

Draft Document for Board Review. Not for Public comment.

Atlantic States Marine Fisheries Commission

**DRAFT ADDENDUM XXXI TO THE SUMMER FLOUNDER, SCUP,
BLACK SEA BASS FISHERY MANAGEMENT PLAN**

Conservation Equivalency and Block Island Sound Transiting



This draft document was developed for Management Board review and discussion.

This document is not intended to solicit public comment as part of the Commission/State formal public input process. Comments on this draft document may be given at the appropriate time on the agenda during the scheduled meeting. If approved, a public comment period will be established to solicit input on the issues contained in the document.

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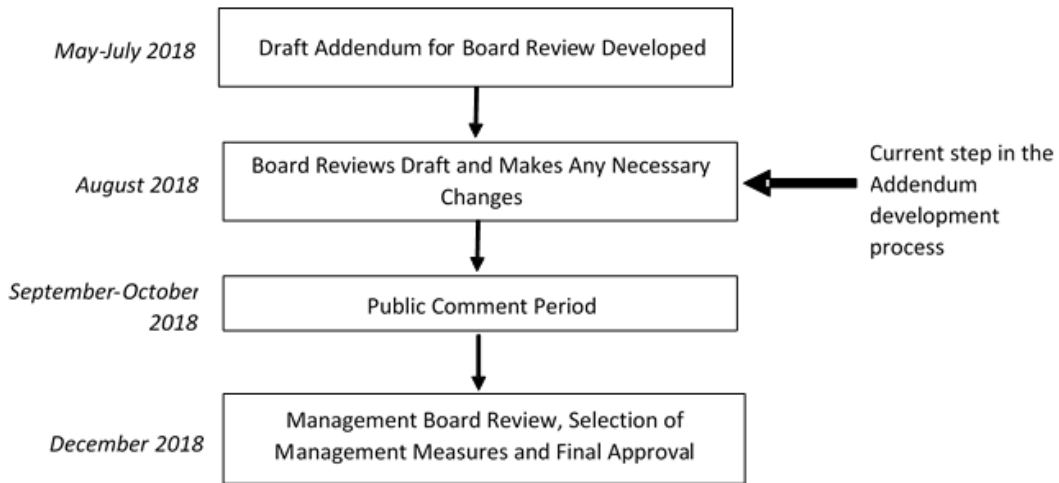
Sustainably Managing Atlantic Coastal Fisheries

August 2018

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Public Comment Process and Proposed Timeline

In December 2017, the Summer Flounder, Scup, and Black Sea Bass Management Board (Board) and the Mid-Atlantic Fishery Management Council (Council) initiated development of an addendum and framework to the Interstate Fishery Management Plan (FMP) for Summer Flounder, Scup, and Black Sea Bass. The Draft Addendum addresses conservation equivalency, transit provisions, and slot limits. This document presents background on summer flounder, scup and black sea bass management; the addendum process and timeline; and a statement of the problem. It also provides management options for public consideration and comment.



The public is encouraged to submit comments regarding this document at any time during the public comment period. The final date comments will be accepted is [DATE], 2018 at 11:59 p.m. Comments may be submitted at state public hearings or by mail, email, or fax. If you have any questions or would like to submit comment, please use the contact information below.

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1.0 Introduction

This Draft Addendum is proposed under the adaptive management/framework procedures of Amendment 12 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). Summer flounder, scup, and black sea bass fisheries are managed cooperatively through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0-3 miles), and through the Mid-Atlantic Fishery Management Council (Council) and NOAA Fisheries in federal waters (3-200 miles). The management unit for summer flounder is US waters from the southern border of North Carolina northward to the US-Canadian border. For scup and black sea bass, the management unit is U.S. waters from Cape Hatteras, North Carolina northward to the U.S.-Canadian border.

The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) and the Council approved the following motion on December 13, 2017:

Move to initiate a framework/addendum to address the three topics (recreational conservation equivalency for black sea bass, transit provisions for summer flounder, scup, black sea bass and slot limits for summer flounder and black sea bass) discussed today.

This Draft Addendum and the complementary framework action developed by the Council propose management options to address these three topics, as further refined by the Board and Council in April 2018. The options are described in more detail in section 3 of this document.

Note: This action does not consider implementing black sea bass conservation equivalency or slot limits for any of the three species in 2019. Rather, the options would update the FMPs to allow these management tools to be used in future years.

2.0 Overview

2.1 Statement of Problem

The Commission and Council recognize that fisheries management can benefit from the ability to apply a variety of management strategies. In addition, these bodies strive to improve the compatibility of state and federal fishery management programs. This Draft Addendum and the Council's commensurate framework aim to increase the diversity of tools available for managing summer flounder, scup and black sea bass, as well as reduce conflict between state and federal regulations. Specifically, the Board and Council identified conservation equivalency for black sea bass, conservation equivalency rollover for summer flounder, Block Island Sound transit provisions, and slot limits as management strategies that could address these goals.

State and federal waters measures for the same species are not always identical. For example, federal waters are sometimes closed to certain fisheries while state waters are open. In addition, possession limits and minimum fish sizes sometimes differ between state and federal waters. Discrepancies between state and federal regulations can be confusing for fishermen, which can result in noncompliance. They also create challenges for enforcement. The conservation equivalency and Block Island Sound transit options address situations where state

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and federal waters differ and could help address some of these issues. The conservation equivalency rollover options would also add efficiency to the administration of conservation equivalency, as described in more detail in later sections of this document.

The current Commission and Council FMPs require uniform coastwide management measures for black sea bass in state and federal waters; however, the fisheries vary by state in terms of availability, seasonality, and other factors. As a result, this one size fits all approach has had disproportionate impacts on some states. Since 2011, the Commission has adopted a series of addenda to allow states to temporarily deviate from this requirement and adopt measures that are more appropriate for their fisheries. This Draft Addendum considers options which would allow the black sea bass federal waters measures to be waived in favor of the regulations of the states where anglers land their catch. This would help address the disproportionate impacts of uniform coastwide measures on some states.

The Council's framework will have slot limit alternatives that consider adding an additional management tool (i.e. a maximum size limit) to the suite of options available to the Board and Council for managing recreational summer flounder, scup, and black sea bass fisheries. Some stakeholders have requested that the Board and Council consider use of slot limits to reduce fishing pressure on large female summer flounder; however, this is not currently possible under the Council FMP. This document does not have options for the Commission to take action on slot limits because it is already a tool available for management use by the Board. The Council's Framework action considers updating the FMP to allow this type of management to be used in the future by both bodies.

2.2 Background

In December 2015, the Council and Board passed a motion to begin development of a black sea bass amendment to address a variety of commercial and recreational issues, including areas of discrepancy between the Commission and Council FMPs (e.g. allocations in state waters but coastwide landings limits in federal waters; situations where state and federal waters measures differ), commercial allocations, alternative recreational management strategies, and other issues.

Development of the amendment was delayed due to other priorities taking precedence. In December 2017, the Board and Council re-evaluated the need for the amendment and agreed to postpone its development. Instead, they initiated a framework and addendum to address three specific issues: 1) recreational conservation equivalency for black sea bass, 2) Block Island Sound transit provisions for summer flounder, scup, black sea bass, and 3) slot limits for summer flounder and black sea bass.

The options were further developed after a meeting of the Board and Council in April 2018. The Board and Council agreed to add options for conservation equivalency rollover for summer flounder, as well as Block Island Sound Transit provisions for commercial vessels. The options are described in more detail in section 3. A summary of the potential impacts of these options is provided in Appendix I.

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Conservation Equivalency for Recreational Black Sea Bass

The Summer Flounder, Scup, and Black Sea Bass FMP requires uniform coastwide measures (applying to state and federal waters) for the recreational black sea bass fishery. From 1996 to 2010, uniform coastwide minimum fish size, season, and bag limits were used by the Commission and Council to constrain the recreational fishery to the annual recreational harvest limit (RHL). In recent years, the Commission has implemented addenda to allow temporary deviations from this requirement in state waters. In response to state concerns that coastwide regulations disproportionately impacted certain states, the Board approved a series of addenda that allowed for state-by-state flexibility – first through state shares in 2011 and then through an ad-hoc regional management approach from 2012–2018.

Under the ad-hoc process used for 2012-2018, the Council and Board agreed to coastwide federal waters measures each year. Individual states or regions then worked through the Commission process to develop measures for state waters that would constrain harvest to the RHL. In recent years, the states of New Jersey north have implemented management measures in state waters that differed from the federal waters measures.

Although the ad-hoc process allowed for variance in state or regional measures in state waters, uniform coastwide measures were still applied in federal waters. In some cases, differences between state and federal waters measures resulted in angler confusion and noncompliance, state/federal water transit issues (e.g. Block Island), and permitting problems for federal party/charter permit holders. The options considered in this addendum are intended to address some of these issues.

Conservation equivalency could resolve some of these issues by allowing measures for federal waters to be waived in favor of state or regional measures, that, when taken as a whole, are the conservation equivalent (i.e. would achieve the same amount of harvest) of the non-preferred coastwide measures. **Section 3.1** of this document presents options for the use of conservation equivalency in black sea bass recreational management. **Section 3.2** presents options for allowing conservation equivalency rollover for the recreational summer flounder fishery.

Block Island Sound Transit Provisions

From 2009-2017, the federal waters recreational black sea bass fishery was closed for at least a few weeks each fall/winter. The dates of the closure varied by year (Table 1, p. 18). This closure occurred when many northern state waters were open, resulting in transit issues for vessels harvesting black sea bass in the state waters around Block Island. Specifically, vessels retaining black sea bass legally caught in the state waters around Block Island were unable to transit back to the mainland without violating federal regulations. **Section 3.3** of this addendum proposes options for addressing this issue.

Slot Limits

Slot limits may be implemented through the Commission process for summer flounder by states or regions through conservation equivalency, and for black sea bass and scup for state

waters measures only. However, the Council FMP does not allow for specification of a maximum size limit for summer flounder, scup, or black sea bass. Therefore, slot limits may not be used as a management tool for these fisheries in federal waters. The Council's complementary framework will propose alternatives to address this issue.

2.3 Description of the Fisheries

Summer Flounder

Over the past 30 years (i.e. 1988-2017), commercial and recreational summer flounder landings from Maine through North Carolina averaged 21.25 million pounds. Commercial landings from 2011-2017 show a decreasing trend. Recreational landings show a less consistent, but generally downward trend since 2011. In 2017, commercial fishermen from Maine through North Carolina landed about 5.83 million pounds of summer flounder and recreational fishermen landed about 3.19 million pounds¹ (Figure 1).

