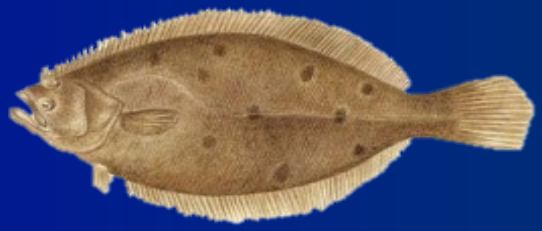
MID-ATLANTIC
FISHERY MANAGEMENT COUNCIL

Summer Flounder Mesh Exemptions Framework/Addendum Meeting 1



Council and Board

April 10, 2024

Atlantic City, NJ

Action Background

- **Fall 2023:** Review of summer flounder mesh regulations and exemptions to determine whether changes are necessary
- Comments suggested modifications to:
  1. Small Mesh Exemption Program (SMEP) area boundary
  2. Gear definition for flynet exemption
- Joint framework action/addendum initiated to address these issues

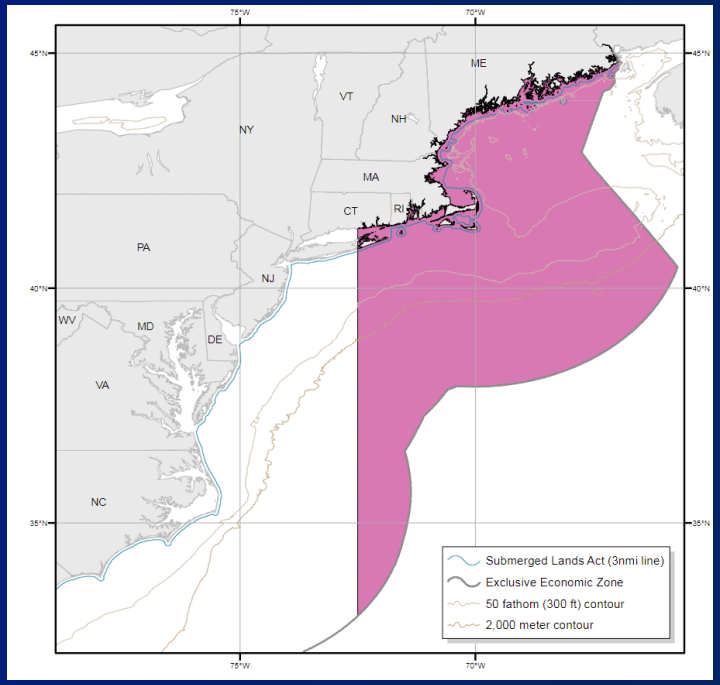
Action Timeline (Revised March 2024)

Dec 2023	• Council initiates framework action
Feb 2024	• Board initiates addendum
Jan-Mar 2024	• FMAT/PDT formed; first meetings • Draft alternatives/preliminary analysis developed
Apr 2024	• Public input meeting - feedback on draft alternatives • **Framework/addendum meeting 1:** adopt range of alternatives
Apr/May 2024	• Continued analysis; develop draft public hearing document
Spring 2024 (timing TBD)	• Board approves document for public comment
Jun/Jul 2024	• Public comment period (30 days min. for Commission addendum); optional public hearings • Advisory Panel meeting(s) and/or other public input meeting(s)
Aug 2024	• **Framework/addendum meeting 2:** final action
Fall 2024/ Winter 2025	• Finalize documents; review processes; federal rulemaking
TBD	• Effective date of implemented changes

Today's Objectives

- Review draft range of alternatives developed by Fishery Management Action Team/Plan Development Team (FMAT/PDT)
- Review preliminary public input from April 2 webinar
- Adopt range of alternatives (with modifications as needed) for additional analysis and inclusion in a public hearing document

ALTERNATIVE SET 1: SMALL MESH EXEMPTION PROGRAM (SMEP) AREA BOUNDARIES



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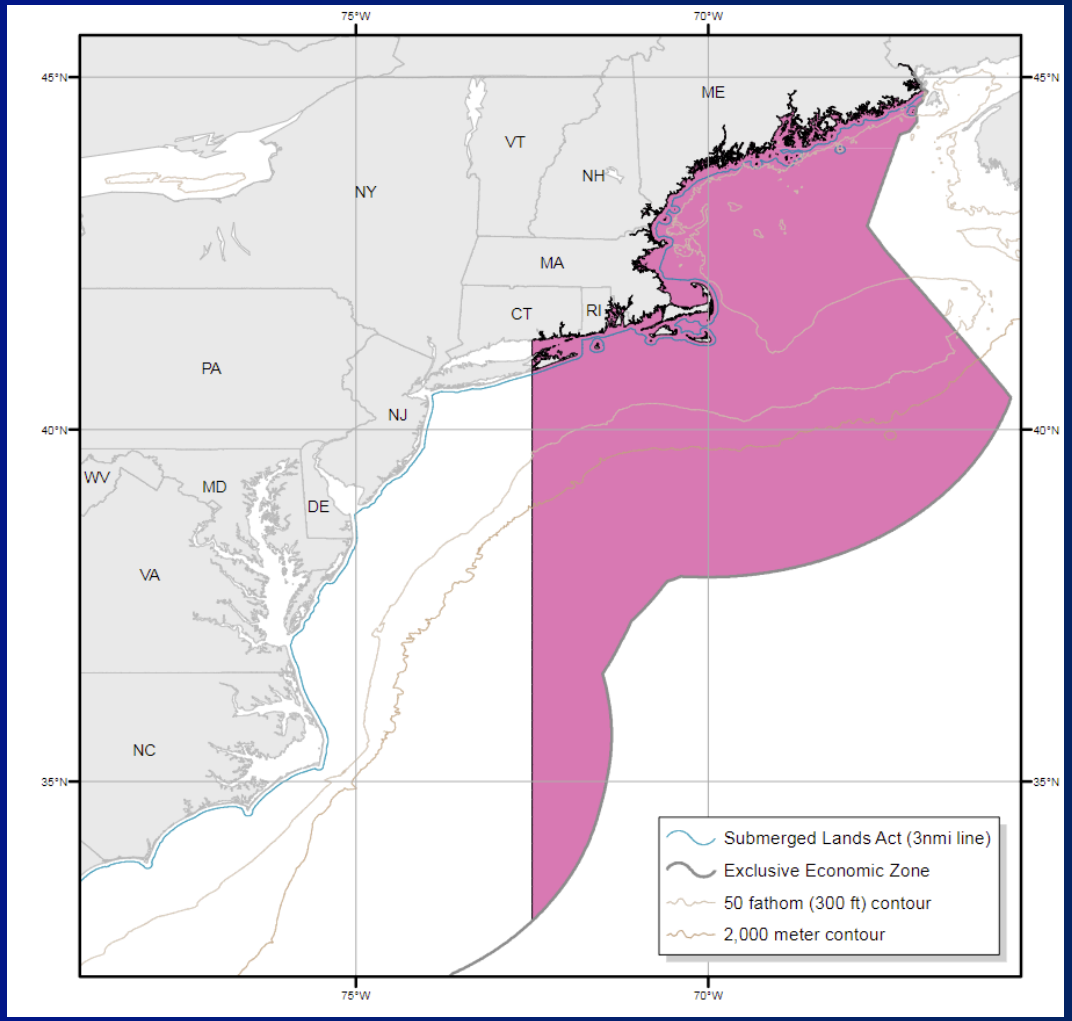
Small Mesh Exemption

- Vessels fishing **east of longitude 72° 30.0'W** November 1 - 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.
- Developed under Am2 and modified Am3 (1993) to reduce regulatory discards of summer flounder in other smaller mesh fisheries



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SMEP Administrative Requirements

- Requires a Letter of Authorization and participation for at least 7 days
- Vessels cannot fish west of the line while participating in this program
- GARFO may rescind if vessels fishing under this program are discarding more than 10% of their summer flounder catch

