



Mid-Atlantic Fishery Management Council

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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: July 18, 2023
To: Chris Moore, Executive Director
From: Kiley Dancy and Hannah Hart, Staff
Subject: Summer Flounder Mesh Regulation Issues: Overview and Update on Further Evaluation in 2023

Introduction

Two summer flounder mesh regulations topics are being reviewed in more detail in 2023 for Council and Board consideration in December. The first is the equivalence of the current two allowable summer flounder trawl gear minimum mesh sizes (5.5-inch diamond or 6.0-inch square). As described below, a study completed in 2018 suggests that the selectivity of the 6.0" square mesh is not equivalent to that of the 5.5" diamond mesh and the 6.0" square mesh may be retaining too many undersized summer flounder. Council staff has been working to analyze this topic and is planning to discuss with the Monitoring Committee in further detail later this fall for Council/Board review in December.

The second topic includes two summer flounder mesh size exemptions, including a) the small mesh exemption program (SMEP) and b) the flynet exemption. A contractor has been hired to analyze this component and focus on the questions and data analysis described in detail below, with a report to the Council and Board expected in December.

Pending these evaluations, staff recommend no changes to the minimum mesh size or mesh exemption programs for 2024. If potential changes are adopted in December as a result of these evaluations, they would likely become effective in 2025 or later.

Component I: Minimum Mesh Size Requirements

The minimum fish size and mesh requirements may be changed through specifications based on the recommendations of the Monitoring Committee. The current commercial minimum fish size is 14 inches total length (TL) and has been in place since 1997. Current trawl gear regulations require a 5.5-inch diamond or 6.0-inch square minimum mesh in the entire net for vessels possessing more than the threshold amount of summer flounder, i.e., 200 pounds in the winter (November 1-April 30) and 100 pounds in the summer (May 1-October 31).

In 2016-2017, a mesh size selectivity study for summer flounder, scup, and black sea bass was funded by the Mid-Atlantic Fishery Management Council to address the Council's research priority to "determine mesh selectivity for summer flounder and/or black sea bass and to quantify selectivity at a range of mesh sizes, shapes, and configurations."

The Hasbrouck et al. study report was presented to the Council in April 2018, and is available at: http://www.mafmc.org/s/Tab08_SFSBSB-Mesh-Selectivity-Study-Apr2018.pdf. Study results indicated that the current minimum mesh sizes for summer flounder of 5.5" diamond or 6.0" square do not appear to be equivalent to each other in terms of selectivity. The 6.0" square mesh releases less than 50% of fish at or below the minimum size, and its selectivity appears more similar to a 5.0" diamond mesh (Figure 1).