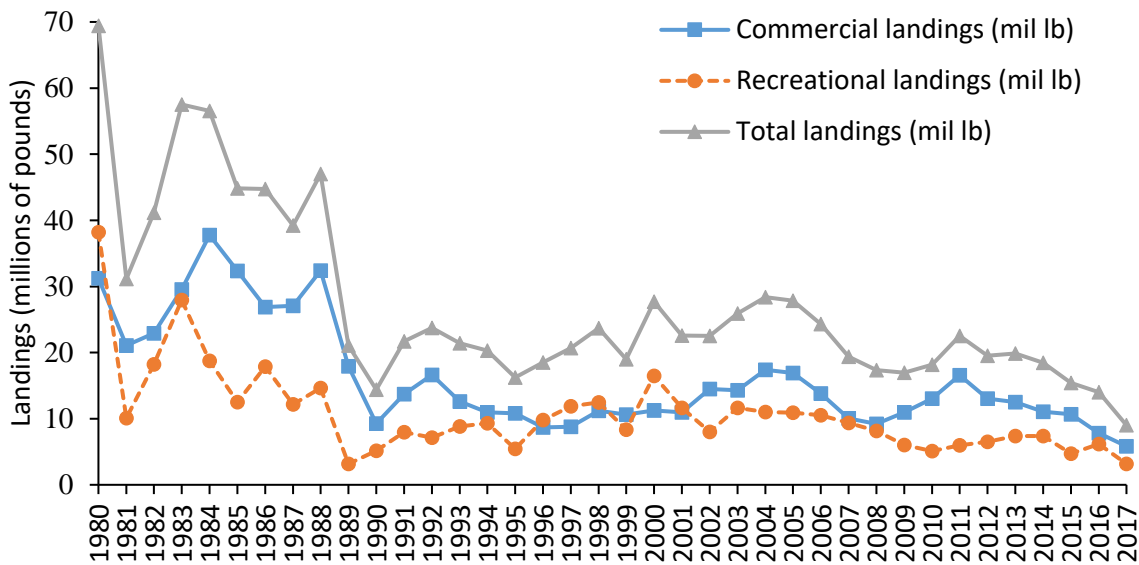


Figure 1: Commercial and recreational summer flounder landings in millions of pounds, Maine-North Carolina, 1980-2017 according to commercial dealer data and MRIP data.

Most landings in the commercial fishery are taken with bottom otter trawls (about 96% in 2017). The recreational fishery is predominantly a hook and line fishery. According to data from the Marine Recreational Information Program (MRIP), from 2013-2017, on average about 83% of the summer flounder harvested by recreational fishermen were caught from private or rental boats. About 13% were caught on party or charter boats and about 4% were caught from shore.

¹All recreational harvest information presented in this document is based on MRIP estimates using the Coastal Household Telephone Survey (CHTS), and does not incorporate new estimates produced by the recalibration for the transition from the CHTS to the Fishing Effort Survey and the Access Point Angler Intercept Survey design change.

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Most commercial catch occurs off southern New England, New York, and New Jersey; however, most commercial landings occur in North Carolina, Virginia, New Jersey, and Rhode Island, largely due to greater allocations of quotas to those states compared to other states.

Over the past 10 years (i.e. 2008-2017), about 87% of recreational harvest (based on numbers of fish) occurred in state waters, with the remainder in federal waters. In recent years, most recreational summer flounder landings occurred in New York and New Jersey.

Scup

Over the past 30 years (i.e. 1988-2017), commercial and recreational scup landings from Maine through North Carolina averaged 15.98 million pounds. Commercial landings have been generally increasing since 2008. Recreational landings have remained at a fairly constant level since about 2005. In 2017, commercial fishermen from Maine through North Carolina landed about 15.45 million pounds of scup and recreational fishermen landed about 5.42 million pounds (Figure 2).

Most landings in the commercial fishery are taken with bottom otter trawls (e.g. about 97% in 2017). The recreational fishery is predominantly a hook and line fishery. According to MRIP data, during 2013-2017, on average about 60% of the scup harvested by recreational fishermen were caught from private or rental boats. About 25% were caught on party or charter boats and about 15% from shore.

Most commercial catch occurs off Southern New England, New York, and New Jersey. Over the past 10 years (i.e. 2008-2017), about 97% of recreational harvest (based on numbers of fish) occurred in state waters, with the remainder in federal waters. Over 99% of scup caught by recreational fishermen during 2008-2007 were caught from Massachusetts through New Jersey.

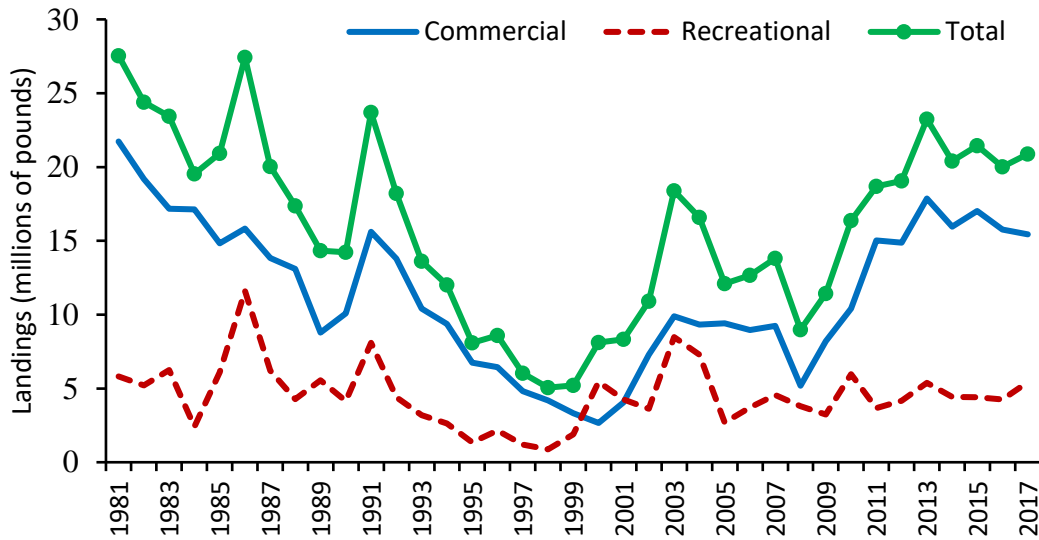


Figure 2: Commercial and recreational scup landings, Maine - North Carolina, 1981-2017 according to commercial dealer data and MRIP data.

Black Sea Bass

Over the past 30 years (i.e. 1988-2017), commercial and recreational black sea bass landings from Maine through North Carolina averaged 5.91 million pounds. Both commercial and recreational landings have been generally increasing since 2011. In 2017, commercial fishermen landed about 3.99 million pounds of black sea bass and recreational fishermen landed about 3.93 million pounds (Figure 3).

Most landings in the commercial fishery are taken with bottom otter trawls (e.g. about 73% in 2017). The recreational fishery is predominantly a hook and line fishery. According to MRIP data, during 2013-2017, on average about 71% of the black sea bass harvested by recreational fishermen from Maine through North Carolina were caught from private or rental boats. About 27% were caught on party or charter boats and about 1% from shore.

Commercial catch mostly occurs off Southern New England through Maryland. Over the past 10 years (i.e. 2008-2017), about 65% of recreational harvest (based on numbers of fish) occurred in state waters, with the remainder in federal waters. About 73% of the black sea bass caught by recreational fishermen during 2008-2007 were caught in New York, New Jersey, and Massachusetts.

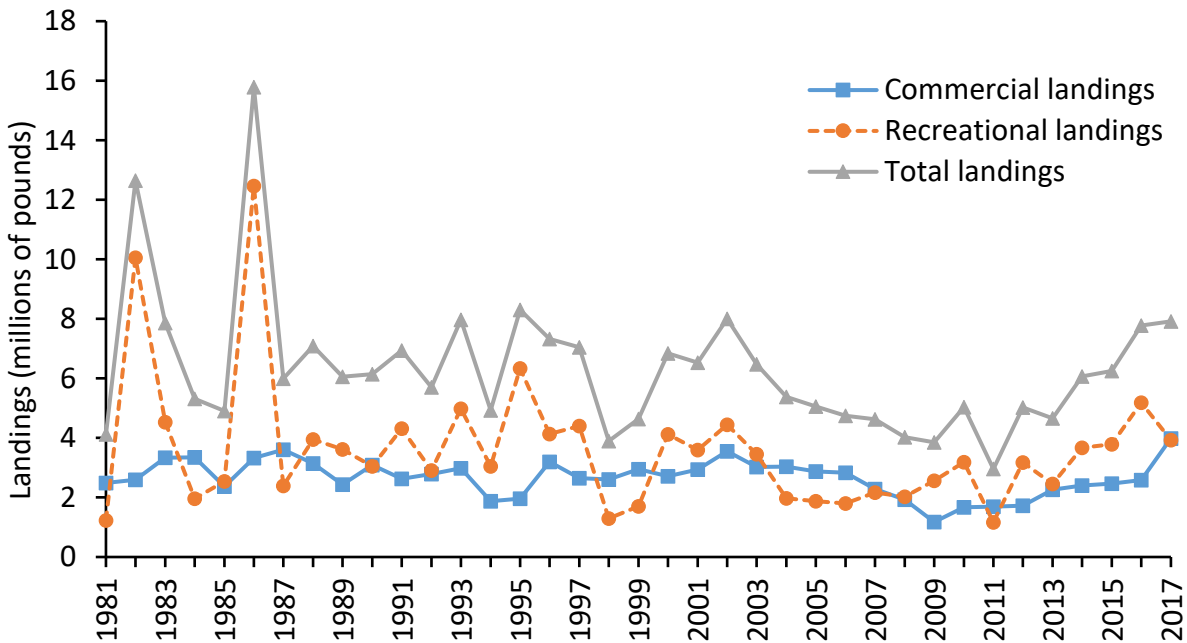


Figure 3: Commercial and recreational black sea bass landings in millions of pounds from Maine through Cape Hatteras, North Carolina, 1981-2017 according to commercial dealer data and MRIP data. Recreational landings prior to 2004 include all North Carolina landings.

2.4 Life History

Summer Flounder

Summer flounder habitat includes pelagic waters, demersal waters, saltmarsh creeks, seagrass beds, mudflats, and open bay areas from the Gulf of Maine through North Carolina. They spawn during the fall and winter over the open ocean areas of the continental shelf. From October to May, larvae and postlarvae migrate inshore, entering coastal and estuarine nursery areas. Juveniles are distributed inshore and in many estuaries during spring, summer, and fall. Adults exhibit seasonal inshore-offshore movements, normally inhabiting shallow coastal and estuarine waters during the warmer months of the year and remaining offshore during the colder months (Packer et al. 1999).

Most fish are sexually mature by age 2. The largest fish are females, which can attain lengths of over 90 cm (36 in) and weights up to 11.8 kg (26 lb). Recent northeast fisheries science center (NEFSC) trawl survey data indicate that female summer flounder grow faster (reaching a larger size at the same age), but the sexes attain about the same maximum age (age 15 at 56 cm for males and age 14 at 65 cm for females). Unsexed commercial fishery samples currently indicate a maximum age of 17 for an 85 cm fish (M. Terceiro, NEFSC, personal communication).

Summer flounder are opportunistic feeders; their prey includes a variety of fish and crustaceans. Predators of adult summer flounder are not fully documented; however, larger predators (e.g., large sharks, rays, and monkfish) probably include summer flounder in their diets (Packer et al. 1999).

