented through state and federal regulations was preferred by both the Council and Commission. However, the National Marine Fisheries Service Regional Administrator at the time stated that such a system could not be monitored effectively at the federal level with the then current monitoring methods due to low allocations in some states. (Many of these concerns have subsequently been resolved with changes to how commercial landings are reported.) In response to this advice, the Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved the allocations shown in Table 1 and both the Council and Board approved an annual coastwide quota system for federal waters. The approved state allocations were presented as a compromise to account for higher landings (especially in northern states) in years not considered through Amendment 13 analysis (i.e., 1998-2001) and concerns about equity. It was initially intended that these allocations would be in place for 2003 and 2004, with the potential for revisions for 2005. The Commission's Addendum XII (2004) extended their use through 2006 and Addendum XIX (2007) extended their use indefinitely.

Table 1: Current allocations of the black sea bass commercial quota among states.

State	Percent of Coastwide Quota
Maine	0.5 %
New Hampshire	0.5 %
Massachusetts	13.0 %
Rhode Island	11.0 %
Connecticut	1.0 %
New York	7.0 %
New Jersey	20.0 %
Delaware	5.0 %
Maryland	11.0 %
Virginia	20.0 %
North Carolina	11.0 %

# 3) Why are the Commission and Council considering changes to these allocations?

As shown in Table 1, under the current allocations, 67% of the annual coastwide quota is divided among the states of New Jersey through North Carolina and 33% is divided among the states of New York through Maine. As previously stated, these allocations were loosely based on historical landings from 1980-2001 and were approved in 2002.

As shown in Figure 1, the black sea bass stock assessment shows that spawning stock biomass in the northern region (i.e., approximately Maine through Hudson Canyon) has greatly increased since 2002, while the amount of biomass in the southern region (i.e., approximately south of Hudson Canyon through Cape Hatteras) has not greatly changed. Although the state allocations were never based on distribution of the stock, some northern region states have noted that changes in availability and distribution have made it increasingly difficult to constrain landings to their current allocations.

In response to these concerns, in August 2018, the Board formed a Commercial Black Sea Bass Working Group to identify specific management issues related to changes in stock distribution and abundance and to develop potential management strategies for further consideration. They later formed a Plan Development Team to perform additional technical analysis of approaches recommended by the Board for further consideration. In October 2019, after considering the Working Group recommendations and Plan Development Team analysis, the Board initiated Draft Addendum XXXIII. In December 2019, the Council initiated a complementary amendment. Both the addendum and amendment will consider whether changes should be made to the state allocations and whether these allocations should be managed under both the Commission and Council FMPs, rather than only under the Commission's FMP as is currently the case.

#### **Goals of Management Action**

- Consider adjusting the current commercial black sea bass allocations using current distribution and abundance of black sea bass as one of several adjustment factors to achieve more balanced access to the resource. These adjustment factors will be identified as the development process moves forward.
- Consider whether the state allocations should continue to be managed only under the Commission's FMP or wether they should be managed under both the Commission and Council FMPs.

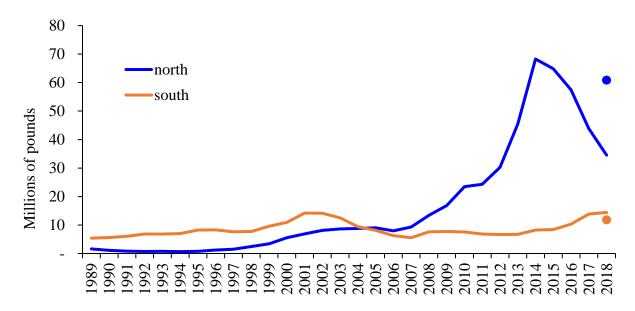


Figure 1. Black sea bass spawning stock biomass by region from the 2019 Operational Assessment Update. Open marks represent retro-adjusted values (used to set catch limits). Source: Personal communication with Northeast Fishery Science Center.

