



Mid-Atlantic Fishery Management Council
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MEMORANDUM

Date: November 28, 2017
To: Chris Moore, Executive Director
From: Kiley Dancy, Staff
Subject: Summer Flounder Amendment November 2017 Demersal Committee Recommendations

On December 12, the Council and Atlantic States Marine Fisheries Commission's Summer Flounder, Scup, and Black Sea Bass Board (Board) will consider recommendations from the Council's Demersal Committee resulting from their November 8-9 meeting. These recommendations include a refined range of alternatives for commercial fishery issues and FMP goals and objectives within the Summer Flounder Amendment. The Council and Board previously approved some alternatives for inclusion in a public hearing document at the August 2017 joint meeting. Following that meeting, additional development of commercial allocation options was requested, as well as evaluation of federal permit data not available at the time of the August meeting. At the December joint meeting, the Council and Board should consider approving the Committee-recommended commercial allocation alternatives, refined federal permit alternatives, and draft revised goals and objectives for inclusion in a public hearing document.

Materials Included for Council and Board Consideration

The following materials are included for the Council and Board's consideration of this subject:

1. Summary of November Demersal Committee recommendations and amendment next steps (this document)
2. Staff memo on commercial allocation alternatives (developed for Demersal Committee; dated October 27, 2017)
3. Staff memo on federal permit and landings flexibility framework provision alternatives (developed for Demersal Committee; dated October 30, 2017)
4. Staff memo on modifications to FMP goals and objectives (developed for Demersal Committee; dated October 27, 2017)

November 8-9 Demersal Committee Recommendations

Alternative Set 1: Federal Permits and Latent Effort

After reviewing analysis of the previously approved list of 20 federal permit requalification options (approved by the Council and Board in August 2017), the Committee agreed with the staff

recommendation to refine this list down to seven sub-options for public hearings. These recommended sub-options are summarized below in **Table 1**. More detail can be found in the October 30 staff memo on federal permits and landings flexibility, including the number of associated federal permits that would requalify under each sub-option.

Alternative Set 2: Commercial Allocation

The Committee recommended moving forward with the draft range of alternatives presented in the staff memo dated October 27, with some modifications and additional analysis to refine the options as described below. Alternative 2A is "No action/*status quo*."

- **Alternative 2B: Revised state-by-state allocations based on current allocations adjusted for recent biomass distribution**
 - The Committee requested that the analysis provided by the Northeast Fisheries Science Center (NEFSC) be re-done to include NEFSC survey strata from Georges Bank and the Gulf of Maine. These strata are not currently included in the "standard set" used in the current stock assessment for summer flounder. The NEFSC provided revised analysis using this approach, the results of which are described in **Appendix I**. In summary, the revised analysis shows a shift of +13% in the Northern region relative exploitable biomass between 1980-1989 (67%) and 2007-2016 (80%). This differs from the first version of the analysis which showed a shift of +15% (62% to 77%).
 - The Committee was concerned that the mathematical approach to revise the regional allocation percentages (subsequently applied to each state) may not be correct, and requested that the Commercial Working Group provide advice on how to appropriately adjust the regional percentages. In summary, the issue lies with whether the change in regional relative exploitable biomass (the change between 67% to 80% relative exploitable biomass in the Northern region) should be calculated as an additive change or a percent change, and whether the resulting percentage shift in the Northern region allocation should be calculated additively or as a percent change. In the original version of the analysis, the exploitable biomass shift was calculated additively (62% → 77% = +15% increase in relative exploitable biomass in the Northern region), and the resulting allocation change was calculated as a percent change (15% increase applied as a percent change relative to existing Northern region combined allocation). **Staff will provide advice from the Commercial Working Group at the December joint meeting.**
- **Alternative 2C: Revised state-by-state allocations based on a commercial quota-based trigger**
 - The Committee recommends removing the specific commercial quota trigger option described in the staff memo (the time series average commercial quota; 1993-2018 average of 11.80 million pounds) and instead including two sub-options for the trigger, beyond which "additional" quota would be allocated differently. **The two recommended sub-options are 1) a 5-year average commercial quota (2014-2018; 8.40 million lb) and 2) a 10-year average (2009-2018; 10.71 million lb).** The Committee was concerned that the 11.80 million lb trigger may not realistically be reached in the near future. The Committee reviewed several other options for quota triggers and determined that a quota trigger should strike a balance between being unrealistically high and thus having no practical impact in the near future, and being so low that the allocations would be modified very substantially in most future years.

