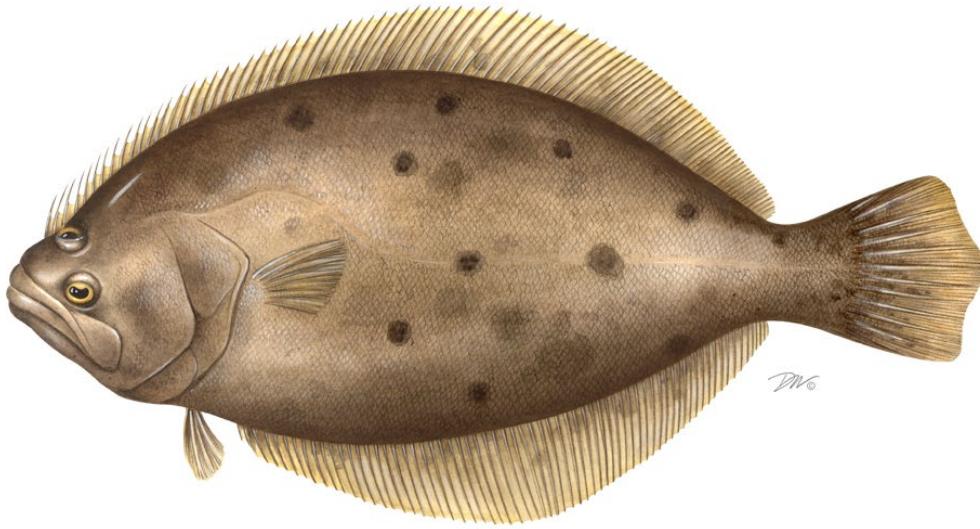


Atlantic States Marine Fisheries Commission

**ADDENDUM XXXV TO THE SUMMER FLOUNDER,
SCUP, AND BLACK SEA BASS INTERSTATE FISHERY
MANAGEMENT PLAN**

Changes to Summer Flounder Commercial Mesh Exemption Programs



Approved October 2024



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

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1.0 Introduction

Summer flounder, scup, and black sea bass fisheries are managed cooperatively by the states through the Atlantic States Marine Fisheries Commission (ASMFC or Commission) in state waters (0-3 miles), and through the Mid-Atlantic Fishery Management Council (MAFMC or Council) and NOAA fisheries in federal waters (3-200 miles). The management unit for summer flounder in US waters is the western Atlantic Ocean from the southern border of North Carolina northward to the US-Canadian border. States and jurisdictions with a declared interest in the fishery include all those from North Carolina through Massachusetts except Pennsylvania and the District of Columbia, as well as NOAA Fisheries and the US Fish and Wildlife Service (USFWS).

The Goal of the Commission's Addendum and the Council's Framework is to modify two exemptions to the summer flounder commercial minimum mesh requirements, the Small Mesh Exemption Program (SMEP) and the flynet exemption.

***Note:** While this Addendum and the Council's corresponding Framework were approved in October 2024, the effective date of modifications to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP) will be consistent with the effective date published in the final rule in the Federal Register, which is April 27, 2026.*

2.0 Overview

2.1 Statement of the Problem

The SMEP and flynet exemptions were developed under Amendment 2 to the Interstate Fishery Management Plan for Summer Flounder, Scup, and Black Sea Bass (FMP) in 1993 and the SMEP was later modified under Amendment 3 (1993). Both provide exemptions to the commercial minimum mesh size regulations for the summer flounder trawl fishery, which require 5.5-inch diamond or 6.0-inch square mesh to retain more than 200 pounds of summer flounder from November through April, or 100 pounds of summer flounder from May through October. In the Fall of 2023, the Council contracted a review of these exemptions. This review and subsequent discussions have identified the need to consider several changes to these exemption programs, as described below.

The SMEP and the flynet exemption are both annually reviewed by the Technical Committee (TC) and Monitoring Committee (MC) and the Summer Flounder, Scup and Black Sea Bass Board (Board) and Council during the specifications process for setting or reviewing catch limits. Some changes can be made through the specifications process. However, the regulations list restrictions on what types of changes to the SMEP can be recommended by the TC and MC via specifications. In addition, the typical annual review of the flynet exemption is primarily to review data on the flynet fishery in North Carolina. A redefinition of the exempted gear type(s) would fall outside the scope of what could be modified via specifications. As such, the Board and Council were advised to initiate an addendum/framework to consider the issues described below.

2.1.1 Small Mesh Exemption Program Area Revisions

The SMEP allows trawl vessels to obtain a Letter of Authorization (LOA) to land more than 200 pounds of summer flounder east of longitude 72° 30.0'W, from November 1 through April 30, using mesh smaller than the minimum summer flounder mesh sizes of 5.5-inch diamond or 6.0-inch square. This exemption is designed to allow vessels to retain some bycatch of summer flounder while operating in other small-mesh fisheries, reducing regulatory discards of summer flounder. During the Fall 2023 review of the program, feedback from the commercial fishing industry indicated the SMEP has become an important program to maintain the economic viability of their businesses. Industry representatives recommended moving the demarcation line approximately 5 miles landward to facilitate the conduct of their fishing operations in other fisheries, without negatively impacting the summer flounder stock. After reviewing the final report of the Council contracted work and public input, the Board and Council recommended additional evaluation of this industry proposal, including further exploration of appropriate boundaries and the expected biological impacts to summer flounder.

2.1.2 Small Mesh Exemption Program Review Methodology

The current regulations state the Regional Administrator may terminate the SMEP for the remainder of a season if observer data determines vessels fishing under the exemption are discarding more than 10% by weight, on average, of their entire catch of summer flounder per trip. Because the exemption program is intended to minimize regulatory discards in small mesh fisheries targeting other species, rescinding the exemption could lead to an overall increase in summer flounder discards among these small mesh vessels. As such, evaluation criteria should be designed to identify major concerns with the use of the exemption program that may justify suspending the exemption program until those issues can be resolved.

The current 10% threshold has been flagged as potentially no longer appropriate to provide meaningful information on whether discarding trends are problematic under this exemption. There are many reasons, regulatory and otherwise, summer flounder are discarded (see Appendix A for discard reason analysis from observer data). Many of the regulatory constraints influencing discard rates and patterns today were different or not relevant during time periods of data used to establish this exemption and its evaluation criteria.¹ There are also now more years of data available on use patterns for the exemption program. This action considers revisions to the review methodology and the process for determining whether the exemption should be rescinded.

2.1.3 Flynet Exemption Definition Revisions

The flynet exemption program specifies vessels fishing with a two-seam otter trawl flynet, with a specific configuration (see Section 3.3, Option A), are exempt from the summer flounder minimum mesh size requirements. The original intent of this exemption was to accommodate a specific fishery, concentrated in North Carolina and extending north to Cape Henlopen,

¹ For example, discard rates using 1990-1991 data were used to partially inform this exemption, which was prior to establishment of coastwide quotas and consistent coastwide size limit requirements.

Delaware. Available data indicate the exemption is no longer being utilized in that area/fishery. However, industry feedback indicates the flynet exemption has become an important component of specific fisheries throughout the Greater Atlantic Region, although some of the net types being utilized under the flynet exemption (i.e., “high rise nets”) do not comply with the specific regulatory definition of a flynet. The term “high rise” net appears to be regional terminology for flynets and similar net types. The TC and MC previously identified this as a potential compliance and enforcement issue and/or indication of a potential need to revise the regulatory language. During the summer flounder mesh exemption review process, industry representatives noted very few summer flounder are caught in these net types, and proposed updating the definition of the term “flynet” to reflect modern gear configurations and use-patterns under this exemption.

2.2 Background

2.2.1 Status of the Stock

The most recent summer flounder management track stock assessment was completed in June 2023, using data through 2022 (NEFSC 2023). The FMP defines the summer flounder management unit as all summer flounder from the southern border of North Carolina to the United States-Canada border. The assessment approach is a statistical catch-at-age model (ASAP) incorporating a broad array of commercial and recreational fishery and survey data. Results from the 2023 assessment indicate the summer flounder stock was at 83% of the biomass target and so was not overfished; however, the stock was experiencing overfishing in 2022. Fishing mortality was 3% above the threshold level defining overfishing (Figure 1; Figure 2).

While the overfishing limit has not been exceeded in recent years, projections associated with the 2021 assessment, which used data through 2019, appeared to be overly optimistic given the updated information provided by the 2023 assessment. The assessment has been slightly underestimating fishing mortality and overestimating stock biomass, the effect of which was compounded by adding three years of data to the assessment model (2020-2022). In addition, stock recruitment has been below average since 2011 and the high estimate of 2018 recruitment in the 2021 assessment was revised downward to recent below-average levels with the 2023 assessment results. The 2023 management track stock assessment provided the basis for setting fishery specifications for the 2024 and 2025 fishing years.

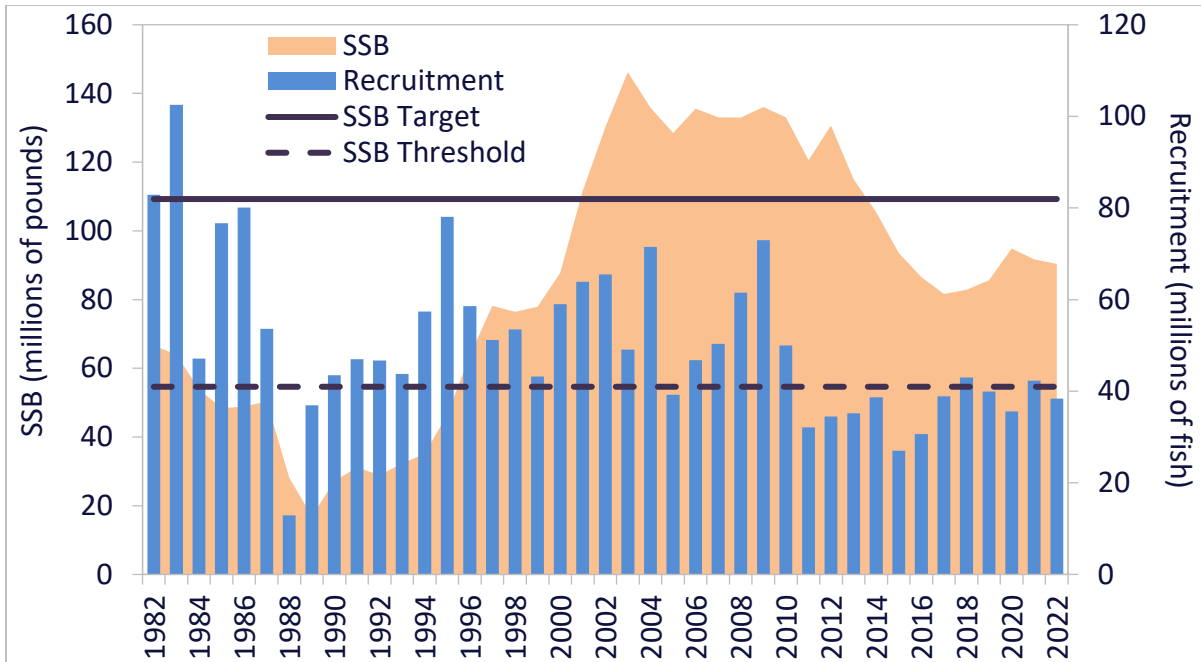


Figure 1: Summer flounder spawning stock biomass and recruitment. Source: 2023 Management Track Assessment Prepublication Report, Northeast Fisheries Science Center.