## 4) Potential management alternatives

This joint addendum/amendment is unique in that much analysis was done before the Council and Board formally initiated a management action. Typically, they would first agree on a goal statement and then carry out a public scoping process before deciding on the types of management alternatives to be further analyzed and considered. However, some Board members wished to better understand how the allocations might change before initiating an action to consider such changes. For this reason, the Commercial Black Sea Bass Working Group and Plan Development Team have already begun to consider several potential management approaches. These approaches are described in more detail below.

The approaches listed below have not yet been approved by the Board and Council for inclusion in the final range of alternatives. The goal of this scoping process is to provide one additional formal public comment opportunity before the Council and Board agree to the final range of management alternatives. They are expected to approve a final range of alternatives after considering public comments and additional Plan Development Team analysis during their June 2020 joint meeting. An additional public comment period will be held later in 2020 to solicit input on preferred alternatives for implementation.

<u>Please provide comments on which approaches should or should not be considered through this action. Please also provide comments on the specific sub-options which should be considered.</u>

#### A. No action

This alternative would maintain the current state allocation percentages (Table 1).

# B. Increase Connecticut's allocation as a standalone action or before applying other changes listed below

This alternative would increase Connecticut's 1% allocation to 5% as a standalone option or prior to applying other alternatives listed below. The rationale behind this alternative is that the increased biomass off Connecticut has made it increasingly difficult to constrain landings to their 1% allocation. Five percent was chosen as the revised allocation (or initial allocation, depending on other alternatives chosen) so that Connecticut's allocation (or initial allocation) does not exceed that of any other states except for Maine and New Hampshire, which have very low black sea bass landings.

This alternative was proposed by a Board member from Connecticut who suggested achieving the 4% increase in Connecticut's allocation through the following steps:

Please comment on the suitability of any of the options listed in this document, as well as other options that may be appropriate, and describe your reasoning.

The Commission and Council will approve a range of alternatives for further consideration after reviewing public comments.

- 1) Leave the New York and Delaware allocations (or initial allocations, depending on other alternatives) unchanged. This is based on the assumption that New York has experienced a similar increase in black sea bass abundance in state waters as Connecticut. Delaware's current allocation is 5%. This option does not seek to make Connecticut's allocation (or initial allocation) larger than any other state with the exception of Maine and New Hampshire.
- 2) Move 1/2 of Maine and New Hampshire quotas to Connecticut.
- 3) Move allocation from Massachusetts, Rhode Island, New Jersey, Maryland, Virginia, and North Carolina to Connecticut. The amount moved from each state would be proportional to that state's current percent allocation.

The resulting allocations (or initial allocations) by state are shown in Table 2.

Table 2: Current and revised state allocations under the proposal provided by a Connecticut Board member to increase Connecticut's allocation to 5%.

State	Current	Change in	New
	allocation	allocation	allocation
ME	0.5%	-0.2500%	0.2500%
NH	0.5%	-0.2500%	0.2500%
MA	13.0%	-0.5291%	12.4709%
RI	11.0%	-0.4477%	10.5523%
CT	1.0%	4.0000%	5.0000%
NY	7.0%	0.0000%	7.0000%
NJ	20.0%	-0.8140%	19.1860%
DE	5.0%	0.0000%	5.0000%
MD	11.0%	-0.4477%	10.5523%
VA	20.0%	-0.8140%	19.1860%
NC	11.0%	-0.4477%	10.5523%

#### C. Dynamic adjustments to regional allocations (DARA)

This is formulaic approach that aims to balance stability for the fishery, based on historical allocations, with gradual allocation adjustments based on regional shifts in resource distribution. Through incremental adjustments over time, the state allocations become less dependent on the historical allocations and more dependent on regional resource distribution. As the name implies, this is a dynamic approach and the allocations would be updated on a regular basis based on parameters determined by the Board and Council. Example parameters suggested by the Plan Development Team are described below.

Please provide comments on the appropriateness of this approach in general, as well as recommendations for specific sub-options to consider under each parameter listed below.