Scup

Scup are a schooling, demersal (i.e. bottom-dwelling) species. They are found in a variety of habitats, including areas with sandy or muddy bottoms, mussel beds, and seagrass beds. Scup undertake extensive seasonal migrations between coastal and offshore waters. They are found in estuaries and coastal waters during the spring and summer. In the fall and winter, they move offshore and to the south, to outer continental shelf waters south of New Jersey. Scup spawn once annually over weedy or sandy areas, mostly off southern New England. Spawning takes place from May through August and usually peaks in June and July (Steimle et al. 1999).

About 50% of scup are sexually mature at two years of age and about 17 cm (about 7 inches) total length. Nearly all scup older than three years of age are sexually mature. Scup reach a maximum age of at least 14 years. They may live as long as 20 years; however, few scup older than 7 years are caught in the Mid-Atlantic (Northeast Data Poor Stocks Working Group 2009, NEFSC 2015).

Adult scup are benthic feeders. They consume a variety of prey, including small crustaceans (including zooplankton), polychaetes, mollusks, small squid, vegetable detritus, insect larvae, hydroids, sand dollars, and small fish. The NEFSC's food habits database lists several predators of scup, including several shark species, skates, silver hake, bluefish, summer flounder, black sea bass, weakfish, lizardfish, king mackerel, and monkfish (Steimle et al. 1999).

Black Sea Bass

Black sea bass are distributed from the Gulf of Maine through the Gulf of Mexico. Genetic studies have identified three stocks within that range. Black sea bass north of Cape Hatteras, North Carolina are considered one unit stock. Adults and juveniles are mostly found on the continental shelf. Young-of-the-year (i.e. fish less than one year old) can be found in estuaries. Adults prefer to be near structures such as rocky reefs, coral patches, cobble and rock fields, mussel beds, and shipwrecks. Adults in the Mid-Atlantic show strong site fidelity during the summer and migrate to offshore wintering areas south of New Jersey when water temperatures decrease in the fall. Adults in the South Atlantic and Gulf of Mexico do not migrate during the winter (Drohan et al. 2007).

Black sea bass are protogynous hermaphrodites, meaning they are born female with some later transitioning to males, usually around 2-5 years of age. Male black sea bass are either of the dominant or subordinate type. Dominant males are larger than subordinate males and develop a bright blue nuchal hump during the spawning season. Most black sea bass greater than 19 cm (about 7.5 inches) are either in a transitional stage between female and male or have fully transitioned to the male stage. Results from a simulation model highlight the importance of subordinate males in the spawning success of black sea bass. This increases the resiliency of the population to exploitation compared to other species with a more typical protogynous life history. About half of black sea bass are sexually mature by 2 or 3 years of age and about 20 cm (about 8 inches) in length. Black sea bass reach a maximum size of about 60 cm (about 24 inches) and a maximum age of about 12 years (Drohan et al. 2007, Blaylock and Shepherd 2016).

Black sea bass in the Mid-Atlantic spawn in nearshore continental shelf areas at depths of 20-50 meters. Spawning usually takes place between April and October. During the summer, adult black sea bass share complex coastal habitats with tautog, hakes, conger eel, sea robins and other migratory fish species. Juvenile and adult black sea bass mostly feed on crustaceans, small fish, and squid. The NEFSC food habits database lists spiny dogfish, Atlantic angel shark, skates, spotted hake, summer flounder, windowpane flounder, and monkfish as predators of black sea bass (Drohan et al. 2007).

2.5 Status of the Stock

Summer Flounder

The most recent summer flounder stock assessment update was completed in July 2016 and indicated the stock was not overfished, but overfishing was occurring in 2015. Spawning stock biomass (SSB) was estimated to be 79.9 million pounds in 2015, about 58% of the target level. The fishing mortality rate (F) in 2015 was 0.390, 26% above the threshold level that defines overfishing (Figures 4 and 5; NEFSC 2016).

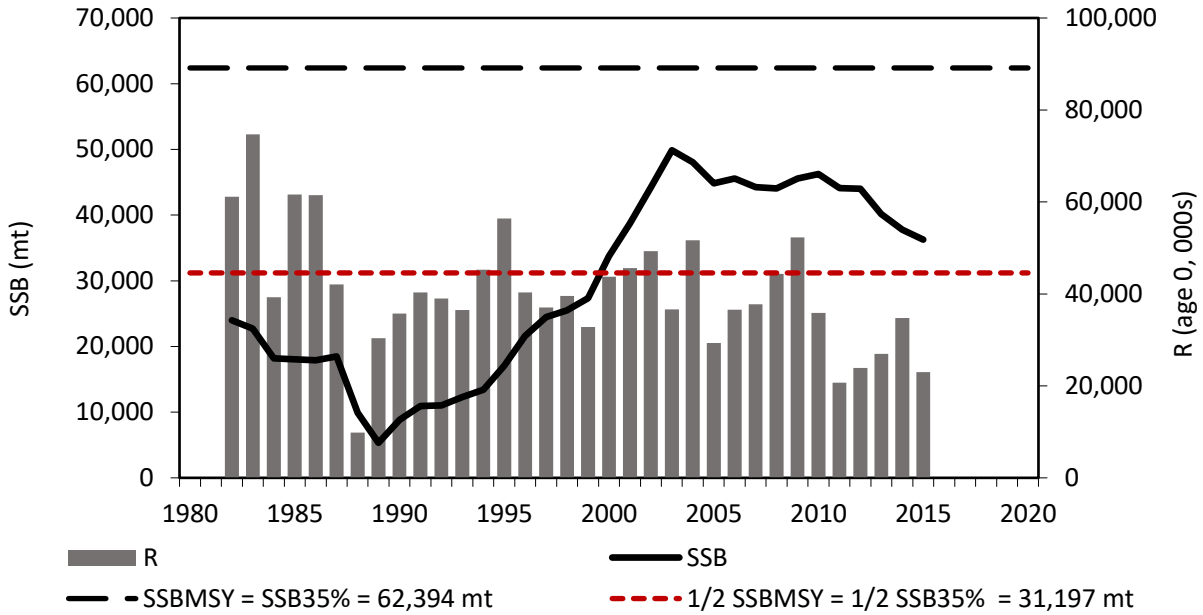


Figure 4: Summer flounder spawning stock biomass (SSB; solid line) and recruitment at age 0 (R; vertical bars) by calendar year, 1982-2015. The horizontal long-dashed line is the SSB target reference point proxy, the horizontal short-dashed red line is the biomass threshold reference point proxy (NEFSC 2016).

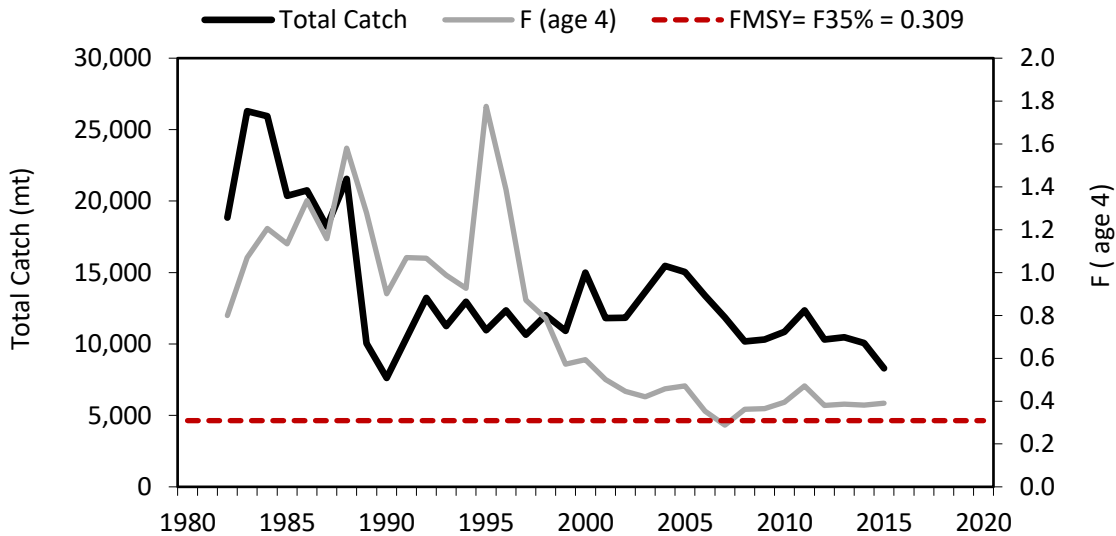


Figure 5: Total fishery catch and fishing mortality rate of summer flounder, 1982-2015. The horizontal dashed red line is the fishing mortality threshold reference point proxy (NEFSC 2016).

The NEFSC provided a data update for 2018, with catch, landings, and fishery-independent survey indices through 2017. Most state and federal survey indices of abundance, with the 2009-2012). However, most indices are variable in recent years and some show signs of slight to

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moderate rebounding. The NEFSC fall survey was unable to sample the summer flounder strata in 2017, however, the NEFSC spring survey biomass index increased between 2017 and 2018. The Delaware index peaked in 2017. Indices of recruitment (i.e. age 0 fish) have generally been below average over the last 6-7 years. Recruitment indices in 2017 were highly variable (NEFSC 2018a).

A new benchmark stock assessment for summer flounder is scheduled to undergo peer review in November 2018, with results expected to be available in early 2019.

Scup

An update to the 2015 benchmark stock assessment indicated the scup stock was not overfished and overfishing was not occurring in 2016. SSB was estimated to be 396.6 million pounds in 2016, about 2.1 times the target level (Figure 6; NEFSC 2015, NEFSC 2017).

Fishing mortality was estimated to be 0.139 in 2016, 37% below the threshold level that defines overfishing (Figure 7). The 2015 year class (i.e. those scup spawned in 2015) was estimated to be the largest since at least 1984 at 252 million fish. The 2016 year class is estimated to be 65 million fish, about 47% below the average (Figure 6; NEFSC 2017).

The NEFSC bottom trawl survey biomass indices for scup in fall 2015 and spring 2016 were record highs for the time series (i.e. 1963 - present for the fall survey and 1968 through the present for the spring survey). Both seasonal indices decreased after 2016. Several state fishery-independent surveys show similar trends (NEFSC 2018b).