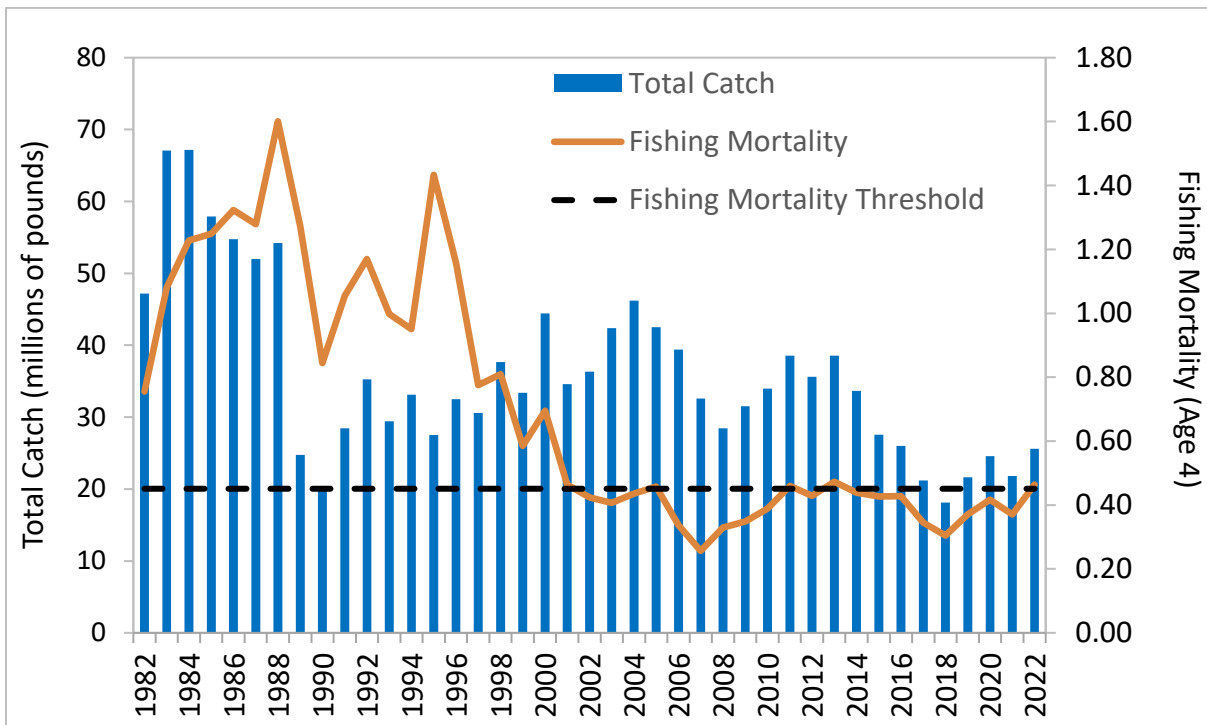


Figure 2: Summer flounder total catch and fishing mortality. Source: 2023 Management Track Assessment Prepublication Report, Northeast Fisheries Science Center.

2.2.2 Status of the Fishery and Management

Note: Since this addendum considers management of the commercial fishery, the following information focuses on commercial summer flounder fisheries and exemption programs. For information on the recreational fishery and general commercial landings trends, see the Review of the FMP for Summer Flounder: 2023 Fishing Year (ASMFC 2024).

2.2.2.1 Small Mesh Exemption Program

Summer flounder moratorium permitted vessels fishing east of longitude 72° 30.0'W, from November 1 through April 30, and using mesh smaller than the required summer flounder minimum mesh sizes of 5.5-inch diamond or 6.0-inch square, may land more than 200 pounds of summer flounder under the SMEP. Participation in this program requires a Letter of Authorization (LOA) obtained through the NOAA Fisheries Greater Atlantic Regional Fisheries Office (GARFO). Vessels must be enrolled in the program for a minimum of 7 consecutive days and may not fish west (landward) of the line. This exemption program was developed under Amendment 2 to the FMP and modified via Amendment 3² (both in 1993). The seven-day minimum enrollment period was implemented due to the administrative capacity needed to process vessel enrollment in the program.

This exemption program was initially suggested by the New England Fishery Management Council and industry participants. It was designed to allow vessels to retain some bycatch of summer flounder while operating in other small-mesh fisheries. At the time it was determined the exemption would not pose an issue for the stock because the mesh size requirement was designed to protect smaller summer flounder, which largely were not being caught in these offshore areas in the winter months.³ The exemption was thus viewed as consistent with the conservation goals of the FMP while reducing discard waste in the summer flounder fishery.

Over the last ten years, SMEP LOAs have been issued to an average of 68 vessels each year for the relevant November-April time periods, with a slight increasing trend over these years (Figure 3). Because vessels with an active LOA are restricted to trips east of the demarcation line, many vessels hold several LOAs for varying lengths of time throughout a given November-April period. On average over the past ten years, about 44% of vessels held the LOA for the full November-April time frame (Appendix A; Figure 5).

² Amendment 3 increased the threshold possession limit for smaller mesh vessels from 100 to 200 pounds of summer flounder and simplified the SMEP area to the area east of 72° 30.0'W to resolve issues with compliance and enforcement created by the previous, irregular line (71° 30.0'W, following the yellowtail closed area). Otter trawl data showed discard rates and size distributions of summer flounder varied by these demarcations. The amendment concluded changing the SMEP area to east of 72° 30.0'W would slightly increase discards but improve compliance and navigation and eliminate the issue of the previous line bisecting Hudson Canyon.

³ The exemption was approved based on data (from 1985 to 1989) indicating 99.8 percent of summer flounder caught in the exemption area were equal to or greater than the size limit at the time of 13 inches, and 84.7 percent were greater than 15 in., compared to 88.6 percent and 50 percent outside the area, respectively.

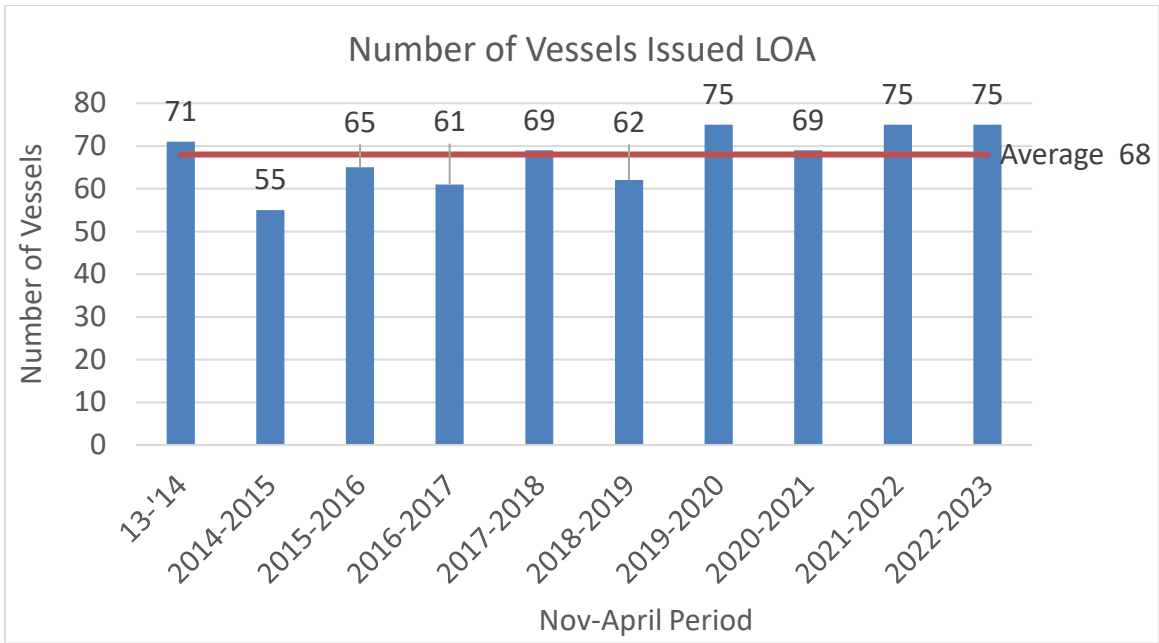


Figure 3: Number of vessels issued a SMEP LOA from November 2013 through April 2023. Some vessels held multiple LOAs within a season.

Vessel Trip Report (VTR), Catch Accounting Monitoring System (CAMS), and Northeast Fisheries Observer Program (NEFOP) data, all linked to trips where vessels held an active SMEP LOA, were used to characterize use of this exemption program. CAMS data were used to calculate the proportion of annual summer flounder bottom trawl landings and discards originating from LOA trips vs. non-LOA trips. As shown in Table 1, based on this information, since 2018 about 14% of total annual summer flounder bottom trawl catch on average came from trips where an active LOA was held.⁴

Table 1: Proportion of annual summer flounder bottom trawl landings and discards from SMEP LOA vs. non-LOA trips, based on 2018-2022 CAMS data.

	% LOA Landings	% LOA Discards	% Non-LOA Landings	% Non-LOA Discards
2018	9%	1%	70%	20%
2019	10%	1%	75%	13%
2020	13%	1%	74%	13%
2021	16%	1%	77%	7%
2022	17%	1%	77%	5%
Average (2018-2022)	13%	1%	74%	11%

⁴ This dataset did not separate trips or hauls by mesh size used. Not all trips or hauls occurring while an LOA is held are necessarily using small mesh (in other words, some proportion of “LOA catch” is coming from trips where an LOA would not have been needed to retain more than 200 pounds of summer flounder).

VTR data from November 1, 2022 through April 30, 2023 indicate over this period, 90% of LOA trips were using bottom otter trawl gear, with the remaining 10% utilizing other or unknown gear types (small numbers of trips for unnamed “other” gear types, other bottom trawl types, scallop dredge, and sink gillnets). As some of these other gear types are non-trawl gears, these vessels would not be actively using the SMEP on every trip. Observer data for November 2013 through April 2022 indicate 100% of observed trips over this period associated with an active SMEP LOA were using bottom otter trawl gear.

On 1,246 observed trips associated with an active SMEP LOA from November 2013 through April 2022, about 40% of hauls used a mesh size at or above the summer flounder minimum diamond mesh size of 5.5 inches, while 57% used mesh smaller than 5.5 inches and/or a small mesh codend liner (Table 2). The LOA/exemption is not necessary for vessels fishing with mesh over the 5.5-inch minimum size; however, many vessels holding LOAs are using a mix of different gear configurations on different trips or portions of trips while the LOA is active.

Table 2: Trips and hauls for observed bottom otter trawl trips with an active SMEP LOA, 2013-2022, by mesh size category (above and below the summer flounder 5.5” diamond mesh requirement).

Gear Type and Mesh Size Category	% of Hauls	Number of Unique Trips^a	Number of Unique Permits^a
≥5.5 inch ^b	40%	637	87
<5.5 inch ^b	57%	624	92
Unknown	3%	38	25
Total	100%	1,246	109

^a Number of trips and permits do not add to the total given some trips and some permits are associated with use of multiple mesh size categories.

^b Observer mesh size data is reported as an average of 10 individual mesh measurements, in millimeters. For this analysis, mesh size was converted to inches and rounded to the nearest tenth of an inch, so conversion and rounding error may be present for some observations.

Target species is reported for each haul in the observer data. 41% of observed hauls for active SMEP LOA holders over the November 2013 through April 2022 period using mesh smaller than 5.5-inches were reported as targeting longfin squid, followed by 25% of hauls reporting targeting summer flounder. Other common target species on observed SMEP trips using small mesh included scup and whiting, with other species accounting for 5% or less of hauls on these trips (Table 3). Of all observed hauls linked to SMEP LOAs from November 2013 through April 2022 where mesh smaller than 5.5 inches was used, 67% of hauls caught summer flounder, and 82% of observed trips caught summer flounder at some point on the trip. Of the hauls targeting summer flounder, 95% caught summer flounder (Table 4).

For all observed SMEP LOA trips with summer flounder catch using mesh smaller than 5.5 inches, average summer flounder landings were 746 pounds per trip and median landings were 301 pounds per trip. Mean discards were 165 pounds of summer flounder, and median discards were 30 pounds of summer flounder (Table 5). For most observed SMEP trips using small mesh, discards of summer flounder appear to be relatively low by weight, but can still be a notable proportion of total summer flounder catch on those trips since many trips are not catching substantial amounts of summer flounder. On average, 24% of summer flounder caught were discarded per trip, with 50% of trips discarding more than 10% of their summer flounder catch (Table 6).

Table 3: Top target species on observed trips for vessels with an active SMEP LOA, using mesh smaller than 5.5 inches, 2013-2022. Table shows top species as a percent of total observed hauls for these vessels over this period, number of unique trips, and number of unique permits.

Target Species	Percent of Hauls	Number of Trips	Number of Permits
Longfin Squid	41.3%	241	71
Summer Flounder	25.2%	225	68
Scup	14.9%	148	47
Silver Hake (Whiting)	7.7%	83	35
Atlantic Herring	5.0%	66	8
Black Sea Bass	1.7%	24	20

Table 4: Observed trips, hauls, and permits for observer data linked to SMEP LOAs, for trips and hauls where mesh smaller than 5.5 inches was used, November 2013 through April 2022.

	Trips	Hauls	Permits
All Observed SMEP LOA	624	3,879	92
Caught Summer Flounder	514	2,606	89
Targeted Summer Flounder	225	977	68
Targeted & Caught Summer Flounder	223	931	68

Table 5: Statistics for landings and discards of summer flounder on observed SMEP LOA trips with summer flounder catch using mesh smaller than 5.5 inches, November 2013 through April 2022. Landings and discard values are in pounds.

	Summer Flounder Landings		Summer Flounder Discards
Mean per trip	746	Mean per trip	165
Median per trip	301	Median per trip	30
% of trips landings >2,000 lb	10%	% of trips discards >2,000 lb	1%
% of trips landings >500 lb	42%	% of trips discards >500 lb	7%
% of trips landings >200 lb	57%	% of trips discards >200 lb	17%
% of trips no landings	8%	% of trips no discards	20%

Table 6: Statistics for percent of summer flounder discarded on observed SMEP LOA trips with summer flounder catch using mesh smaller than 5.5 inches, November 2013-April 2022.