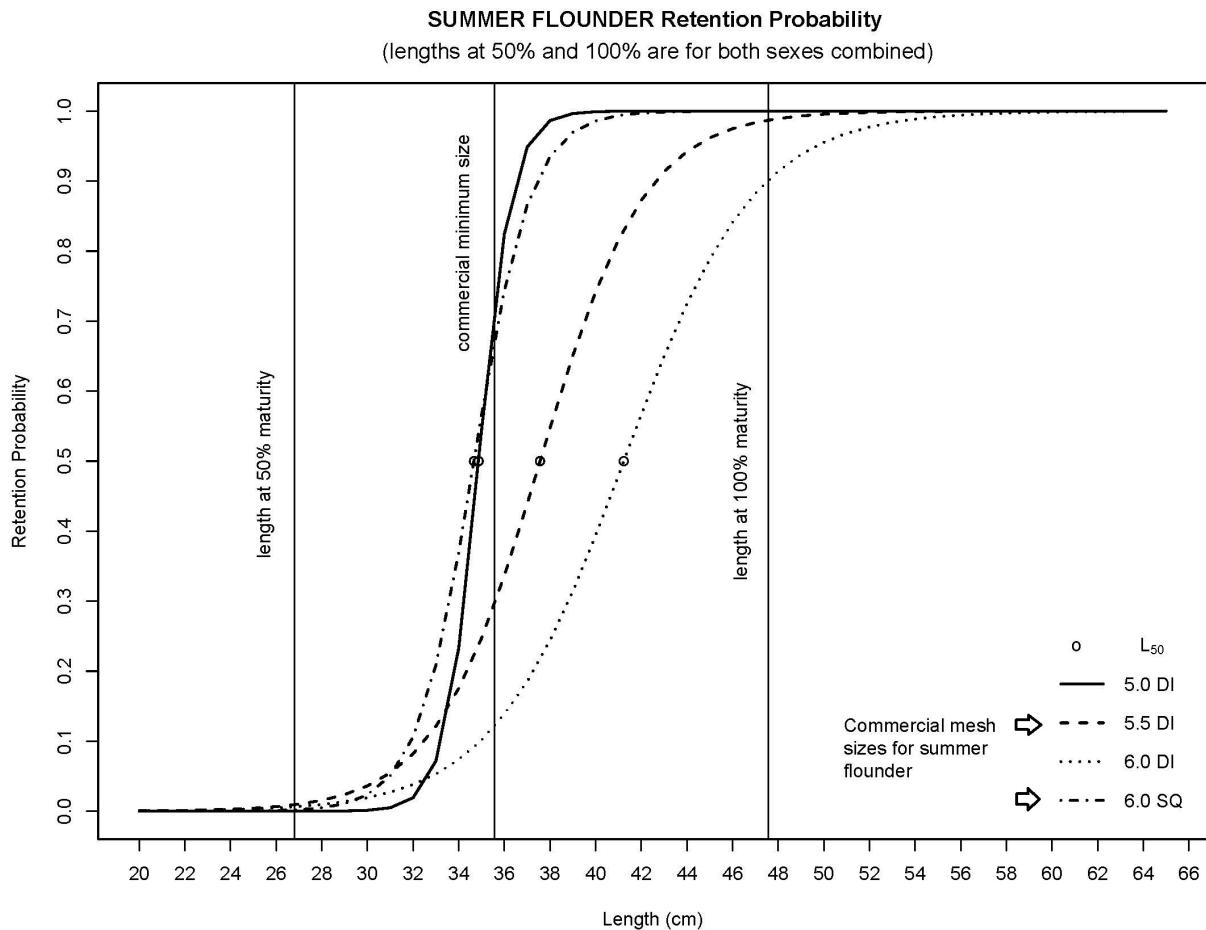


Figure 1: Logistic selective curve for summer flounder catches with 5 codends (4.5" diamond, 5" diamond, 5.5" diamond, 6" diamond, 6" square). Additional details can be found in the study report (Hasbrouck et al., 2018).

The Monitoring Committee identified concerns with the amount of undersized summer flounder caught with the 6.0" square mesh and recommended exploring phasing out the use of 6.0" square mesh to reduce discards of undersized fish. Additional details can be found in the [September 2019 Mesh Size Issue Overview](#).

Preliminary Questions and Potential Data Analysis

The following questions are based on an expanded version of questions the MC previously identified for additional exploration.

- What is the extent of use of 6” square vs. 5.5” diamond? How can we characterize this use by area, fishery/fleet, vessel type, etc.?
- What factors influence the choice of mesh? Are there regional differences and/or circumstances where square mesh is preferred?
- Is a square mesh regulation still needed? If so, what is a more appropriate square mesh equivalent to 5.5” diamond?
 - The Hasbrouck study did not include an alternative square mesh in its experimental mesh sizes (only 6.0” square). What would be needed to identify an alternative square mesh regulation?
- Can we characterize discard rates for summer flounder with 6” square vs. 5.5” diamond?
- What are the biological benefits of phasing out 6” mesh?
- What are industry perspectives on the diamond and square mesh regulations?
- If the mesh size regulations were to change, how long would an appropriate phase out period be?
- What are the costs to industry of changing mesh sizes?

The Monitoring Committee should review the questions and information above and identify a) preliminary information that may address the questions above, if available, (including from the perspective of individual states if relevant information is available), and b) any additional questions that should be evaluated prior to a follow up meeting this fall.

Component II: Mesh Size Exemptions

Small Mesh Exemption Program

Vessels landing more than 200 pounds of summer flounder east of longitude 72° 30.0'W, from November 1 through April 30, and using mesh smaller than 5.5-inch diamond or 6.0-inch square are required to obtain a small mesh exemption program (SMEP) permit from NMFS. The exemption is designed to allow vessels to retain some bycatch of summer flounder while operating in other small-mesh fisheries.

The number of vessels issued a letter of authorization (LOA) for the small mesh exemption program has remained relatively stable since 2013, fluctuating around an average of 68 vessels (Figure 2).