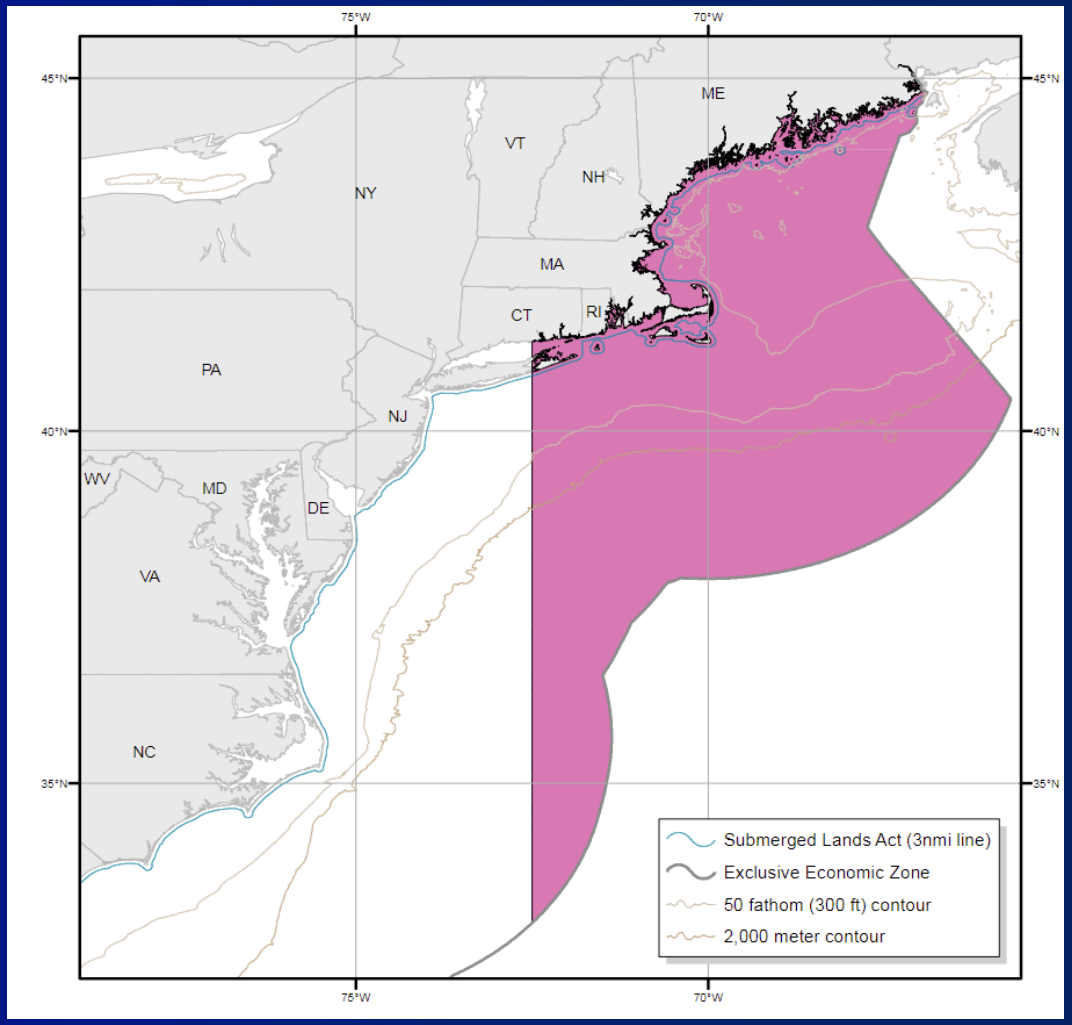
Action Purpose/Need 1: SMEP

- **Purpose:**
  - Consider modifications to westward boundary of Small Mesh Exemption Program (SMEP) area
- **Need for action:**
  - Addresses industry proposal raised during Fall 2023 exemption review process to increase access/economic benefits of retaining summer flounder; without expected negative impacts to summer flounder stock

Draft Alternatives: SMEP Area

Alternative 1A: No Action/Status Quo

- Maintain western boundary at **longitude 72° 30.0'W**



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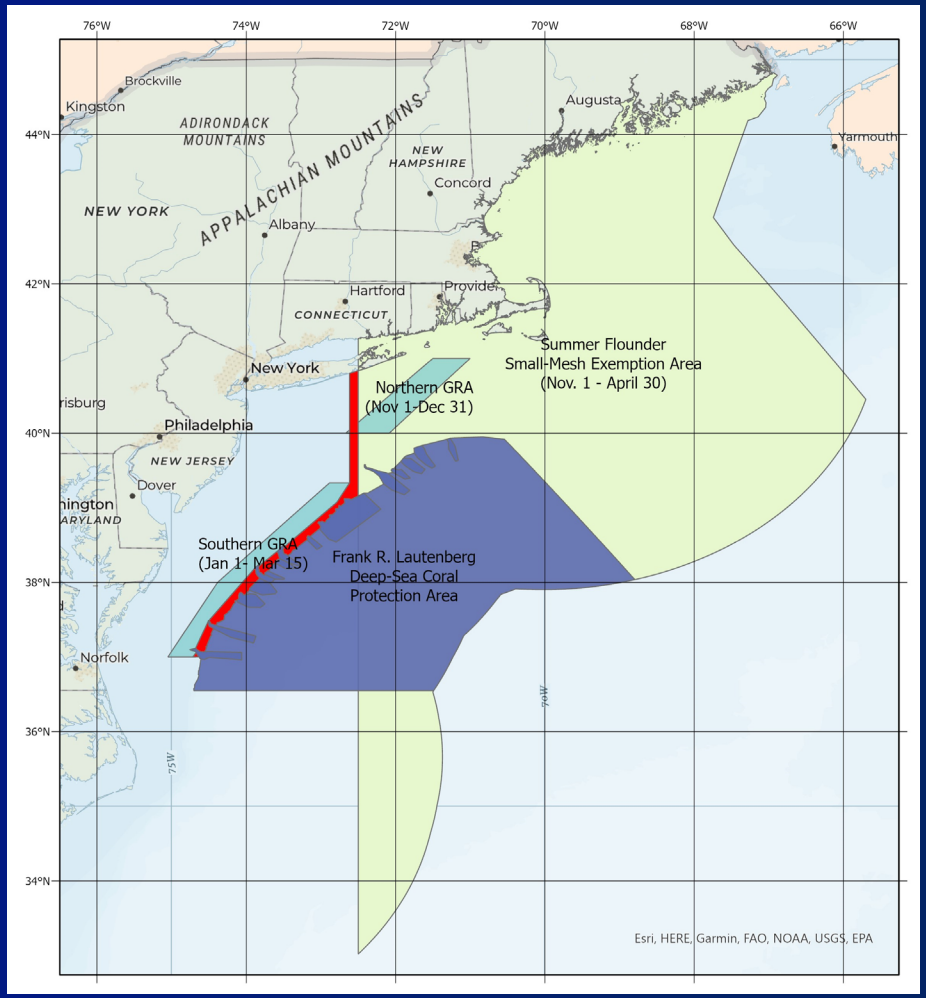
Draft Alternatives: SMEP Area

Alternative 1B: Industry proposed revisions

- Extend boundary westward ~5 miles, then connects to southern scup GRA and deep-sea coral zone boundaries
- Additional area (excluding coral zones) = 4,943 km² or 1,901 mi²
  - All bottom tending gear is prohibited in deep sea coral area



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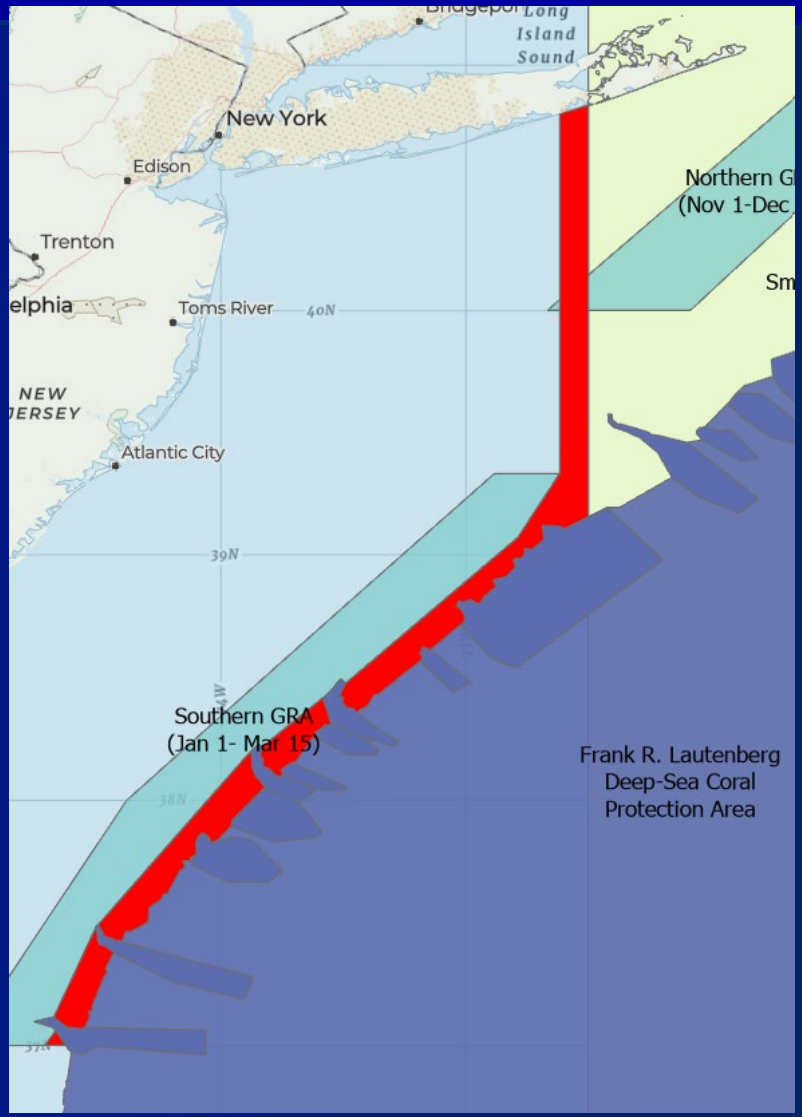

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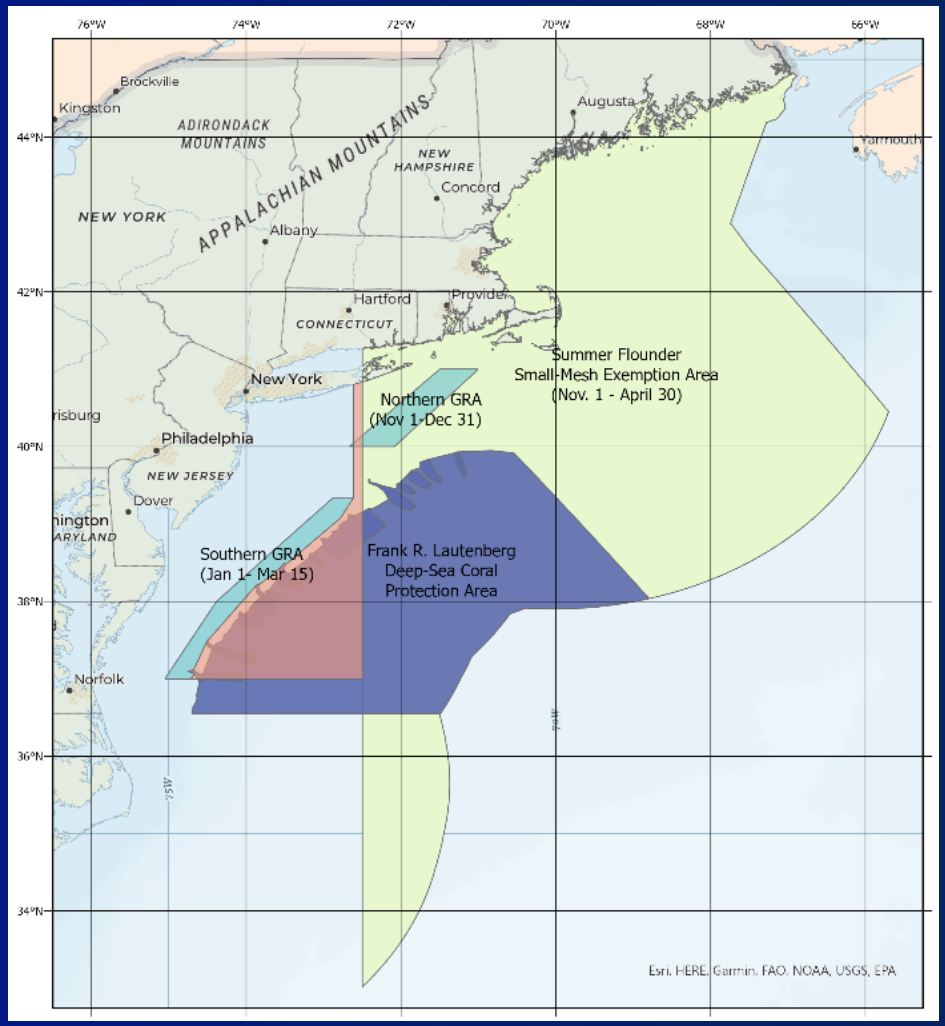
Draft Alternatives: SMEP Area