Total observed trips with summer flounder catch	514
Avg % summer flounder discarded per trip	24%
Total % summer flounder discarded across all trips	18%
% of trips discarding more than 10% of summer flounder catch	50%

2.2.2.2 Small Mesh Exemption Program Annual Evaluation

Amendment 2 (1993) originally established the criteria for review of this exemption, specifying “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.” Though limited information is available describing the specific basis, supporting documents noted 1990-1991 NMFS sea sampling data showing otter trawl vessels fishing east of the line (at the time, 71° 30.0’W) discarded about 8.8% of their total summer flounder catch, while discard rates from otter trawl vessels fishing in other areas exceeded 25%. Documents note this difference in discard rates suggested fewer undersized⁵ summer flounder were encountered in this area, so this presumably served as the basis for a 10% threshold intended to signal an increase in catch of smaller summer flounder.

As described in Section 2.2.2.1, observer data for recent SMEP LOA trips show many trips are targeting non-summer flounder species or a combination of species (Table 3), and on average, are not catching substantial amounts of summer flounder at the trip level. Generally, discards in weight of summer flounder on these trips is low (Table 5). Relative to low total catch weights of

⁵ At the time, coastwide requirements for minimum size limits were not yet implemented but state size limits ranged from 11 to 14 inches with the majority at 13 or 14 inches.

summer flounder, the proportion of summer flounder discarded can appear high. The existing 10% threshold is quickly reached on many trips catching summer flounder even if the total poundage discarded is low (e.g., average discards on observed small mesh LOA trips from 2013-2022 are about 165 pounds, or ~18% of the average summer flounder catch on these trips). Additional analysis of catch and discards of summer flounder on LOA trips, based on observer data, is provided in Appendix A. Small Mesh Exemption Program Analysis

Currently the MC 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. Historically, this analysis has relied solely on observed trips identified using a series of assumptions indicating a presumed use of the SMEP. This provides a limited snapshot due to limited observer coverage and was not based on confirmed use of the LOA. The SMEP was put in place in the 1990s, when linking disparate datasets, (e.g., vessel trip reports, observer data, permits etc.) was more difficult. Advances in data accessibility over the years have created opportunities to improve analysis of this exemption, as demonstrated by analysis conducted for this action. Going forward, regardless of the option selected under Section 3.2, the MC will continue to use data linked to actual use of the SMEP rather than the previous review methods.

2.2.2.3 Flynet Exemption

Since 1993, the flynet exemption in the Summer Flounder FMP, has provided an exemption to the minimum mesh size requirements for vessels fishing with a two-seam otter trawl flynet with specifications defined in regulation (see Section 3.3 Option A.). No permits or special reporting are required to utilize this exemption.

The original intent of this exemption was to accommodate the use of a specifically defined gear in a specific fishery. Flynets were generally fished 10-12 feet off the bottom between September and April from North Carolina to Cape Henlopen, Delaware, and primarily targeted bluefish and sciaenids. The North Carolina Division of Marine Fisheries provided additional data to support the exemption, indicating summer flounder were landed as incidental catch in the flynet fishery and comprised only 1-3% of the total trip catch (based on 1982 through 1989 data). Comparatively, summer flounder made up 62-94% of nearshore bottom trawl total trip catch and 10-72% for deep water otter trawls. Although flynets caught a higher proportion of undersized summer flounder (58.1%) versus nearshore bottom trawls and deep-water trawls (4.5% and 8.4%, respectively), summer flounder appeared in less than half of the flynet trawls and made up 0.2-0.8% of the catch between 1985 and 1988.

Amendment 2 also proposed an exemption for four-seam, pelagic nets with large mesh of at least 32 inches in the wings, 50 feet (40 meshes) of 15 inches in the belly, decreasing in the body relative to the wings and extensions to mesh of 1.5 inches or less in the codend (referred to as “millionaire nets”). The exemption was requested primarily by New Jersey fishers who stated almost all summer flounder quickly escaped after entering these nets. This exemption was disapproved in the final rule because the record did not include sufficient information to

determine its effect and because the net could be fished on the bottom by towing at a reduced speed, which could lead to increased discard mortality of undersized summer flounder.

As noted in Section 2.1.3, the existing flynet exemption has historically been evaluated annually using data from the state of North Carolina trip ticket program. In recent years, North Carolina data has indicated the flynet exemption is no longer being utilized today in that area/fishery, as summer flounder are no longer caught in that fishery and flynet fishery effort in the state has generally declined. Also as noted in Section 2.1.3, the mesh exemptions review highlighted flynet or “high-rise” type nets are being used by vessels outside of this North Carolina fishery, with some use of nets that may not comply with the regulatory definition of a flynet.

This action considers expanding the definition of a flynet, to cover similar net types that generally catch small amounts of summer flounder (see Section 3.3.1). Evaluating this expansion requires consideration of data beyond North Carolina to evaluate the potential impacts of this change. Most states outside of North Carolina do not have the ability to break data down by specific net type or gear configuration, and this information is also not available from VTR data. As such, analysis of the use of flynet or high-rise type nets throughout the Greater Atlantic Region is based on NEFOP observer data. Analysis of the use patterns and catch for these flynet/high-rise gear types, based on observer data, is contained Appendix B.

3.0 Management Program

3.1 Small Mesh Exemption Program Western Boundary

Starting south of Long Island, the westward demarcation line of the SMEP sits at 72°37'W longitude, following this longitude south until intersection with the northeast corner of the scup Southern Gear Restricted Area (GRA) at 39°20'N and 72°37'W. The line then follows along the eastern border of the southern scup GRA to 37°N latitude, which forms the southern boundary of the area running eastward until the intersection with the previous SMEP boundary at that latitude (Figure 4). Note, this modification does not extend the line westward in Long Island Sound nor does it modify the southern portion of the SMEP south of the Frank R. Lautenberg deep sea coral protection area.⁶

While this has the appearance of notably increasing the SMEP area size, the effective change in terms of fishery access is calculated after excluding portions of the area overlapping with the deep-sea coral zone, where bottom tending gear is prohibited. There is and has been substantial overlap of the SMEP and coral zone where the SMEP is not able to be used; this change increases the area of overlap. The calculated additional area, excluding the deep-sea

⁶ The SMEP area overlaps portions of the Frank R. Lautenberg Deep Sea Coral Zone, where all bottom tending fishing gear is currently prohibited year-round. Vessels using the SMEP are bottom trawls, and as such the portions of the SMEP area overlapping with the coral zones are unable to be fished by these gear types regardless of possession of the LOA.

coral zones where bottom tending gear is prohibited, is 4,943 km² (1,441 nmi²).⁷ The timing of the exemption remains unchanged (November 1-April 30).

Analysis of the presence and abundance of undersized (less than the 14-inch commercial fishery minimum size) and juvenile (less than 30 cm or 11.8 inches) summer flounder is provided in Appendix A, based on NMFS bottom trawl survey length data from the Northeast Regional Habitat Assessment from 1990-2019.

Because this this boundary change connects the SMEP area to the current southern scup GRA⁸, it is important to note modifications to the scup GRA boundaries may be considered in the next few years. The Council's 2024 Implementation Plan includes a project⁹ that will build on past Council scup GRA analyses and assess if changes to the current GRAs are warranted, and if so, provide recommendations on potential changes. This project is expected to extend through 2025 and could potentially result in changes to the current boundary, timing, etc. of the southern scup GRA. However, given the expected project timeline, changes to the scup GRA boundaries are unlikely to change prior to 2026. If the GRA boundaries are modified, it would not automatically update the boundaries of the revised SMEP area unless specifically added to that action, or adjusted via a separate action.

⁷ The total proposed expanded area, including the area overlapping the deep sea coral zones, is 30,880 km² or 9,003 nmi².

⁸ There are currently two scup GRAs intended to reduce juvenile scup discards in small-mesh fisheries. Trawl vessels may not fish for or possess longfin squid, black sea bass, or silver hake in the Northern GRA from November 1 – December 31 and in the Southern GRA from January 1 – March 15 using mesh smaller than 5 inches.

⁹ <https://www.mafmc.org/newsfeed/2024/request-for-proposals-collaborative-strategies-to-adapt-scup-gear-restricted-areas-gra-to-changing-ocean-conditions>

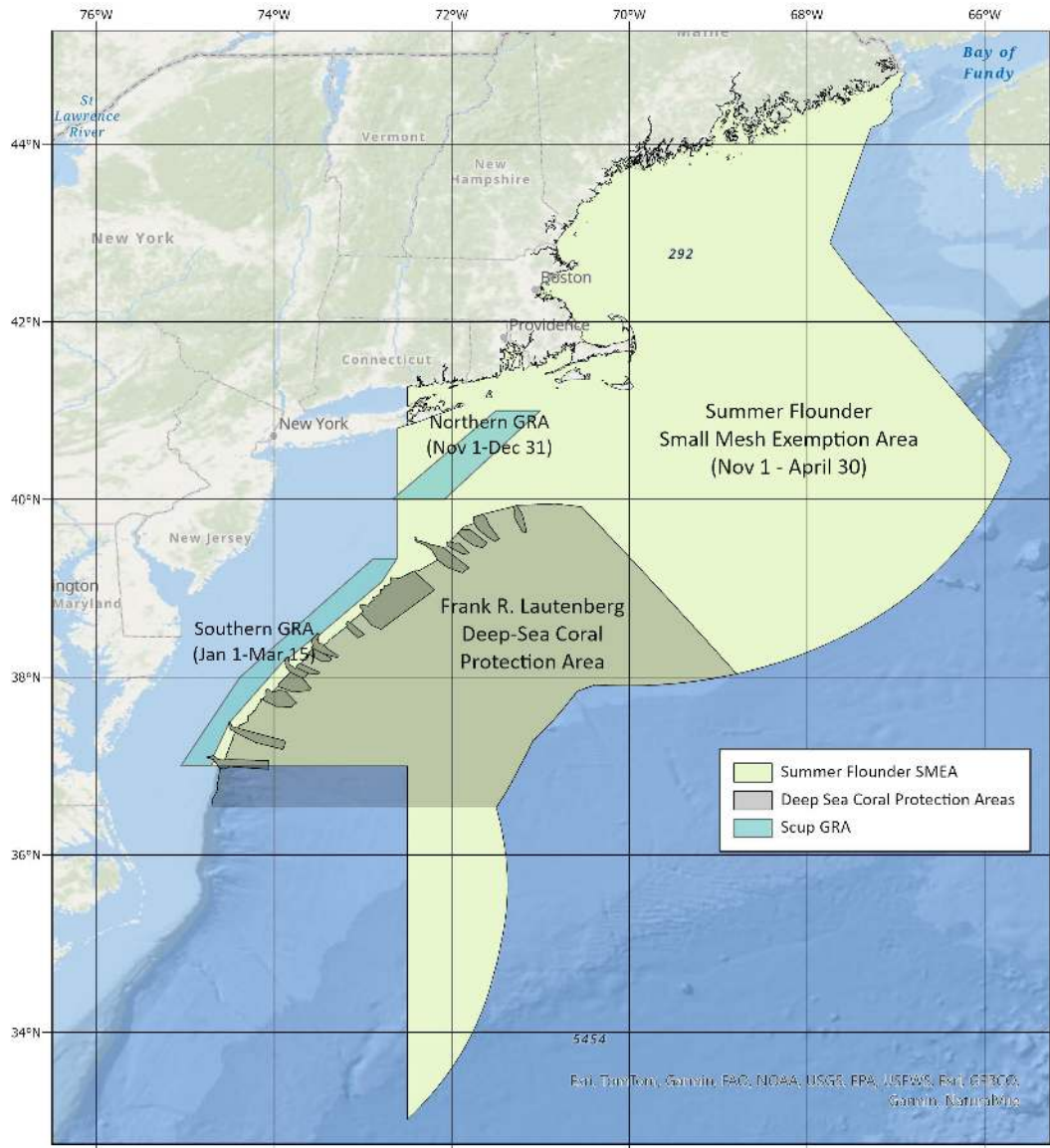


Figure 4: Small Mesh Exemption Program Area

3.2 Small Mesh Exemption Program Evaluation Criteria

If vessels fishing under the SMEP are on average discarding more than 25%, by weight, of their entire summer flounder catch, this will trigger a more detailed review, conducted or reviewed by the Monitoring Committee.¹⁰ This additional review will seek to highlight major issues with

¹⁰ Federal regulations and the FMP refer to use of the Monitoring Committee to review this exemption annually, and that language is continued in this document. For the purposes of cooperatively managed MAFMC-ASMFC species, the Monitoring Committee is considered a joint committee, and includes representation nearly identical to the Commission's Technical Committee.

the exemption program that need to be addressed (e.g., high/increasing discards of undersized summer flounder, high/increased targeting behavior with small mesh, and other concerns).