Vessels with Summer Flounder Small Mesh Exemption Permits

By Sara Turner, NOAA GARFO APSD
6.30.2023

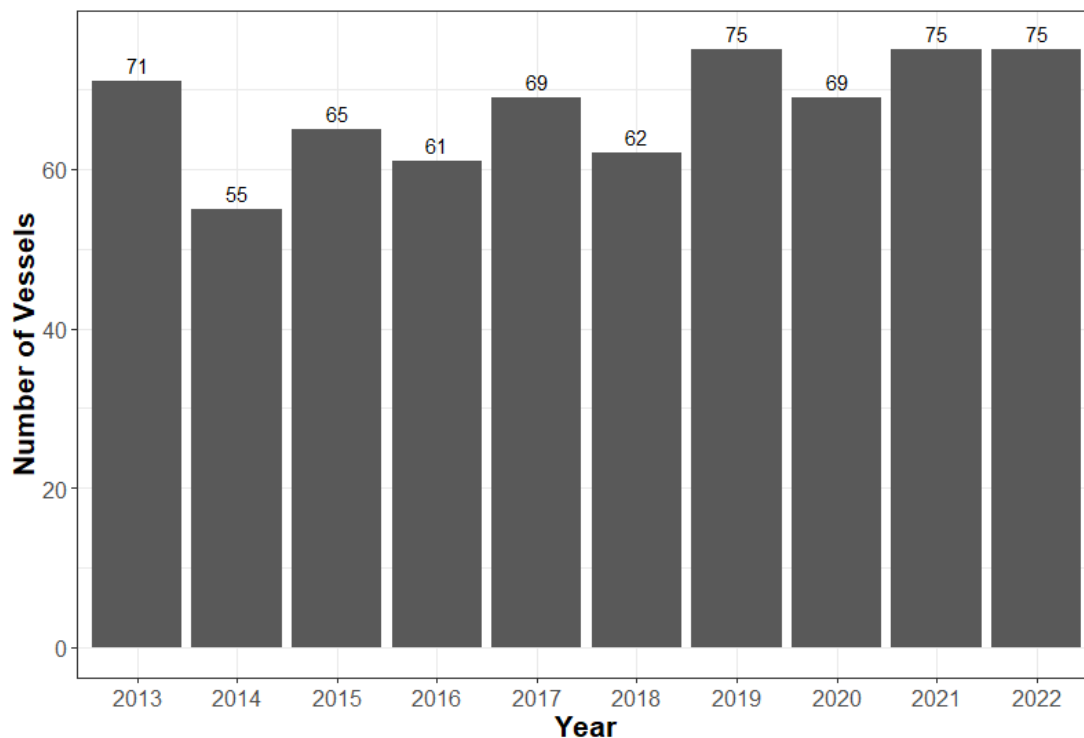


Figure 2: Number of vessels issued the small mesh LOA for the SMEP from fishing year 2013-2022. Source: Pers. Comm., GARFO Analysis & Program Support Division, June 30, 2023.

The FMP requires that observer data be reviewed annually to determine whether vessels fishing seaward of the SMEP line with smaller than the required minimum mesh size and landing more than 200 pounds of summer flounder are discarding more than 10% (by weight) of their summer flounder catch per trip. Typically, staff evaluate the Northeast Fisheries Observer Program (NEFOP) data for the most recent November 1-April 30 period for which complete observer data is available. Due to the timing of observer data availability, typically this means a year-long lag in the analysis is used.

The most recent analysis includes examination of observer data from November 1, 2021 through April 30, 2022 (Table 1). For this time period, a total of 190 trips with at least one tow were observed east of 72° 30.0'W, and of these, 99 trips used small mesh (less than the 5.5" diamond minimum mesh size for summer flounder; Table 1). Of those 99 trips, 50 trips (51%) reported landing more than 200 pounds of summer flounder. Of those 50 trips, 11 trips (22%) discarded more than 10% of their summer flounder catch. The percentage of trips that met all these criteria relative to the total number of observed trips east of 72° 30.0'W is 5.97% (11/190 trips; Table 1).

Although the amount of observed discards from these trips is low relative to the commercial catch limit, because these observed trips are a subset of the fishery operating under this exemption, the actual extent of discards under the exemption program is not known.

