



# Summer Flounder, Scup, and Black Sea Bass Commercial Management Measures Review

November 2015

## Introduction

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The Mid-Atlantic Fishery Management Council's (Council's) Summer Flounder, Scup, and Black Sea Bass Monitoring Committee (MC) and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Technical Committee (TC) conducted a review of the effectiveness of certain commercial management measures for these three species. The MC typically considers the commercial management measures each year when recommending Annual Catch Targets (ACTs) and other measures during the annual specifications process.

In recent years advisors, managers, and other stakeholders have requested that some of the commercial management measures be reviewed in more detail and potentially modified.

The MC/TC reviewed the federal commercial measures which can be modified through the annual specifications process, with the following objectives:

- Review and summarize the current federal commercial regulations that can be modified through the specifications process, including background information and technical basis if available;
- Gather perspectives from advisors on which measures are working well and where changes may be warranted;
- Analyze the effectiveness of current measures using available data;
- Recommend modifications to current measures if appropriate, for consideration by the Council and Board at their December 2015 joint meeting in Annapolis, MD.

The MC/TC conducted this evaluation over the course of several meetings from July 2015 through November 2015. The Summer Flounder, Scup, and Black Sea Bass Advisory Panel (AP) met via webinar on October 22, 2015, to provide input on the commercial measures. In addition, an online comment form was distributed to AP members so they could also provide written comments. An online comment form was also provided to members of the Council's Mackerel, Squid, and Butterfish (MSB) AP, as some of these measures affect fishermen who use small mesh gear. AP comments and MC/TC recommendations are summarized below. AP comments are summarized in detail in an [Appendix](#).

## Commercial Measures Considered

In addition to recommending Annual Catch Limits (ACLs), Annual Catch Targets (ACTs), and sector-specific landings limits, the MC is responsible for reviewing the performance of commercial management measures and providing recommendations to the Council and the Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (the Board) on any changes that may be necessary. Typically, this review takes place during the July MC meeting, for consideration by the Council and Board at their August joint meeting each year. The commercial measures listed in Table 1 are reviewed annually and may be modified as part of the specifications process.

**Table 1:** Species-specific commercial measures considered by the Monitoring Committee during specifications.

Summer Flounder	Scup	Black Sea Bass
<ul style="list-style-type: none"> <li>• Minimum fish size</li> <li>• Minimum mesh size</li> <li>• Seasonal possession limits triggering minimum mesh requirement (incidental possession limits)</li> <li>• Other gear restrictions</li> <li>• Adjustments to the small-mesh exemption area boundary and season</li> <li>• Adjustments to the flynet exemption program</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum fish size</li> <li>• Minimum mesh size</li> <li>• Seasonal possession limits triggering minimum mesh requirement (incidental possession limits)</li> <li>• Pot and trap gear restrictions</li> <li>• Other gear restrictions</li> <li>• Winter I and Winter II quota period possession limits and quota rollover provisions</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum fish size</li> <li>• Minimum mesh size</li> <li>• Seasonal possession limits triggering minimum mesh requirement (incidental possession limits)</li> <li>• Pot and trap gear restrictions</li> <li>• Other gear restrictions</li> </ul>

The sections below summarize the review for each species. For each commercial measure reviewed, information is provided regarding: 1) the current measures, 2) the history, basis, and summary of changes to the measures over time, 3) a summary of AP comments<sup>1</sup>, 4) any relevant supporting analysis or information, and 5) MC/TC recommendations.

## Summer Flounder Commercial Measures

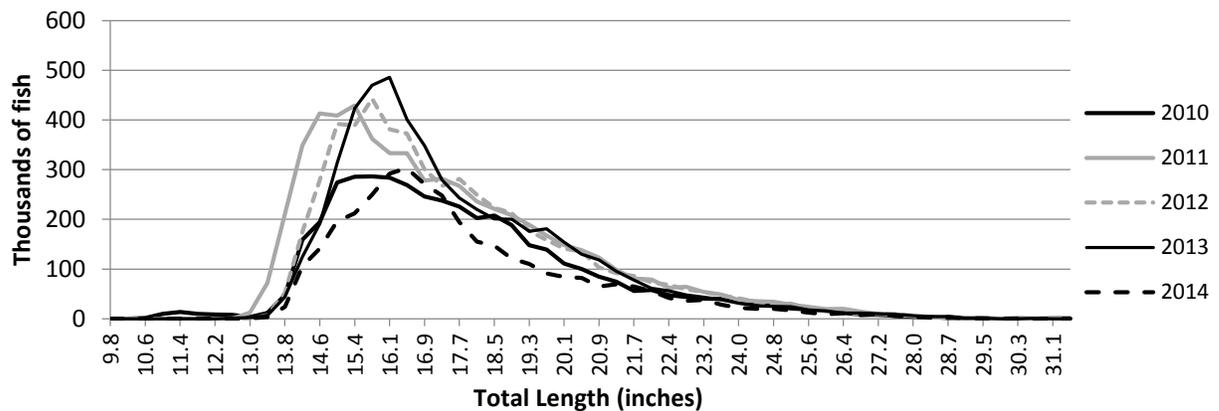
### Summer Flounder Commercial Minimum Fish Size

- **Current Measures:** The minimum size for retention of summer flounder in the commercial fishery is 14 inches total length (TL).
- **Background:** The original joint FMP required a 13-inch TL commercial minimum fish size; however, many states had previously implemented 14-inch minimum size limits as suggested under the Commission’s original FMP (1982). The coastwide minimum size was increased to 14 inches in 1997 and has remained unchanged since that time.

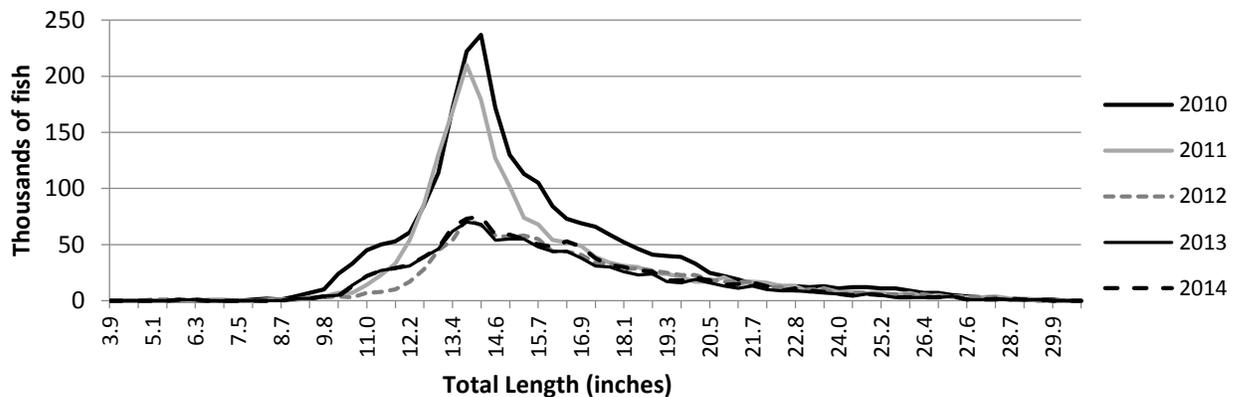
The original 13-inch limit, in combination with the mesh requirements implemented under Amendment 2 (1993), were designed to reduce mortality of immature summer flounder and to reduce discards. A 5.5-inch mesh was found to retain about 70% of the 14-inch summer flounder that encounter the net. The Council and Commission recognized that 5.5-inch mesh would also retain some 13-inch summer flounder, and believing that fishermen would target 14-inch and larger summer flounder, implemented a 13-inch size limit to minimize discards of 13 to 14-inch fish. However, it became apparent that the minimum mesh requirements were incompatible with a 13-inch minimum size and that fishermen were circumventing the mesh requirements through the use of liners to target 13-inch fish. The minimum size was revised to 14 inches in 1997 to reduce mortality on immature fish, to make the commercial regulations consistent coastwide, and to make the commercial minimum size consistent with the recreational minimum size at the time.

<sup>1</sup> AP comments are described here briefly. See the appendix for a more detailed comment summary.

- **Advisor Comments:** Six AP members were in favor of keeping the minimum size at 14 inches. Two AP members believed that the minimum size should be decreased to 13 inches to reduce discards of 13-inch fish. One AP member believed there should be no minimum size, in combination with an appropriate mesh size and mandatory retention of all summer flounder caught.
- **Analysis:** The MC/TC examined patterns in landings and discards by length in the summer flounder commercial fishery from 2010 through 2014. The MC/TC noted that 1-5% of summer flounder landings over the past five years were of undersized fish (Figure 1), while about 25-30% of discards were of undersized fish (Figure 2). The MC/TC also examined the reported reason for discarding summer flounder, as shown in Northeast Fisheries Observer Program data. These data showed that from 2010 through 2014, about 46% of summer flounder discards were discarded because they were smaller than the minimum size and about 41% were discarded because of a quota.



**Figure 1:** Length frequency distribution of summer flounder landed in the commercial fishery from 2010 through 2014 (Mark Terceiro, personal communication).



**Figure 2:** Length frequency distribution of summer flounder discarded in the commercial fishery from 2010 through 2014 (Mark Terceiro, personal communication).