It is evident discard rates are variable on an annual basis (Appendix A; Table 7) and are commonly impacted by a variety of factors including but not limited to annual quotas, population structure and dynamics, market conditions, and other regulations (Appendix A; Figure 6). Updating the SMEP evaluation criteria to a 25% trigger in addition to including a Monitoring Committee analysis process will facilitate a more comprehensive consideration of the drivers of and response to discards. The Monitoring Committee analysis could evaluate the amounts and percentages of kept and discarded summer flounder on LOA trips compared to non-LOA trips, investigate trends in discards over time, investigate discards of undersized and/or juvenile summer flounder on LOA vs. non-LOA trips and by area, and explore any other information that could inform whether to recommend rescinding the exemption or otherwise recommend changes to improve performance.¹¹ This could include review of whether there is a large proportion of trips targeting and/or keeping large amounts of summer flounder using small mesh gear (i.e., whether use of the program is moving more toward a small-mesh summer flounder fishery vs. allowing retention of incidental summer flounder catch). When conducting this evaluation, it may be informative to use multiple years of data in a rolling average approach.

This review will be conducted as soon as possible but no later than the next series of specifications setting or review meetings. The evaluation will be presented to the Board and Council for these groups to provide feedback and recommendations to the Regional Administrator. The Regional Administrator, based on the review of this information, will consider whether the exemption should be rescinded for the upcoming or remainder of the current exemption period, or if other modifications to the program could be made in the near term to address the concerns.

It should be noted, this approach will require additional time and staff resources for the Monitoring Committee to conduct an evaluation, and time for the Board/Council and Regional Administrator to respond. This will delay consideration of whether to rescind the exemption or whether modifications to the program may be needed, but will have the benefit of a more thorough consideration of the concerns and how they may be addressed. Because observer data are heavily relied upon during the review process, typical data lags associated with observer data processing may impact time between observed data triggering concerns and management response.

¹¹ If the Monitoring Committee recommended changes in addition to or instead of rescinding the exemption, those changes could be considered through either specifications or a separate future action, depending on the nature of the recommended change.

3.3 Definition of a Flynet

3.3.1 Definition of a Flynet

Vessels fishing with an otter trawl flynet are exempt from the summer flounder minimum mesh size requirements. The regulatory definition of a fly net is an otter trawl with the following configuration:

- The net has large mesh in the wings that measures 8" or greater.
- The first body (belly) section of the net has at least 280 inches of mesh behind the sweep where the mesh size is at least 8".
- The mesh decreases in size throughout the body of the net toward the codend.

3.3.2 Future Monitoring of the Flynet Exemption Program

Going forward, there is an expectation that observer data will need to be used to evaluate the flynet exemption as the previous methodology no longer reflects how the exemption is currently used outside of North Carolina. While the observer data captures "net type" in addition to gear type, some concerns have been raised about how this information is reported, i.e., the observer relies on what is reported by the captain, and terminology varies by fishery and region. In addition, the "net type" field is sometimes blank (on average about 2% of trips and 2% of hauls) or often recorded as an unknown trawl type (on average about 43% of trips and 41% of hauls; based on 2013-2022 observer data). In addition, observed trips represent a subset of total fishing effort, and observer coverage is variable over time and by gear category. As such, evaluation of observer data for this exemption should ideally consider multiple years of data, and caution should be used in the interpretation of this data.

To improve monitoring going forward, the Board and Council have expressed support for adding a flynet/high-rise net type gear code to VTR data collection forms. This is a step GARFO will take at the request of the Board and Council. This will be a separate type of bottom otter trawl gear that could be selected when filling out the VTR (similar to how a separate code was recently added for large mesh belly panel gear to better analyze the use of this gear type). Gathering useable data from this additional gear code will rely on awareness of and consistent application of this gear type terminology, which has been acknowledged as a challenge. As such, communication of this change will be critical.

3.3.3 Regulatory Language Change

While not an option explicitly considered through this action, the PDT/FMAT has recommended the regulatory language describing the flynet exemption evaluation be revised to reflect the original intent of the FMP. This will be done as an administrative correction to the regulations via GARFO.

The current evaluation methodology specified in the regulations is: "The Regional Administrator may terminate this exemption if he/she determines, after a review of sea sampling data, that

vessels fishing under the exemption, on average, are discarding more than **1% of their entire catch of summer flounder per trip**. If the Regional Administrator makes such a determination, he/she shall publish notification in the Federal Register terminating the exemption for the remainder of the calendar year.”¹² This represents a disconnect from the wording of the FMP amendment that originally developed this exemption. The wording in the FMP, and what the FMAT/PDT believe was the intent, was the Regional Administrator could withdraw the exemption if the annual average summer flounder catch in the flynet fishery **exceeds 1% of the total flynet catch**.

This distinction has not mattered in recent years because evaluation has relied on North Carolina flynet fishery data, and in recent years, summer flounder have not been landed in that fishery (see Section 2.2.2.3). However, the new consideration of flynet/high-rise catch outside of North Carolina, will likely mean any discards of summer flounder will exceed the 1% of summer flounder catch threshold reflected in the current wording of the regulations.

The PDT/FMAT recommended the regulations be clarified to reflect the language in the FMP (summer flounder catch in the flynet fishery should not exceed 1% of the total flynet catch). Based on the PDT/FMAT’s current understanding of the flynet/high-rise net types that may be captured under a revised definition, and consideration of a 10-year observer dataset, it seems the original FMP language for this exemption considering whether “summer flounder catch exceeds 1% of the total catch” is still appropriate (Table 18 in Appendix B).

4.0 Compliance Schedule

This Addendum does not implement any changes to current compliance requirements.

¹² [https://www.ecfr.gov/current/title-50/part-648#p-648.108\(b\)\(2\)\(iv\)](https://www.ecfr.gov/current/title-50/part-648#p-648.108(b)(2)(iv))

5.0 References

- MAFMC & ASMFC. 1993. Amendment 2 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan; https://www.mafmc.org/s/SFSCBSB_Amend_2.pdf
- MAFMC & ASMFC. 1993. Amendment 3 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan; https://www.mafmc.org/s/SFSCBSB_Amend_3.pdf
- MAFMC. 2023. Investigation and Recommendation of the Mid-Atlantic Fishery Management Council's Summer Flounder Small Mesh and Flynets Exemption Programs; <https://www.mafmc.org/s/Summer-Flounder-Mesh-Exemptions-final-report.pdf>
- NEFSC. 2021. Summer Flounder Management Track Assessment for 2021; https://appsnefsc.fisheries.noaa.gov/saw/sasi/uploads/2021_summer_flounder_MTA_report.pdf
- NEFSC. 2023. Summer Flounder Management Track Assessment for 2023; https://appsnefsc.fisheries.noaa.gov/saw/sasi/uploads/2021_summer_flounder_MTA_report.pdf
- ASMFC. 2024. 2023 Review of the Interstate Fishery Management Plan for Summer Flounder; https://asmfc.org/uploads/file/66c5e9e5SummerFlounder_FMPReview_FY2023.pdf

Appendix A. Small Mesh Exemption Program Analysis

This analysis provides a supplement to the information provided in Sections 2.2.2.2 Small Mesh Exemption Program Annual Evaluation and 3.2 Small Mesh Exemption Program Evaluation Criteria.

LOA Use

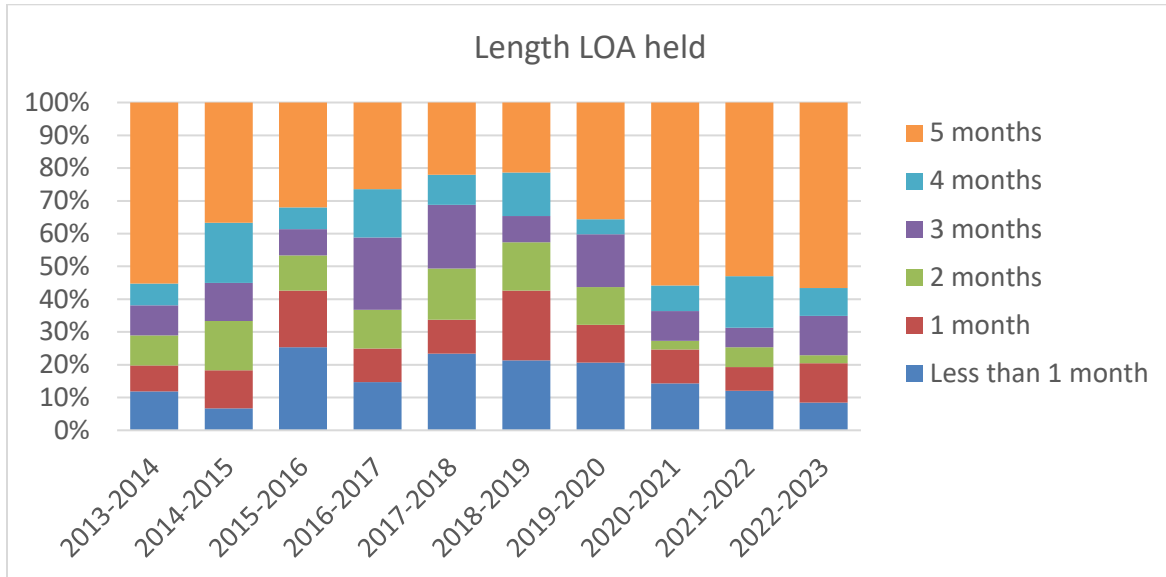


Figure 5: Active LOA length for each November-April SMEP season from November 2013-April 2023. Some vessels may be represented multiple times within the same season if they held multiple LOAs for less than 180 days.

Discard Reasons

Discard reasons for summer flounder discards on observed LOA and non-LOA trips were evaluated using observer data from 2013-2022. As shown in Figure 6, size limit regulations are the top reported discard reason (in terms of the percent of records, or hauls) over the last 10 years for both LOA and non-LOA trips. Observed LOA trips show a notably higher percentage of records in this category vs. non-LOA trips (70% vs. 49%). When evaluated by poundage, this reason represents a smaller proportion of discards due to the lower poundage associated with smaller fish.

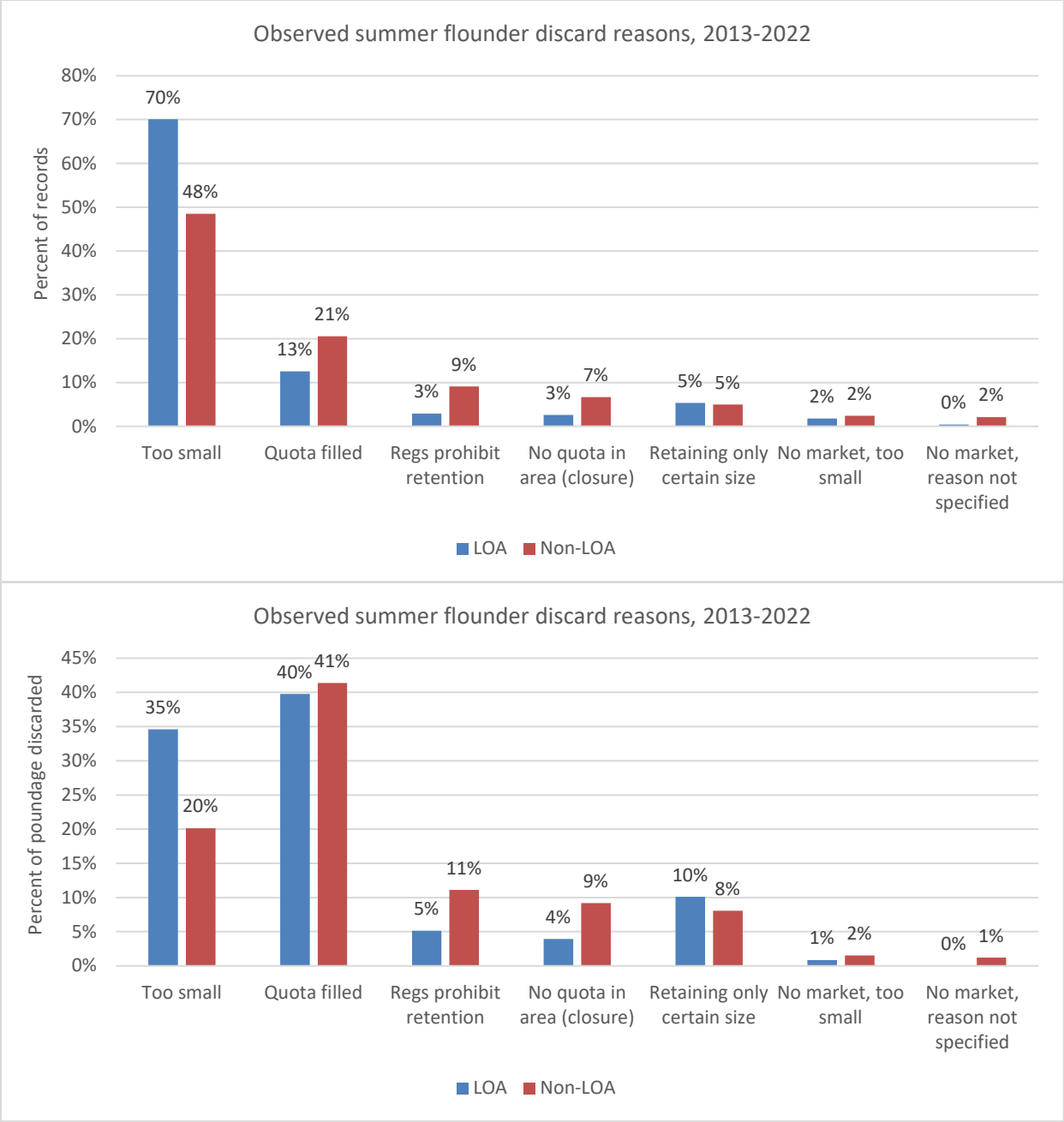


Figure 6: Observed summer flounder discard reasons for LOA and non-LOA trips by percent of records and percent of pounds discarded, 2013-2022. LOA trips are November-April; non-LOA trips are year-round.