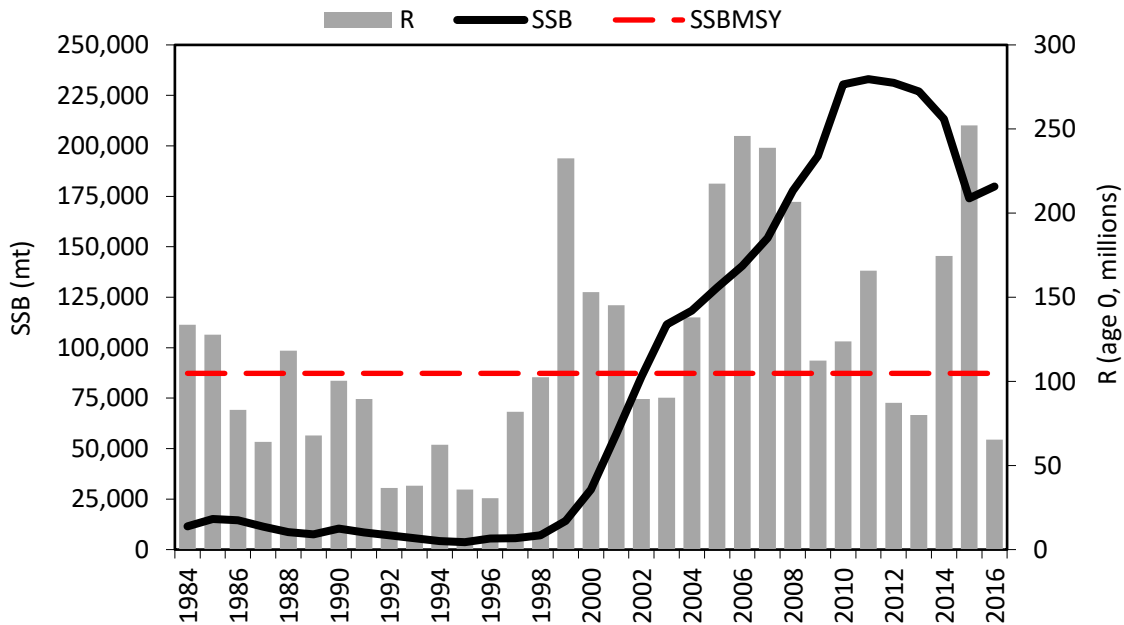


Figure 6: Scup spawning stock biomass and Recruitment, 1984-2016 (NEFSC 2017a).

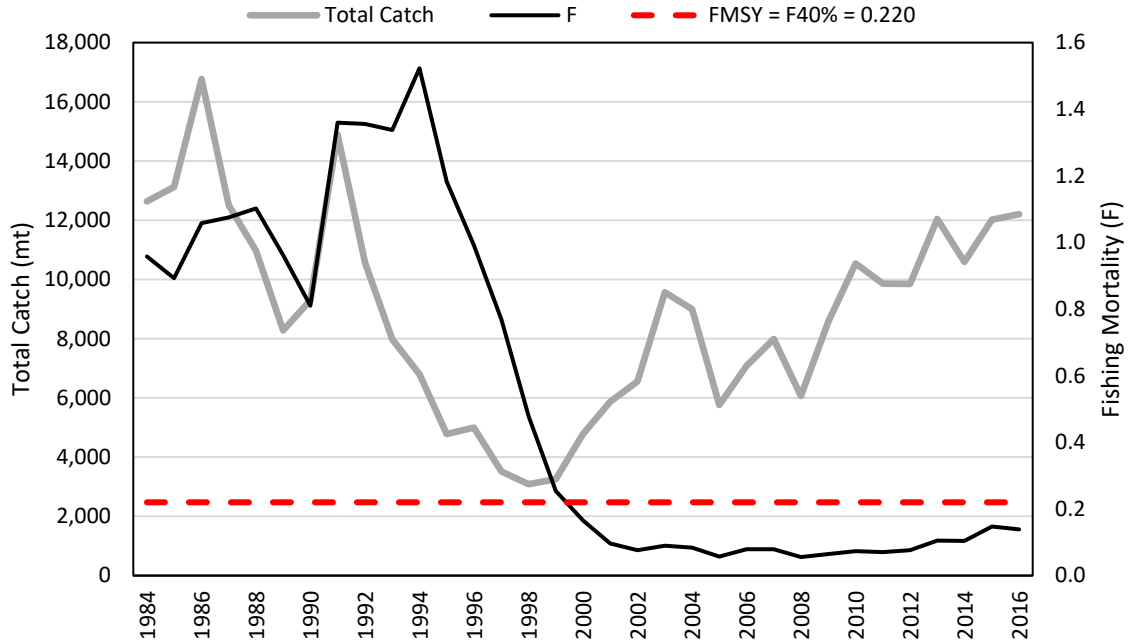


Figure 7: Total fishery catch and fishing mortality rate (F) for fully-selected age 3 scup, 1984-2016. The horizontal dashed line is the fishing mortality reference point from the 2015 benchmark stock assessment (NEFSC 2017a).

Black Sea Bass

The most recent benchmark stock assessment for black sea bass was peer-reviewed and approved in December 2016. It indicated overfishing was not occurring and the stock was not overfished in 2015. SSB in 2015 was estimated at 48.89 million pounds, about 2.3 times the target level (Figure 8). The fishing mortality rate in 2015 was 0.27, 25% below the threshold level that defines overfishing (Figure 9). Recruitment was relatively constant from 1989-2015 except for large peaks from the 1999 and 2011 year classes (i.e. fish spawned in those years; Figure 8; NEFSC 3017b).

Fishery catch, landings, and discards, as well as NEFSC and state survey catches through 2017 indicate black sea bass biomass continues to be high and the 2015 year class appears to be above average in both the northern and southern surveys, as well as fishery discards (NEFSC 2018c).

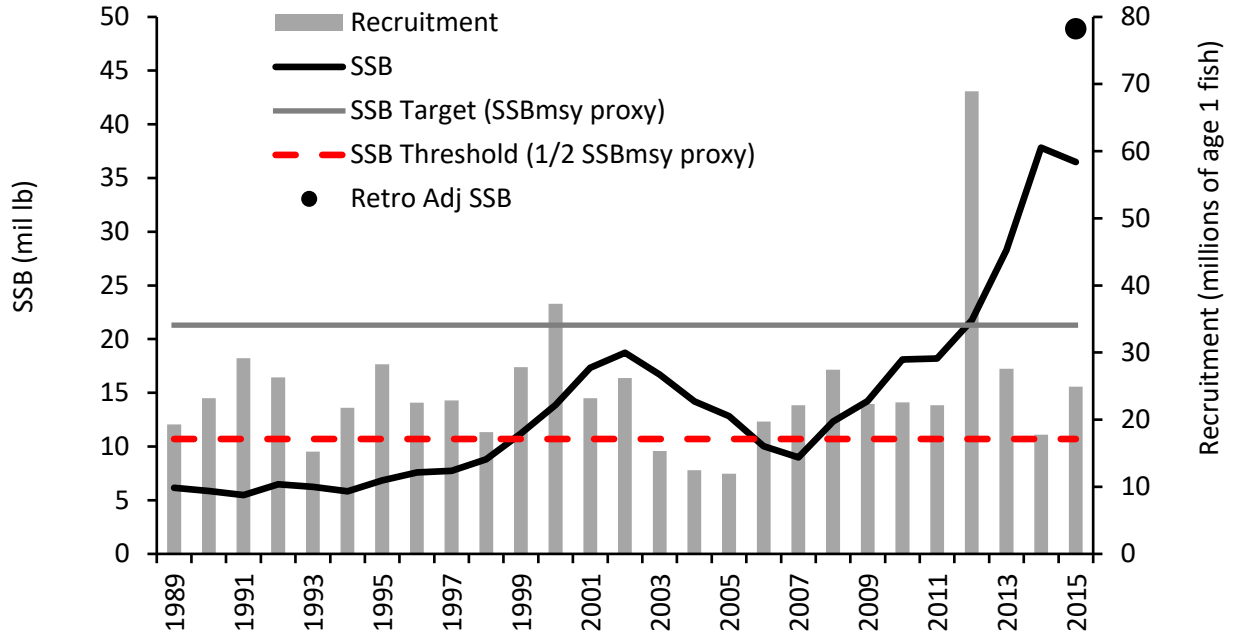


Figure 8: Black sea bass spawning stock biomass and recruitment, 1989 - 2015, and biomass reference points (i.e. SSB target and SSB threshold) from the 2016 benchmark stock assessment. The 2015 retro-adjusted SSB value was generated to correct for the retrospective bias present in the assessment model and is used as the estimate to compare to the reference points (NEFSC 2017b).

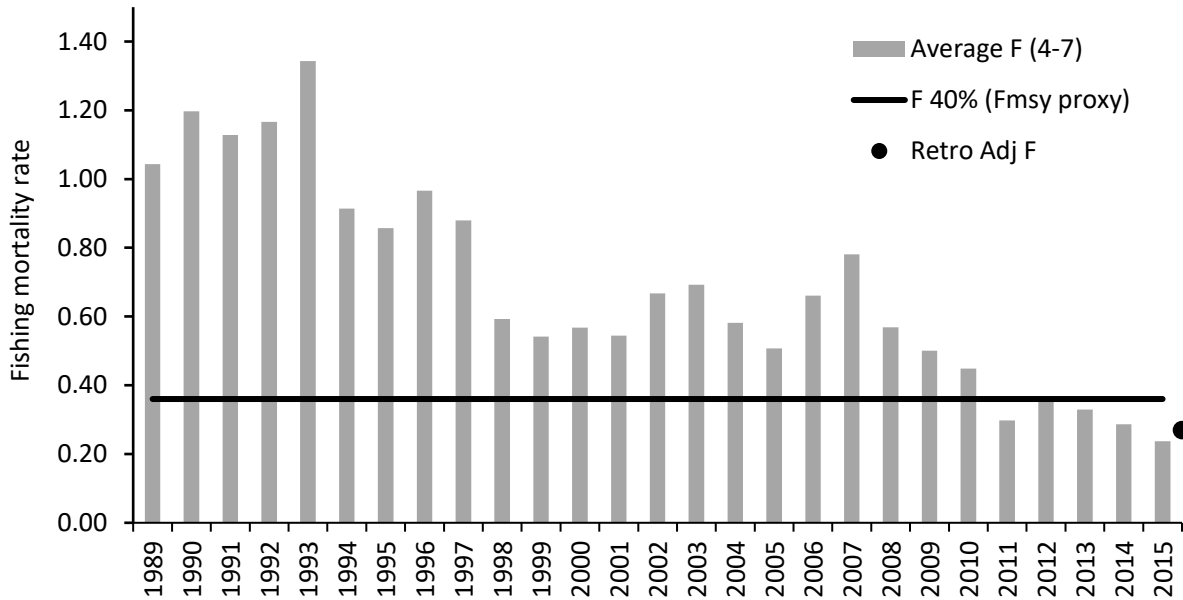


Figure 9: Fishing mortality rate on black sea bass ages 4-7 and the fishing mortality reference point (F_{MSY} proxy) from the 2016 benchmark stock assessment. The 2015 retro-adjusted fishing mortality rate value was generated to correct for the retrospective bias present in the assessment model and is used as the estimate to compare to the reference points (NEFSC 2017b).

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3.0 Proposed Management Program

The following options were developed based on recommendations from the Fishery Management Action Team (FMAT), Board, and Council.

3.1 Issue 1: Black Sea Bass Conservation Equivalency

The FMP requires uniform coastwide (state and federal waters) measures for the recreational black sea bass fishery; however, starting in 2011, the Commission has used several addenda to allow temporary deviations from this requirement through an ad-hoc regional management approach. Under the current process, the Council and Board agree to federal waters measures each year. Individual states or regions work through the Commission process to develop measures for state waters.