Alternative 1C: Simplified revisions

- Simplified extension of SMEP area to eastern boundary of southern scup GRA
- Appears to notably increase SMEP area; however, effective change same as alt. 1B



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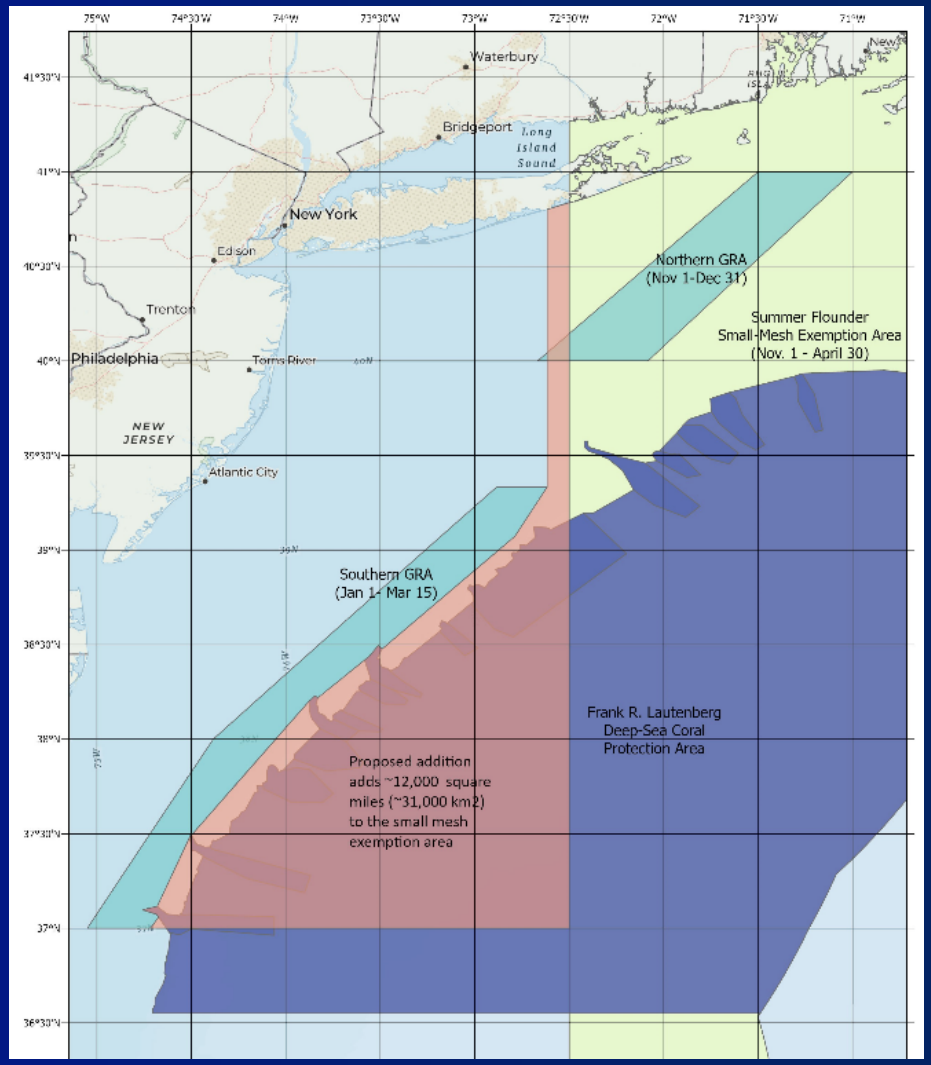

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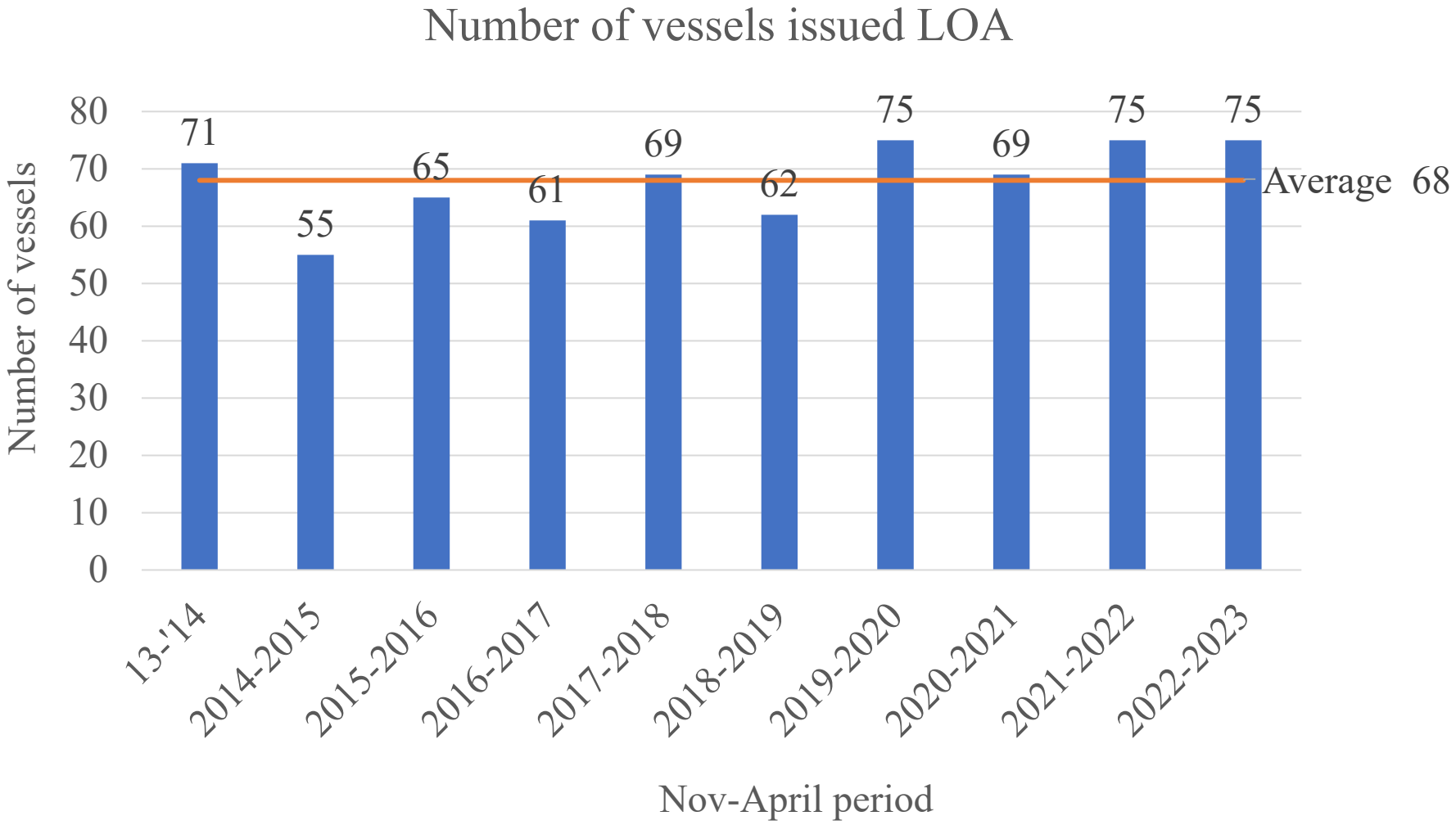
Preliminary Stakeholder Input

- Question about whether there was consideration of modifying to allow scallop vessels to retain summer flounder on scallop trips
- 2 spoke in favor of modifying SMEP boundary, both preferring simplified boundary of alt. 1C
  - One suggested removing 1B from consideration given over-complication of boundary