The contractor is exploring several questions to determine if changes to the exemption program may be warranted and if so, what changes might be appropriate. Preliminary questions and

potential data analysis include a number of topics as shown below. Industry perspectives will also be sought on the exemption program, including whether the program is still needed or whether changes are desired.

Monitoring Committee feedback on these preliminary questions and potential data analysis will provide guidance to the contractor over the next several months and identify if additional ideas should be explored.

Preliminary Questions and Potential Data Analysis

- What was the original intention of the regulation and how is that being served today?
- Are changes to the SMEP needed relative to the area, timing, possession limit, or other?
- How are vessels using the exemption and in which fisheries? Has use of the exemption program changed over time?
- What are industry perspectives and recommendations on the exemption program?
- Is the extent of summer flounder discards under this exemption a problem?
- Is the exemption program still needed?

Table 11: Numbers of observed trips that meet specific criteria based on NEFOP data from November 1-April 30 for 2014 through 2022.

Criteria		Nov. 1, 2015 – April 30, 2016	Nov. 1, 2016 – April 30, 2017	Nov. 1, 2017 – April 30, 2018	Nov. 1, 2018 – April 30, 2019	Nov. 1, 2019 ~March 19, 2020 ^a	Nov. 1, 2020 – April 30, 2021	Nov. 1, 2021 – April 30, 2022
A	NEFOP observed bottom trawl trips over this time frame (Nov-April)	398	398	741	657	403	151	232
B	Observed trips with at least one catch record east of 72° 30' W Longitude	302	302	598	534	322	122	190
C	That met the criteria in row B <u>and</u> used small mesh at some point during their trip	177	177	271	261	145	33	99
D	That met the criteria in rows B-C <u>and</u> landed more than 200 pounds summer flounder on whole trip	67	67	90	114	63	22	50
E	That met the criteria in rows B-D <u>and</u> discarded >10% of summer flounder catch east of 72° 30' W Longitude	12	12	35	33	18	4	11
F	% 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 E/row B)	3.97%	3.97%	5.85%	6.18%	5.59%	3.28%	5.79%
G	Total summer flounder discards (pounds) from trips meeting criteria in B-E	10,992	10,992	22,798	9,925	6,547	1,605	4,775
H	Total summer flounder landings (pounds) from trips meeting criteria in B-E	10,523	10,523	44,711	23,038	13,340	9,165	20,080
I	Total catch (pounds) from trips meeting criteria in B-E	21,515	21,515	67,508	32,963	19,887	10,770	24,856

^a Due to the COVID-19 pandemic, observer requirements were first waived on March 20, 2020. Due to the waived observer requirement, the full time period could not be evaluated and the analysis for that time period only examines observer data from November 1, 2019 through approximately March 19, 2020.

Flynet Exemption Program

Vessels fishing with a two-seam otter trawl flynet are also exempt from the minimum mesh size requirements. Exempt 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, sometimes to 2 inches or smaller. This exemption was created through Amendment 2 in 1993, as suggested by the South Atlantic Fishery Management Council and the State of North Carolina to accommodate flynet fisheries targeting other species and catching limited amounts of summer flounder. 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.

Typically, the Monitoring Committee reviews data from the North Carolina flynet fishery as the bulk of flynet landings in the Greater Atlantic region originate from North Carolina, though the flynet fishery in North Carolina is small. The memorandum provided by Lorena de la Garza dated June 30, 2023 (see Attachment) indicates that no summer flounder were landed in the North Carolina flynet fishery in 2022. Previous memos indicate that summer flounder have not been landed in this fishery since 2014, and have also noted that flynet landings in North Carolina have declined in recent years due to shoaling issues at Oregon Inlet.

Table 2: North Carolina flynet fishery summer flounder landings in pounds, as a percent of total North Carolina flynet landings, and as a percent of total North Carolina commercial summer flounder landings, 2005-2022. Some values are confidential but as denoted below are <2,000 lb in those years.