For 2018 recreational management, the Commission approved Addendum XXX, which used a combination of historical harvest and exploitable biomass information from the latest stock assessment to allocate the coastwide RHL among three regions: Massachusetts through New York (allocated 61.35% of the coastwide RHL), New Jersey (30.24%), and Delaware through North Carolina, north of Cape Hatteras (8.41%). The states within each region cooperatively developed recreational measures designed to achieve, but not exceed, their regional RHL allocation. Following approval of the regional measures in March 2018, an appeal by the Northern Region states (Massachusetts through New York) and a subsequent directive from the Commission's ISFMP Policy Board led the Board to revise the 2018 management measures through an ad-hoc approach. Currently, there is no established management program in place for 2019. Recreational management for 2019 will be established through a separate management document.

Options for Black Sea Bass Conservation Equivalency

Note: This addendum does not propose use of conservation equivalency in 2019. It also does not specify allocations or other methodologies that would be used to develop state and/or regional measures and ensure they collectively constrain harvest to the RHL. In addition, it is not specified whether states will individually craft measures or if states will form regions with similar management measures. These details could vary for each year that conservation equivalency is used and will be determined by the Board.

Option 1A: Status Quo (conservation equivalency cannot be used for black sea bass)

Under option 1A, the recreational black sea bass fishery would continue to be managed with uniform coastwide measures in federal waters. The Commission could continue to use ad-hoc regional management to set recreational measures in state waters through addenda. The details of how this is carried out may vary year to year. The Board would also have the option of discontinuing ad-hoc regional management and reverting to uniform coastwide measures or adopting an alternative approach.

Option 1B: Update FMPs to allow Black Sea Bass Conservation Equivalency using the Current Summer Flounder Conservation Equivalency Process

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This option proposes updating the FMPs to allow conservation equivalency to be used for the recreational black sea bass fishery in future years and establishing a process for black sea bass conservation equivalency based on the process currently used for summer flounder.

Under this process, the Council and Board decide each year whether to use coastwide measures or conservation equivalency. If they agree to conservation equivalency, they must agree on a set of non-preferred coastwide measures consisting of a minimum fish size, possession limit, and season that, if implemented on a coastwide basis, would constrain harvest to the RHL. They also agree to a set of precautionary default measures (described in more detail below).

Individual states or regions then develop proposed measures that, when taken as a whole, are the conservation equivalent of the non-preferred coastwide measures (i.e. would be expected to result in the same level or harvest as the non-preferred coastwide measures). An agreed upon management scheme forms the basis for the state or regional measures. For example, early in summer flounder management, the Commission's FMP designated state-by-state measures based on each state's proportion of total harvest in 1998. Recent addenda have deviated from these state-by-state measures, and currently regional measures are set to achieve the RHL. The Board would determine the management program to implement conservation equivalency for black sea bass. The Board could agree to develop state or regional measures using a different approach than that used for summer flounder (e.g. different regional alignment or data used to set measures).

The Commission's Technical Committee reviews the state/regional proposals to determine if, as a whole, they are expected to constrain harvest to the RHL. The Board then considers the proposals for approval, taking into account the Technical Committee's recommendations. If the Board does not approve an individual proposal, that state or region may submit a revised proposal.

If a state or region implements measures which are not approved by the Board, then the precautionary default measures would be enforced in that state or region. The precautionary default measures are intended to be restrictive enough to deter states/regions from implementing measures which are not approved through the conservation equivalency process.

After reviewing and approving the state/regional proposals, the Board submits a letter to NOAA Fisheries certifying that the combination of state and regional measures is expected to constrain harvest to the RHL. NOAA Fisheries then either approves or rejects the combination of proposals. If approved, NOAA Fisheries waives the federal waters measures (i.e. the non-preferred coastwide measures) for the remainder of the calendar year in favor of the state or regional conservation equivalency measures. Federally-permitted vessels and vessels fishing in federal waters are then subject to the regulations in the states where they land their catch.

Appendix II outlines a potential timeline for black sea bass conservation equivalency based on the typical timeline for the summer flounder process.

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Option 1C: Black Sea Bass Conservation Equivalency using the Current Summer Flounder Process and Allowing Conservation Equivalency to Roll Over from One Year to the Next (when appropriate)

This option proposes updating the FMPs to allow conservation equivalency to be used for the recreational black sea bass fishery in future years. It proposes establishing a process for black sea bass conservation equivalency based on the process currently used for summer flounder, and would also allow conservation equivalency to roll over from one year to the next with Board and Council approval.

Under the current process for summer flounder, conservation equivalency expires at the end of the year, but the federal waters measures are not waived until the spring, after NOAA Fisheries receives a letter from the Commission certifying that the combination of state and regional measures is expected to constrain harvest to the RHL. Thus, from January 1 until NOAA Fisheries completes the rulemaking process to waive the federal waters measures, the non-preferred coastwide measures from the previous year are technically in place in federal waters. This not only creates the potential for confusion, but can also result in federal waters measures that are more restrictive than state waters measures.

If conservation equivalency rolled over from year to year, a federal recreational specifications package would not need to be developed annually and NOAA Fisheries would not need to go through the rulemaking process to waive the federal waters measures each year. However, the Council and Board would still review the non-preferred coastwide and precautionary default measures each year to ensure the fishery would be constrained to the RHL. Given the timing of data availability from MRIP, the Council and Board would continue to review projected fishery performance in December and final recreational estimates early in the next year.

For conservation equivalency to roll over from one year to the next, the non-preferred coastwide and precautionary default measures would need to be appropriate for the RHL in both years. The non-preferred coastwide and precautionary default measures could be crafted with this flexibility in mind.

3.2 Issue 2: Summer Flounder Conservation Equivalency Rollover

Under the current process for summer flounder, conservation equivalency expires at the end of each year, and a federal rule must be made each year to implement conservation equivalency and waive the federal waters measures, as described above.

Options for Summer Flounder Conservation Equivalency Rollover

Option 2A: Status Quo (conservation equivalency for summer flounder cannot roll over from one year to the next)

Under option 2A, there would be no change to the current summer flounder conservation equivalency process.

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Option 2B: Allow Summer Flounder Conservation Equivalency to Roll Over from One Year to the Next (when appropriate)

As described in the previous section for black sea bass, if conservation equivalency rolled over from year to year, a federal recreational specifications package would not need to be developed annually and NOAA Fisheries would not need to go through the rulemaking process to waive the federal waters measures each year. However, the Council and Board would still review the non-preferred coastwide and precautionary default measures each year to ensure that the fishery would be constrained to the RHL.

For conservation equivalency to roll over from one year to the next, the non-preferred coastwide and precautionary default measures would need to be appropriate for the RHL in both years. The non-preferred coastwide and precautionary default measures could be crafted with this flexibility in mind.

3.3 Issue 3: Block Island Sound Transit Provisions

Under current regulations, when summer flounder, scup, or black sea bass fisheries are closed in federal waters but open in state waters, vessels may not transit federal waters with summer flounder, scup, or black sea bass. This has been problematic in Block Island Sound during the fall closure in federal waters for recreational black sea bass in recent years (Table 1). In most recent years, state waters in Rhode Island, Connecticut, and/or New York (depending on the year) have been open to black sea bass fishing during that time. Anglers fishing in state waters around Block Island must pass through federal waters to return to the mainland. Therefore, if they were to retain any black sea bass during the federal waters closure, they would be in violation of the federal regulations while transiting federal waters, even if those fish were legally caught in state waters.

This has not been an issue for the recreational summer flounder fishery for several years as federal recreational regulations have been waived under conservation equivalency. It has not been an issue for the recreational scup fishery in recent years either, as the federal waters scup season has been open year-round since 2012.

Table 1: Federal recreational measures for black sea bass, north of Cape Hatteras, NC, 2007 - 2018.

| <i>Years</i> | <i>Minimum size (inches, total length)</i> | <i>Possession limit</i> | <i>Open season</i> |
|--------------|--|-------------------------|---------------------------|
| 2007-2008 | 12 | 25 | 1/1-12/31 |
| 2009 | 12.5 | 25 | 1/1-10/5 |
| 2010-2011 | 12.5 | 25 | 5/22-10/11 and 11/1-12/31 |
| 2012 | 12.5 | 25 | 5/19-10/14 and 11/1-12/31 |
| 2013 | 12.5 | 20 | 5/19-10/14 and 11/1-12/31 |
| 2014 | 12.5 | 15 | 5/19-9/18 and 10/18-12/31 |
| 2015-2017 | 12.5 | 15 | 5/15-9/21 and 10/22-12/31 |
| 2018 | 12.5 | 15 | 5/15-12/31 |

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Options for Block Island Sound Transit Provisions

Note: As the Commission's management authority only applies to state waters, the Board is seeking comment on the following options to help inform its recommendations for federal rulemaking.

Option 3A: Status Quo (no transit provisions)

Under option 3A, no change would be recommended to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive. It would be unlawful for state-only permit holders to transit through federal waters while in possession of any summer flounder, scup, or black sea bass, including federal waters around Block Island, when federal waters are closed to fishing for those species.

Option 3B: Block Island Sound Transit Provisions for Summer Flounder, Scup, and Black Sea Bass Apply in a Defined Transit Corridor for Rhode Island Commercial and Recreational State-Only Permit Holders

Under this option, any vessel legally permitted to fish in Rhode Island state waters (including individuals fishing under reciprocity agreements with other states), either commercially or recreationally, would be allowed to transit through a defined corridor between Rhode Island state waters adjacent to Block Island and Rhode Island state waters adjacent to the Rhode Island mainland. State-only permit holders transiting this area would be subject to the state waters measures for season, possession limit and minimum size. Proposed regulatory language and geographic area where transit would be allowed is provided in Appendix III.

There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

Option 3C: Block Island Sound Transit Provisions for RI, CT, NY, and MA Permit Holders in the Same Area as the Striped Bass Transit Area

Note: If option 3C is selected, sub-options should also be selected to define permit holders subject to transit provisions (sub-options 3C-1 and 3C-2) and measures addressed by transit provisions (sub-options 3C-3 through 3C-5).

In situations where federal waters measures for summer flounder, scup, or black sea bass are more restrictive than measures in the state where catch will be landed, state-only permit holders may transit through a defined area while complying with the state regulations. The transit area would be identical to the area of the exclusive economic zone (EEZ) where transit is allowed for striped bass. This area is defined as follows: "The EEZ within Block Island Sound, north of a line connecting Montauk Light, Montauk Point, NY, and Block Island Southeast Light, Block Island, RI; and west of a line connecting Point Judith Light, Point Judith, RI, and Block Island Southeast Light, Block Island, RI" (50 CFR 697.7 (b); Figure 10).

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This option defines only the transit area. This option could apply to state-only recreational permit holders, or state-only recreational and commercial permit holders, depending on the sub-option selected below. It would apply to regulations for fishing seasons, minimum fish size limits, and/or possession limits, depending on the sub-option(s) selected below.