Preliminary Stakeholder Input

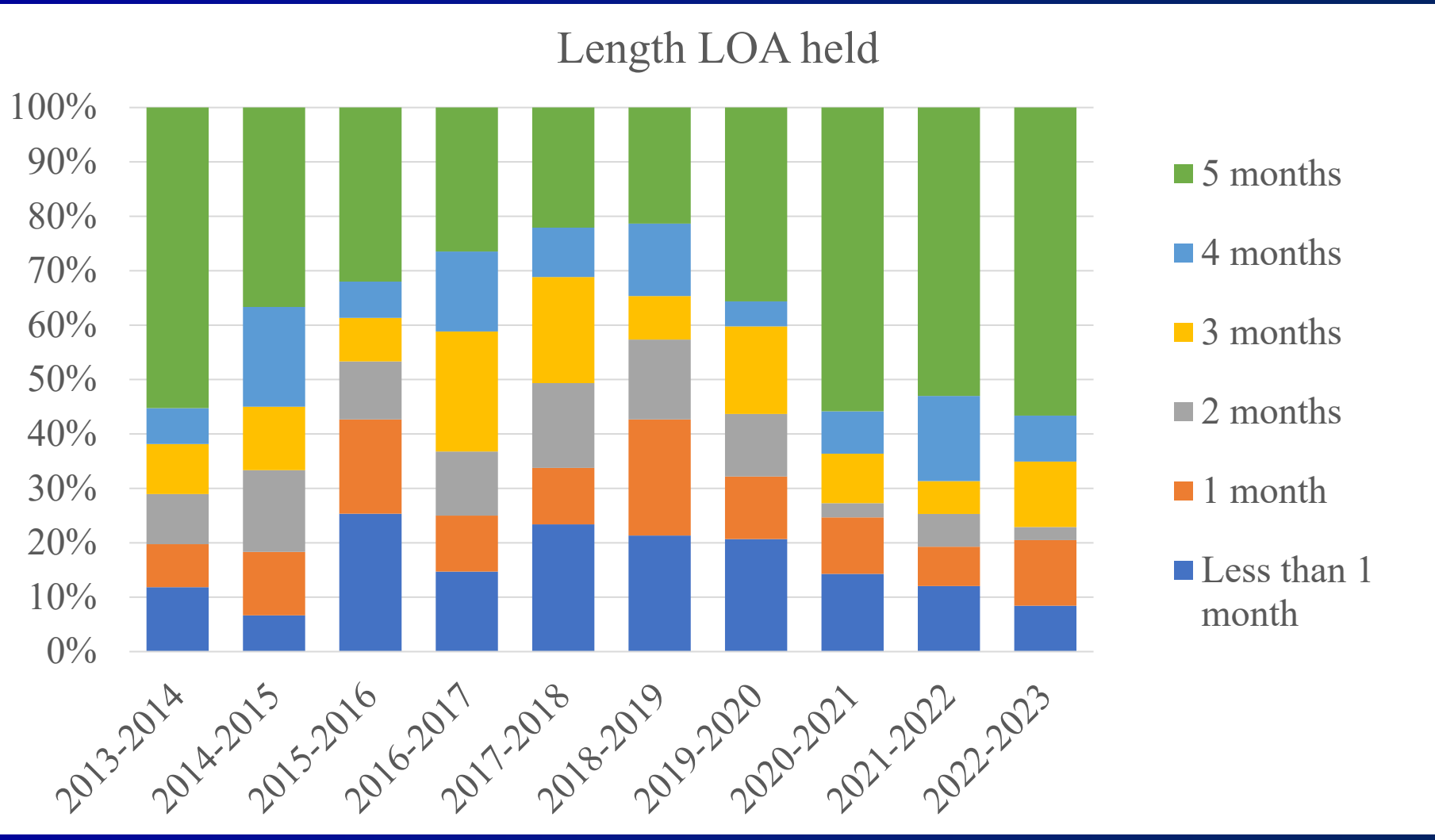
- Suggestion to keep regulations simple and consider allowing small mesh vessels to keep specified percentage of summer flounder as a proportion of total catch, in a defined area
  - As replacement for both exemption programs

SMEP Participation: # Vessels



SMEP Participation: Length LOA held

November-April, 2013-2023



SMEP Use

Observer data linked to active LOAs, Nov. 2013-April 2022

- Bottom trawl gear with mix of mesh sizes
  - ~57% of observed hauls use mesh smaller than summer flounder 5.5-in minimum (i.e., are potentially actively using exemption)
- Top reported target species with mesh <5.5 in:
  - Longfin squid (41% of observed hauls)
  - Summer flounder (25%)
  - Scup (15%)
  - Whiting (8%)
  - Atlantic herring (5%)

SMEP Summer Flounder Catch & Discards

Observer data linked to active LOAs, Nov. 2013-April 2022

- 67% of hauls using mesh <5.5" caught summer flounder (82% of trips)
- Landings per trip exceed 200 lb on average; without exemption, small mesh vessels could not retain excess
- Per trip discards in weight low on average

a) All observed LOA trips with summer flounder catch		
	Fluke Landings	**Fluke Discards**
Mean per trip	863	113
Median per trip	300	15
b) Observed LOA trips using mesh <5.5"		
	Fluke Landings	**Fluke Discards**
Mean per trip	746	165
Median per trip	301	23

- *Values in pounds*
- *Part (b) revised from Table 6 in discussion document to reflect small mesh size category vs. summer flounder targeting*

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SMEP Summer Flounder Catch & Discards

Observer data linked to active LOAs, Nov. 2013-April 2022

- Magnitude of observed discards low for most trips
  - 83% of small mesh trips had discards under 200 lb
- But, as proportion of total summer flounder catch, on avg. exceeds 10% threshold for RA to rescind exemption
  - 50% of small mesh trips discarding more than 10% of summer flounder catch

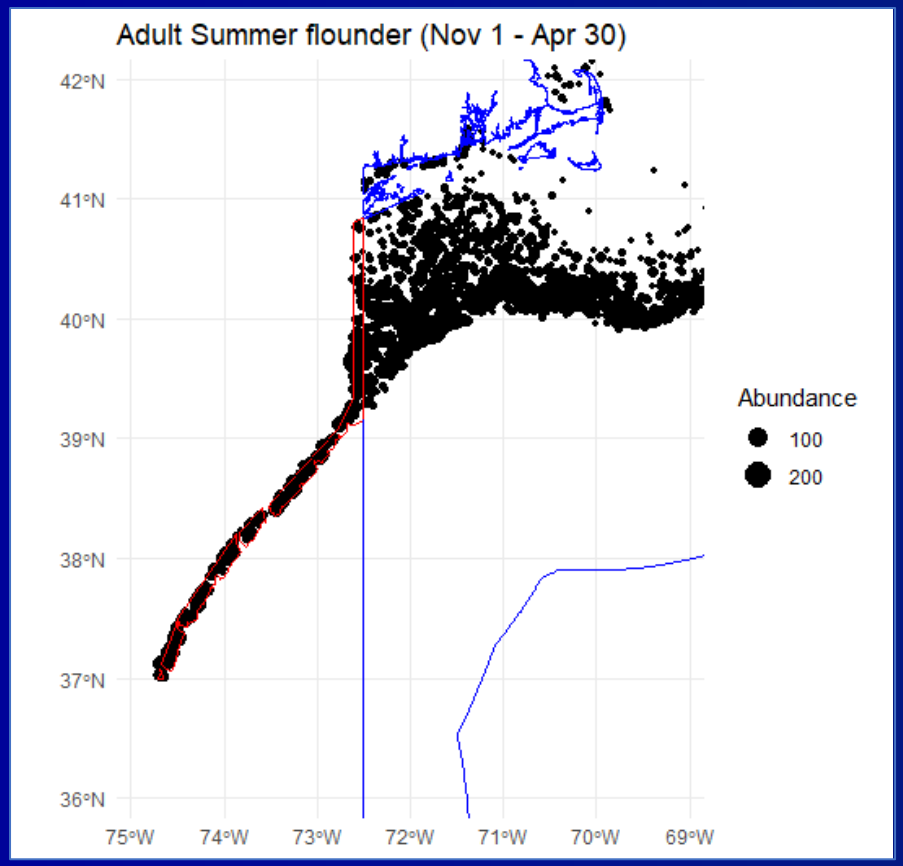
	a) All SMEP trips	b) Small mesh trips (<5.5")	c) Large mesh trips (≥5.5")
Total observed trips	1,073	514	571
Avg % flk discarded per trip	19%	24%	14%
Total % flk discarded across all trips	12%	18%	6%
% of trips discarding more than 10% of flk catch	39%	50%	29%

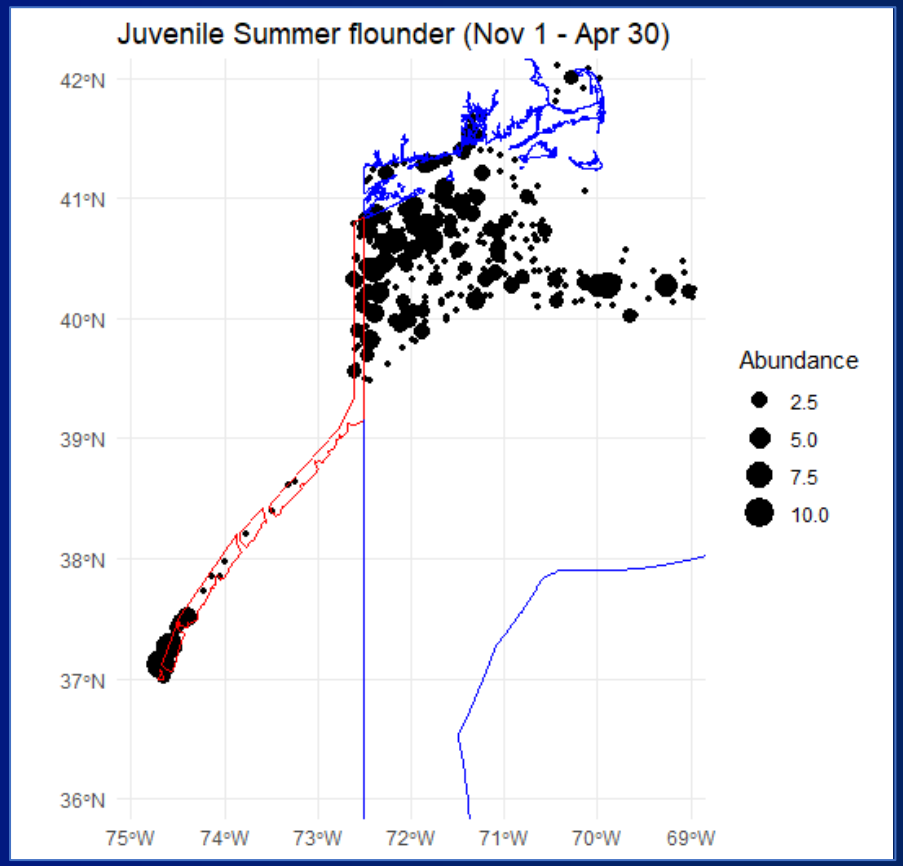
Presence of Juvenile/Undersized Summer Flounder in Area

- Exploration of fishery independent survey data
- Only NMFS spring bottom trawl survey has appropriate time + area coverage
  - Time coverage only partial (~March/April)
- Trawl survey size data from Northeast Regional Habitat Assessment for 1990-2019
  - Availability of undersized summer flounder (<14 in) similar between current SMEP area (~11% of summer flounder survey catch) and proposed expanded area (~12%)