- The Committee also recommended modifying the distribution of the "additional" quota, such that **Maine, Delaware and New Hampshire would split a total of 1% of the "additional" quota** (rather than splitting one equal "state" share, equivalent to 11.1% of the additional quota, or 3.7% to of these three states, as described in the staff memo). The Committee does not recommend substantial reallocation to these states given the extremely low summer flounder landings and little or no directed effort in these states, and the desire to avoid speculative behavior that may result from a large shift in quota for these states.
- New example tables with these changes, describing allocation scenarios under two hypothetical coastwide quotas, are given in **Appendix II** of this document.
- **Alternative 2D: "Scup Model" Applied to Commercial Summer Flounder**
 - The Committee recommends **adding a sub-option for exempting Maryland** from this allocation option given that Maryland's fishery is managed with Individual Transferable Quotas (ITQs) and the state is allocated a small portion (2.03910%) of the coastwide quota. The sub-option would state that Maryland's existing allocation would be maintained and managed by the state of Maryland as is done currently. There would also be an option to implement the scup model without such an exemption.
 - Many Committee members have concerns regarding the potential for derby fishing under the coastwide Winter periods with this option, but the group was in favor of keeping it in the document for public hearings. Public input on the potential for derby fisheries under this alternative would be requested as part of the hearing process.
 - The Committee recommended adding additional justification in the public hearing document for including the month of October in the Summer quota period instead of the Winter II period. The Council and Board recently (May 2017) voted to modify the scup commercial quota periods to move October from Summer to Winter II. This new configuration was not recommended for summer flounder in the staff memo based on 1) advisory panel discussions and 2) preliminary analysis indicating that for summer flounder, October may be more consistent with other Summer months in terms of landings by vessel size, state vs. federal waters landings, and gear types used (see Appendix I of the October 27 memo). Additional detail on this issue will be added to the public hearing document.

Alternative Set 3: Landings Flexibility Framework Provisions

The Committee had limited discussion on landings flexibility, which the Council and Board approved for inclusion in the public hearing document as a framework provision item in August. The Committee requested that the public hearing document clarify that landings flexibility provisions could include the previously discussed allowance for simultaneous possession of multiple state possession limits at one time under certain conditions.

Allocation Alternatives Summary

All Committee-recommended alternatives for federal permits, allocation, and landings flexibility are summarized in **Table 1**. Revised FMP goals and objectives are discussed in the next section, as they are not likely to be included in the document as an explicit alternative set. Instead they will be put forward in the public hearing document with clear indication that the Council and Board are considering changes and seeking public comment on the draft revisions.

Table 1: Refined range of alternatives for commercial summer flounder issues, recommended by the Demersal Committee Nov. 2017.