Year	Summer Flounder Flynet Landings (lb)	% of Total NC Flynet Landings	% of total NC commercial summer flounder landings
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%	0.07%
2009	2,842	0.05%	0.10%
2010	<2,000 lb	<0.05%	<0.06%
2011	<2,000 lb	<0.05%	<0.07%
2012	<2,000 lb	<0.05%	<0.18%
2013	0	0%	0.00%
2014	<2,000 lb	<0.05%	<0.07%
2015	0	0%	0.00%
2016	0	0%	0.00%
2017	0	0%	0.00%
2018	0	0%	0.00%
2019	0	0%	0.00%
2020	0	0%	0.00%
2021	0	0%	0.00%
2022	0	0%	0.00%

The flynet exemption was explored in more depth through the Monitoring Committee's 2015 comprehensive review of commercial management measures.¹ The Monitoring Committee determined at the time that other states, including Virginia, New Jersey, and Maryland may have small amounts of flynet landings; however, data were limited or unavailable for most other states and flynet landings of summer flounder in these states were believed to be insignificant.

A January 2020 public comment from a New Jersey fisherman² asserted that this exemption is being used more frequently than indicated by the Monitoring Committee analyses, and that many New Jersey vessels have been using this exemption to increase their flexibility to retain summer flounder on multispecies trips. He states that these vessels are using "high rise" nets that fall under the flynet definition, and as a result they are able to retain more than 200 pounds of summer flounder during the November 1-April 30 period without switching to summer flounder mesh sizes. He also requests a change in the definition of exempt flynet gear to include four-seam nets (in addition to two-seam nets) as well as some clarifying modifications to the regulatory language.

In response to this request, at their 2020 meeting, the MC noted that there is a need to better understand the use and configuration of flynet and high rise trawl nets as they relate to this exemption. Additional information provided by Board member Emerson Hasbrouck indicates that the use of two-seam nets is rare in the Mid-Atlantic and Southern New England winter offshore trawl fishery. This may indicate a possible compliance and enforcement issue if vessels that don't meet the regulatory definition (which specifies a two-seam net) believe they are fishing under the flynet exemption. However, the Monitoring Committee stated that additional evaluation is needed to verify this. The Committee also indicated a need to better understand the differences between a two-seam and four-seam net before commenting on whether an expansion of the flynet exemption definition is warranted. The group agreed that a change in this definition could lead to an increase in the number of vessels using this exemption and the consequences of this should be thoroughly understood before changes are adopted. The Monitoring Committee recommended exploration of the extent to which existing datasets allow for evaluation of specific trawl gear configurations, and noted the need for input from gear experts, industry, and enforcement on this issue.

Similar to the SMEP topic, a list of preliminary questions and potential data analysis has also been developed for the flynet exemption program and is provided below. The MC should provide feedback on these preliminary questions and potential data analysis to provide guidance to the contractor over the next several months and help identify if additional ideas should be explored.

Preliminary Questions and Potential Data Analysis

- What was the original intention of the regulation and how is that being served today?
- Better understand the use and configuration of 2-seam otter trawl flynet and high-rise trawl nets as they relate to this exemption.
 - Determine the extent to which the exemption is being applied.
 - Determine the extent to which 4-seam nets (which do not comply with the definition) and "high rise" nets that fall under the flynet definition are being used.
- 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.

¹ See the report at: http://www.mafmc.org/s/Tab11_SF-S-BSB-Commercial-Measures.pdf.

² See attachment at: <https://www.mafmc.org/s/Fluke-mesh-exemption-memo-MC-May-2020.pdf>.

- 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.”
- What are industry perspectives and recommendations on the exemption?



Attachment

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

KATHY B. RAWLS
Director

Memorandum

To: Kiley Dancy, MAFMC

From: Lorena de la Garza, NCDMF

Date: June 30, 2023

Subject: Species composition and landings from the 2022 North Carolina flynet fishery

The 2022 North Carolina flynet fishery landed 22,366 pounds of finfish consisting of black sea bass, scup, monkfish (whole), weakfish, butterfish, and smooth dogfish. No summer flounder landings occurred from the flynet fishery in 2022. The 2022 North Carolina flynet fishery landings are not reported within a table because the data are confidential and cannot be distributed to sources outside the North Carolina Division of Marine Fisheries (North Carolina General Statute 113-170.3 (c)). Confidential data can only be released in a summarized format that does not allow the user to track landings or purchases to an individual. In general, the number of flynet trips and the overall landings across species has seen a significant decrease, particularly in the last decade. The decrease can be attributed to reduced fishing effort on targeted fish species and shoaling at Oregon Inlet continues to result in a low number of flynet boats landing in the northern ports of North Carolina.