Juvenile vs. mature summer flounder (SMEP current/proposed areas only)

NRHA data for NMFS spring bottom trawl, 1990-2019





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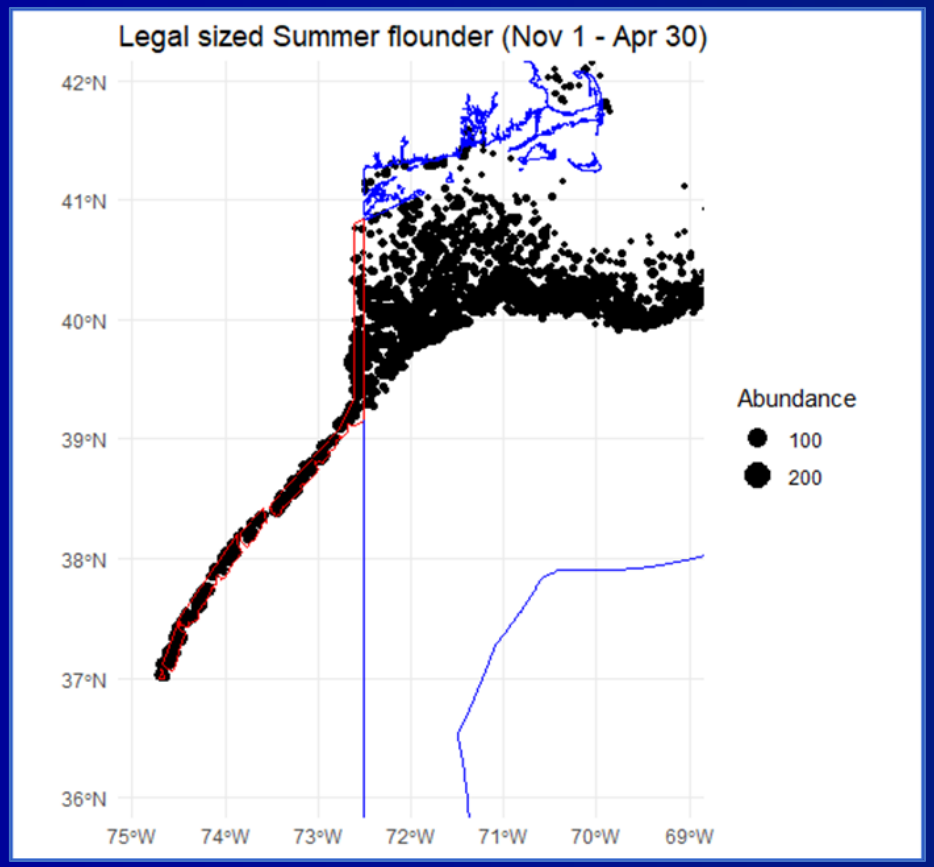
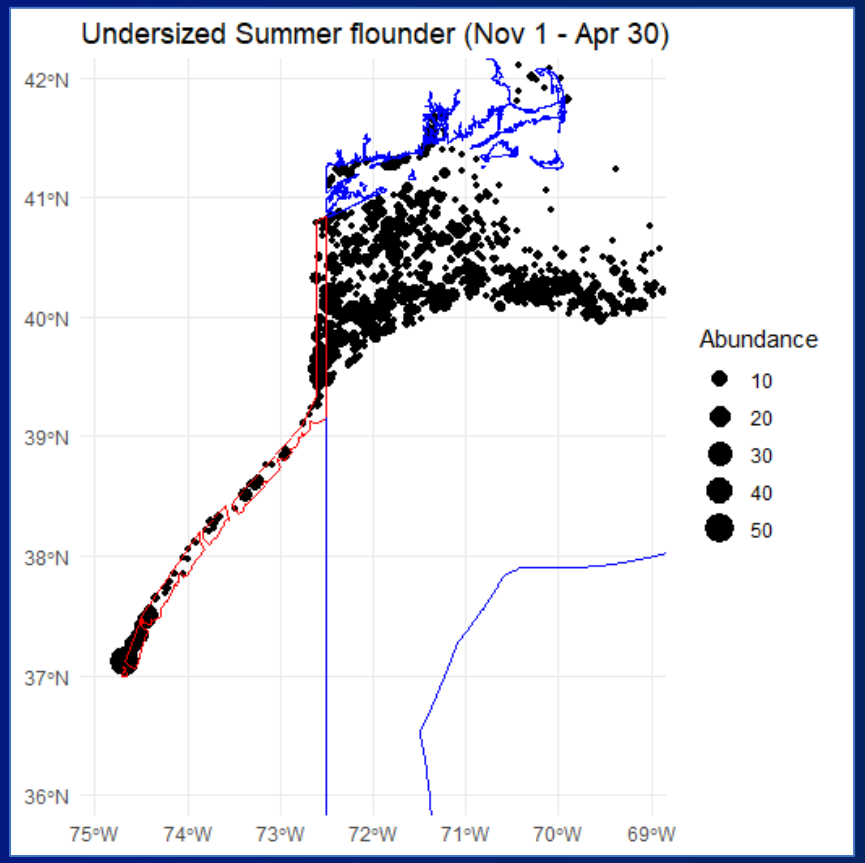
Legal vs. undersized summer flounder (SMEP current/proposed areas only)

NRHA data for NMFS spring bottom trawl, 1990-2019





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Preliminary Law Enforcement Feedback

- Haven't seen many issues with abuse of exemption/violations
- Due to LOA requirement, exemption is enforceable on the water; have also found VMS to be helpful
- Noted simpler boundaries are easier to enforce
  - Given current partial overlap with the deep-sea coral area, had minimal concern with additional overlap

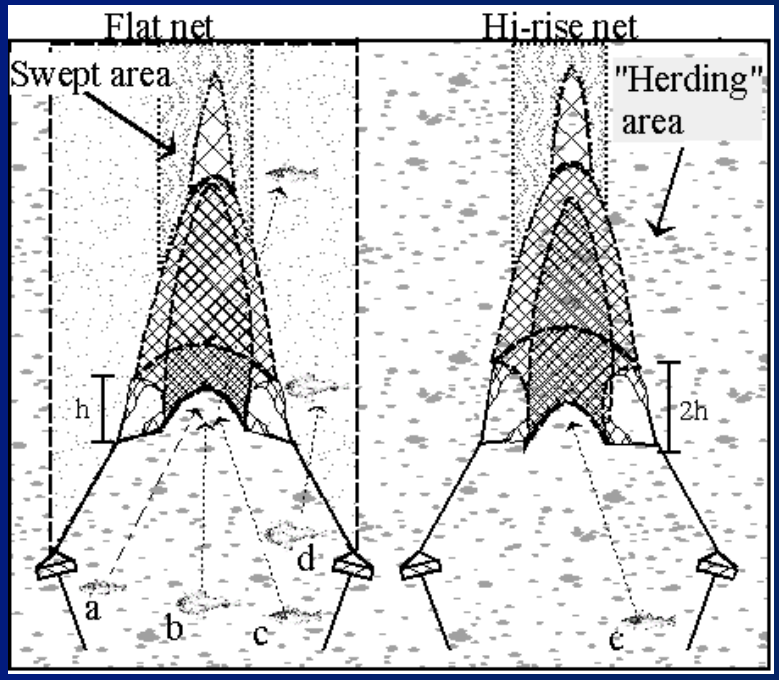
Other Issues to be Addressed

- Clarify requirement that vessels cannot fish west of line while in possession of LOA
  - No fishing west of the line at all while enrolled in the program (vs. some interpreting as no fishing west of the line during a single SMEP trip)
- Requirement to hold LOA for 7 days – confirming that this or similar timeframe is still needed
- Consider reg. language about how Monitoring Committee can recommend changes
  - 30 min increments of lat/lon, and 2 week intervals

Other Issues to be Addressed

- Discrepancy between language in FMP and language in regulations for determining point of rescinding the exemption
  - Vessels fishing seaward of the line vs. vessels fishing under the exemption
- Determine best methods for Monitoring Committee evaluation of this exemption going forward
  - Linking observer data to known LOAs is improvement over previous method

ALTERNATIVE SET 2: FLYNET EXEMPTION GEAR DEFINITION



Rountree et al. 2004

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Flynet Exemption – History

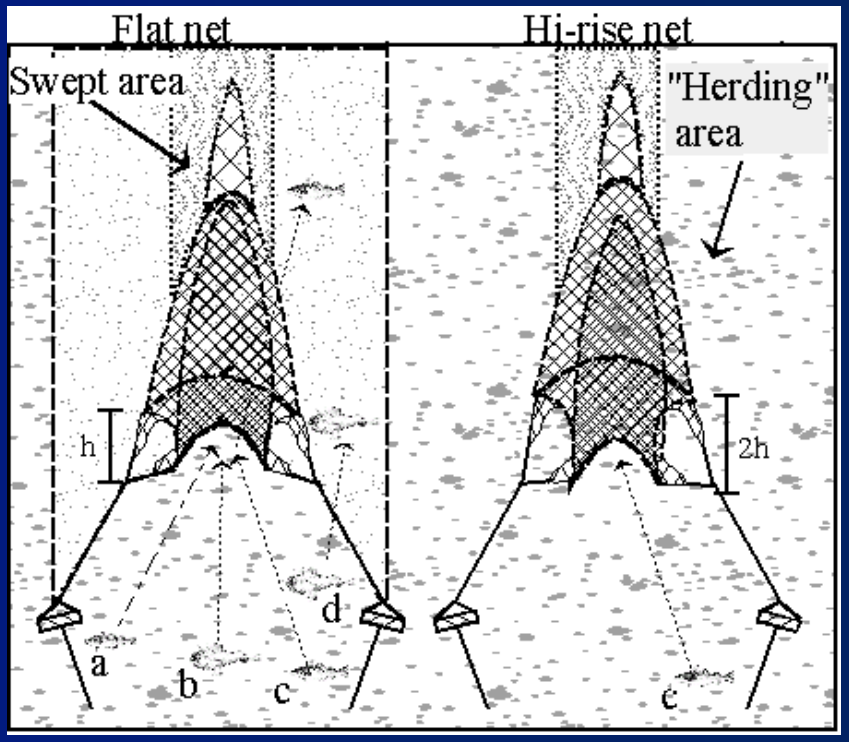
- Implemented in 1993 (Amendment 2)
- Vessels fishing with a two-seam otter trawl flynet (specifically defined) are exempt from the summer flounder minimum mesh size requirements
- Designed to accommodate specific fishery mostly off NC, primarily targeting bluefish and sciaenids
- Low summer flounder catch in this fishery
  - NMFS Regional Administrator may withdraw the exemption if summer flounder catch in the flynet fishery exceeds 1% of the total flynet catch