Trip Level Discard Characterization

Although annual discards of summer flounder on observed LOA trips are variable from year to year, in terms of poundage, average, and median per trip discards appears to be low (Table 7 and Table 8). Discards on observed LOA trips also appear to be similar to all trawl trips (LOA trips not separated out; Table 7). A small percentage of observed trips have large observed discard amounts; this is true of both LOA and non-LOA trips.

Table 7: Statistics on summer flounder discards for observed bottom trawl trips, 2013-2022, comparing Small Mesh Exemption Program LOA trips using small mesh and all observed trawl trips during the specified time period.

	Discards – SMEP LOAs using small mesh (<5.5 in)	Discards- all trawl Nov-Apr^a	Discards – all trawl year-round^a
Total observed trips with summer flounder catch	514	2,726	7,560
Mean discards	165	168	129
Median discards	30	27	15
% trips discards>2000lb	1%	1%	1%
% trips discards>500lb	7%	9%	6%
% trips discards>200lb	17%	20%	15%
% trips no discards	20%	23%	26%
% trips discarding more than 10% catch	50%	41%	45%
Avg % summer flounder discarded per trip	24%	24%	25%
Total % summer flounder discarded from combined trips	18%	8%	12%

^a SMEP LOA trips are not excluded from these columns, so there is some overlap of these categories. “All trawl” columns include all mesh sizes.

Table 8: Annual statistics on summer flounder annual discards for observed Small Mesh Exemption Program LOA trips using small mesh only.

Discards – SMEP LOAs using small mesh	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total observed trips with summer flounder catch	11	28	54	44	80	81	85	28	34	69	71
Mean discards	76	114	275	292	148	189	137	136	108	97	191
Median discards	4	34	40	11	24	49	30	50	22	8	44
% trips discards>2,000lb	0%	0%	2%	2%	0%	1%	2%	0%	0%	0%	1%
% trips discards>500lb	0%	4%	13%	14%	8%	7%	2%	7%	9%	4%	8%
% trips discards>200lb	18%	21%	19%	18%	15%	22%	15%	18%	15%	13%	21%
% trips no discards	45%	21%	13%	36%	19%	12%	14%	11%	21%	35%	23%
% trips discarding more than 10% catch	45%	36%	48%	34%	56%	67%	55%	36%	44%	42%	41%
Avg % summer flounder discarded per trip	37%	14%	27%	16%	32%	34%	19%	18%	13%	22%	21%
Total % summer flounder discarded from combined trips	32%	11%	29%	26%	27%	33%	15%	9%	10%	8%	10%

The average percent of summer flounder discarded per LOA trip decreases as the landings of summer flounder on those trips increases. Trips landing over 1,000 pounds of summer flounder are generally below the current 10% SMEP evaluation trigger on average. However, the majority of observed LOA trips from 2013-2022 landed less than 500 pounds of summer flounder; these trips are on average discarding about 34% of their total summer flounder catch (Figure 7).

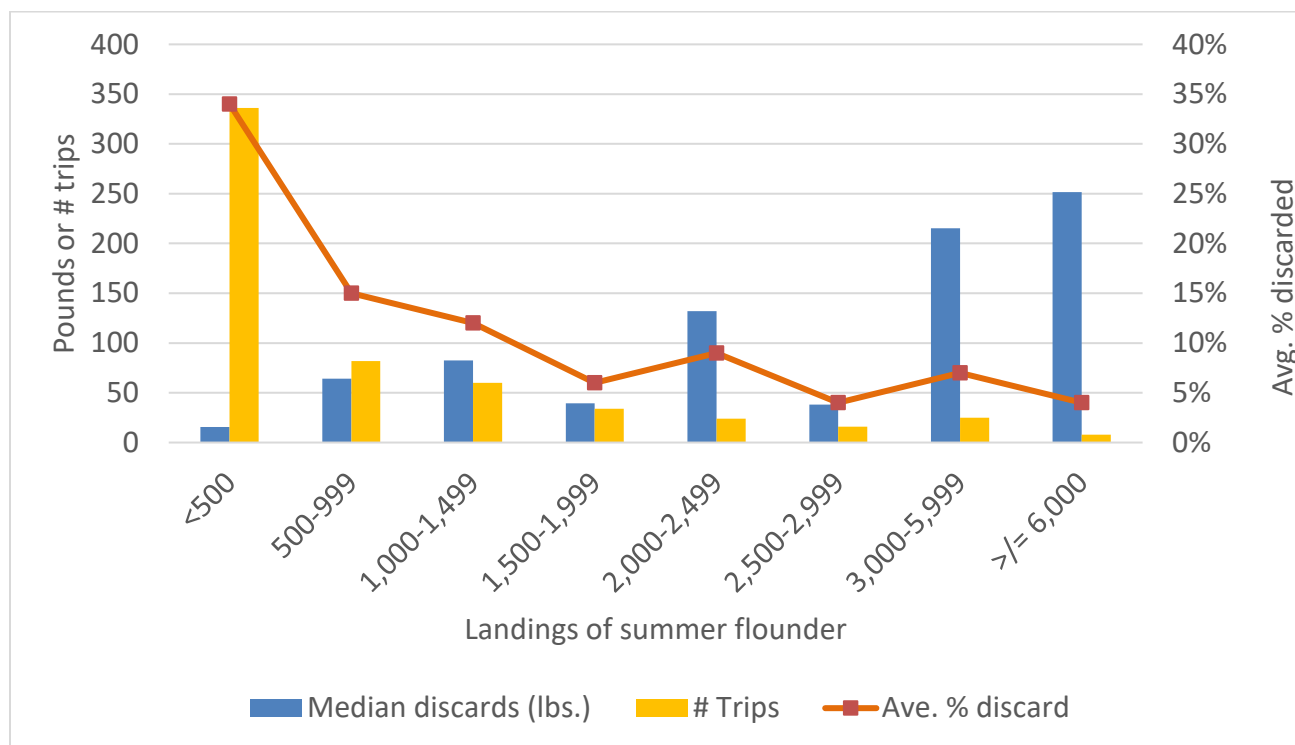


Figure 7: Summer flounder discard statistics by amount of summer flounder landed, based on observed SMEP LOA trips using small mesh (<5.5 inches), 2013-2022.

Discard Length Frequency

Length information available for observed trips was compiled for LOA vs. non-LOA trips from 2013-2022. Figure 8 shows the observed number of discarded fish by length for LOA vs. non-LOA trips, as well as the percent of observed discard lengths. LOA trips are associated with a higher proportion of observed discard lengths for smaller fish and fish below the 14-inch commercial minimum size (Figure 8; Table 9).

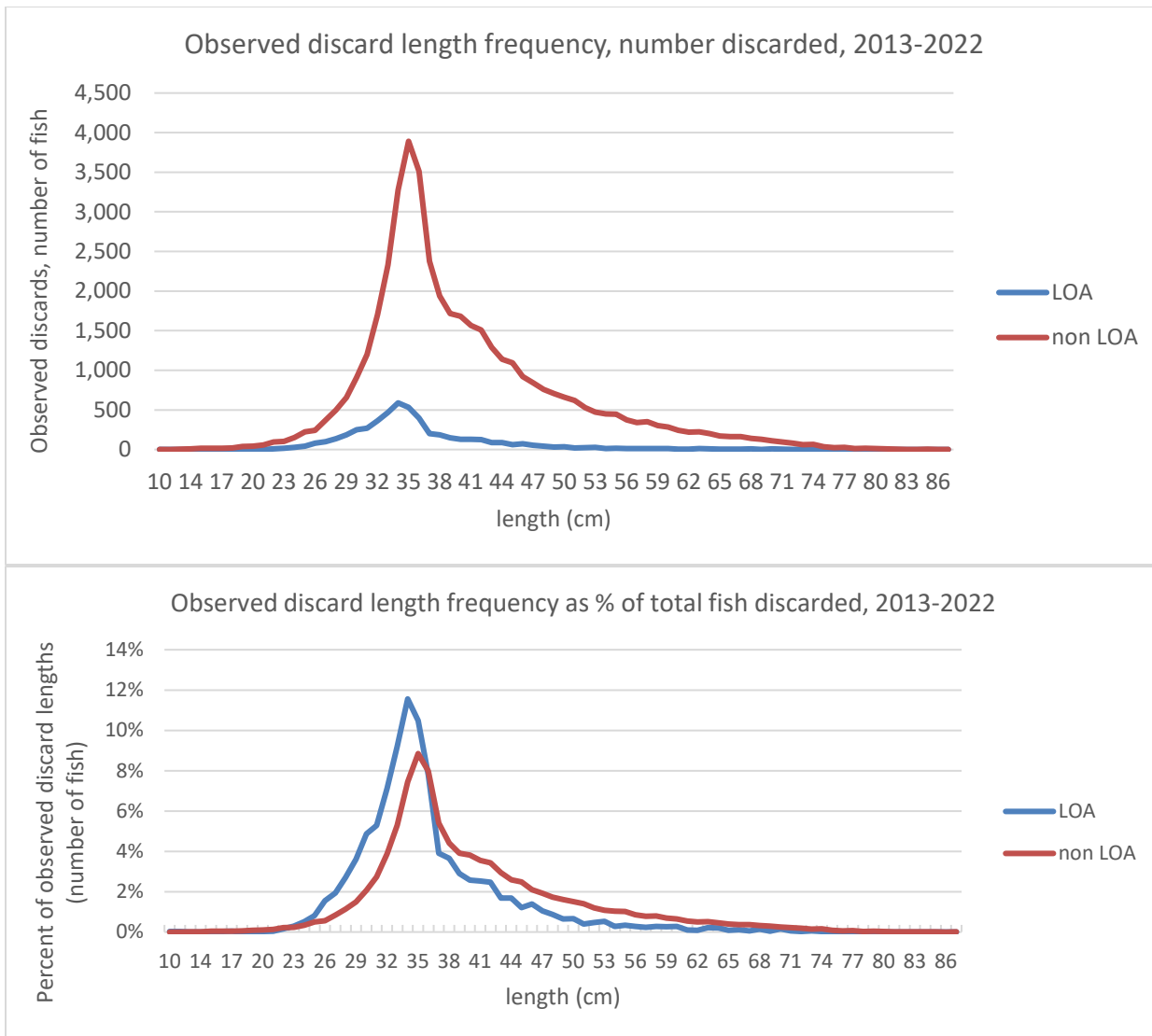


Figure 8: Observed discard length frequency for summer flounder, 2013-2022. Summer flounder minimum size = 14 inches or ~36 cm.

Table 9: Total observed discards and percent of discards below 14-inch minimum size, 2013-2022 observer data.

	LOA	Non-LOA
Total observed discards (pounds)	5,095	43,966
% of discards under minimum size	60%	36%

Analysis of Juvenile and Undersized Summer Flounder in SMEP Area Using Fishery Independent Survey Data

The availability of juvenile and undersized summer flounder in the SMEP area (current and potential proposed) was investigated using fishery independent trawl survey data. The Northeast Regional Habitat Assessment Data Explorer¹³ includes mapped length data for state and federal trawl surveys. While the spatial and temporal overlap between the surveys and the SMEP area/timing are limited, some information is available to assess the abundance of juvenile (<30 cm or 11.8 inches) and undersized (<35.6 cm or 14 inches) summer flounder in the SMEP area during November 1-April 30, and how abundance varies for the proposed expanded area.