1. Federal Permits/Latent Effort	
1A	No action/ <i>status quo</i> (maintain existing federal moratorium permits with no requalification)
1B	Requalification of existing federal single-tier moratorium permits (only currently moratorium permit holders, including those in CPH). The Committee recommends seven sub-options with combinations of landings thresholds and time periods as listed below.
1B-1	Landed at least 1,000 pounds cumulatively over the time period August 1, 2009-July 31, 2014 (5 yrs)
1B-2	Landed at least 1 lb in any one year from August 1, 2009-July 31, 2014 (5 yrs)
1B-3	Landed at least 1,000 pounds cumulatively over the time period August 1, 2004-July 31, 2014 (10 yrs)
1B-4	Landed at least 1 lb in any one year from August 1, 2004-July 31, 2014 (10 yrs)
1B-5	Landed at least 1,000 pounds cumulatively over the time period August 1, 1999-July 31, 2014 (15 yrs)
1B-6	Landed at least 1 lb in 20% of the years in the time period August 1, 1994-July 31, 2014 (20 yrs)
1B-7	Landed at least 1,000 pounds cumulatively over the time period August 1, 1994-July 31, 2014 (20 yrs)
2. Commercial Allocation	
2A	No action/ <i>status quo</i>
2B	Revised state-by-state allocations based on current allocations adjusted for recent biomass distribution (using updated NEFSC analysis with northern survey strata; and pending advice from commercial working group regarding appropriate % adjustments)
2C	Commercial quota trigger for revised distribution of additional quota; <u>additional</u> quota beyond trigger would be divided 0.3333% to ME, NH, and DE, and 12.375% to all other states (see Appendix II).
2C-1	5-year average commercial quota trigger (8.40 million lb)
2C-2	10-year average commercial quota trigger (10.71 million lb)
2D	"Scup quota model" with two Winter coastwide periods and state-specific Summer period, as configured in 10/27/17 staff memo
2D-1	With exemption for Maryland (MD quota "taken off the top")
2D-2	Without exemption for Maryland
3. Landings Flexibility	
3A	No action/ <i>status quo</i> (no landings flexibility)
3B	Add coastwide landings flexibility as a frameworkable issue in the FMP. Details would be developed and analyzed in any future framework action(s). May allow commercial landings in any port in any state, even if the vessel is not permitted in that state, with subsequent quota transfer. Additional detail would be needed regarding enforcement issues, such as which state's management measures (seasons, possession limits, etc.) would be enforced for an out-of-state vessel. Another form of landings flexibility would be to allow multiple state possession limits on board a given vessel with appropriate permits.

Draft Revisions to FMP Goals and Objectives

At the November Committee meeting, staff presented draft revisions to FMP goals and objectives for summer flounder, based on prior Council and Board feedback. The Committee agreed with most of the draft revisions, and recommended some further modifications including: a re-worded objective 3.1, addition of an objective under goal 2 referencing discards/waste (objective 2.4), and minor changes to the wording of some objectives (e.g., the word "enhance" instead of "promote" in objectives 2.2 and 2.3). The Committee-recommended revisions are as follows:

- **Goal 1:** Ensure the biological sustainability of the summer flounder resource in order to maintain a sustainable summer flounder fishery.
 - **Objective 1.1:** Prevent overfishing, and achieve and maintain sustainable spawning stock biomass levels that promote optimum yield in the fishery.
- **Goal 2:** Support and enhance the development and implementation of effective management measures.
 - **Objective 2.1:** Maintain and enhance effective partnership and coordination among the Council, Commission, Federal partners, and member states.
 - **Objective 2.2:** Enhance understanding, compliance, and the effective enforcement of regulations.
 - **Objective 2.3:** Enhance monitoring and data collection, and promote the development of ecosystem-based science that support and enhance effective management of the summer flounder resource.
 - **Objective 2.4:** Develop management measures that enhance utilization and reduce waste in the commercial and recreational fisheries.
- **Goal 3:** Optimize economic and social benefits from the utilization of the summer flounder resource, balancing the needs and priorities of different user groups to achieve the greatest overall benefit to all user groups and stakeholders.
 - **Objective 3.1:** Respond to changing social, economic and ecological conditions with consideration of historic and current importance of the fishery to user groups and communities.

Amendment Next Steps

- **Public hearing document development:** Staff will work to develop a public hearing document based on the Committee recommendations above, if approved by the Council and Board.
- **Development of a Draft Environmental Impact Statement (DEIS):** A DEIS must be developed and approved by the Council prior to public hearings. Typically, a DEIS also goes through preliminary NMFS review prior to Council approval. Because an EIS is typically more complex than other types of Council documents, and because this action will involve complex socioeconomic analysis, the timeline for completion of a DEIS is uncertain at this time.
- **Public hearings:** Public hearings can be noticed in the Federal Register and held following the approval of both a public hearing document and a DEIS.