#### Regional configurations

The DARA approach accounts for regional shifts in black sea bass distribution. The regions would be defined by the Council and Board. Two potential options recommended by the Plan Development Team for consideration are listed below. Under both options, Maine and New Hampshire's allocations would remain unchanged as they have not declared an interest in the fishery.

- Two region approach: 1) MA-NY and 2) NJ-NC. These regions roughly align with those used for the stock assessment.
- Three region approach: 1) MA-NY, 2) NJ, and 3) DE-NC. Under this option, New Jersey would be its own region, acknowledging its unique position straddling the two regions defined in the stock assessment. This option would be computationally more complicated than the previous option, which could pull distribution information directly from the stock assessment.

#### Frequency of adjustments to allocations

Under the DARA approach, the allocations would change on a regular basis, for example, every year, every other year, or a different frequency. The Board and Council would determine the frequency of changes.

#### Maximum change in allocations per adjustment

The Council and Board could set parameters to limit the scale of the change in allocations per adjustment. This could help provide more stability in the allocations or could transition them more quickly to allocations based more heavily on resource distribution, depending on the priorities of the Board and Council. For example, they could limit the percent allocation that can shift from one region to another each time the allocations are adjusted. They could also restrict how quickly the transition to allocations based more heavily on resource distribution should occur.

#### Final weighting values for historical allocations vs. resource distribution

Under the DARA approach, the Council and Board would agree to the final relative weights of the historical allocations and current distribution information in determining allocations. For example, final relative weights of 50% historical allocations and 50% distribution information would ultimately result in allocations based equally on these two factors. Final relative weights of 10% historical allocations and 90% distribution information would result in allocations that are mostly based on distribution information.

#### D. Trigger approach

Under this allocation approach, a minimum level of coastwide quota would be established as a "trigger" for changing the allocations to the states (e.g., 3 million pounds, 4 million pounds, or a different value). The coastwide quota would be distributed to the states in two steps:

- 1) The amount of coastwide quota up to and including the trigger would be distributed to the states according to the base allocations (described in more detail below).
- 2) Remaining quota above the trigger (surplus quota) would then be distributed either
  - a. Evenly among all states, or
  - b. Divided among regions (see page 7 for examples of how the regions could be defined) in proportion to the most current information on regional spawning stock biomass distribution. The regional surplus quota would then be divided among states within a region either
    - i. Evenly, or
    - ii. In proportion to their base allocations

The Council and Commission are interested in public input on questions such as:

Should the state allocations change? If so, how?

How frequently should they change and based on what factors?

Should the transition to new allocations occur gradually? If so, what's the appropriate timeframe for the transition?

Should the allocations be based all or in part on regional biomass distribution information?

If the allocations should be based on a combination of historical allocations and resource distribution information, what is the appropriate relative importance of these two pieces of information?

The goal of collecting public input at this stage is to help the Commission and Council determine a reasonable range of management alternatives for further consideration and evaluation.

An additional public comment period will be held at a later date to help the Council and Commission decide on preferred alternatives for implementation.

Other options for distribution of quota above the trigger may also be considered.

The Board and Council may also consider options for either static base allocations (i.e., each year the quota up to and including the trigger would be allocated according to the historical allocations) or dynamic base allocations (e.g., the quota up to and including the trigger would be allocated according to the final state allocation from the previous year).

#### E. Percentage of quota distributed based on historical allocations

Under this approach, a certain percentage of the coastwide quota (e.g., 25%, 50%, 75%) would be allocated to states based on the historical allocations. The remaining quota could then be distributed in a number of ways, including but not limited to:

- 1) Evenly among all states, or
- 2) Divided among regions (see page 7 for examples of how the regions could be defined) in proportion to the most current information on regional spawning stock biomass distribution. It would then be divided among states within a region either
  - a. Evenly, or
  - b. In proportion to their historical allocations

#### F. Other approaches

The Council and Board intend to approve a final range of alternatives during their June 2020 joint meeting. This final range of alternatives may include approaches not described in this document. If you wish to recommend that they consider other approaches, please provide as much detail as possible on your recommended approach and explain your reasoning

#### G. Inclusion in the Council's FMP

The state allocations are currently included in the Commission's FMP, but not the Council's FMP. This amendment/addendum will consider whether the allocations should be added to the Council's FMP. This would allow both the Council and Commission to have a voting role in any future changes to these allocations. This would not result in any other notable changes to how the fisheries are managed, monitored, or carried out unless the Council and Commission decide to consider alternatives for other specific changes.