Data was first filtered to include records from 1990 to the most recent year of trawl survey data availability within NRHA, 2019. Subsequent exploration focused on spatial coverage and temporal alignment. The NMFS bottom trawl survey is the only survey spanning both the current and proposed areas within the November-April exemption timeframe. The NEAMAP, Massachusetts Bottom Trawl, Rhode Island Narragansett Bay Trawl and Long Island Sound Bottom Trawl surveys were all considered for inclusion in these analyses as they do intersect with the current SMEP area. However, these surveys occur well inshore and are unlikely to provide informative data on summer flounder relative to this exemption program. In addition, the NEAMAP and Massachusetts Bottom Trawl survey do not occur within the November-April time frame, and the Long Island Sound Bottom Trawl and Rhode Island Narragansett Bay Trawl do not occur within the proposed expanded SMEP area (Table 10, Figure 9, Table 11).

Table 10: Survey and timing available to potentially evaluate summer flounder within SMEP area (current and proposed).

Survey	Months Surveyed
Connecticut Long Island Sound Trawl	4, 5, 6, 8, 9, 10, 11
Massachusetts Bottom Trawl	5, 9, 10
NEAMAP Bottom Trawl	5, 6, 9, 10
NMFS Bottom Trawl	1, 2, 3, 4, 5, 6, 9, 10, 11
Rhode Island Narragansett Bay Trawl	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

¹³ <https://nrha.shinyapps.io/dataexplorer/#/>

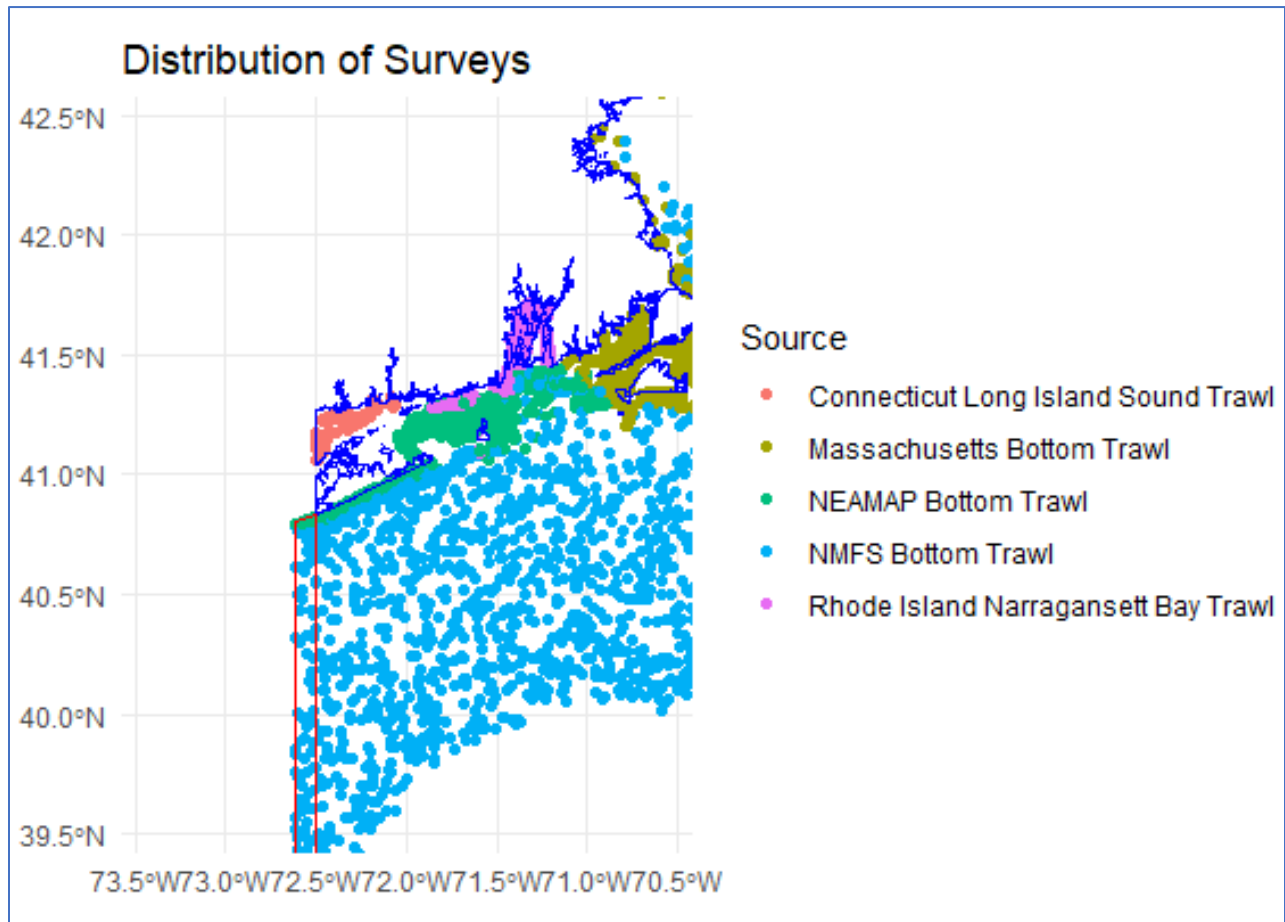


Figure 9: Distribution of surveys available to potentially evaluate summer flounder within SMEP area (current and proposed).

Table 11: Summary of the number of records from each survey in the current Small Mesh Exemption Area and the Proposed Exemption Area by date and life stage, 1990-2019. Only NMFS covers both proposed and current areas for the Nov 1-April 30th SMEP timing.

Survey	Season	Stage 30cm	Legal size 35.6cm	Small Mesh Exemption Area	Number of Records
Connecticut Long Island Sound Trawl	Nov 1 - Apr 30	Adult	legal sized	current	25
Connecticut Long Island Sound Trawl	Nov 1 - Apr 30	Adult	undersized	current	12
Connecticut Long Island Sound Trawl	Nov 1 - Apr 30	Juv	undersized	current	16
Connecticut Long Island Sound Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	current	411
Connecticut Long Island Sound Trawl	Outside Nov 1 - Apr 30	Adult	undersized	current	235
Connecticut Long Island Sound Trawl	Outside Nov 1 - Apr 30	Juv	undersized	current	161
Massachusetts Bottom Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	current	2602
Massachusetts Bottom Trawl	Outside Nov 1 - Apr 30	Adult	undersized	current	1051
Massachusetts Bottom Trawl	Outside Nov 1 - Apr 30	Juv	undersized	current	495
NEAMAP Bottom Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	current	668
NEAMAP Bottom Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	proposed	16
NEAMAP Bottom Trawl	Outside Nov 1 - Apr 30	Adult	undersized	current	404
NEAMAP Bottom Trawl	Outside Nov 1 - Apr 30	Adult	undersized	proposed	17
NEAMAP Bottom Trawl	Outside Nov 1 - Apr 30	Juv	undersized	current	248
NEAMAP Bottom Trawl	Outside Nov 1 - Apr 30	Juv	undersized	proposed	26
NMFS Bottom Trawl	Nov 1 - Apr 30	Adult	legal sized	current	1543
NMFS Bottom Trawl	Nov 1 - Apr 30	Adult	legal sized	proposed	403
NMFS Bottom Trawl	Nov 1 - Apr 30	Adult	undersized	current	561
NMFS Bottom Trawl	Nov 1 - Apr 30	Adult	undersized	proposed	125
NMFS Bottom Trawl	Nov 1 - Apr 30	Juv	undersized	current	345
NMFS Bottom Trawl	Nov 1 - Apr 30	Juv	undersized	proposed	59
NMFS Bottom Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	current	1319
NMFS Bottom Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	proposed	38
NMFS Bottom Trawl	Outside Nov 1 - Apr 30	Adult	undersized	current	251
NMFS Bottom Trawl	Outside Nov 1 - Apr 30	Adult	undersized	proposed	16
NMFS Bottom Trawl	Outside Nov 1 - Apr 30	Juv	undersized	current	94
NMFS Bottom Trawl	Outside Nov 1 - Apr 30	Juv	undersized	proposed	19
Rhode Island Narragansett Bay Trawl	Nov 1 - Apr 30	Adult	legal sized	current	129
Rhode Island Narragansett Bay Trawl	Nov 1 - Apr 30	Adult	undersized	current	54
Rhode Island Narragansett Bay Trawl	Nov 1 - Apr 30	Juv	undersized	current	87
Rhode Island Narragansett Bay Trawl	Outside Nov 1 - Apr 30	Adult	legal sized	current	2007
Rhode Island Narragansett Bay Trawl	Outside Nov 1 - Apr 30	Adult	undersized	current	788
Rhode Island Narragansett Bay Trawl	Outside Nov 1 - Apr 30	Juv	undersized	current	450

Figure 10 shows the spatial distribution of legal sized vs. undersized summer flounder from the NMFS bottom trawl survey length data, while Figure 11 shows juvenile vs. adult summer flounder.

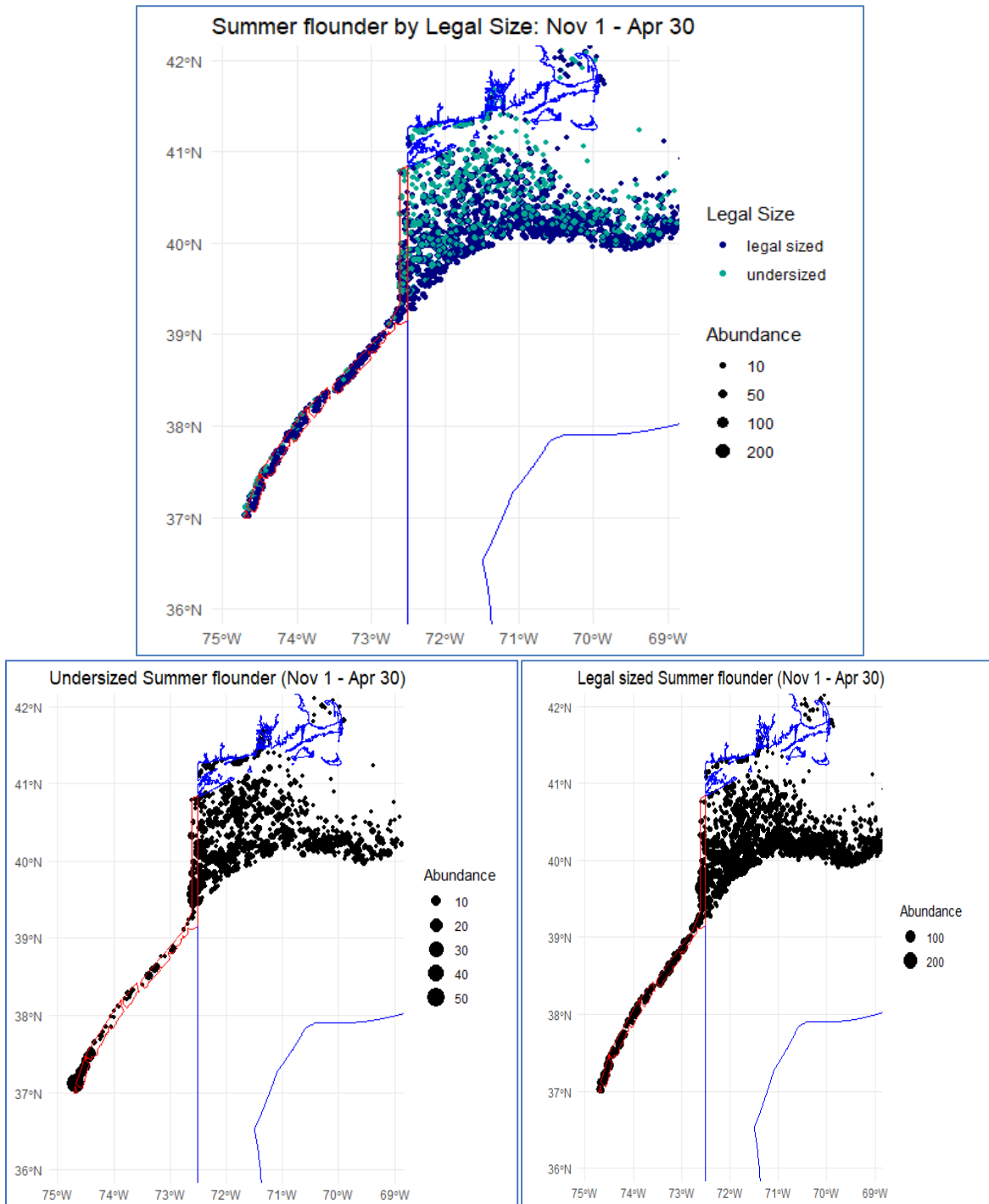


Figure 10: Spatial extent of observations of undersized vs. legal sized (above and below 14-inch commercial minimum size) for NMFS bottom trawl survey data, 1990-2019. The previous SMEP area is represented by the blue line, with the new additional area (excluding deep sea coral zones) outlined in red.