- **MC/TC Recommendations:** The MC/TC recommended no changes to the minimum fish size for summer flounder as the current specifications are above the L50 for maturity (length at 50% maturity) and are therefore protective of immature fish (NEFSC 2013). The MC/TC emphasized that a decrease in the commercial minimum fish size was not recommended in part because it would increase the disparity between the commercial and recreational minimum fish sizes, which could increase discontent and conflict within the fishing community as well as increase enforceability issues. Eliminating the commercial minimum size and relying on trawl mesh specifications to limit mortality of smaller summer flounder, as proposed by several advisors, is not feasible to enforce under the current management framework given that summer flounder are targeted using other commercial gear types.

### Summer Flounder Minimum Mesh Size and Incidental Possession Limits

- **Current Measures:** Trawl vessels must use nets with a minimum mesh size of 5.5-inch diamond or 6.0-inch square in the entire net when possessing more than 200 pounds of summer flounder in the winter (November 1-April 30) and more than 100 pounds in the summer (May 1-October 31). These are the incidental possession limits.
- **Background:** The 5.5-inch diamond or 6.0-inch square minimum mesh size requirements were first implemented in 1993 under Amendment 2 to the FMP. At the time this measure applied only to the net's codend. The minimum mesh requirements were modified in 1998 (Amendment 10) to apply throughout the whole net.

The Council and Commission reconsidered the mesh requirements around the same time that the minimum fish size was increased to 14 inches. Poor compliance with the mesh regulations, combined with the use of smaller mesh forward of the codend, had resulted in higher than expected fishing mortality rates on sublegal summer flounder. The requirement for 5.5-inch mesh throughout the net was implemented to reduce mortality and discards of immature summer flounder, as well as to simplify enforcement.

A year-round incidental possession limit of 100 pounds was implemented in 1993 (Amendment 2). Under Amendment 3 (1993) the thresholds were modified to 200 pounds in the winter (November 1 – April 30) and 100 pounds in the summer (May 1- October 31). The measures have remained unchanged since that time.

Amendment 3 also considered a 500 pound incidental possession limit, but an analysis indicated that this could encourage a directed small mesh fishery and subvert the positive impacts of the mesh regulations. According to comments from advisors and other commercial fishermen, under a 500 pound incidental limit, small day boats might target summer flounder with small mesh, thus increasing discards of small summer flounder. Larger vessels in small mesh fisheries for longfin squid and silver hake could catch and discard large quantities of sublegal summer flounder that would then be discarded dead, in order to retain 500 pounds of marketable fish. For these reasons, it was believed that a 500 pound trigger would increase mortality of sublegal summer flounder. Amendment 3 also considered a year-round 200 pound threshold but it was believed that this could have also led to a small mesh directed fishery by smaller boats fishing during the summer, when small boats typically landed less than 200 pounds.

- **Advisor Comments:** Eleven individuals who responded to the AP queries thought the minimum mesh size for summer flounder should remain unchanged. Six respondents thought the incidental possession limits should remain unchanged. Two AP members thought the incidental possession limit

should be increased. One AP member said the minimum mesh size should be decreased to 5 inches, at least in the winter (see the [Appendix](#) for more details).

- **Analysis:** The MC/TC examined landings and discard data for summer flounder. The MC/TC noted that the frequency distribution of summer flounder discards from 2010 through 2014 is centered around the minimum fish size of 14 inches TL (Figure 2), which could be interpreted to mean that the minimum mesh size requirement serves its intended purpose of mostly capturing summer flounder that are 14 inches TL and larger. The MC/TC noted that that most summer flounder discards are from trips which use mesh that exceeds the minimum mesh size. The MC/TC was not aware of any recent mesh size retention studies for summer flounder.

- **MC/TC Recommendations:** The MC/TC did not recommend any changes to the minimum mesh size or the incidental possession limits for summer flounder. The MC/TC thought that new gear studies would be beneficial, as most mesh size selectivity studies for summer flounder were done in the 1970s and early 1980s, when different net materials were used. The MC/TC therefore recommends updated studies be conducted before any changes to required mesh sizes are implemented. The MC/TC acknowledged that changing the minimum mesh size requirements could create an economic burden for fishermen if it required them to purchase new gear. The MC/TC recommended that if the Council and Board decide to change the minimum mesh size in the future, that they provide a significant amount of lead time with the notice of the change before enacting the new regulations to allow time for fishermen to plan for the cost of replacing gear.

### Summer Flounder Small Mesh Exemption Program

- **Current Measures:** Summer flounder moratorium vessels fishing east of longitude 72° 30.0'W (3), from November 1 through April 30, and using mesh smaller than 5.5-inch diamond or 6.0-inch square, may land more than 200 pounds of summer flounder provided that they have obtained a small mesh exemption program permit from the National Marine Fisheries Service (NMFS). Participation in this program requires a letter of authorization obtained through the NMFS Greater Atlantic Regional Fisheries Office. Vessels must be enrolled in the program for a minimum of 7 days and may not fish west (landward) of the line.

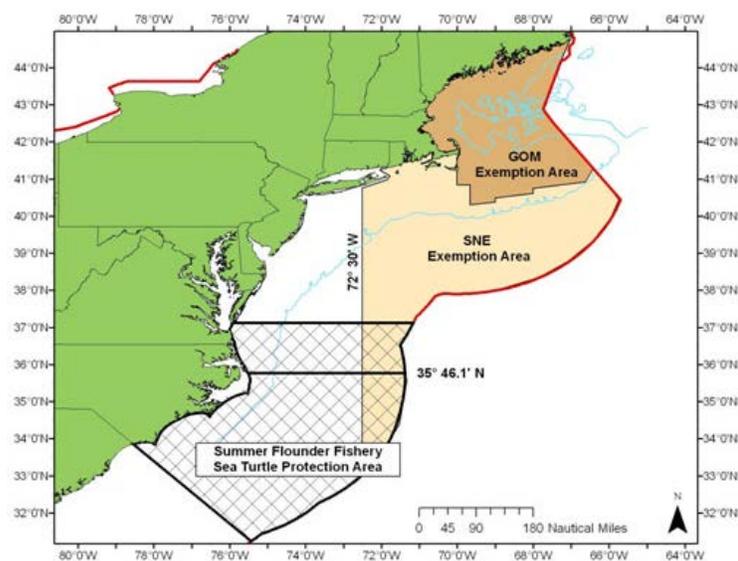


Figure 3: Summer flounder small mesh exemption area.

- **Background:** The summer flounder small mesh exemption program is designed to allow vessels to retain some bycatch of summer flounder while operating in other, small-mesh fisheries. The small mesh exemption program was developed under Amendment 2 to the FMP in 1993, and modified under Amendment 3 (1993).

The original demarcation line followed a yellowtail large mesh area at the northern end before following 72°20.0'W longitude to the south. This proved difficult for compliance and enforcement and was also not favored because of the way it bisected Hudson Canyon. Amendment 3 adjusted the line of demarcation to 72°30.0'W. It has remained unchanged since that time.

Amendment 3 also specified that “if the Regional Director determines after a review of Sea Sampling data that vessels fishing seaward of the line described above are discarding more than 10% of their summer flounder catch, the Regional Director may rescind the exemption.”

The Monitoring Committee is responsible for reviewing observer data annually to evaluate whether vessels fishing under this exemption program are discarding more than 10% of their summer flounder catch. The Committee may recommend adjustments to the exempted area and boundary in 30-minute intervals of latitude and longitude, and to the seasons in 2-week intervals.

- **Advisor Comments:** Most advisors who provided comments said the Small Mesh Exemption Program has not caused problems and should remain unchanged. Two advisors who responded to the MSB AP survey suggested the area be expanded to reduce discards.
- **Analysis:** The Monitoring Committee annually reviews Northeast Fisheries Observer Program (NEFOP) data for the period from November 1 in the previous year to April 30 in the current year. For this analysis, NEFOP data were analyzed for each November-April period from the fall of 2010 through the spring of 2015. Because observer coverage varies from year to year, changes in the numbers of trips meeting each criteria may reflect differences in observer coverage. However, the percentage of trips meeting the criteria identified can provide insight into any substantial trends in discarding patterns. These data indicate that over the past several years, the percentage of observed trips fishing with small mesh east of longitude 72° 30.0'W from November 1 to April 30, landing more than the incidental 200 pound limit of summer flounder, and discarding more than 10% of total summer flounder catch has remained relatively low and has decreased over the past few years, with the exception of 2014-2015 (Table 2).

**Table 2:** Number of observed bottom otter trawl trips that meet specific evaluation criteria, based on observer data from November 1 through April 30, 2010 through 2015. Note that overall levels of observer coverage vary annually.