# 5) How to provide scoping comments

The Council and Commission are in the early stages of developing this amendment/addendum. You will have additional opportunities to provide comments; however, now is the best time to provide input and raise concerns about the management alternatives which may be considered.

# Attend the scoping hearing

One webinar public scoping hearing will be held on *DATE AND TIME TBD*. Scoping hearings provide an opportunity to learn more about developing management actions, ask questions, and provide verbal and/or written comments.

#### Submit written comments

You may submit written comments through one of the following methods:

1) Online at: http://www.mafmc.org/comments/bsb-com-allocation-amendment

2) Email to: <a href="mailto:jbeaty@mafmc.org">jbeaty@mafmc.org</a>

3) Mail or Fax to:

Dr. Chris Moore, Executive Director Mid-Atlantic Fishery Management Council 800 North State Street, Suite 201 Dover, DE 19901

Fax: 302-674-5399

## Written comments must be received by 11:59 pm Eastern Daylight Time on <u>DATE TBD</u>.

Please include "black sea bass commercial allocation amendment/addendum" in the subject line if using email or fax, or on the outside of the envelope if submitting written comments.

All comments, regardless of submission method, will be shared with the Commission and Council and will be made publicly available on their respective websites. It is not necessary to submit the same comments to both the Council and Commission or through multiple channels.

# Stay informed

For additional information and updates on development of this action, please visit: <a href="http://www.mafmc.org/actions/bsb-commercial-allocation">http://www.mafmc.org/actions/bsb-commercial-allocation</a>.

The Council and Commission will publish announcements about future opportunities for public comment in the Federal Register and at <a href="https://www.mafmc.org">www.mafmc.org</a> and <a href="https://www.asmfc.org">www.asmfc.org</a>.

If you have any questions, please contact:

- Julia Beaty, Mid-Atlantic Fishery Management Council, at <u>jbeaty@mafmc.org</u> or 302-526-5250, or
- Caitlin Starks, Atlantic States Marine Fisheries Commission, at <u>cstarks@asmfc.org</u> or 703-842-0740.

## 6) Next steps

Table 3 describes the major expected next steps in development of this action. Announcements of relevant public meetings will be posted to the Council and Commission websites (<a href="www.mafmc.org">www.mafmc.org</a> and <a href="www.asmfc.org">www.asmfc.org</a>).

After development and consideration of management alternatives and analysis of their impacts, the Commission and Council will choose preferred alternatives for implementation. Commission decisions are final and not subject to an additional rulemaking process. The Council will submit their recommendations to the National Marine Fisheries Service for review and consideration for approval. Approved management measures will be implemented through publication of proposed and final rules in the Federal Register, which will include additional public comment periods. However, if the Council recommends no changes to the Council FMP (e.g., if they decide not to add the state allocations to the Council FMP), then these federal rulemaking steps will not occur.

While there will be additional opportunities for public comment on this amendment/addendum, the scoping period is particularly important for assisting the Council and Commission in determining the range of alternatives which may or may not be included in this action.

Table 3: Expected timeline for amendment/addendum next steps. This timeline is subject to change.

April/May 2020	Council scoping hearings and comment period
June 2020	Council and Board review scoping comments and Plan Development Team recommendations before approving range of alternatives and draft addendum document
Late summer/early fall 2020	Public hearings
December 2020	Council and Board take final action (i.e., chose preferred alternatives for implementation)
January 2021	Implementation of changes through Commission's FMP
Early though mid-2021	Federal rulemaking and comment periods
Late 2021/Early 2022	Effective date of changes to Council FMP (if any)

#### 7) Stock status

According to the 2019 operational stock assessment, the black sea bass stock was not overfished, and overfishing was not occurring in 2018. Spawning stock biomass in 2018 was estimated to be about 2.4 times the target level and fishing mortality was about 9% below the threshold level that defines overfishing. The 2011 year class (i.e., those fish spawned in 2011) was the largest black sea bass year class since at least 1989. The 2015 year class was also well above average; however, the 2017 year class is 72% below the 1989-2017 average.