Action Purpose/Need 2: Flynet Exemption

- **Purpose:** consider revisions to regulatory definition of a flynet to apply to other, similar high-rise net types
- **Need for action:**
  - NC flynet fishery landings have declined substantially; little to no summer flounder landed in recent years
  - Flynet exemption being used with "high-rise" nets (some not meeting flynet regulatory definition) throughout Greater Atlantic region
  - Support for modernizing definition based on changes in gear use over time, recognizing that these net types catch little summer flounder

Flynet/High-Rise Net General Characteristics

- Large mesh in wings (some very large), gradually decreasing throughout body of net to small mesh in codend
- High rise = high profile (taller) net opening
- Can be 2-seam (upper/lower panels joined together) or 4-seam (four panels: upper, lower, & two side panels)



Rountree, Rodney & Kessler, Ross & Strout, Glenn & Martins, David & Jones, Darin & Bub, Frank. (2004). The School for Marine Science and Technology. The High-Resolution Industry-Based Trawl Survey: Methods and Working Data.

Potential Flynet/High-Rise Gear Types

Net type	Description
Balloon Trawl	Two-seam trawl w/ 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.7 The Ruhle Trawl is a specific type of Eliminator Trawl.

Draft Alternatives: Flynet Exemption

Alternative 2A: No Action/Status Quo

1. A two-seam otter trawl with the following configuration:
   a) The net has large mesh in the wings that measures 8" to 64"
   b) The first body (belly) section of the net has 35 or more meshes that are at least 8"
   c) The mesh decreases in size throughout the body of the net to 2 inches (5 cm) or smaller towards the terminus of the net

Draft Alternatives: Flynet Exemption

Alternative 2B: Modified flynet definition

- Modify flynet definition to remove
  - 1) the reference to two seams; and
  - 2) the reference to the upper range of the mesh size in the wings of 64”

- Vessels fishing with an ~~two-seam~~ otter trawl flynet are exempt from the summer flounder minimum mesh size requirements. The regulatory definition of a flynet is an ~~two-seam~~ otter trawl with the following configuration:
  - The net has large mesh in the wings that measures 8" ~~to 64"~~ or greater.
  - The first body (belly) section of the net has 35 or more meshes that are at least 8".
  - The mesh decreases in size throughout the body of the net to 2 inches (5 cm) or smaller towards the terminus of the net.

Draft Alternatives: Flynet Exemption

Alternative 2C: Rewrite definition with additional input

- Modify to describe flynet and high-rise nets with large mesh in the wings, with additional specific configuration details to be informed by industry feedback and public comment
  - If 2B does not adequately describe these net types, additional input needed to more precisely define
  - Aim for simplicity and enforceability while avoid potential expansion to net types that may catch more summer flounder

Preliminary Stakeholder Input

- Observer data on net type should be interpreted with extreme caution given net type is reported by captain and terminology varies
- Has law enforcement been consulted re: different net names/types and ability to distinguish and enforce?
  - Leave regulatory definition alone – too late; damage is done

Preliminary Stakeholder Input

- 2 comments in support of definition change, but with 2B revised to modify or remove reference to "35 or more meshes" of 8 in. or more
  - For some nets with very large (e.g., 8-10 foot) mesh in the wings, this is clearly not practical
  - Definition could be revised to capture a length of the large mesh belly section regardless of number of meshes (e.g., at least 280 in., equivalent to 8" x 35 mesh)

Top target & caught species in these net types
(Observer data, 2007-2022)

These flynet/high-rise net types comprise ~13% of all observed bottom trawl effort (2014-2022)

Top target species		Top caught species	
	% of observed hauls		% catch
Haddock	20.1%	Illex squid	35.4%
Longfin squid	19.1%	Atlantic herring	11.1%
Scup	9.9%	Longfin squid	8.7%
Illex squid	8.7%	Haddock	7.0%
Black sea bass	8.0%	Scup	5.2%
Groundfish, unk	7.2%	Butterfish	4.0%
Atlantic croaker	4.2%	Spiny dogfish	3.3%

Flynet/High-Rise Use: Summer Flounder Catch

- Most of these net types do not appear to target summer flounder in a meaningful way
  - Balloon trawls and flynets are highest at about 6-7% of total observed hauls reporting targeting summer flounder (2007-2022)
- Summer flounder is ~0.7% of observed catch (0.6% of landings and 0.9% of discards) for all flynet/high-rise net types
- Average total catch of summer flounder per trip = 455 lb; discards avg ~100 lb

Preliminary Law Enforcement Feedback

- Current regulation is challenging to enforce at sea due to need to measure/evaluate multiple parts of net
- Looking into if there are easy, identifiable net characteristics or other ways that could help with on-the-water enforceability

Other Issues to be Addressed

- Review methodology discrepancy:
  - FMP stipulates that NMFS may withdraw the exemption if the annual average summer flounder catch in the flynet fishery *exceeds 1% of the total flynet catch*
  - Regulations: vessels discarding more than *1% of their entire catch of summer flounder* per trip

Next Steps

- Revise alternatives as needed, continued analysis and development of draft public hearing document
- Schedule meeting for review of hearing document
  - Board only decision but joint meeting recommended to review updated alternatives/analysis
- Schedule public comment period and hearing(s)
- Final action tentatively August 2024 joint meeting

BACKUP

Exemption Use: Target Species

Observer data linked to active LOAs, Nov. 2013-April 2022

- Variation in target species by mesh size category

Large Mesh (≥5.5 inch)	Percent of Large Mesh Hauls	Small Mesh (<5.5 inch)	Percent of Small Mesh Hauls
Summer Flounder	38.2%	Longfin Squid	41.3%
Yellowtail Flounder	12.0%	Summer Flounder	25.2%
Groundfish, NK	10.6%	Scup	14.9%
Skate, NK	9.2%	Silver Hake (Whiting)	7.7%
Flounder, NK	5.5%	Atlantic Herring	5.0%
Little Skate	5.5%	Black Sea Bass	1.7%

SMEP Hauls Targeting Summer Flounder

Observer data linked to active LOAs, Nov. 2013-April 2022

- For all active LOAs, about half of observed hauls targeting summer flounder used small mesh

Mesh Size Category	% of hauls	Permits	Trips
Large (≥5.5 inch)	49%	70	246
Small (<5.5 in)	47%	68	225
Unknown	4%	11	12
Grand Total	100%	92	467

<5.5 inch mesh = hauls that would need exemption

SMEP Summer Flounder Catch & Discards

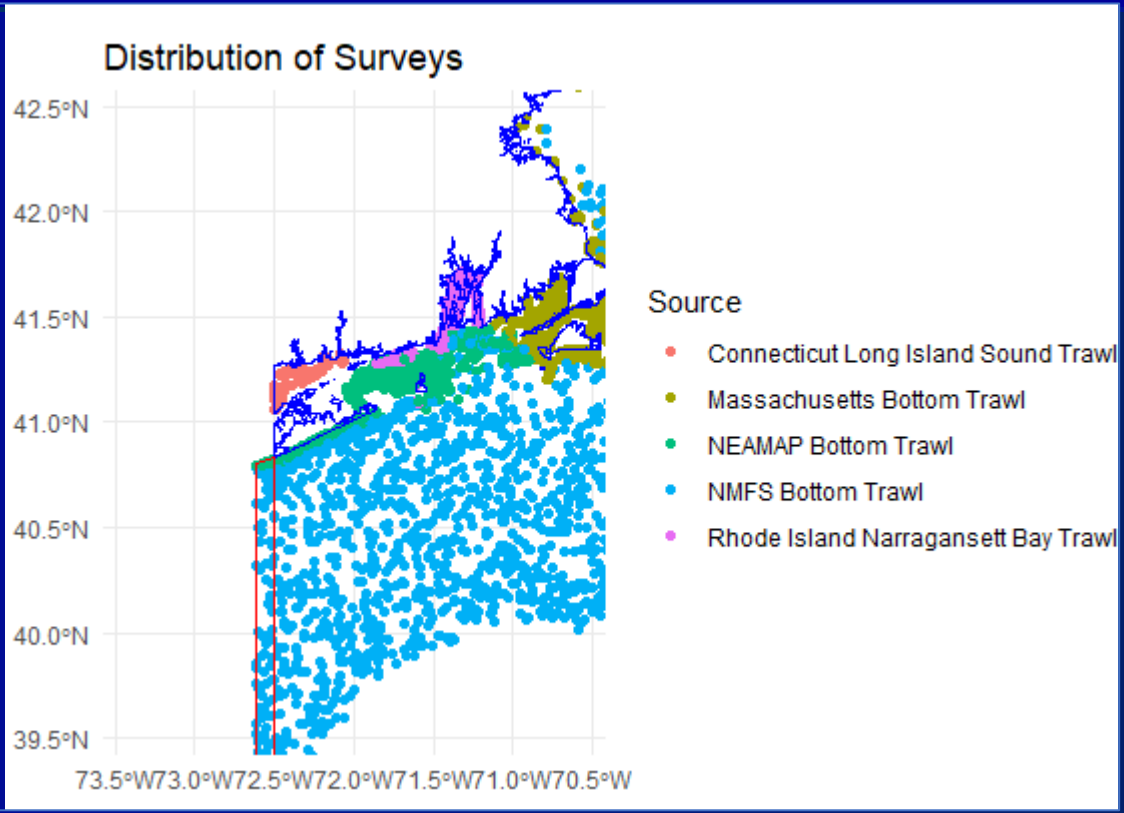
Observer data linked to active LOAs, Nov. 2013-April 2022