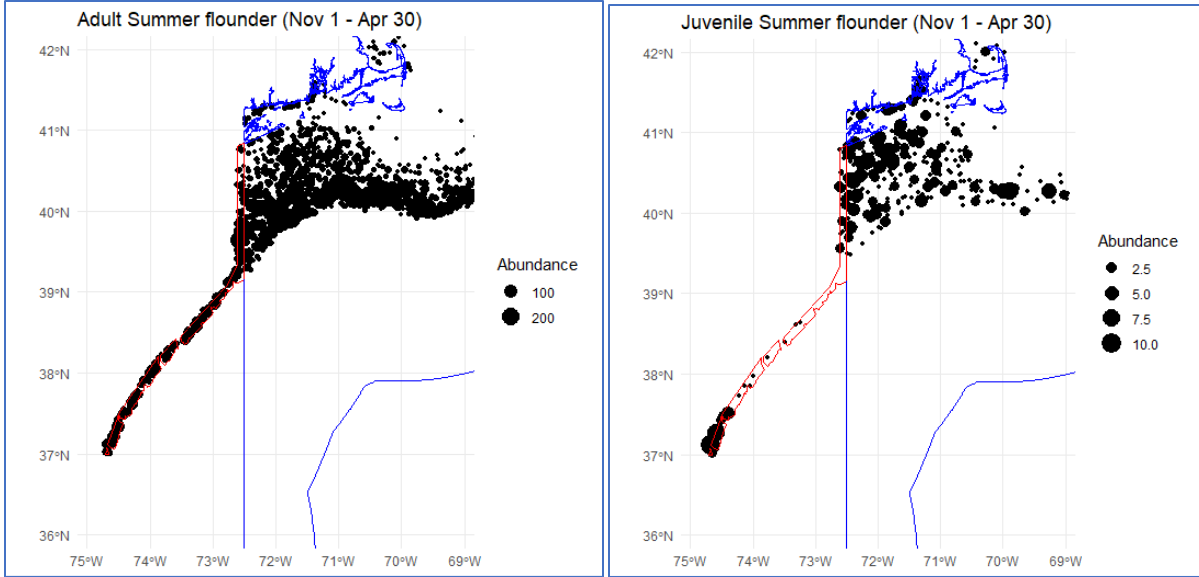
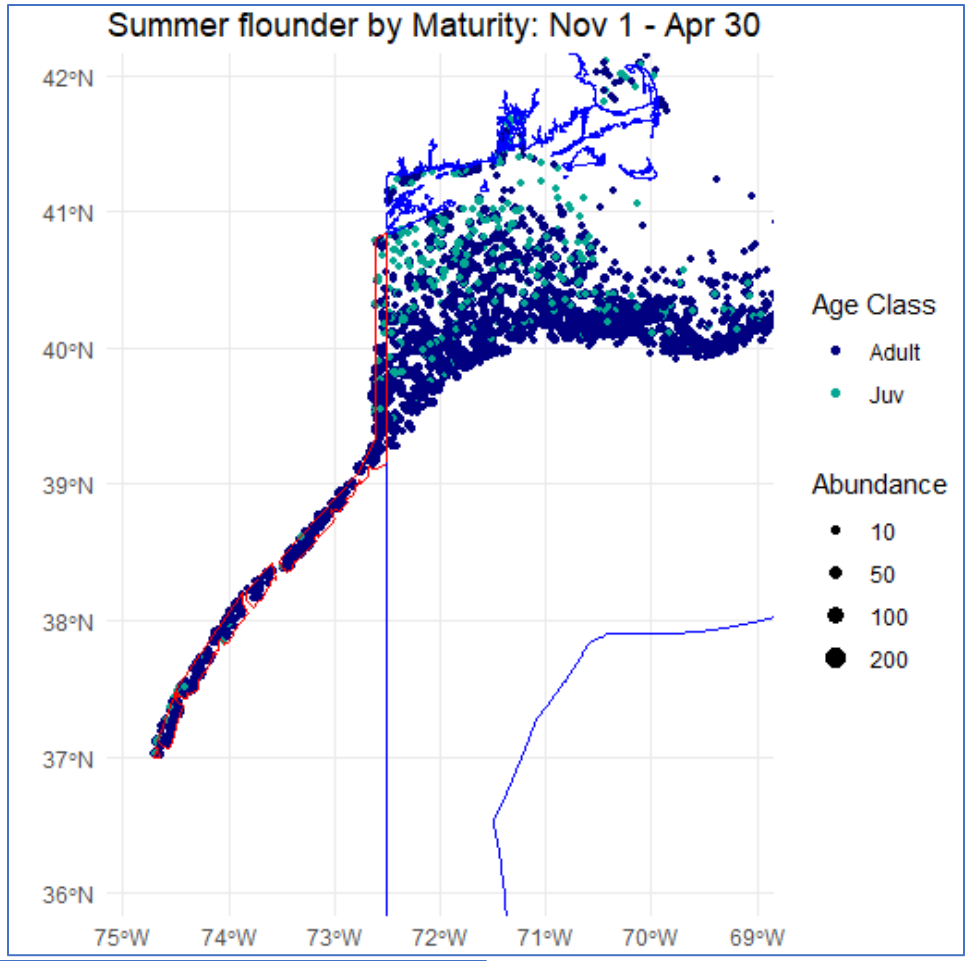


Figure 11: Spatial extent of observations of juvenile vs. mature summer flounder (above and below 30 cm) for NMFS bottom trawl survey data, 1990-2019. The previous SMEP area is represented by the blue line, with the new additional area (excluding deep sea coral zones) outlined in red.

Figure 12 shows the summer flounder distribution by length category for all NRHA surveys with summer flounder data (NMFS Bottom Trawl, Connecticut Long Island Sound Trawl, New Jersey Ocean Stock Assessment, Rhode Island Narragansett Bay Trawl, Massachusetts Bottom Trawl, NEAMAP Bottom Trawl), within and outside the current SMEP and proposed expanded area. This preliminary work used an aggregated data set beginning in 1990; future work will identify whether more recent data sets suggest alternative patterns that could impact the interpretation of the data.

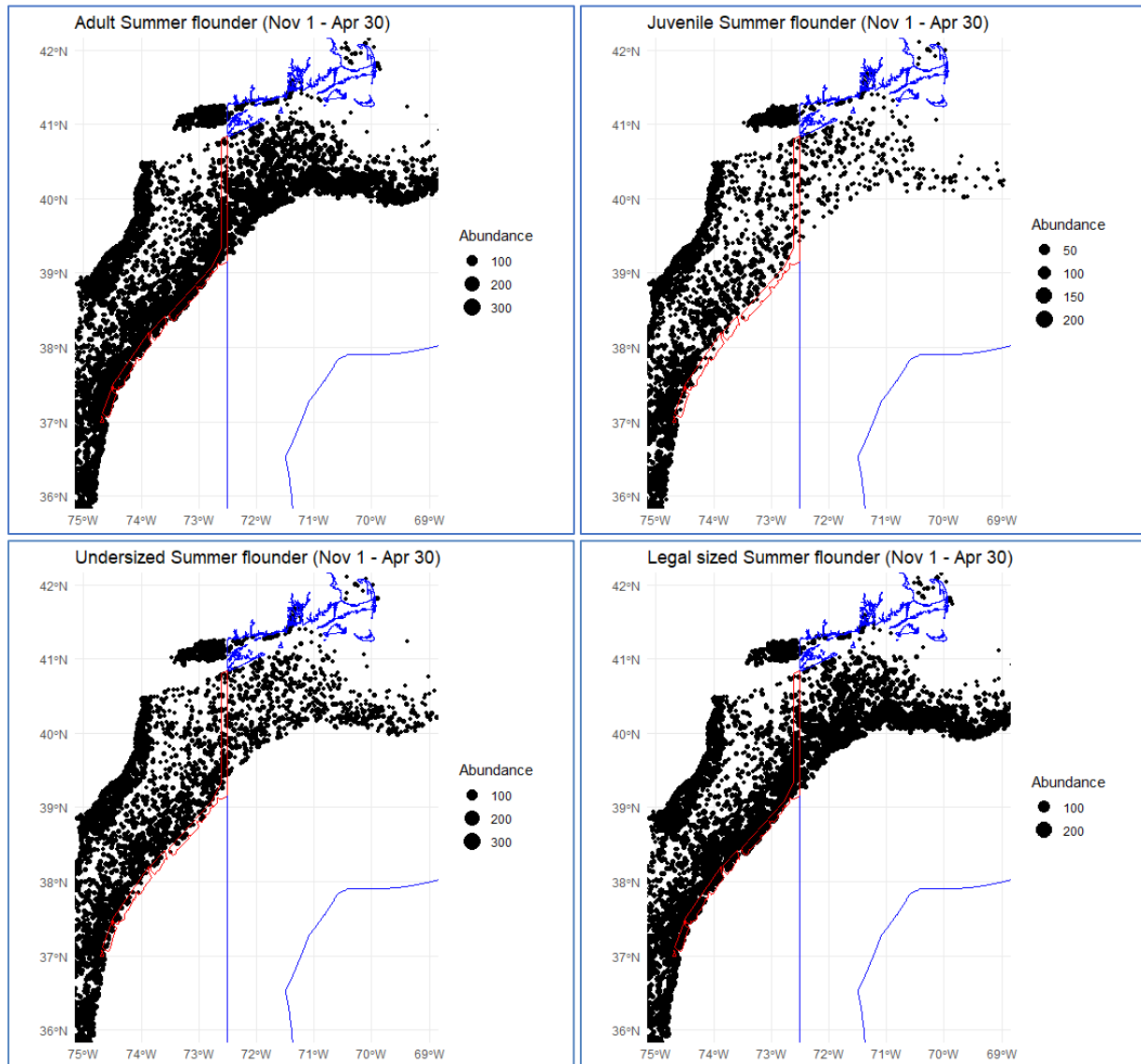


Figure 12: Summer flounder trawl survey distribution within and outside the SMEP area from November-April, 1990-2019, for all trawl surveys in NRHA with summer flounder data for this time period.

As indicated in Table 12, most summer flounder captured by the survey during this time period are legal sized adult fish. The proportions of summer flounder under the commercial minimum size (under 14 inches, including both mature and immature fish) appear to be similar between the current SMEP area (11% of summer flounder survey catch in this area) and the proposed expanded SMEP area (12%) of summer flounder survey catch in this area).

Table 12: Percentage of total summer flounder in the NMFS bottom trawl (November 1-April 30, 1990-2019) in each category outside the SMEP, within the current SMEP, and within the proposed expanded area.

Location	Legal Size	Maturity	Total Abundance	Percent of total	Percent within evaluated area
current	legal sized	Adult	13525	28.9	89%
current	undersized	Adult	1216	2.6	8%
current	undersized	Juv	448	1.0	3%
outside	legal sized	Adult	13191	28.2	47%
outside	undersized	Adult	6702	14.3	24%
outside	undersized	Juv	8403	18.0	30%
proposed	legal sized	Adult	2913	6.2	88%
proposed	undersized	Adult	310	0.7	9%
proposed	undersized	Juv	90	0.2	3%

Appendix B. Flynet Exemption Definition Analysis

Gear Definitions and Descriptions

Several otter trawl net types used in the Greater Atlantic region may be relevant to an expanded or modified definition of a flynet for the purposes of the flynet exemption. However, defining some of these net types consistently and clearly can be a challenge. Most nets are made with custom specifications, and the exact configuration often varies even among net types that may be called by the same name. Terminology for a given net type can also vary by region and fishery.

During the mesh exemptions review process in the Fall of 2023, industry representatives provided input on the types of nets that may be appropriate to consider in an expanded flynet definition. These net types are either two- or four-seam high-rise nets having large mesh in the wings with mesh sizes gradually decreasing to the codend. The large mesh in the wings allows many flatfish to escape and is not ideal for targeting summer flounder. Additional definitions related to gear configuration and net types, including definitions for trawl types not proposed for potential inclusion in this exemption can be found in the [April 2024 Discussion Document](#).