# 8) Commercial fishery trends and socioeconomic information

The following information is based on commercial fishery dealer data, the most recent stock assessment, federal vessel trip reports, and input from fishermen and dealers.<sup>1</sup>

From 2009-2018, the total amount of commercial black sea bass landings from Maine through North Carolina caught in the northern region increased steadily, with the greatest increases occurring during 2015 - 2017. During 2009-2018, the amount of commercial black sea bass landings which were caught in the southern region was generally stable (Figure 2).

Commercial black sea bass landings have been constrained by a coastwide (i.e., Maine through Cape Hatteras, North Carolina) commercial quota since 1998, and state allocations were first implemented in 2003. Coastwide landings tend to closely follow the quotas, which from 1998-2019 ranted from a low of 1.09 million pounds in 2009 to a high of 4.12 million pounds in 2017.

Since 1998, on average commercial discards constituted 17% of total commercial removals. Over the last five years (2014-2018)<sup>2</sup> discards averaged 33% of total commercial removals. Discards in recent years were likely influenced by high availability coupled with quota and minimum fish size limitations.

Black sea bass are a valuable commercial species. Total ex-vessel value averaged \$12.07 million per year during 2017-2019. In some fisheries, ex-vessel price tends to decrease with increases in landings. However, during 2010-2019, the opposite occurred for black sea bass. During these years, the average annual ex-vessel black sea bass price per pound tended to increase with increases in landings (Figure 3). Landings have generally increased over time as the quotas increased; therefore, the relationship between price and landings could reflect increased market demand over time rather than a causal relationship between price and landings. This is not to say that sudden increases of black sea bass on the market do not cause decreases in price. Some fishermen and dealers have said that temporary price drops can occur at both the local and regional levels due to increases in the coastwide quota, state-specific seasonal openings, or individual trawl trips with high landings, all of which can be inter-related. These sudden price drops are often temporary and the price usually rises again.

During 2009-2018, bottom trawl gear tended to account for a higher proportion of total commercial landings and pots/traps tended to account for a lesser proportion of total commercial landings in years with higher quotas, compared to years with lower quotas. For example, the lowest quotas during 2009-2018 occurred during 2009-2012. During those years, bottom trawl gear accounted for around 38-44% of total commercial black sea bass landings and pots/traps accounted for about 33-39% (depending on the year). In comparison, the highest quotas occurred

<sup>&</sup>lt;sup>1</sup> Input was provided by 6 individuals who primarily identify as fishermen and 4 individuals who represent two commercial fish dealers. Collectively, these 10 individuals are from 5 states and use three different gear types (i.e., bottom otter trawl, pot/trap, and hand line). Their input is not intended to be a representative sample of the commercial black sea bass fishery as a whole. Their input was solicited to provide context to trends shown in the data and to document relevant information that is not captured in the available data.

<sup>&</sup>lt;sup>2</sup> 2019 discard estimates were not available at the time of writing this document.

during 2016-2018 when around 52-61% of total commercial black sea bass landings could be attributed to bottom trawl gear and around 21-26% to pot/trap gear. Some fishermen have said trawlers are better able to take advantage of increases in quota as they can land higher volumes than vessels using pot/trap gear. This can be especially beneficial when the price of black sea bass drops (usually temporarily) in response to sudden increases of fish on the market. For this reason, changes to the quota allocations in some states could impact the relative contribution of different gear types to the fishery.