There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

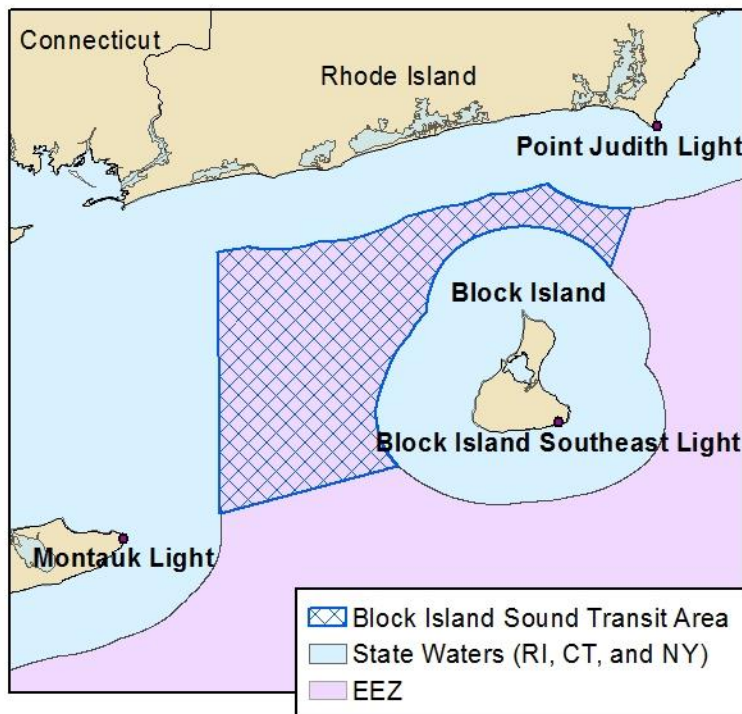


Figure 10: Striped bass transit area in Block Island Sound (blue hatched area).

Sub-options for Permit Holders Subject to Transit Provisions

Note: If option 3C is selected, only one sub-option for permit holders subject to transit provisions should be chosen (i.e., either sub-option 3C-1 or sub-option 3C-2 below).

Sub-option 3C-1: Only Recreational Permit Holders

This option would allow state-only recreational permit holders to transit through the defined transit area while complying with the state regulations for summer flounder, scup, and black sea bass seasons, minimum fish sizes, and/or possession limits, depending on the option(s) selected below.

There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

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Sub-option 3C-2: Recreational and Commercial Permit Holders

This option would allow state-only commercial and recreational permit holders to transit through the area defined above while complying with the state regulations for summer flounder, scup, and black sea bass seasons, minimum fish sizes, and/or possession limits, depending on the sub-option(s) selected below.

There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

Commercial black sea bass and summer flounder fisheries are managed on a state-by-state basis with no federal seasons or possession limits; thus, conflicting regulations are generally not an issue for individuals fishing under federal permits. However, state-only commercial permit holders are currently not permitted to transit federal waters in Block Island Sound with summer flounder, scup, or black sea bass in excess of the recreational possession limit on board.

Sub-options for Measures Addressed by Transit Provisions

Note: If sub-option 3C is selected, at least one sub-option for measures addressed by transit provisions should be chosen (i.e., sub-option 3C-3, sub-option 3C-4, sub-option 3C-5, or any combination of these sub-options).

Sub-option 3C-3: Differences in State and Federal Fishing Seasons

This sub-option would allow the state-only permit holders selected above to transit through the area selected above while in possession of summer flounder, scup, and/or black sea bass when federal waters are closed to fishing for those species but state waters are open. State-only permit holders would be subject to the regulations of the state in which they land their catch.

There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

Sub-option 3C-4: Differences in State and Federal Possession Limits

This option would allow the state-only permit holders selected above to transit through the area selected above while abiding by the state-waters possession limits for summer flounder, scup, and/or black sea bass. That is, if the possession limit in federal waters were lower than the possession limit in state waters, state-only permit holders could transit through the defined transit zone with fish in excess of the federal waters possession limit. State-only permit holders would be subject to the regulations of the state in which they land their catch.

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There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

Sub-option 3C-5: Differences in State and Federal Minimum Fish Sizes

This option would allow the state-only permit holders selected above to transit through the area selected above while abiding by the state-waters minimum fish sizes for summer flounder, scup, and/or black sea bass. That is, if the minimum size in federal waters were greater than the size limit in state waters, state-only permit holders could transit through the defined transit zone while in possession of fish smaller than the minimum size in federal waters. State-only permit holders would be subject to the regulations of the state in which they land their catch.

There would be no change to the current regulations requiring all dual (i.e. state and federal) permit holders to abide by the measures of the state in which they land their catch, or the federal waters measures, whichever are more restrictive.

4.0 Compliance

For black sea bass conservation equivalency, the Commission's Management Board would determine compliance requirements at the time conservation equivalency is implemented in a given year. For Block Island Sound transit, there are no state compliance requirements beyond current enforcement. State reporting of measures would follow the current process should include any implementation of slot limits.

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Appendix I. Potential Impacts of Alternatives on Summer Flounder, Scup, and Black Sea Bass and Potential Socio-Economic Impacts of Alternatives

Note: This draft analysis was developed by Council staff as part of their complementary framework to Draft Addendum XXXI. The numbering is matched to the framework document and will be updated to match the Draft Addendum. The impacts conclusions summarized below may be modified after additional consideration by Commission and Council staff, the Monitoring Committee, the Board, the Council, and stakeholder input.

1. Introduction

This appendix summarizes the potential impacts of the alternatives on summer flounder, scup, and/or black sea bass (depending on the alternative) as well as the potential socio-economic impacts of each alternative. The impacts are summarized in Table 1 and described in more detail in the following sections.

Table 1: Summary of expected impacts of the alternatives considered in this addendum/ framework. A minus sign (–) signifies a negative impact, a plus sign (+) signifies a positive impact, and zero (0) indicates no impact or negligible impacts.

| Alternative(s) | | Impacts to summer flounder, scup, and/or black sea bass | Socio-economic impacts |
|----------------------------|---|---|------------------------|
| Conservation Equivalency | 1A No action | +* | –* |
| | 1B Black sea bass conservation equivalency | + | + |
| | 1C and 2B Conservation equivalency rollover for black sea bass and summer flounder, respectively | 0 | + |
| Block Island Sound Transit | 3A No action | +* | –* |
| | 3B Block Island Sound Transit Provisions for Summer Flounder, Scup, and Black Sea Bass Apply in a Defined Transit Corridor for Rhode Island Commercial and Recreational State-Only Permit Holders 3C Block Island Sound Transit Provisions for RI, CT, NY, and MA Permit Holders in the Same Area as the Striped Bass Transit Area (Multiple Sub-Alternatives) | + | Mostly + |
| Slot Limits | 4A No action | +* | Mostly –* |
| | 4B Update Council’s FMP to allow slot limits to be used in recreational summer flounder, scup, and black sea bass fisheries | – | + and – |

*The impacts of all no action alternatives are expected to be similar to current impacts. For example, + would indicate continued positive impacts, not impacts that are more positive than current impacts.

2. Potential Impacts of Black Sea Bass Conservation Equivalency Alternatives

This addendum/framework considers updating the FMPs to allow conservation equivalency to be used for black sea bass in future years. The impacts will vary depending on the state and/or regional measures used under conservation equivalency in any particular year. These measures will be determined and analyzed through a separate action.

2.1.1. Potential Impacts of Black Sea Bass Conservation Equivalency

Under all black sea bass conservation equivalency alternatives, fishing effort and fishing mortality will continue to primarily be constrained by the annual recreational harvest limit (RHL). Therefore, the impacts of these alternatives on black sea bass are not expected to be different than the impacts of the annual RHL. The expected impacts of the RHL are analyzed in a specifications document prepared by the Council each time an RHL is implemented or revised (e.g. MAFMC 2017). The RHL is based on the best available science and is intended to prevent overfishing. As such, the RHL is expected to have positive impacts on black sea bass. These positive impacts are expected to be maintained under either conservation equivalency for black sea bass (alternatives 1B and 1C) or no action (alternative 1A). For this reason, the no action alternative is expected to have positive impacts on black sea bass. These impacts are not expected to be different (i.e. not more positive) than the impacts of recreational management measures on the stock in recent years.

2.1.2. Socioeconomic Impacts of Black Sea Bass Conservation Equivalency

Over the past 5 years (i.e. 2013-2017), about 38% of the annual recreational harvest of black sea bass (in numbers of fish) from Maine through North Carolina occurred in federal waters, according to marine recreational information program (MRIP) estimates. The proportion of harvest from state and federal waters varied by state (Table 2).

Under current regulations (represented by the no action alternative, alternative 1A), uniform coast-wide measures are required in federal waters. In recent years, states and multi-state regions developed state/regional specific measures to address regional differences in the fishery (e.g. differences in the size and abundance of black sea bass). In recent years, the states of Maine through New Jersey have implemented state waters measures that differed from the federal waters measures. In some cases, the differences between state and federal waters measures resulted in angler confusion and noncompliance, state/federal water transit issues (e.g. Block Island Sound), and permitting problems for federal party/charter permit holders. These could be considered negative socio-economic impacts. The no action alternative would represent a continuation of these negative impacts.

If conservation equivalency were to be used for the black sea bass recreational fishery (alternatives 1B and 1C), then the federal waters measures could be waived in favor of the measures of the state where anglers land their catch. This would alleviate many of the issues associated with different state and federal waters measures (e.g. angler confusion and noncompliance, state/federal water transit issues, and permitting problems for federal party/charter permit holders). In addition, conservation equivalency would allow anglers in both state and federal waters to fish under regulations that are tailored to the relevant

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characteristics of the fishery in their area. This could result in socioeconomic benefits due to increased angler satisfaction and decreased noncompliance.

Table 2: Percentage of black sea bass harvest (in numbers of fish) from state and federal waters by state during 2013-2015 according to MRIP data.

| State | State waters | Federal waters |
|----------------|---------------------|-----------------------|
| NH | 100% | 0% |
| MA | 92% | 8% |
| RI | 79% | 21% |
| CT | 93% | 7% |
| NY | 61% | 39% |
| NJ | 29% | 71% |
| DE | 6% | 94% |
| MD | 17% | 83% |
| VA | 19% | 81% |
| NC | 11% | 89% |
| Overall | 62% | 38% |

2.2. Potential Impacts of Conservation Equivalency Rollover for Black Sea Bass and/or Summer Flounder

Alternative 1C considers allowing conservation equivalency for black sea bass to rollover from one year to the next. Alternative 2B considers allowing conservation equivalency for summer flounder to rollover from one year to the next (if appropriate). The impacts of these alternatives are not expected to be different for black sea bass and summer flounder; therefore, the conservation equivalency rollover alternatives for the two species are considered together in the following sections.

2.2.1. Impacts of Conservation Equivalency Rollover On Black Sea Bass and Summer Flounder

The alternatives for conservation equivalency rollover for black sea bass (alternative 1.C) and summer flounder (alternative 2B) are both administrative in nature. As such, they are not expected to result in any changes in fishing effort or fishing mortality and are not expected to have any direct or indirect impacts on black sea bass or summer flounder.