	Criteria	Nov. 1, 2010 – Apr. 30, 2011	Nov. 1, 2011 – Apr. 30, 2012	Nov. 1, 2012 – Apr. 30, 2013	Nov. 1, 2013 – Apr. 30, 2014	Nov. 1, 2014 – April 30, 2015
A	Observed trips with at least one catch record east of 72° 30' W Longitude	379	434	395	382	401
B	That met the criteria in row A <u>and</u> used small mesh at some point during their trip	98	119	139	113	172
C	That met the criteria in rows A-B <u>and</u> landed more than 200 pounds summer flounder on whole trip	42	50	63	35	72
D	That met the criteria in rows A-C <u>and</u> discarded >10% of summer flounder catch east of 72° 30' W Longitude	16	11	8	7	21
E	% of observed trips with catch east of 72° 30' W Longitude that also used small mesh, landed >200 pounds of summer flounder, and discarded >10% of summer flounder catch (row D/row A)	4.2%	2.5%	2.0%	1.8%	5.2%
F	Total summer flounder discards (pounds) from trips meeting criteria in A-D	13,538	3,253	1,472	2,140	14,579
G	Total summer flounder landings (pounds) from trips meeting criteria in A-D	25,523	12,123	4,342	5,876	15,224
H	Total catch (pounds) from trips meeting criteria in A-D	39,061	15,375	5,814	8,016	29,804

➤ **MC/TC Recommendations:** The MC/TC concluded that this exemption program does not appear to be negatively impacting the summer flounder stock and appears to be serving its intended purpose of reducing discards of summer flounder in traditional small mesh offshore fisheries. It does not appear that many vessels are fishing with small mesh east of longitude 72° 30.0'W from November 1 to April 30, landing more than the incidental 200 pound limit of summer flounder, and discarding more than 10% of total summer flounder catch. However, the increase in the percent of observed trips meeting these criteria between 2013-2014 and 2014-2015 is noteworthy and may be driven by behavioral changes in fishing practices or demographic changes in the summer flounder population. The MC/TC recommends no changes at this time, but will revisit this issue in August 2016 if this trend continues.

### Summer Flounder Flynet Minimum Mesh Size Exemption

- **Current Measures:** Vessels fishing with a two-seam otter trawl flynet are exempt from the summer flounder minimum mesh size requirements. Flynets have large mesh in the wings that measure 8 to 64 inches. The belly of the net has 35 or more meshes that are at least 8 inches and the mesh decreases in size throughout the body of the net to 2 inches or smaller.
- **Background:** The flynet exemption was added to the FMP through Amendment 2 in 1993, as suggested by the South Atlantic Fishery Management Council and the State of North Carolina. At the time, flynets were mostly used between Cape Henlopen, Delaware and North Carolina in the fall and

winter. Atlantic croaker, weakfish, Atlantic mackerel, and bluefish were the dominant species in flynet catches in the mid- to late 1980s when the exemption was proposed. Limited amounts of summer flounder have been harvested by this gear. The exemption was intended to increase flexibility for fishermen while not negatively impacting the conservation objective of the FMP.

The NMFS Regional Administrator may withdraw the exemption if the annual average summer flounder catch in the flynet fishery exceeds 1% of the total flynet catch.

- **Advisor Comments:** All AP members who commented on this issue said the flynet exemption should remain unchanged. One AP member noted that the definition of a flynet also describes the high-rise nets used in the scup fishery, and occasionally in the black sea bass fishery. He suggested that the definition of a flynet be modified to include four seam box nets.
- **Analysis:** The bulk of flynet landings in the Greater Atlantic region originate from North Carolina, though the flynet fishery in North Carolina is still relatively small. Other states, including Virginia, New Jersey, and Maryland may have small amounts of flynet landings; however, flynet landings of summer flounder in these states are believed to be insignificant. Data are limited or unavailable for flynet landings in states other than North Carolina. For example, Maryland records do not discriminate trawl landings by mesh size, making it impossible to separate out flynet landings. However, these landings are believed to be less than 1,000 pounds per year in recent years. MC/TC members from other states indicated that landings with flynet gear are believed to be negligible.

A review of North Carolina data from 2005 through 2014 indicates that summer flounder flynet landings have generally declined since 2007, along with overall flynet landings. Summer flounder landings in some years are confidential but can be summarized as landings below 2,000 pounds. Summer flounder flynet landings have been below 2,000 pounds each year since 2010 (Table 3). North Carolina flynet landings have declined in recent years in part due to shoaling of Oregon Inlet and the consequent lack of access to important landing ports.

There are no observer data available that would allow an examination of the number and size of discarded summer flounder in this fishery.

**Table 3:** North Carolina flynet landings for summer flounder, 2005-2014.

Year	Summer flounder flynet landings (pounds)	Percent of total NC flynet landings (all species)	Percent of total NC commercial summer flounder landings (all gear types)
2005	4,102	0.05%	0.10%
2006	5,752	0.07%	0.15%
2007	7,067	0.13%	0.26%
2008	3,147	0.08%	0.13%
2009	2,842	0.05%	0.10%
2010	<2,000	<0.05%	<0.06%
2011	<2,000	<0.05%	<0.07%
2012	<2,000	<0.05%	<0.18%
2013	0	0%	<0.36%
2014	<2,000	<0.05%	<0.07%

➤ **MC/TC Recommendations:** The MC/TC recommends no change to the current flynet exemption for the minimum mesh size requirements. Landings of summer flounder by flynet gear have been low since the original implementation of the exemption, and have declined in recent years. Summer flounder landings in the North Carolina flynet fishery have not approached 1% of total flynet landings in recent years. They also comprise a very small percentage of overall North Carolina commercial summer flounder landings. The program does not impose a substantial administrative burden as it involves no special permits and requires only an annual review of summer flounder flynet landings.

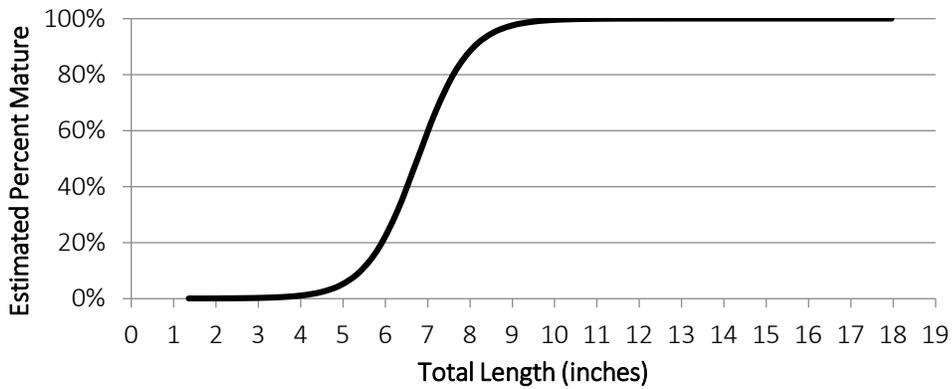
During the review of these measures, the MC/TC discovered that the language in the current federal regulations regarding the evaluation criteria for this exemption is inconsistent with the original language and intent of the exemption. In the original implementation, the language specified that if the Regional Administrator “determines after a review of Sea Sampling, landing, or other data that the *summer flounder catch in the fly net fishery exceeds 1% of the total catch in the fly net fishery*, he may rescind the exemption.” However, the current regulations refer to evaluating whether “vessels fishing under the exemption, on average, are *discarding more than 1 percent of their entire catch of summer flounder per trip.*” The manner in which staff evaluate this exemption is consistent with the original intent, but not with the current wording of the regulations. The MC/TC recommend that the language in the current federal regulations be revised to be consistent with the original intent and current practice.

## Scup Commercial Measures

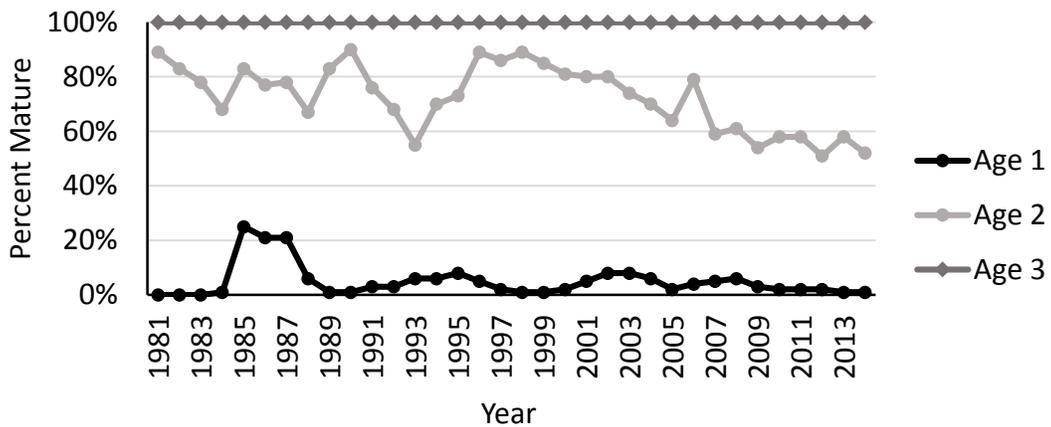
### Scup Minimum Fish Size

- **Current Measures:** The minimum size for retention of scup in the commercial fishery is 9 inches total length (TL).
- **Background:** This regulation has been in place since 1996, when the Council first managed scup through Amendment 8 to the Summer Flounder FMP. This minimum size was chosen because most scup are mature by the time they reach 9 inches in length. The Council and Board considered, but decided against, reducing the minimum size to 8 inches TL in 2005 and again in 2012. In 2012, the MC noted that there were very limited data available to assess how such a reduction in minimum fish size would affect the commercial pot/trap and hook and line scup fisheries, which account for relatively small amounts for scup landings (<10% in recent years).
- **Advisor Comments:** Few AP members commented on the scup minimum size. Two AP members said the minimum size should remain at 9 inches. One AP member said it should be increased to 10 inches. One AP member said the minimum size should be eliminated, as the commercial scup fishery is predominantly a bottom otter trawl fishery, which operates under minimum mesh size requirements designed to limit capture of juvenile scup. He added that there is little market demand for small scup so eliminating the minimum fish size would not lead to fishermen targeting small scup and would allow dead discards to be turned into landings.
- **Analysis:** An analysis of over 3,000 scup caught in the Northeast Fisheries Science Center (NEFSC) bottom trawl surveys between 1981 and 2013 indicates that 97% of scup (both sexes combined) are mature by the time they are 9 inches in length (Figure 4; Mark Terceiro, personal communication). These same data indicate that the percent of scup mature at age 2 has decreased by about 30% over the past 15 years (Figure 5; NEFSC 2015). Though scup maturity at age has changed, length at age has not (Figure 6; Terceiro 2015). Scup are about 3 years old by the time they reach the commercial minimum