Table 13: Possible net types recommended for consideration by fishing industry comments during Fall 2023 mesh exemptions review. Definitions from: [2021 Observer Operations Manual](#).¹⁴

Net type	Description
Balloon Trawl	A two-seam trawl with a high mouth, lighter net material, and floats attached to the headrope so the footrope floats just above the bottom.
Eliminator Trawl	Typically a four-seam, three-bridle trawl with large mesh in the forward part of the net. Large meshes in the bottom belly act as a separator device for the escape of non-target groundfish species. Mesh sizes decrease as the net tapers towards the codend.
Flynet	A high profiled trawl with large wing mesh sizes that slowly taper to smaller mesh sizes in the body extension and codend. The headrope is usually slightly larger than the footrope. Uses a large number of floats to keep the net slightly off the bottom. *Regulatory definition for this exemption specifies two seams, but observer data show some reported use of four seam flynets.
Haddock Separator Trawl	A groundfish trawl with two codend extensions arranged one over the other. A codend is attached to the upper extension, and the bottom extension is left open with no codend attached. A horizontal mesh panel separates the upper and lower extensions.
Millionaire Trawl	A four-seam trawl typically used in the squid fishery. Very large openings in the mouth and large mesh in the wings.
Rope Separator Trawl	A four-seam bottom trawl net modified to include both a horizontal separator panel (consisting of parallel lines of fiber rope) and an escape opening in the bottom belly of the net below the separator panel.
Ruhle Trawl	A four-seam groundfish net with large meshes (8-foot meshes) in the wings and bottom belly of the net. The trawl must have kite panels that meet the regulated minimum surface area. The Ruhle Trawl is a specific type of Eliminator Trawl.

¹⁴ Note this suggested list originally included “pelagic pair trawl” and “pelagic single trawl” net types. It was determined these net types apply almost exclusively to midwater trawls, which operate fully off the bottom and catch negligible amounts of summer flounder. As such, these net types were removed from this list.

Preliminary conversations with gear experts¹⁵ suggest the mesh size in the wings, particularly in the middle part of the trawl behind the sweep, is the most important part to regulate for flatfish to escape. A larger mesh regulation and potentially a maximum number of meshes should be considered here, as allowing for too many large meshes may mean the mesh will close up while the gear is towed.

The number of seams on an otter trawl primarily impacts the opening shape of a net. For example, a 4-seam compared to a 2-seam net creates a higher dome-shape opening. This sort of opening is designed primarily for fish occupying or swimming up just above the bottom, and is not ideal for catching flatfish residing on the bottom. Therefore, the removal of the reference to the number of the seams in the regulatory definition of a flynet appear unlikely to directly impact the proportions of summer flounder targeted, caught, or discarded using this exemption, although it will expand the number of vessels that could theoretically use the exemption. As noted below, additional evaluation of the differences in catch characteristics between 2- and 4-seam nets is planned, but overall these net types do not appear to catch substantial amounts of summer flounder. Nets with more than 4 seams do exist (e.g., 6 seam nets), but are very uncommon for bottom trawls and are designed more for mid-water trawling.

Characterization of Flynet and High-Rise Gear Use

Observer data was used to characterize the use of flynet/high-rise type nets in comparison with other trawl net types. This data is associated with caveats and should be interpreted with caution. Observers record a “net type” field in addition to a broader gear category field, and also collect other information related to specific configuration of a trawl. Net type in the observer data is recorded based on what is reported to the observer by the captain¹⁶, and not all captains use the same terminology. In addition, net type information in the observer data is often missing or reported as “unknown.” Therefore, while observer data over a number of years can provide a general sense of the use of different gear types, it should be interpreted with caution, and industry feedback on these analyses will be helpful.

Prevalence vs. Other Trawl Types

The net types associated with potential revisions to the flynet definition () were associated with about 13% of all observed bottom trawl hauls from 2014-2022 (regardless of target species; Table 14).

¹⁵ Northeast Trawl Advisory Panel members Pingguo He and Mike Pol, pers. comm., March 2024.

¹⁶ Observers are also instructed to visually verify trawl gear components and configurations.

Table 14: Percent of hauls and observed trips by net category for all observed bottom trawl trips, 2014-2022. Includes all observed trawl trips regardless of target species or catch of summer flounder.

Net Category	Percent of Hauls	Observed trips ^a
NOT considered “flynet” or high-rise (e.g., flatfish trawl, groundfish trawl, etc.)	86.9%	8,534
Potential flynet/high-rise nets (e.g., balloon trawl, eliminator trawl, flynet, etc.)	13.1%	1,155

^a This column indicates this gear type was used at some point on a trip, not necessarily for every haul. Many vessels use multiple gear types within a single trip.

Target Species

For flynet or high-rise type gears identified for possible inclusion in a revised flynet definition, the top target species according to observer data are listed in Table 15. For all of these gear types combined, the largest proportion of hauls were targeting haddock or longfin squid. A good proportion of hauls also targeted scup, short-fin squid, black sea bass, and groundfish. Summer flounder was identified as the primary target species on about 3.7% of observed flynet/high-rise type gear hauls from 2007-2022.

For all of these species, flynet or high-rise gear types are only a portion of the net types used to target them, ranging from 1-62% of hauls vs. other trawl gear types (Figure 13).

For confidentiality reasons, target species cannot be broken down for all individual net types. The FMAT/PDT is working to summarize some information in aggregated form; however, additional time is needed to ensure confidentiality. However, of the different industry recommended flynet/high-rise net types, only balloon trawls and flynets appear to have a meaningful percent of hauls targeting summer flounder, about 6-7% of their total hauls. Other industry recommended flynet/high-rise net types appear to very rarely report targeting summer flounder within a haul.

Table 15: Top target species recorded on observed trawl hauls for all flynet-type net types identified for possible inclusion in an expanded flynet definition, 2007-2022.^a Species shown represent those target species collectively accounting for 90% of observed hauls.

Target Species ^b	Percent of observed hauls	Observed trips
Haddock	20.1%	274
Squid, Atl Long-Fin	19.1%	383
Scup	9.9%	392
Squid, Short-Fin	8.7%	176
Sea Bass, Black	8.0%	283
Groundfish, NK	7.2%	114
Croaker, Atlantic	4.2%	122
Flounder, Summer (Fluke)	3.7%	237
Cod, Atlantic	3.1%	112
Flounder, Winter (Blackback)	2.3%	51
Herring, Atlantic	2.2%	89
Pollock	1.5%	59

^a Gear types include flynets, balloon trawls, eliminator trawls, haddock separator trawls, millionaire trawls, rope separator trawls, and Ruhle trawls.

^b Observer records can include up to five target species per haul; for simplicity, only the first target species listed is included in this analysis.

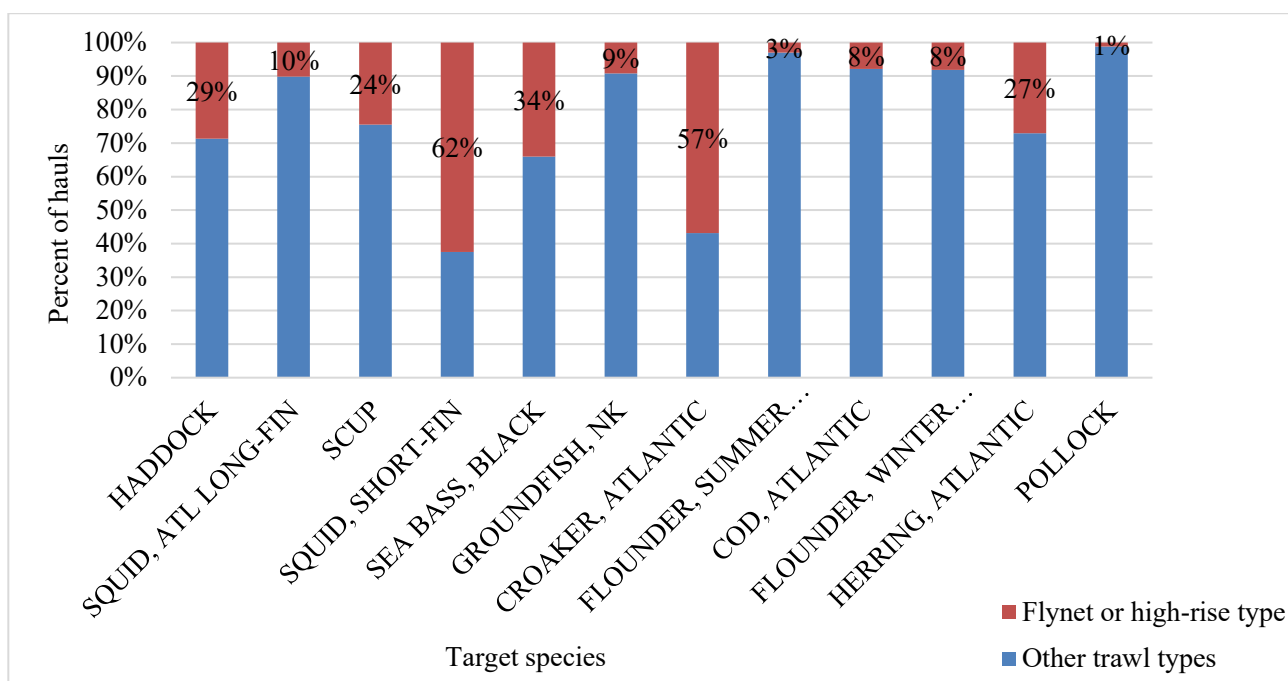


Figure 13: For top target species of flynet and high-rise type gear, percent of total observed trawl hauls represented by flynet-type gear vs. Other trawl types, from 2007-2022 observer data.

Caught Species

According to observer data from 2007-2022, the top species caught and landed with these trawl gear types are short-fin squid and Atlantic herring, followed by longfin squid, haddock, and scup (Table 15). The top discarded species by weight are spiny dogfish and winter skate, followed by unknown fish and little skate (Table 16).

Summer flounder represents 0.7% of the total observed catch by weight in these gear types, including 0.6% of observed landings and 0.9% of observed discards. Average total catch of summer flounder in these gear types is about 455 pounds per trip, with discards averaging about 100 pounds per trip.

Table 16: Top caught and landed species recorded on observed trawl hauls for all flynet-type net types identified for possible inclusion in an expanded flynet definition, 2007-2022.^a Species shown represent those caught species collectively accounting for 90% of observed catch.

Species	Percent of total flynet/high-rise gear <u>catch</u> by weight	Percent of total flynet/high-rise gear <u>landings</u> by weight	Percent of total flynet gear trips with catch
Squid, Short-Fin	35.7%	41.6%	32.3%
Herring, Atlantic	11.0%	13.0%	20.36%
Squid, Atl Long-Fin	8.7%	10.1%	63.07%
Haddock	6.9%	7.7%	26.4%
Scup	5.2%	5.2%	48.6%
Butterfish	4.0%	3.8%	53.3%
Dogfish, Spiny	3.2%	0.1%	64.8%
Croaker, Atlantic	2.8%	3.2%	7.85%
Mackerel, Atlantic	2.4%	2.8%	26.09%
Skate, Winter (Big)	2.3%	0.6%	47.5%
Fish, Nk	1.6%	0.4%	19.4%
Sea Bass, Black	1.6%	1.5%	48.94%

^a Gear types include flynets, balloon trawls, eliminator trawls, haddock separator trawls, pelagic pair trawls, pelagic single trawls, millionaire trawls, rope separator trawls, and Ruhle trawls.

Table 17: Top discarded species recorded on observed trawl hauls for all flynet-type net types identified for possible inclusion in an expanded flynet definition, 2007-2022.^a Species shown represent the top 10 discarded species, collectively totaling 69% of observed discarded weight in these gear types.

Species	Percent of total flynet/high-rise gear discards by weight	Observed trips
Dogfish, Spiny	20.0%	1,242
Skate, Winter (Big)	11.3%	790
Fish, Nk	7.7%	364
Skate, Little	7.2%	1,014
Butterfish	5.0%	867
Scup	4.9%	866
Squid, Short-Fin	4.3%	503
Haddock	3.1%	400
Skate, Nk	2.6%	197
Sea Robin, Northern	2.5%	806

^a Gear types include flynets, balloon trawls, eliminator trawls, haddock separator trawls, pelagic pair trawls, pelagic single trawls, millionaire trawls, rope separator trawls, and Ruhle trawls.

Flynet Exemption Evaluation Methodology

As noted in section 3.3.3, the PDT/FMAT recommends the regulations be clarified to reflect the language in the FMP (summer flounder catch in the flynet fishery should not exceed 1 percent of the total flynet catch). Observer data for 2013-2022 of the flynet/high-rise net types that may be captured under a revised definition appear to indicate this threshold remains appropriate (Table 18).

Table 18: Proportion of summer flounder catch compared to total catch and number of trips, for all observed trawl trips 2013-2022, using flynet-type net types identified for possible inclusion in an expanded flynet definition. Gear types include flynets, balloon, eliminator, haddock separator, pelagic pair, millionaire, rope separator, and Ruhle trawls.

Year	Proportion of SF catch compared to total catch	Distinct # of trips catching SF
2013	0.66%	79
2014	0.38%	93
2015	0.52%	93
2016	0.53%	65
2017	0.29%	143
2018	0.56%	126
2019	0.78%	94
2020	0.85%	31
2021	0.42%	31
2022	1.02%	55
Average	0.75%	78