2.2.2. Socioeconomic Impacts of Conservation Equivalency Rollover

If conservation equivalency rolled over from one year to the next, NOAA Fisheries would not need to go through the rule-making process each year to waive the federal waters recreational measures. This would reduce the time and cost burden on NOAA Fisheries for managing these fisheries. Under the current process for summer flounder (alternative 2A), conservation equivalency expires at the end of the year, but the federal waters measures are not waived until the spring, after NOAA Fisheries receives a letter from the Commission certifying that the combination of state and regional measures will constrain harvest to the RHL. Thus, from January 1 until NOAA Fisheries completes the rule-making process to waive the federal waters

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measures, the non-preferred coastwide measures from the previous year are technically in place in federal waters. This not only creates the potential for confusion, but can also create a situation where federal waters measures are more restrictive than state waters measures. These could be considered negative socio-economic impacts. The no action alternatives would represent a continuation of these negative impacts. Conservation equivalency rollover (alternatives 1.C and 2.B) could be beneficial for recreational fishermen as it would resolve these issues.

2.3. Potential Impacts of Block Island Sound Transit Provisions

2.3.1. Impacts of Block Island Sound Transit Provisions on Summer Flounder, Scup, and Black Sea Bass

Compared to the no action alternative (alternative 3A), all the Block Island Sound transit alternatives (i.e. alternative 3.B and 3C and all sub-alternatives) are expected to lead to a slight increase in fishing effort for summer flounder, scup, and black sea bass in Rhode Island state waters off Block Island. Under these alternatives, in situations where federal waters measures are more restrictive than state waters measures (i.e. open seasons, possession limits, and/or minimum fish sizes, depending on the alternatives chosen), state-only permit holders would be able to fish in state waters off Block Island and return to the mainland in defined transit areas while complying with the state regulations. Under current regulations, fishermen must comply with the federal waters measures when they are in federal waters, including the federal waters that separate Rhode Island state waters around Block Island from state waters adjacent to the mainland.

The degree of the potential increase in fishing effort varies depending on the sub-alternatives chosen. For example, the combination of all sub-alternatives under alternative 3.C C (i.e. transit allowed in the striped bass transit area for both commercial and recreational permit holders, and for differences in state and federal seasons, possession limits, and minimum fish size limits) would result in the greatest potential increase in fishing effort because it would apply to the greatest area, the greatest number of fishermen, and the greatest number of regulations of all the alternatives considered.

Although a slight increase in fishing effort is expected under these alternatives, fishing effort will continue to be primarily constrained by the annual RHL and commercial quota, which are set based on the best available science and are intended to prevent overfishing. Therefore, the impacts of these alternatives on summer flounder, scup, and black sea bass are not expected to be different than the impacts of the RHL and commercial quota, which are analyzed in a specifications document prepared by the Council each time an RHL or quota is implemented or revised (e.g. MAFMC 2017). Because these measures are based on the best available science and are intended to prevent overfishing, they are generally expected to have positive impacts on summer flounder, scup, and black sea bass. The Block Island Sound transit alternatives are not expected to change these impacts. These positive impacts to the stocks are expected to be maintained under all Block Island Sound transit alternatives, including the no action alternative.

2.3.2. Socio-Economic Impacts of Block Island Sound Transit Provisions

With the exception of the no action alternative (alternative 3A), the Block Island Sound transit alternatives would allow state-only recreational and/or commercial permit holders to transit federal waters in a defined area while complying with the state waters season, minimum fish size, and/or possession limits (depending on the alternative) for summer flounder, scup, and black sea bass. In situations where the federal waters measures are more restrictive than the state waters measures, this could allow for a slight increase in fishing effort for and harvest of these species in the state waters around Block Island. As such, it could lead to increased revenues for commercial fishermen, for-hire operations, and associated industries, as well as increased fishing opportunities for commercial and/or recreational fishermen (depending on the alternative). For these reasons, all Block Island Sound transit alternatives are expected to have positive socio-economic impacts. When conservation equivalency is used (e.g. as with summer flounder in recent years), the Block Island Sound transit alternatives would result in neutral socio-economic impacts since the federal waters measures would be waived.

The no action alternative could be considered to have negative socio-economic impacts because, in certain situations, it can require fishermen to comply with federal measures which are more restrictive than state waters measures because vessels must pass through federal waters to return to the mainland from Rhode Island state waters around Block Island. For example, in most recent years, state waters in Rhode Island, Connecticut, and/or New York (depending on the year) have been open to recreational black sea bass fishing during a period of time when federal waters were closed. Therefore, if anglers retained any black sea bass during the federal waters closure, they would be in violation of the federal regulations while transiting federal waters, even if those fish were legally caught in state waters. The no action alternative can have similar implications for situations where the federal waters minimum fish size limit and/or possession limit is more restrictive than the state waters measures. For these reasons, the no action alternative can have negative socio-economic impacts.

Enforcement of some Block Island Sound transit alternatives will be more challenging than others. The transit provisions are essentially exceptions to federal regulations. The more regulations and permits that are subject to that exception, the more challenging it will be to enforce, as opposed to if the exception applied to a smaller number of permit holders (e.g. recreational only) and a smaller number of regulations (e.g. only situations where federal waters are closed and state waters are open). Increased enforcement challenges could be considered a negative socioeconomic impact if associated costs increase.

In addition, although both the Rhode Island specific transit area (alternative 3B) and the larger striped bass transit area (alternative 3C) could be used, enforcement could be challenging if the regulations were different in the two areas—for example, if transit provisions in one area applied to differences in state and federal seasons, possession limits, and minimum fish sizes and in the other area they addressed only differences in seasons. For the same reasons, use of two transit areas, as opposed to a single area, could increase enforcement costs and/or increase the potential for confusion and unintentional noncompliance.

2.4. Potential Impacts of Slot Limits

This addendum/framework does not consider implementing any specific slot limits. Rather, it proposes updating the Council's FMP to allow slot limits to be used in future years. The potential impacts of slot limits are summarized below, but will vary depending on the particular slot limit used.

2.4.1. Impacts of No Action (i.e. slot limits cannot be used in federal waters) on Summer Flounder, Scup and Black Sea Bass

The Monitoring Committee has concluded in the past that standard minimum fish size limits are one of the most powerful tools to constrain recreational harvest to the RHL. In years when a decrease in harvest is needed, increasing the minimum size limit can have a greater impact on harvest than decreasing the season or possession limit. For this reason, use of a traditional minimum size limit can have positive impacts on the summer flounder, scup, and black sea bass stocks as it can be an effective tool to constrain harvest and prevent overfishing. Some negative impacts are possible due to the potential to concentrate fishing effort on larger, older fish which may have greater contributions to spawning than smaller fish; however, in general, the impacts of traditional minimum size limits on summer flounder, scup, and black sea bass are mostly positive. The no action alternative (alternative 4A) would represent a continuation of these positive impacts.

2.4.2. Socio-Economic Impacts of No Action (i.e. slot limits cannot be used in federal waters)

To the extent that traditional minimum fish size limits are an effective tool to prevent overfishing, they could be considered to have positive socio-economic impacts. However, as described in more detail below, compared to slot limits, traditional minimum fish sizes can result in both higher discards and lower harvest in numbers of fish (Wong 2009, Wiedenmann et al. 2013). These could be considered negative socio-economic impacts. The no action alternative (alternative 4A) would represent a continuation of these negative impacts.

2.4.3. Impacts of Slot Limits on Summer Flounder, Scup, and Black Sea Bass

Slot limits are intended to reduce fishing mortality on larger fish. For some species, females reach larger sizes than males and bigger, older females tend to produce more offspring than younger fish. Thus, in theory, slot limits could have positive impacts on recruitment for some species by reducing fishing mortality on large females. The following sections summarize the potential impacts of slot limits on summer flounder, scup, and black sea bass based on past analyses and the life history of each species. However, it should be noted that actual impacts to these species would depend on the specific slot limits implemented.

Impacts to summer flounder

In 2009, the Monitoring Committee analyzed a range of slot limit options for the recreational summer flounder fishery using for-hire catch data from 2008. The analysis also considered a range of bag limits and options for trophy fish in combination with slot limits. The results indicated that, compared to a standard minimum size limit, the slot limit options considered would "certainly result in greatly increased numbers of fish harvested" due to the higher availability of smaller fish compared to larger fish. Although discards may decrease under

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certain slot limits, total removals (i.e. harvest and discards) would likely increase due to the increase in harvest. An increase in removals in numbers of fish would increase the fishing mortality rate. Under some slot limit options, marginal benefits to spawning stock biomass (SSB) were predicted; however, these benefits were eliminated when a trophy class was considered in combination with slot limits (Wong 2009).

A management strategy evaluation analysis by Wiedenmann et al. (2013) also found that slot limits could result in an increase in the number of summer flounder harvested per angler, as well as a small reduction in the total number of female summer flounder harvested. They found that slot limits generally resulted in lower harvest and more discards by weight, and higher and more frequent annual catch limit (ACL) overages, compared to minimum size limits.

In summary, these two studies suggest that total removals in numbers of fish may increase under slot limits, the fishing mortality rate may increase, and any increases in SSB may be minor. For these reasons, slot limits could have negative impacts on the summer flounder stock, especially under current conditions (i.e. overfishing is occurring and SSB is below the target level).

Impacts to scup

An analysis of slot limits for scup has not been performed. Female and male scup have similar growth rates (NEFSC 2015); therefore, unlike summer flounder, slot limits would not have disproportionate impacts on females compared to males.

Scup reach a maximum age of at least 14 years; however, few scup older than 7 years are caught in the mid-Atlantic (Northeast Data Poor Stocks Working Group 2009, NEFSC 2015). Scup reach a maximum length of at least 46 cm (18 inches; NEFSC 2015). In theory, slot limits should be most beneficial for longer-lived species and scup are not a particularly long-lived species.

For all these reasons, the scup stock may not benefit from slot limits. In addition, if slot limits lead to increased harvest in numbers of fish, as suggested by Wong (2009) and Wiedenmann et al. (2013) for summer flounder, then slot limits could lead to an increased fishing mortality rate, compared to a traditional minimum size limit. Given that the biomass of scup is currently estimated at more than double the target, an increased fishing mortality rate may not have major negative impacts on the stock, depending on the degree of the increase. In summary, the impacts of slot limits on the scup stock could be negligible or slightly negative.

Impacts to black sea bass

An analysis of slot limits for black sea bass has not been performed. Most black sea bass transition from female to male when they reach about 7.5 inches in length, thus, larger, older fish tend to be males and slot limits could disproportionately impact males compared to females.

Multiple studies have suggested that the black sea bass stock is somewhat resilient to the removal of large males due to the contribution of smaller, secondary males (i.e. mature males

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without the bright coloration or nuccal humps of dominant males) to spawning (NEFSC 2017). For example, Blaylock and Shepherd (2016) concluded the black sea bass stock from Maine through Cape Hatteras is more resilient to exploitation than a typical protogynous hermaphrodite species because not all larger individuals are males and secondary males contribute to spawning.

Some Council, Board, Monitoring and Technical Committee, and Advisory Panel members have expressed concerns that larger, compared to smaller, black sea bass may experience higher mortality rates due to barotrauma. Consequently, they have said the use of slot limits for black sea bass could lead to an increase in discard mortality because slot limits would increase discards of larger fish compared to traditional minimum size limits.

In addition, if slot limits lead to increased harvest in numbers of fish, as suggested by Wong (2009) and Wiedenmann et al. (2013) for summer flounder, then slot limits could lead to an increased fishing mortality rate, compared to a traditional minimum size limit. Given the current high biomass of black sea bass (more than double the biomass target), an increased fishing mortality rate may not have major negative impacts on the stock, depending on the degree of the increase. In summary, the impacts of slot limits on the black sea bass stock could be negligible or negative.