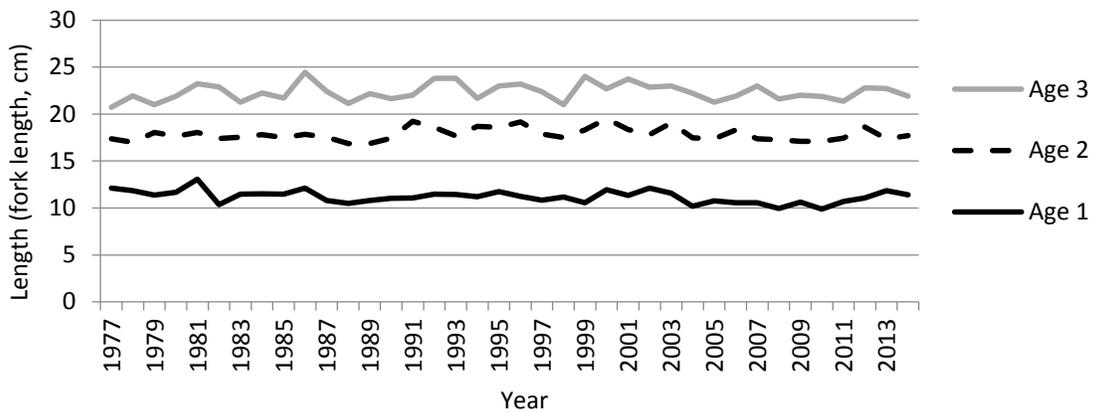
size of 9 inches TL. The percent of scup mature at age 3 remains stable at 100% (NEFSC 2015; Terceiro 2015).



**Figure 4:** Observed proportion mature at length for 3,300 scup caught in the Northeast Fisheries Science Center bottom trawl surveys from 1981 through 2013 (Mark Terceiro, personal communication).



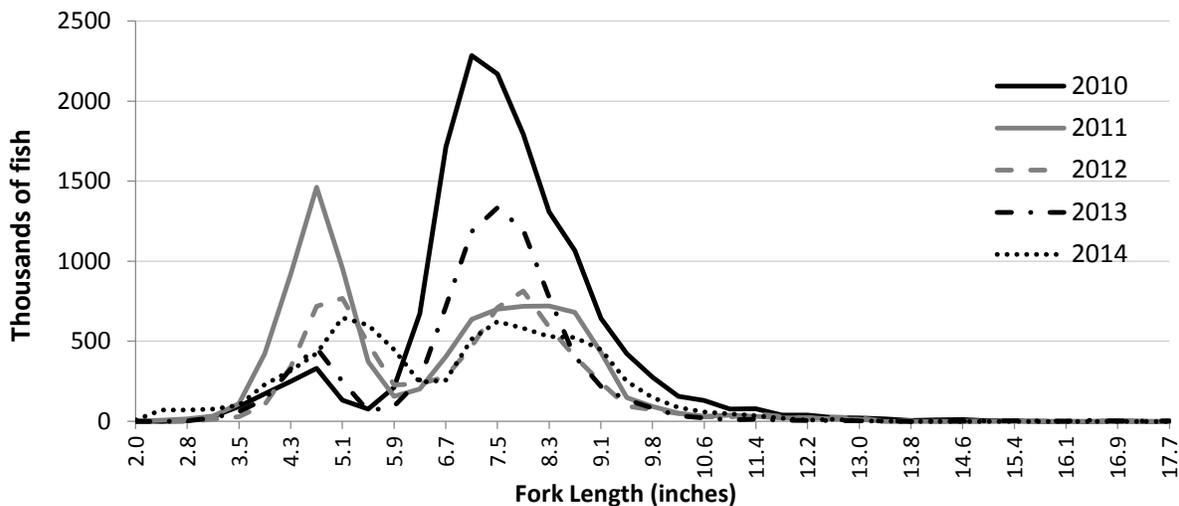
**Figure 5:** Percent of scup mature at age 1, 2, and 3 by year, shown as three-year moving averages for both sexes combined, based on Northeast Fisheries Science Center spring trawl survey data for 1981-2014 (NEFSC 2015).



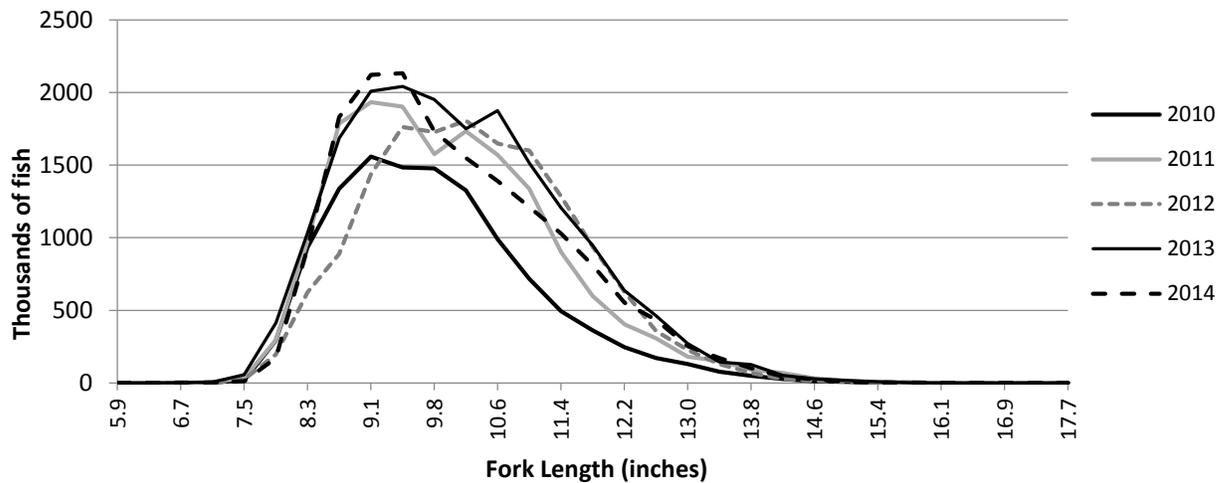
**Figure 6:** Scup mean length at age for both sexes combined based on NEFSC spring trawl survey data from 1977 through 2014 (Terceiro 2015). For mean lengths at age beyond age 3, and from the NEFSC winter and winter trawl surveys, see Terceiro 2015.

The MC/TC examined Northeast Fisheries Observer Program data on scup discards and noted that from 2010 to 2014 about 60-70% of discarded scup were below 9 inches TL (Figure 7). The MC/TC also examined scup landings and found that only about 1% of landed scup were below 9 inches TL from 2010 through 2014 (Figure 8).

Observer data for bottom trawl trips targeting scup from 1997 through 2013 show that about 86% of scup discards were reported as regulatory discards of undersized fish and about 8% were reported as discards of scup that were too small for market reasons.



**Figure 7:** Frequency distribution of discarded scup by length, as shown in 2010-2014 observer data (Mark Terceiro, personal communication). The commercial minimum size of 9 inches TL corresponds to about 8 inches fork length.



**Figure 8:** Frequency distribution of landed scup by length (Mark Terceiro, personal communication). The commercial minimum size of 9 inches TL corresponds to about 8 inches fork length.

- **MC/TC Recommendations:** The MC/TC recommended that the commercial minimum size for scup remain at 9 inches TL. The MC/TC noted that because such a high proportion of scup discards are smaller than 9 inches, reducing or eliminating the minimum size (as requested by some advisors) could significantly shift selectivity of the fishery and would increase harvest of immature fish (Figure 4). The MC/TC cautioned that this could have negative effects on scup biomass. The MC/TC also noted that reducing or eliminating the minimum size could increase mortality in the commercial pot/trap and hook and line fisheries, which respectively accounted for 3.6% and 4.6%, of commercial scup landings between 2010 and 2014 (NEFSC 2015). Eliminating the commercial minimum size and relying on trawl mesh specifications to limit mortality of smaller scup, as proposed by some advisors, is not feasible to enforce under the current management framework given that scup are targeted using other commercial gear types. The MC/TC also noted that the federal commercial and recreational minimum scup sizes are currently identical, which is generally considered beneficial from an equity and enforceability perspective.