- 67% of hauls using mesh <5.5" caught summer flounder (82% of trips)

	Trips	Hauls	Permits
All observed SMEP LOA <5.5 in	624	3,879	92
Caught fluke	514	2,606	89
Targeted fluke	225	977	68
Targeted & caught fluke	223	931	68

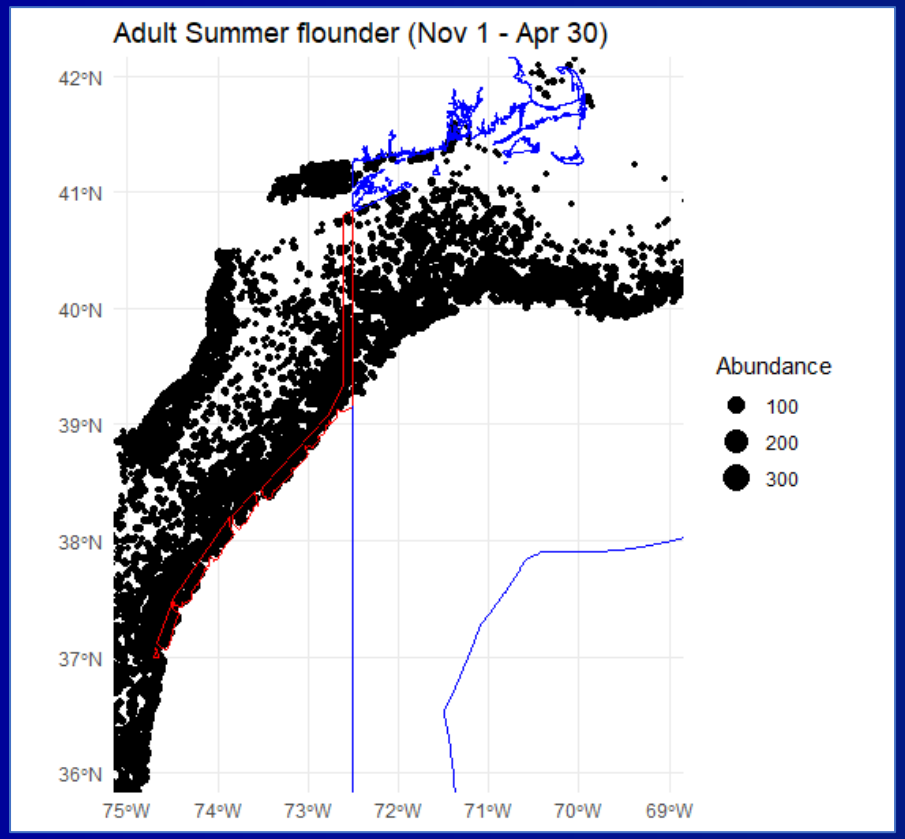
Revised from Table 5 in discussion document to reflect only vessels using mesh <5.5"

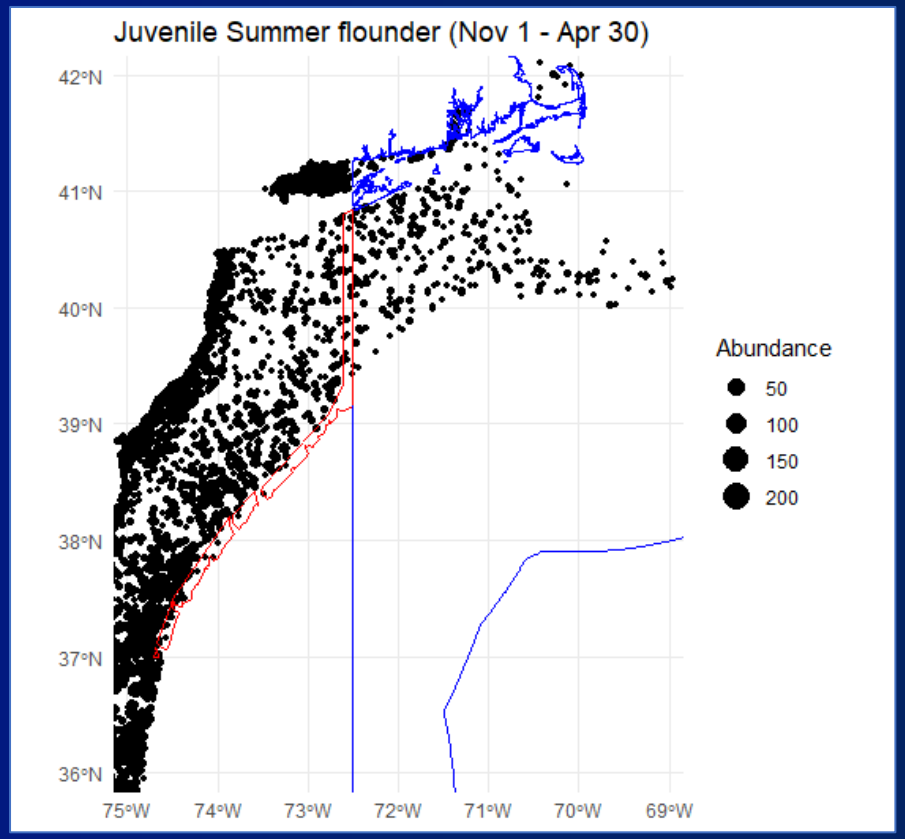
Trawl Surveys Considered for SMEP Analysis



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

Summer flounder distribution, adult vs. juvenile, all surveys, Nov-April





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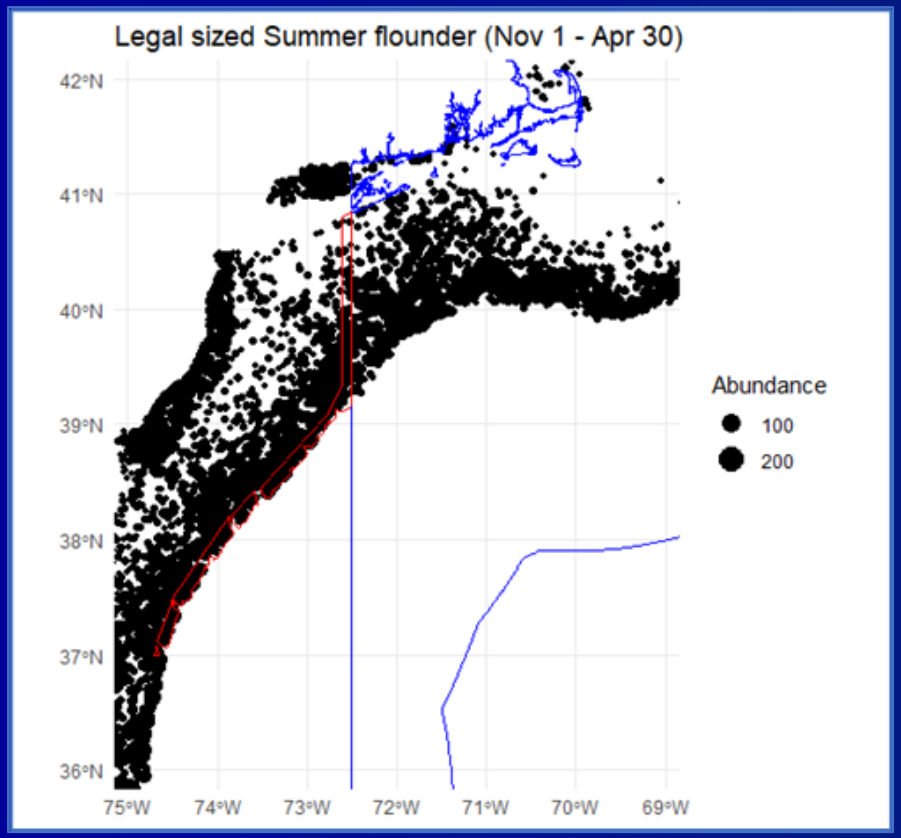
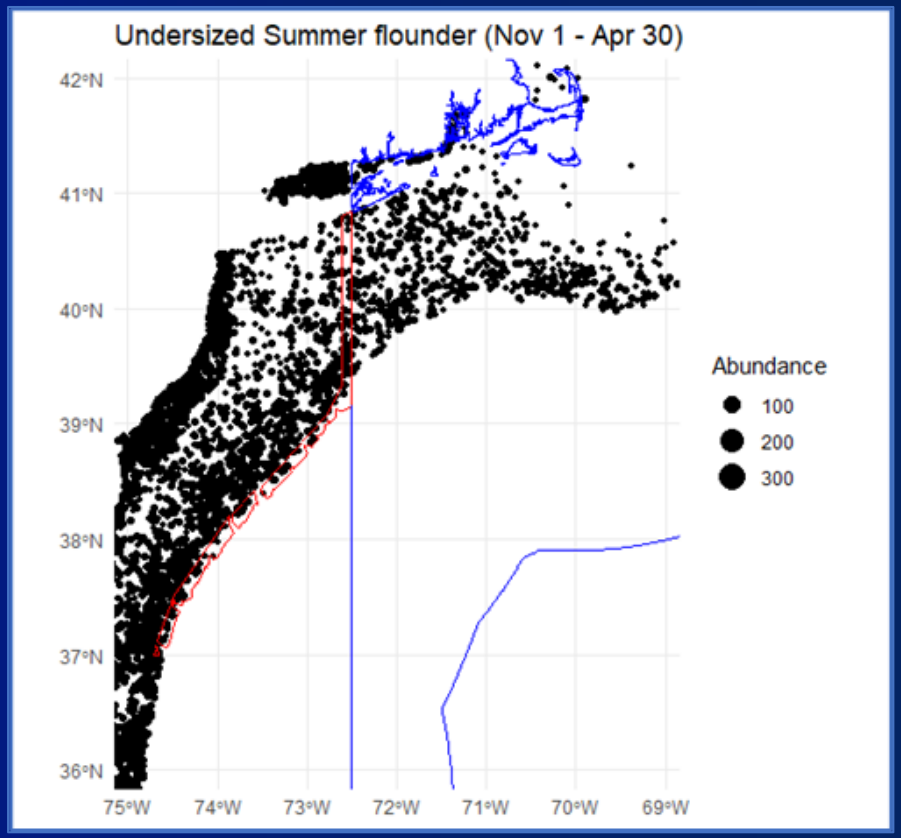
Summer flounder distribution, legal vs. undersized, all surveys, Nov-April