2.4.4. Socio-Economic Impacts of Slot Limits

As summarized above, Wong (2009) and Wiedenmann et al. (2013) suggested that total summer flounder removals in numbers of fish may increase under slot limits, compared to traditional minimum size limits. The same may be true for scup and black sea bass; however, slot limits have not been analyzed for these species. This could result in socio-economic benefits as it could allow anglers to retain more fish and would increase angler satisfaction. However, if the increase in removals is great enough to negatively impact the stock and significantly increase the risk of overfishing, this could result in longer-term negative socio-economic impacts if it leads to reduced availability or requires more restrictive management measures to be implemented in future years.

An analysis by the Monitoring Committee suggested that, given differences in availability of smaller summer flounder, slot limits could result in a disproportionate increase in harvest from shore, compared to for-hire mode and private/rental boats, assuming other regulations were unchanged (Wong 2009). Due to this increase in harvest, slot limits could have greater positive impacts for anglers fishing from shore than for anglers fishing from boats. The same may be true for scup. A very small percentage of recreational black sea bass harvest comes from the shore mode.

The impacts of slot limits depend, in part, on the particular slot implemented. For example, slot limits that allow retention of smaller fish could allow greater harvest from shore, compared to other modes, and in certain states (e.g. Maryland and North Carolina where bays are important recreational fishing areas), compared to others. Slot limits at larger sizes could disadvantage the shore mode and those states compared to others (Wong 2009). Over the past 10 years (i.e. 2008-2017), the shore mode generally accounted for less than 10% of the summer flounder

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harvest in each state. North Carolina is a notable exception, where it accounted for about 26% of the summer flounder harvest in numbers of fish.

Based on Wong 2009, the Monitoring Committee concluded that a very narrow slot limit would be necessary to constrain summer flounder harvest to the RHL. Narrow slot limits could be more challenging to enforce and could lead to greater noncompliance than wider slot limits or a standard minimum size. For these reasons, slot limits could have some negative socio-economic impacts in years when RHLs are low and harvest must be constrained. Wider slots would be possible under higher RHLs.

In addition, slot limits would require anglers to discard fish above a certain size. This could be unappealing to some anglers, which could decrease angler satisfaction and may increase the potential for noncompliance, compared to a traditional minimum fish size limit. These would be considered negative socio-economic impacts. Allowance of a trophy fish in combination with a slot limit could address these concerns.

In summary, the socio-economic impacts of slot limits could be mixed (i.e. both positive and negative) and would depend on the particular slot limits used.

Appendix I References

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Appendix II. Timeline of Summer Flounder Conservation Equivalency Process

This timeline reflects current practice for summer flounder conservation equivalency in recent years. The timeline can vary year to year. In years when the Commission develops an addendum to modify summer flounder conservation equivalency, the timeline can be delayed and additional steps are added to the Board’s process.

| | |
|--|---|
| <p>August Council/Board recommend Recreational Harvest Limit (RHL) to NMFS and Board takes final action on RHL for state waters.</p> <p>October Preliminary MRIP data available for waves 1-4 (i.e. January - August) of current year.</p> <p>November Monitoring Committee reviews MRIP data through wave 4 and develops recommendations on overall % reduction required (if applicable) and use of coastwide measures or conservation equivalency (including the non-preferred coastwide and precautionary default measures).</p> <p>December Council/Board recommend either conservation equivalency OR coastwide measures. If conservation equivalency, they also recommend non-preferred coastwide and precautionary default measures. NMFS publishes final rule announcing subsequent year’s RHL.</p> | |
| <p align="center"><u>State Conservation Equivalency Measures</u></p> <p align="center">January</p> <ul style="list-style-type: none"> • States/regions submit conservation equivalency proposals to Commission staff. • Technical Committee meets to evaluate proposals. <p align="center">February</p> <ul style="list-style-type: none"> • Board meeting to approve/disapprove proposals. <p align="center">March</p> <ul style="list-style-type: none"> • Council staff submits recreational measure package to NMFS. Package includes: <ul style="list-style-type: none"> ○ Overall % reduction required (if applicable); ○ Non-preferred coastwide and precautionary default measures; and ○ Recommendation to implement conservation equivalency. <p align="center">April</p> <ul style="list-style-type: none"> • NMFS publishes proposed rule for recreational measures announcing the overall % reduction required (if applicable) and the non-preferred coastwide and precautionary default measures to be used under conservation equivalency. • Board submits a letter to NMFS certifying that the combination of state/regional measures is expected to constrain harvest to the RHL. <p align="center">May</p> <ul style="list-style-type: none"> • NMFS publishes final rule announcing overall % reduction required (if applicable) and one of the following scenarios: <ul style="list-style-type: none"> ○ Approval of conservation equivalency; or ○ Coastwide measures | <p align="center"><u>Coastwide Measures</u></p> <p align="center">February</p> <ul style="list-style-type: none"> • Council staff submits recreational measure package to NMFS. Package includes: <ul style="list-style-type: none"> ○ Overall % reduction required (if applicable); and ○ Coastwide measures. <p align="center">April</p> <ul style="list-style-type: none"> • NMFS publishes proposed rule for recreational measures announcing the overall % reduction required (if applicable) and coastwide measures. <p align="center">May</p> <ul style="list-style-type: none"> • NMFS publishes final rule announcing overall % reduction required (if applicable) and coastwide measures. |

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Appendix III. Proposed language for Transiting the EEZ between Rhode Island state waters adjacent to Block Island and Rhode Island state waters adjacent to the Rhode Island mainland

- (a) A vessel in possession of a regulated species legally harvested in Rhode Island state waters in accordance with all applicable Rhode Island laws and regulations may transit a portion of the EEZ, as specified in subsection (b), for the purpose of landing said species, provided (1) the operator of the vessel has a valid fishing license; (2) the vessel is in continuous transit; (3) no fishing takes place from the vessel while in the EEZ; (4) if previously fishing with nets, the nets are stowed as specified in subsection (c); and (5) if previously fishing with hook and line gear, the poles are secured in holders with all bait removed from all hooks.
- (b) The transit corridor that shown on NOAA chart 13218 (cable area) and bound by NW (41°18'50"N, -71°32'56"W); NE (41°18'20"N, -71°31'27"W); SE (41°17'01"N, -71°32'25"W); SW (41°17'19"N, -71°33'19"W) (Figure 1 and 2).
- (c) Stowage of nets: Vessels possessing trawl devices, gill nets, or other nets used to harvest regulated species may have those nets on board while transiting, provided that the nets are stowed and not available for immediate use in accordance with one of the following specifications.
 - (1) A net stowed below deck, provided:
 - i. It is located below the main working deck from which the net is deployed and retrieved;
 - ii. The towing wires, including the leg wires, are detached from the net; and
 - iii. It is fan folded (flaked) and bound around its circumference.
 - (2) A net stowed and lashed down on deck, provided:
 - i. It is fan folded (flaked) and bound around its circumference;
 - ii. It is securely fastened to the deck or rail of the vessel; and
 - iii. The towing wires, including the leg wires, are detached from the net.
 - (3) A net that is on a reel and is covered and secured, provided:
 - i. The entire surface of the net is covered with canvas or other similar material that is securely bound;
 - ii. The towing wires, including the leg wires, are detached from the net; and
 - iii. The cod end is removed from the net and stored below deck.

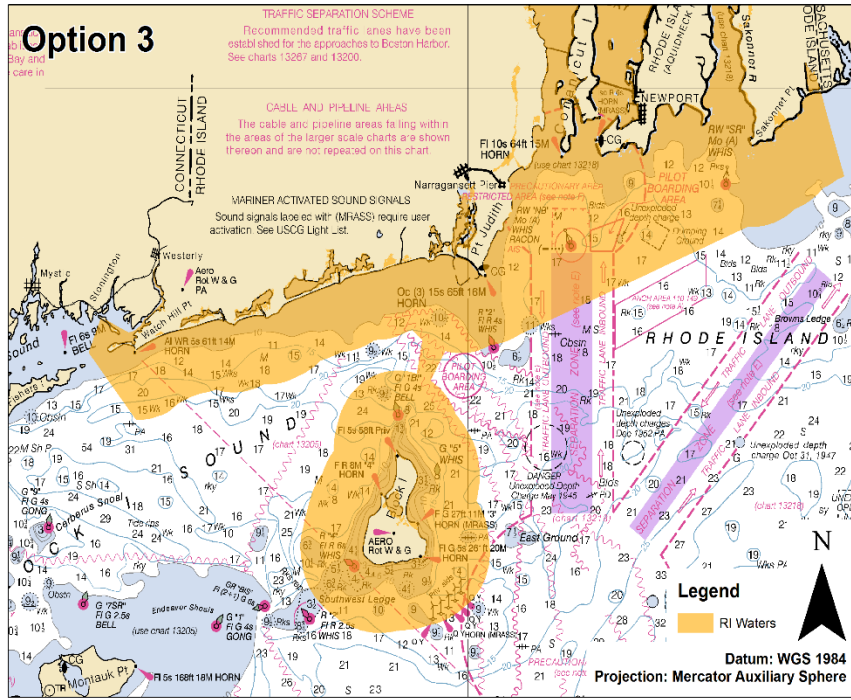


Figure 1

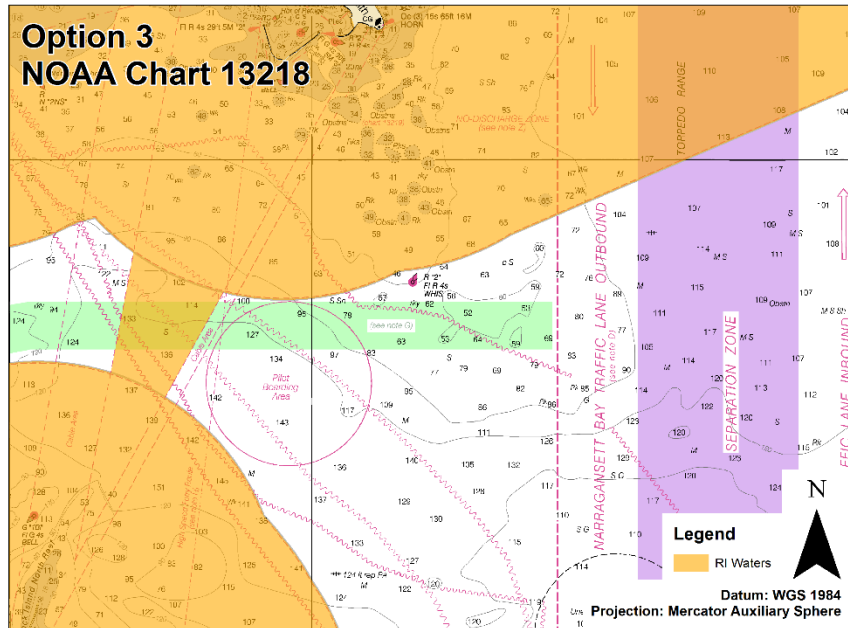


Figure 2