### Scup Minimum Mesh Size and Incidental Possession Limit

- **Current Measures:** Bottom trawl vessels with a scup moratorium permit may not possess 500 pounds or more of scup from November through April, or 200 pounds or more between May and October (i.e. the incidental possession limits), unless fishing with nets that have a minimum mesh size of 5 inches diamond mesh, applied throughout the codend for at least 75 continuous meshes forward of the terminus of the net.
- **Background:** The Council and the Board first established the minimum mesh size requirement and the possession levels triggering the minimum mesh size (i.e. the incidental possession limits) in 1996. The Council and Board have modified these measures several times (Table 4). In 1996, the minimum mesh size was 4 inches for bottom trawl vessels possessing more than 4,000 pounds of scup. This requirement was designed to complement the minimum fish size (9 inches TL) and was based on data which indicated that about 50% of the scup retained by nets with 4 inch mesh were 8.3 inches in length.

**Table 4:** Changes to the minimum mesh size requirements for trawl nets and the threshold possession level of scup triggering the minimum mesh size requirements (i.e. the incidental possession limits). “Winter” refers to the months of November through March. “Summer” refers to the months of April through October. Unless otherwise noted, the mesh size requirements refer to diamond meshes throughout the codend for at least 75 continuous meshes forward of the terminus of the net.

Year in effect	Minimum mesh size	Incidental Possession Limit
1996	4 inches	4,000 pounds
1997	4.5 inches	Winter: 4,000 pounds Summer: 1,000 pounds
1999	4.5 inches	Winter: 200 pounds Summer: 100 pounds
2002	No more than 25 meshes of 4.5 inch mesh in the codend, with at least 100 meshes of 5 inch mesh forward of the 4.5 inch mesh. If the codend has less than 125 meshes, the entire net must have 4.5 inch mesh or larger throughout.	Winter: 500 pounds Summer: 100 pounds
2005	5 inches	Winter: 500 pounds Summer: 200 pounds

- **Advisor Comments:** Two AP members said the incidental possession limits for scup should be at least 1,000 pounds from November through April and at least 500 pounds from May through October. Six individuals who responded to the MSB AP survey recommended an increase but did not provide a specific recommendation. One individual who responded to the MSB AP survey recommended that the incidental possession limits remain unchanged.

Five respondents (including three who responded to the MSB AP survey) said the scup minimum mesh size regulations should remain unchanged. Three individuals who responded to the MSB AP survey thought the minimum mesh size should be decreased to 4 or 4.5 inches.

- **Analysis:** A new benchmark stock assessment for scup took place in 2015. This assessment used a new methodology to estimate discards for three mesh size categories (“larger”, “small”, and “squid”), by calendar quarter, and by statistical area (NEFSC 2015). The MC/TC examined the new discard estimates and noted that most scup discards were in the “squid” mesh category (Figure 9). The “small” and “squid” mesh categories include mesh that is smaller than the minimum mesh size for scup, and thus subject to the scup incidental possession limits.

One MC member used observer data to examine landings, discards, and compliance with the incidental scup possession limits at the tow and trip levels in 2014. This examination found that some trips fished with small mesh (<5 inches) until the incidental scup possession limit was reached, then switched to larger mesh (>5 inches), effectively increasing the possession limit to the much higher directed fishery possession limits (described below). Other trips continued to use small mesh after the scup incidental limit was reached. These behaviors complicate the assumption that if the incidental trip limits were increased, the proportion of scup discards would decrease and landings would increase (i.e. discards would turn into landings). If these behaviors continued at current levels, increasing the incidental possession limits could simply increase the level of scup catch at which the trips become non-compliant and could have no effect on total scup fishing mortality, or could increase

fishing mortality if levels of non-compliance remain the same. The observer data showed that 22% of the trips which caught scup with small mesh in 2014 were out of compliance with the incidental possession limits.

The observer data show that under the 2014 incidental possession limits, about 92% of the scup landed and about 70% of the scup discarded in the incidental fishery (i.e. when mesh <5 inches was used) were caught on trips that were out of compliance with the incidental possession limits. If the alternative limits proposed by the AP (1,000 and 500 pounds) had been in place, and assuming no changes in fishing behavior, the level of compliance with the incidental possession limits would have been about 8% higher; 85% of scup landings and 64% of scup discards would have come from trips that were out of compliance (as opposed to 92% and 70%, respectively, under the current limits). The MC did not attempt to predict how many scup discarded under the actual possession limits would have been landed under the alternative limits. The MC could not confidently predict how fishing behavior, and thus levels of landings, discards, and non-compliance, would change under increased incidental possession limits.

The MC/TC did not examine any data to evaluate the 5 inch minimum mesh size for scup.

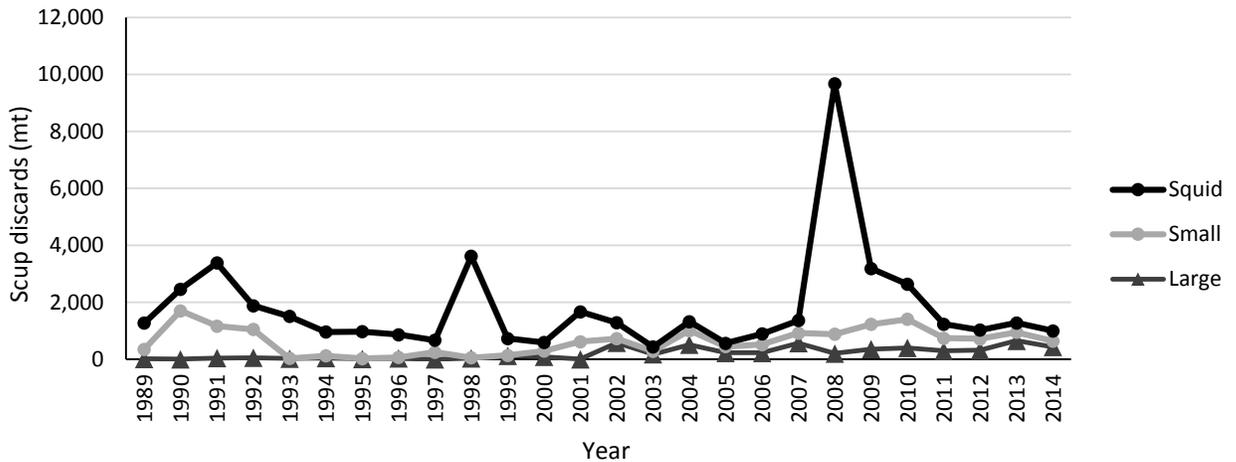


Figure 9: Scup discards from 1989 through 2014, shown for three mesh size categories (NEFSC 2015).

- **MC/TC Recommendations:** The MC/TC acknowledged that since the scup incidental possession limits were last modified in 2005, scup was declared rebuilt (in 2009 based on the findings of the 2008 benchmark stock assessment; DPSWG 2009), scup biomass increased substantially, and the commercial quota nearly doubled (between 2010 and 2011 and has remained relatively high since then). Given this, the MC/TC thought an increase in the incidental scup possession limits warranted consideration. The MC/TC also noted that an increase to 1,000 pounds from November through April and 500 pounds from May through October, as proposed by the AP, would not conflict with the state directed commercial fishery possession limits for scup as the state directed limits would still be higher than the federal incidental limits.

However, as described above, the MC/TC noted that it could not confidently predict how fishing behavior, and thus patterns of landings and discards, would change under different incidental possession limits. Some MC/TC members said the best way to predict how an increase in the incidental limits would affect landings and discards would be to increase them and review the data. The MC/TC expressed an interest in further examining this issue after 2015 data are available for analysis. The MC/TC recommended that the Council and Board consider this issue after more analysis has been done.

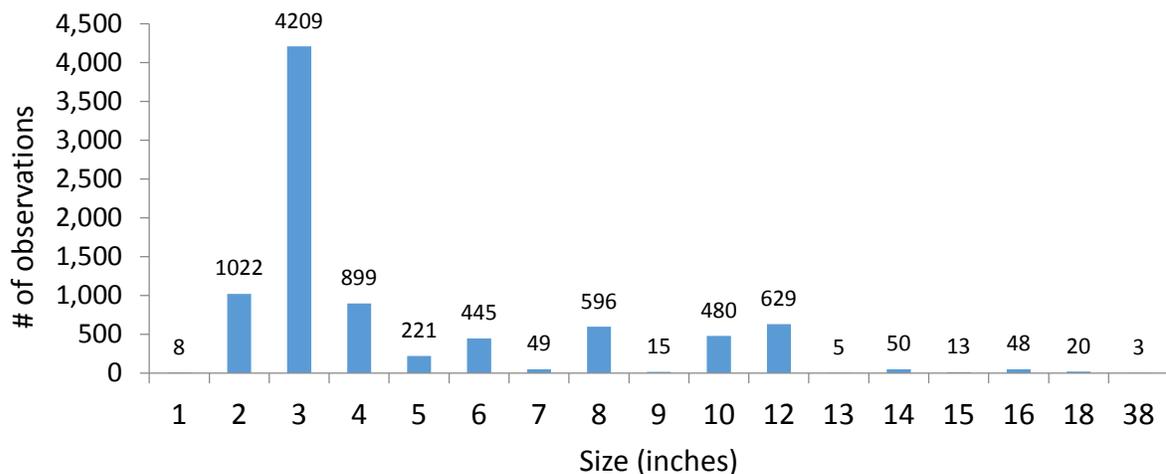
The MC/TC did not recommend any changes to the minimum mesh size for scup due to the fact that they examined no new information on mesh selectivity. They acknowledged that changing the minimum mesh size requirements could create an economic burden for fishermen if it required them to purchase new gear. The MC/TC recommended that if the Council and Board decide to change the minimum mesh size in the future, that they provide a significant amount of lead time with the notice of the change before enacting the new regulations to allow time for fishermen to plan for the cost of replacing gear.