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General Otter Trawl Net Schematic

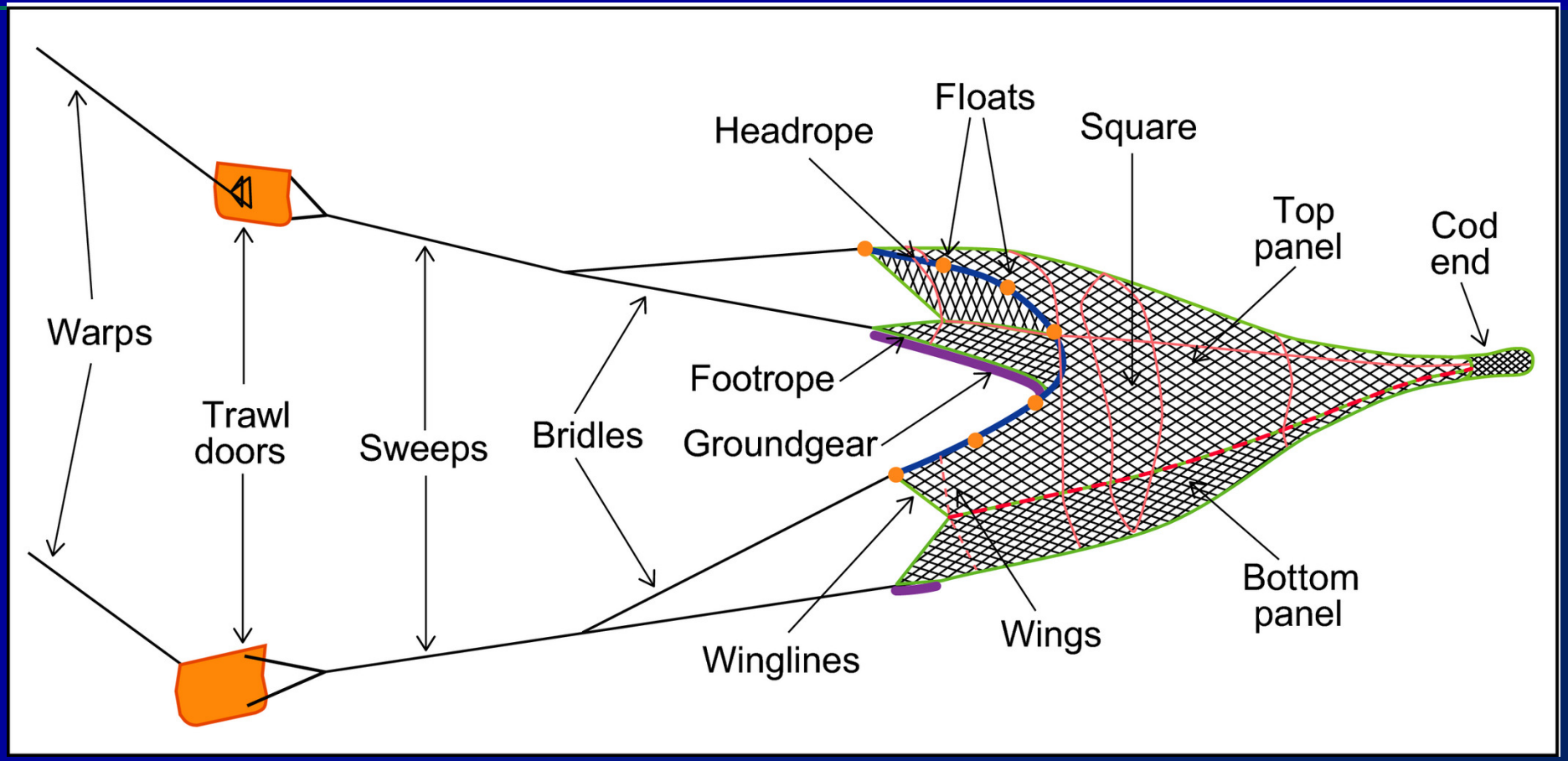

Figure 11: Schematic of a typical bottom trawl. Source: McConnaughey RA, Hiddink JG, Jennings S, et al. Choosing best practices for managing impacts of trawl fishing on seabed habitats and biota. Fish Fish. 2020; 21: 319–337. https://doi.org/10.1111/faf.12431.

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North Carolina Flynet Summer Flounder Landings

Year	Summer Flounder Flynet Landings (lbs.)	% 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 lbs.	<0.05%	<0.06%
2011	<2,000 lbs.	<0.05%	<0.07%
2012	<2,000 lbs.	<0.05%	<0.18%
2013	0	0%	0.00%
2014	<2,000 lbs.	<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%

Flynet/High-Rise Use: Caught Species

Based on current net type list; subject to change based on additional feedback

- Top 5 caught species

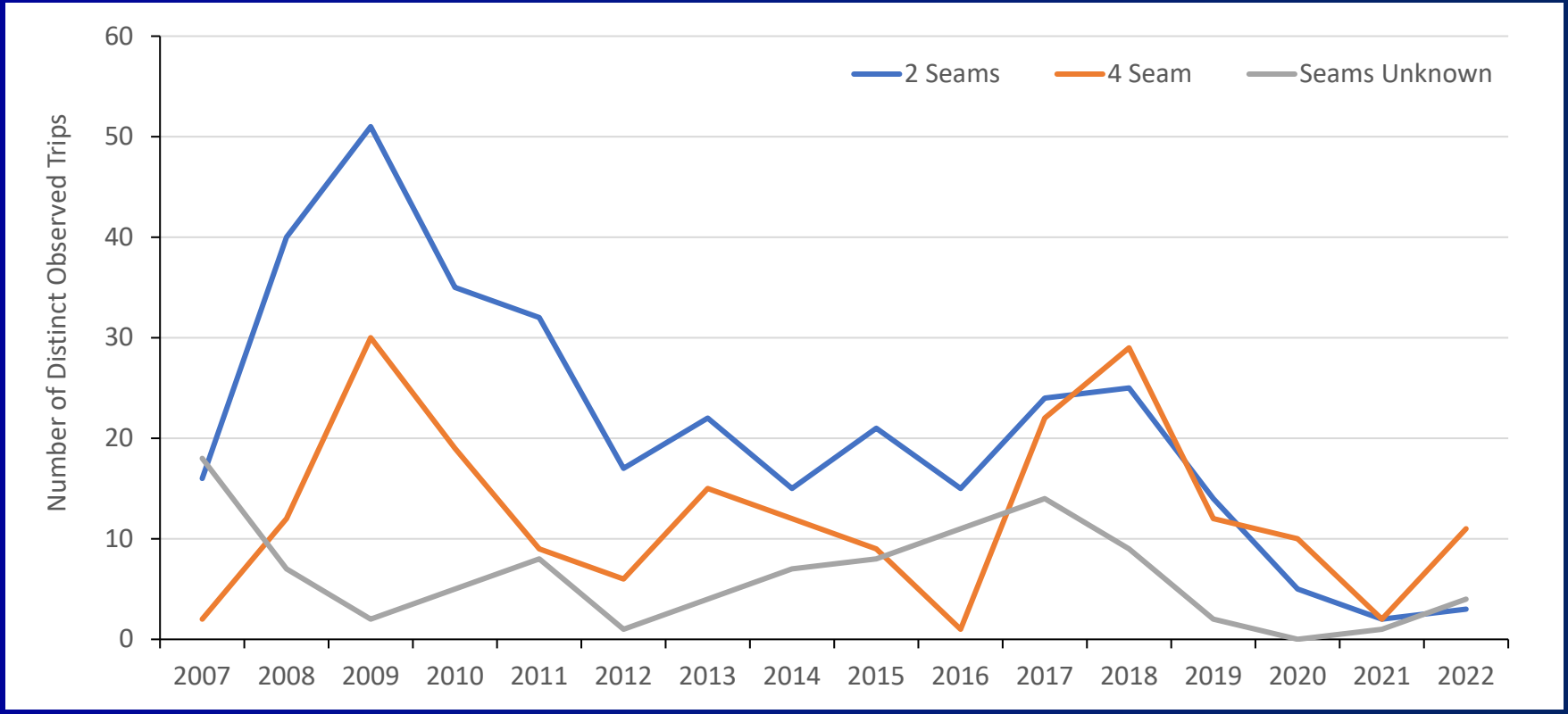
Species	% of catch by weight	% landings by weight	% obs. trips with catch
Squid, Short-Fin	35.7%	41.6%	32.3%
Herring, Atlantic	11.0%	13.0%	20.36%
Squid, Atl Long-Fin	8.7%	10.1%	63.07%
Haddock	6.9%	7.7%	26.4%
Scup	5.2%	5.2%	48.6%

- Top 5 discarded species

Species	% of 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

Number of distinct observed trawl trips using flynet gear, by seam number, 2007-2022

- Regulatory definition specifies 2-seam nets; some using exemption with 4-seam nets



Intersection Between the Exemptions
Observer data linked to active LOAs, Nov. 2013-April 2022

- 8% of hauls for observed trips with an active SMEP LOA were using gear that may be considered a flynet/high-rise gear
- Target species:

Net Category		
NOT considered "flynet" or high-rise	**Percent of hauls**	**Observed trips**
Flounder, Summer (Fluke)	33.1%	499
Squid, Atl Long-Fin	23.0%	255
Scup	8.8%	171
Skate, Nk	5.5%	103
Flounder, Yellowtail	4.8%	93
Potential Flynet/High-Rise Nets		
Scup	25.8%	30
Squid, Atl Long-Fin	25.5%	22
Herring, Atlantic	19.4%	37
Flounder, Summer (Fluke)	6.7%	12
Skate, Nk	5.7%	8