As previously stated, each state develops management measures (e.g., possession limits, minimum fish sizes, and open/closed seasons) which are intended to achieve but not exceed their allocation. The states have taken different approaches to managing their commercial black sea bass fisheries. For example, Maryland, Delaware, and Virginia use an Individual Transferable Quota (ITQ) system. The differing allocations and management approaches along the coast have resulted in different management measures across the states. Many fishermen and dealers say they take these differences into account when deciding when to fish, where to sell fish, and what price to offer for fish. For example, the price offered by local dealers may be higher when neighboring states are closed. Alternatively, some fishermen and dealers in comparatively low allocation states say they generally do not make business decisions based on black sea bass. Due to the low allocations in some states, black sea bass provides supplemental income for these fishermen and dealers. For these reasons, the economic impacts of any changes in the state allocations will vary in part based on how states adjust their management measures in response to any changes. For example, an increase in the possession limit could have different impacts than an extension of the open season. ITQ fishermen may be impacted differently than non-ITQ fishermen. Pot/trap fishermen may be impacted differently than trawl fishermen.

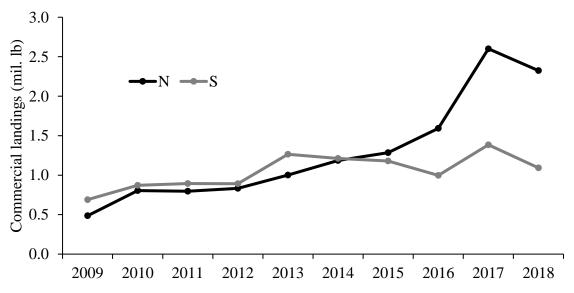


Figure 2: Total commercial black sea bass landings, 2009-2018, ME-NC, by region of catch location (North or South). Region is assigned based on statistical area of catch using the delineation defined in the stock assessment. Landings with an unknown statistical area were assigned to region based on the state of landing. Data source: dealer AA tables provided by the Northeast Fisheries Science Center.

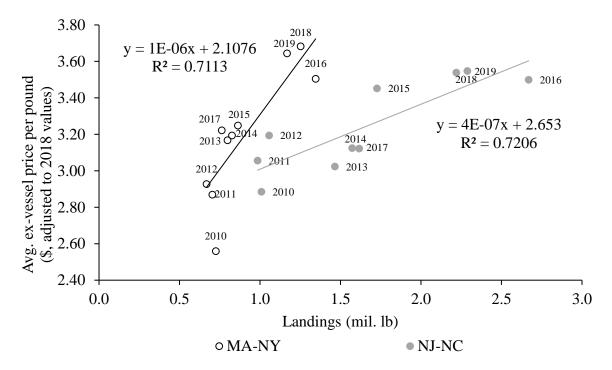


Figure 3: Average annual ex-vessel price per pound for black sea bass compared to annual black sea bass commercial landings by region (MA-NY and NJ-NC), 2010-2019, with associated linear relationship. Prices for 2010-2017 are adjusted to 2018 values based on the Gross Domestic Product Price Deflator. 2019 values are not adjusted. Data source: dealer data (CFDERS), provided by the NOAA Fisheries Greater Atlantic Regional Fisheries Office Analysis and Program Support Division.

## 9) Additional resources

- More information on this developing management action is available at: http://www.mafmc.org/actions/bsb-commercial-allocation.
- Fishery information documents, describing trends in the fisheries as well as a brief overview of management measures, can be found at: <a href="http://www.mafmc.org/sf-s-bsb">http://www.mafmc.org/sf-s-bsb</a>.
- The Council Fishery Management Plan and subsequent amendments and framework action documents are available at: <a href="http://www.mafmc.org/sf-s-bsb">http://www.mafmc.org/sf-s-bsb</a>.
- The Commission Fishery Management Plan and subsequent amendment and addendum documents are available at the following link: <a href="http://www.asmfc.org/species/black-sea-bass">http://www.asmfc.org/species/black-sea-bass</a>
- The most recent stock assessment information can be found at: <a href="http://www.mafmc.org/s/Operational-Assessments-for-Black-Sea-Bass-Scup">http://www.mafmc.org/s/Operational-Assessments-for-Black-Sea-Bass-Scup Bluefish.pdf</a>