### Scup Pot and Trap Gear Restrictions

- **Current Measures:** Pots and traps used to harvest scup in the commercial fishery must have degradable hinges made with untreated hemp, jute, or cotton string of 3/16 inch diameter or less, or magnesium alloy pop-up devices, or similar magnesium alloy fasteners, or ungalvanized or uncoated iron wire of 0.094 inch diameter or less. They must also have either circular escape vents with a minimum diameter of 3.1 inches or square or rectangular escape vents with each side being at least 2.25 inches in length.
- **Background:** The Council and Board have never modified the escape vent size requirements for scup. These requirements were based on a study which showed that a circular escape vent of 3.1 inches would allow scup smaller than 9 inches TL (the minimum size in the commercial fishery) to escape from the trap before it was brought to the surface (Smith and Norcross 1968). The Council and the Commission hosted a workshop on scup and black sea bass pot and trap vent sizes in 2005. This workshop did not lead to any changes in the vent size requirements for scup (ASMFC 2005). Between 2005 and 2014, about 5% of commercial scup landings were caught in pots and traps (NEFSC 2015).
- **Advisor Comments:** No AP members provided comments on the pot and trap regulations for scup.
- **Analysis:** The MC/TC had no new data on scup pot/trap configurations and therefore did not analyze these requirements.
- **MC/TC Recommendations:** The MC/TC recommended that the scup pot/trap requirements remain unchanged based on the most recent information on escape vent impacts as noted above.

## Other Gear Restrictions for Scup

- **Current Measures:** Roller rig trawl gear used to catch scup must have rollers that are less than or equal to 18 inches in diameter.
- **Background:** This regulation has been in place since Amendment 8 was implemented in 1998. The intent behind this regulation was to prevent vessels using this type of gear from accessing particularly rough bottom areas, thus providing scup in those areas with an increased chance of surviving to maturity, ultimately increasing spawning stock biomass and yields.
- **Advisor Comments:** One AP member said he was not aware of any problems with the roller gear regulations and so they should remain unchanged. No other AP members had comments on this regulation.
- **Analysis:** The MC/TC examined observer data on trawl sweep diameter (which refers to disks, cookies, and rollers) for tows which caught scup between 2010 and 2014. Of the 8,712 tows with recorded sweep diameters, 98% used disks, cookies, or rollers that were less than 12 inches in diameter. Twenty (0.2%) were 18 inches in diameter, and 3 (0.03%) were 38 inches in diameter (Figure 10).



**Figure 10:** Frequency of observed sweep diameters (includes disks, cookies, and rollers) in the Northeast Fisheries Observer Program and At Sea Monitoring Program database for tows which caught scup between 2010 and 2014 (Mark Terceiro, personal communication).

- **MC/TC Recommendations:** The MC/TC concluded that since very few tows have used roller gear close to the maximum size limit over the past four years, there is no reason to modify this regulation.

## Scup Possession Limits for Winter I and Winter II Quota Periods (Directed Fishery, Non-Incidental)

- **Current Measures:** Vessels with a scup moratorium permit may not possess more than 50,000 pounds of scup from January through April (the Winter I quota period), or more than 12,000 pounds in November and December (the Winter II quota period). Once 80% of the Winter I quota is landed, the possession limit drops to 1,000 pounds. If the Winter I quota is not reached, the Winter II possession limit increases by 1,500 pounds for every 500,000 pounds of scup not landed during Winter I. There

is no federal possession limit during the Summer quota period (May through October); however, state trip limits are in effect during this time.

- **Background:** The Council and Board developed scup possession limits for the Winter I and Winter II quota periods to help prevent quota overages. These possession limits were first implemented in 1999. The Council and Board have modified these limits several times (Table 5). The Winter I possession limit was last modified in 2012, when it was increased from 30,000 to 50,000 pounds. The Winter II possession limit was last modified in 2014, when it was increased from 2,000 to 12,000 pounds.

**Table 5:** Summary of changes in the Winter I and Winter II scup possession limits.

Year in effect	Winter I possession limit (pounds)	Winter II possession limit (pounds)
1999	12,000	12,000
2001	10,000	4,000
2002	No change	2,000
2003	15,000	1,500
2005	30,000	No change
2006	No change	2,000
2012	50,000	No change
2014	No change	12,000

- **Advisor Comments:** Two AP members said that the scup possession limits should remain unchanged. One AP member added that only a few boats are capable of landing the full 50,000 pound Winter I possession limit. One AP member stated that the current Winter I trip limit of 50,000 pounds is too high. He said that when fishermen land such high quantities of scup it causes the price to drop substantially. He preferred a 40,000 pound Winter I trip limit. He also thought the Winter II limit should increase to at least 15,000 pounds. One other AP member agreed. One AP member stated that either the Winter I possession limit should be lowered, or the minimum fish size should be increased to protect scup that have not yet spawned. One AP member said he would like to see Winter I quota underages transferred to the summer fishery; however, this is an allocation issue and cannot be modified through the specifications process, which is the focus of this review.
- **Analysis:** Council staff used dealer data to examine the recent performance of the Winter I and Winter II possession limits. This analysis showed that very few commercial trips landed more than 30,000 pounds of scup during the Winter I period from 2011 through 2014 (Table 6). It also showed that 95% of scup trips landed well below the Winter II possession limit during 2011-2014 (Table 7).

**Table 6:** The total number of scup trips during Winter I period from 2011 through 2014, and the number of trips landing greater than 20,000, 30,000, 40,000, and 50,000 pounds of scup, as shown in NMFS dealer data. “C” refers to confidential data.

Year	Total Winter I trips	Number of trips landing more than:			
		20,000 pounds	30,000 pounds	40,000 pounds	50,000 pounds
2011	3,342	17	0	0	0
2012	4,753	19	5	C	0
2013	3,749	36	11	C	0
2014	3,377	29	13	3	0

**Table 7:** The 95<sup>th</sup> percentile of landings per trip in the commercial scup fishery during Winter I and Winter II quota periods from 2011 through 2014, as shown in NMFS dealer data.

95 <sup>th</sup> percentile –landings (pounds) per trip		
Year	Winter I	Winter II
2011	8,075	3,742
2012	4,979	3,551
2013	8,872	3,280
2014	8,753	3,501

- **MC/TC Recommendations:** Because relatively few trips have been catching close to the scup possession limits for the directed fishery in recent years, the MC/TC saw no reason to modify these measures. They acknowledged that market factors have had a much greater influence on scup landings than the possession limits in recent years.

## Black Sea Bass Commercial Measures

### Black Sea Bass Minimum Fish Size

- **Current Measures:** The minimum size for retention of black sea bass in the commercial fishery is 11 inches total length (TL).
- **Background:** Amendment 9 in 1996 incorporated black sea bass into the Summer Flounder FMP, and established a minimum fish size of 9 inches TL. The minimum size was implemented as part of an effort to reduce fishing mortality on immature black sea bass and increase spawning stock biomass. The Council and Commission increased the commercial minimum size to 10 inches TL in 1998, and to 11 inches TL in 2002. The minimum size has remained unchanged since 2002.
- **Advisor Comments:** Five advisors said the black sea bass minimum size should remain unchanged. One advisor said the minimum commercial fish size should increase to at least 12 inches to provide more consistency with recreational regulations and to protect juvenile fish.
- **Analysis:** The MC/TC examined the reported reasons for discarding black sea bass, as shown in the Northeast Observer Program database for 2010 through 2014. These data showed that on average about 50% of black sea bass discards were discards of undersized fish and about 39% were discarded because the quota had been filled. The MC/TC did not examine any other data or perform any analysis

related to the minimum fish size for black sea bass. Additional data could be examined given additional time and more specific guidance about specific potential changes to evaluate.

➤ **MC/TC Recommendations:** The MC/TC did not recommend any changes to the minimum fish size for black sea bass having not reviewed any new information on which to base a change.

### Black Sea Bass Minimum Mesh Size and Incidental Possession Limits

- **Current Measures:** Otter trawler vessels whose owners have a black sea bass moratorium permit and possess 500 pounds or more of black sea bass from January 1 through March 31, or 100 pounds from April 1 through December 31 (i.e. the threshold or incidental possession limits), must fish with nets that have a minimum mesh size of 4.5-inch diamond mesh applied throughout the codend for at least 75 continuous meshes forward of the terminus of the net. For codends with less than 75 meshes, the entire net must have a minimum mesh size of 4.5-inch diamond mesh.
- **Background:** Under Amendment 9, effective in 1996, the original minimum mesh size for vessels possessing more than 100 pounds of black sea bass was 4.0-inch diamond or 3.5-inch square. In 1998 the incidental possession limit was increased to 1,000 pounds. In 2002 the Council and Commission increased the minimum mesh size to 4.5-inch diamond mesh, required for a minimum of 75 meshes from the codend. This requirement was intended to be consistent with the simultaneous increase in the commercial minimum fish size to 11 inches TL.
- **Advisor Comments:** Four respondents recommended a 5-inch minimum mesh size for black sea bass. Six respondents said the minimum mesh regulations should not change.
- **Analysis:** The MC/TC did not examine any data on mesh size selectivity for black sea bass. The MC/TC acknowledged that they could use discard data to examine mesh selectivity; however, they did not have time to do so prior to preparation of this document.

➤ **MC/TC Recommendations:** The MC/TC recommended no changes to the minimum mesh size and incidental possession limits for black sea bass; however, they acknowledged that further analysis could be done to determine if changes are warranted. They agreed that gear studies would be the best way to determine if changes in mesh size are warranted, but that discard data could also be used to get a sense of the existing selectivities of the current fisheries. The MC/TC acknowledged that changing the minimum mesh size requirements could create an economic burden for fishermen if it required them to purchase new gear. The MC/TC recommended that if the Council and Board decide to change the minimum mesh size in the future, that they provide a significant amount of lead time with the notice of the change before enacting the new regulations to allow time for fishermen to plan for the cost of replacing gear.

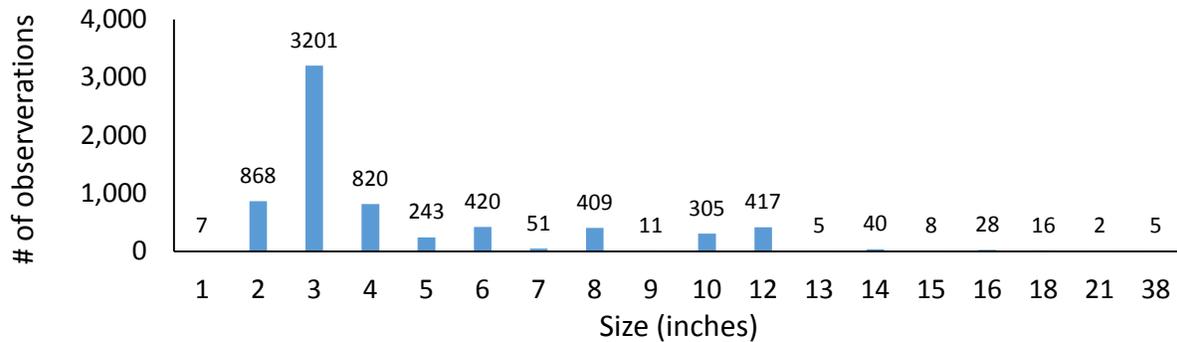
### Black Sea Bass Pot and Trap Gear Restrictions

- **Current Measures:** Black sea bass traps and pots must have two escape vents in the lower corners of the parlor. Each must comply with one of the following minimum size requirements: a rectangular vent of 1.375 inches by 5.75 inches; a circular vent of 2.5 inches in diameter; or a square vent with sides of 2 inches. Black sea bass traps and pots also must contain a ghost panel with degradable fasteners and hinges, covering an opening of at least 3.0 inches by 6.0 inches. The ghost panel must be affixed with hinges and fasteners made of one of the following degradable materials: (A) Untreated hemp, jute, or cotton string of 3 /16 inches diameter or smaller; or (B) Magnesium alloy, timed float releases (pop-up devices) or similar magnesium alloy fasteners; or (C) Ungalvanized or uncoated iron wire of 0.094 inches diameter or smaller.

- **Background:** Amendment 9 in 1996 required black sea bass pots to include one escape vent with a minimum size of 1.125 inches x 5.75 inches if rectangular, 2.0 inches in diameter if circular, or 1.5 inches per side if square. In 2002 the Council and Commission increased the pot and trap escape vent size requirements to 2.375-inch circular, 2-inch square, or 1.375-inch x 5.75-inch rectangular. These requirements were intended to be consistent with the simultaneous increase in the commercial minimum fish size to 11 inches TL. The circle vent size requirements were modified again in 2007 based on the findings of a 2005 Council and Commission-sponsored workshop (ASMFC 2005). The minimum circle vent size was increased from 2.375-inch to 2.5-inch. The rectangular and square vent requirements remained unchanged. The required number of vents in the parlor portion of the pot/trap was increased from one to two.
- **Advisor Comments:** All advisors who commented said the current pot/trap regulations should not be changed. One AP member said that most traps used in New Jersey south technically do not adhere to the regulations because of how the degradable hinges are attached. He thought the regulations should be worded differently for clarification.
- **Analysis:** The MC/TC did not examine any new information on black sea bass pot/trap configurations.
- **MC/TC Recommendations:** Given that the MC/TC did not examine any new data on black sea bass pot/trap configurations, they recommended no changes to these measures. One MC/TC member noted that many different black sea bass pot/trap configurations are currently in use and it may be worth investigating whether there are issues with compliance or the wording of the current regulations, or both. If the Council or Board were to consider changing the regulations, they should consider all the different configurations currently in use.

#### Other Black Sea Bass Gear restrictions

- **Current Measures:** Federal regulations currently prohibit otter trawl vessels holding black sea bass moratorium permits from using roller rig trawl gear equipped with rollers greater than 18 inches in diameter.
- **Background:** This regulation has been in place since black sea bass were added to the FMP in 1996. An 18-inch diameter corresponded to the maximum roller diameter used by some states to regulate this gear in state waters. The intent of this regulation was to prevent bottom trawl vessels from accessing black sea bass in areas with especially rough bottoms, thus protecting sea bass in those areas from harvest, allowing more fish to grow to maturity and spawn, and increasing biomass.
- **Advisor Comments:** One advisor said the black sea bass roller regulation does not seem to be causing any problems and so should remain unchanged. Only one advisor disagreed, saying that he only supported the use of roller gear if it is in minimal contact with the bottom and designed to minimize habitat destruction.
- **Analysis:** The MC/TC examined observer data on tows which caught black sea bass from 2010 through 2014. Of the 6,856 tows with recorded sweep diameters, 98% used disks, cookies, or rollers that were less than 12 inches in diameter. Sixteen (0.2%) were 18 inches in diameter, and 5 (0.07%) were 38 inches in diameter (Figure 9).



**Figure 9:** Frequency of observed sweep diameters (includes disks, cookies, and rollers) in the Northeast Fisheries Observer Program and At Sea Monitoring Program database for tows which caught black sea bass between 2010 and 2014 (Mark Terceiro, personal communication).

➤ **MC/TC Recommendations:** The MC/TC concluded that since very few tows have used roller gear close to the maximum size limit over the past four years, there is no reason to modify this regulation.

## Literature Cited

ASMFC (Atlantic States Marine Fisheries Commission). Proceedings of the Black Sea Bass and Scup Escape Vent Workshop. March 22, 2005. Baltimore, MD.

DPSWG (Data Poor Stocks Working Group). 2009. The Northeast Data Poor Stocks Working Group Report, Part A: Skate Species Complex, Deep Sea Red Crab, Atlantic Wolffish, Scup, and Black Sea Bass. Northeast Fisheries Science Center Reference Document 09-02. 496 p.

NEFSC (Northeast Fisheries Science Center). 2013. 57th Northeast Regional Stock Assessment Workshop (57th SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 13-16; 967 p. Available online at <http://nefsc.noaa.gov/publications/>.

NEFSC (Northeast Fisheries Science Center). 2015. 60th Northeast Regional Stock Assessment (60th SAW) Assessment Report. [Northeast Fisheries Science Center Reference Document 15-08](#); 870 p.

Smith, W.G. and J.J. Norcross. 1968. The Status of Scup (*Stenotomus chrysops*) in Winter Trawl Fishery. *Chesapeake Science*. 9(4):207-216.

Terceiro, M. 2015. SARC 60 Working Paper – TOR 2&3 Biological Data for Scup. Northeast Fisheries Science Center. Woods Hole, MA. 47 p.

## Appendix - Advisory Panel Comments

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This appendix summarizes input from Advisory Panel (AP) members on the specific commercial measures described above for summer flounder, scup, and black sea bass commercial fisheries.

Members of the Council's and the Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass APs provided comments on these measures during a webinar, through email, and through an online comment form. Members of the Council's Mackerel, Squid, and Butterfish (MSB) AP provided comments on certain measures that affect small mesh fisheries through an online comment form. (Note: throughout this document, "AP" refers to the summer flounder, scup, and black sea bass AP and "MSB AP" refers to the Mackerel, Squid, and Butterfish AP.)

### Participants

\*Represents members of both the Council's AP and the Commission's Summer Flounder, Scup, and Black Sea Bass AP.

### Webinar Participants

Council AP members: Mead Amory\*, Carl Benson, Joan Berko, Denny Dobbins, Mary Fabrizio, Skip Feller, Mark Hodges\*, Sam Martin, Michael Plaia\*, Lisa Poyer, Steve Witthuhn, Harvey Yenkinson

Commission AP members: Mead Amory\*, Mark Hodges\*, Marc Hoffman, Jim Lovgren, Ken Neill, Michael Plaia\*, James Tietje, Buddy Seigel, Art Smith

Other attendees: Katie Almeida (The Town Dock and MSB AP), Chris Batsavage (Council member), Julia Beaty (Council staff), Kiley Dancy (Council staff), Steve Doctor (MC/TC member - MD), Jeff Kaelin (Council member), Moira Kelly (MC member - GARFO), Katie May Laumann (MC/TC member - VA), Meghan Lapp (Seafreeze, Ltd.), Kirby Rootes-Murdy (Commission staff), Mark Terceiro (MC/TC member - NEFSC), Tom Trageser, Andrew Turner (Environmental Defense Fund), Holly White (MC/TC member -NC)

### Written Comments

Council AP members: Carl Benson, Hank Lackner, Jim Lovgren\*, Bob Pride, Mike Hall

Commission AP members: Mike Hall, Jim Lovgren\*

Council MSB AP members: Katie Almeida (provided comments on behalf of 7 individuals, 5 of whom are not AP members), Jim Lovgren\*

## Summer Flounder

### Summer Flounder Commercial Minimum Fish Size

Six AP members stated that the commercial minimum fish size for summer flounder should remain at 14 inches.

Two AP members said that because the minimum mesh size for trawl nets catches some 13 inch summer flounder, the minimum fish size should be decreased to 13 inches to reduce discards. One AP member thought there should be no minimum size and all summer flounder caught should be retained unless they were in excess of the possession limit.

### Summer Flounder Minimum Mesh Size/Seasonal Possession Limit Triggers (Incidental Possession Limits)

Eleven respondents thought the minimum mesh size for summer flounder should remain unchanged.

Six respondents thought the possession limit which triggers the minimum mesh size (i.e., the incidental possession limit) should remain the same. One Summer Flounder, Scup, and Black Sea Bass AP member said that even with a 100 pound incidental possession limit (currently in effect from May 1 through October 31) it is still worthwhile for some fishermen to target summer flounder commercially. One individual who responded to the MSB online survey thought the incidental possession limit should increase to 500 pounds to help offset the cost of fuel.

Two AP members thought that the incidental possession limit for summer flounder should be increased. They suggested either 200 pounds from May 1 through October 31 and 500 pounds from November 1 through April 30, or 500 pounds year-round.

A member of both the summer flounder, scup, and black sea bass AP and the MSB AP said that bycatch of summer flounder can help whiting fishermen make a day's profit. He said it is common for whiting fishermen to catch their full incidental summer flounder possession limit, or close to it. Five individuals who responded to the MSB AP survey said they always catch their incidental limit. Another MSB survey respondent reported catching the incidental limit most, but not all of the time. Six individuals who responded to the MSB survey said they land and sell summer flounder that they catch incidentally.

One AP member noted that the commercial summer flounder, scup, and black sea bass fisheries are mixed fisheries (i.e., the three species are often caught together), but they have different minimum mesh regulations. This AP member thought a 5 inch minimum mesh size could be used for all three species during the winter (e.g. December through March) when juveniles of all three species are found inshore but the commercial fishery mostly operates offshore.

### Small Mesh Exemption Program

Six respondents said the Small Mesh Exemption Program hasn't caused any problems and should remain unchanged. Two individuals who responded to the MSB AP survey thought the program area should be expanded to further reduce discards.

### Flynet Exemption Program

Three respondents said the Flynet Exemption Program hasn't caused any problems and should remain unchanged. One AP member noted that the definition of a flynet also describes the highrise nets that are used in the scup fishery, and occasionally in the black sea bass fishery. He suggested that the definition of a flynet be modified so that it includes four seam box nets.

One AP member said he is worried that the winter flynet fishery may kill high numbers of juveniles; however, he added that, as he has not seen any observer data for the flynet fishery, he did not wish to recommend changes.

## Scup

### Scup Commercial Minimum Fish Size

Two AP members said the scup minimum fish size should remain at 9 inches.

One AP member said the minimum fish size is not necessary in the commercial scup fishery, which is predominantly a bottom otter trawl fishery. He said that with 100% discard mortality in the trawl fishery, and minimum mesh size regulations designed to catch certain sizes of scup, eliminating the minimum fish size would reduce discards. He added that there is little market demand for small scup so fishermen would not target them.

One AP member said that the minimum fish size should be increased to 10 inches, to match with the recreational minimum fish size in many states, and to allow more scup to spawn before they are susceptible to capture by the fishery.

### Scup Commercial Minimum Mesh Size

Five respondents (including three who responded to the MSB AP survey) said the scup minimum mesh size regulations should remain unchanged. Three individuals who responded to the MSB AP survey thought the minimum mesh size should be decreased to 4 or 4.5 inches.

### Scup Seasonal Possession Limit Triggers (Incidental Possession Limits)

Two AP members said the incidental possession limits for scup should be at least 1,000 pounds from November through April and at least 500 pounds from May through October. One individual who responded to the MSB AP survey recommended that the scup incidental possession limit remain the same; six others recommended an increase but did not provide a specific recommendation.

### Scup Possession Limits (Non-Incidental) for Winter I and Winter II Quota Periods

One AP member stated that the current Winter I trip limit of 50,000 pounds is too high. He said that when fishermen land such high quantities of scup it causes the price to drop substantially. He preferred a 40,000 pound Winter I trip limit. He also thought the Winter II limit should increase to at least 15,000 pounds. One other AP member stated that he agreed.

Two AP members said that the possession limits should remain unchanged. One AP member added that only a few boats are capable of landing the full 50,000 pound Winter I possession limit.

One AP member stated that either the Winter I possession limit should be lowered, or the minimum fish size should be increased to protect scup that have not yet spawned.

One AP member said he would like to see Winter I quota underages transferred to the summer fishery.

### Scup Roller Gear Size Restrictions

One AP member said he was not aware of any problems with the roller gear regulations and so they should remain unchanged. No other AP members had comments on this regulation.

### Scup Pot and Trap Gear Restrictions

No AP members provided comments on the pot and trap regulations for scup.

### Other Scup Comments

A few AP members had additional comments on scup that did not directly relate to the commercial management measures discussed above. One AP member said that the scup quotas should be increased because the scup biomass is so high that it poses a threat to other species. Another AP member agreed and emphasized that both the commercial quota and the recreational harvest limit should be increased.

Four AP members stated that the scup Gear Restricted Areas (GRAs) should be eliminated because they are no longer necessary. Two AP members emphasized that the southern GRA in particular is causing problems for fishermen targeting other species.

One AP member said that the dates of the scup commercial quota periods should be modified so that the first two weeks of May are included in Winter I and the month of October is included in Winter II. He said

that scup have moved into federal waters by October and that this change would allow the commercial fishery to catch their full quota.

## Black Sea Bass

### Black Sea Bass Commercial Minimum Fish Size

Five AP members said the black sea bass minimum size should remain unchanged. Three AP members stressed that the minimum size should not be increased since doing so would increase discards. One AP member added that increasing the minimum size would be detrimental to the trap fishery from New Jersey south.

One AP member said the minimum commercial fish size should be increased to at least 12 inches to provide more consistency with recreational regulations and to protect juvenile fish.

### Black Sea Bass Commercial Minimum Mesh Size

Four respondents recommended a 5 inch minimum mesh size for black sea bass. One AP member repeated his previous comment that a 5 inch minimum mesh size for all three species could be beneficial to fishermen who target all three species.

Six respondents said the minimum mesh regulations should not change. One AP member elaborated, saying that many fishermen are already using five inch mesh for black sea bass (consistent with the scup regulations, but larger than required for black sea bass). With a 4.5 inch requirement, those fishermen have the option of using a smaller mesh net. He thought a 5 inch mesh would be too small for summer flounder.

One AP member said he thought the life history and abundance of black sea bass are not conducive to a sustainable commercial trawl fishery.

### Black Sea Bass Seasonal Possession Limit Triggers (Incidental Possession Limits)

Five respondents said the black sea bass incidental possession limit should remain unchanged. One AP member added that an increase in the incidental possession limit could lead to an increase in small-scale directed commercial fishing. One AP member said that the incidental possession limits in state waters are much lower than the federal incidental possession limit in the summer, which may be why no problems with the federal incidental limit have become apparent.

Three respondents said the incidental possession limit should be increased, but did not specify a preferred level.

One AP member said that it is rare for fishermen to reach their full incidental possession limit for black sea bass. However, seven individuals who responded to the MSB AP survey said "it is reached every time". Eight respondents said that black sea bass caught incidentally are typically landed and sold.

### Black Sea Bass Roller Gear Size Restrictions

One AP member said some fishermen do use roller gear to harvest black sea bass, but it does not seem to be causing any problems and so the roller gear regulations should remain unchanged.

One AP member said that because roller gear can be destructive to habitat, he cannot support any roller gear that is not in minimal contact with the bottom and designed to minimize habitat destruction.

### Black Sea Bass Pot and Trap Gear Restrictions

Three AP members said the current pot and trap regulations should not be changed. One AP member emphasized that the traps, as currently configured, are very effective at releasing small fish and that pot and trap fishermen have a low discard rate.

One AP member said that most traps used in New Jersey south technically do not adhere to the regulations because of how the degradable hinges are attached. He thought the regulations should be worded differently.

### Other Black Sea Bass Comments

Two AP member said that the quota for black sea bass should be increased. One AP member emphasized that black sea bass abundance is so high that it poses a threat to other species.

### Other General Comments

Two AP members said the regulations should allow for flexibility for landing catches in different states. One AP member said that different states have different markets and that landings flexibility would increase efficiency in the commercial fishery.