APPENDIX I: Revised NEFSC Analysis for Alternative 2B

As described in the staff memo dated October 27, the NEFSC provided initial analysis of alternative 2B, which considers regional shifts in relative exploitable biomass based on NEFSC trawl survey data. Based on the recommendations of the Demersal Committee, Council staff requested updated analysis using additional survey strata in Georges Bank and the Gulf of Maine. Staff also requested any explanation of the biological basis for the regional split at Hudson Canyon. The response from NEFSC staff is provided below. In summary, the revised analysis shows a shift of +13% (67% to 80%) in the Northern region relative exploitable biomass between 1980-1989 and 2007-2016. A description of the version 1 methodology and results can be found in the October 27 staff memo on commercial allocation.

MAFMC Fluke Allocation Exercise, Version 2 - November 21, 2017

The strata set included in the previous version 1 of the exercise was expanded as per the MAFMC Demersal Committee request. Version 1 used the NEFSC strata sets included in the stock assessment. This version 2 strata set now includes all the Georges Bank, Gulf of Maine, Southern New England, and Mid-Atlantic Bight NEFSC offshore strata and adds the inshore strata for the fall.

In the spring when the fish are ‘offshore,’ the ‘North’ region set now includes offshore strata 1-40: south of Long Island NY and north through Georges Bank and the Gulf of Maine. The ‘South’ region still includes offshore strata 61-76: east of NJ and south to Cape Hatteras NC.

In the fall when more of the fish move ‘inshore,’ the ‘North’ region set now includes of offshore strata 1-40, inshore strata 1-14, and inshore strata 45-90: south of Long Island NY and north through Georges Bank and the Gulf of Maine, including all sampled inshore strata. The ‘South’ region now includes offshore strata 61-76 and inshore strata 15-44: east of NJ and south to Cape Hatteras NC, including all sampled inshore strata. See the strata maps below.

Version 1 of the exercise indicated that the ‘North’ region annual relative exploitable biomass was 62% of the Total during 1980-1989, increasing to 77% of the Total during 2007-2016. Therefore, the ‘South’ region was 38% of the Total during 1980-1989, decreasing to 23% of the Total during 2007-2016.

Version 2 of the exercise indicated that the ‘North’ region annual relative exploitable biomass was 67% of the Total during 1980-1989, increasing to 80% of the Total during 2007-2016. Therefore, the ‘South’ region was 33% of the Total during 1980-1989, decreasing to 20% of the Total during 2007-2016.

There is no strong biological justification for the North/South break used in the exercise. The break divides the coast into regions coinciding with north/south of Hudson Canyon, or roughly north/south of the NY/NJ border at Raritan Bay. This is the same break used for the split in the BSB stock assessment, and occurs at what is generally accepted as the most significant ‘biogeographic barrier’ between Cape Hatteras and Nantucket Shoals. However, historical tagging data (Kraus and Musick 2003), stock discrimination studies (Wilk et al. 1980), genetic studies (Jones and Quattro 1999), and consideration of summer flounder spatial distribution suggest this break may not be much of a barrier to summer flounder movement. The recent distribution appears to be continuous across the break during the NEFSC trawl survey seasons. See the distribution maps below for 2011-2015.

References

- Jones WJ, Quattro JM. 1999. Genetic structure of summer flounder (*Paralichthys dentatus*) populations north and south of Cape Hatteras. *Mar Bio* 133: 129-135.
- Kraus RT, Musick JA. 2003. A brief interpretation of summer flounder, (*Paralichthys dentatus*), movements and stock structure with new tagging data on juveniles. *Mar Fish Rev.* 63(3):1-6.
- Wilk SJ, Smith WG, Ralph DE, Sibunka J. 1980. The population structure of summer flounder between New York and Florida based on linear discriminant analysis. *Trans Am Fish Soc.* 109: 65-271.

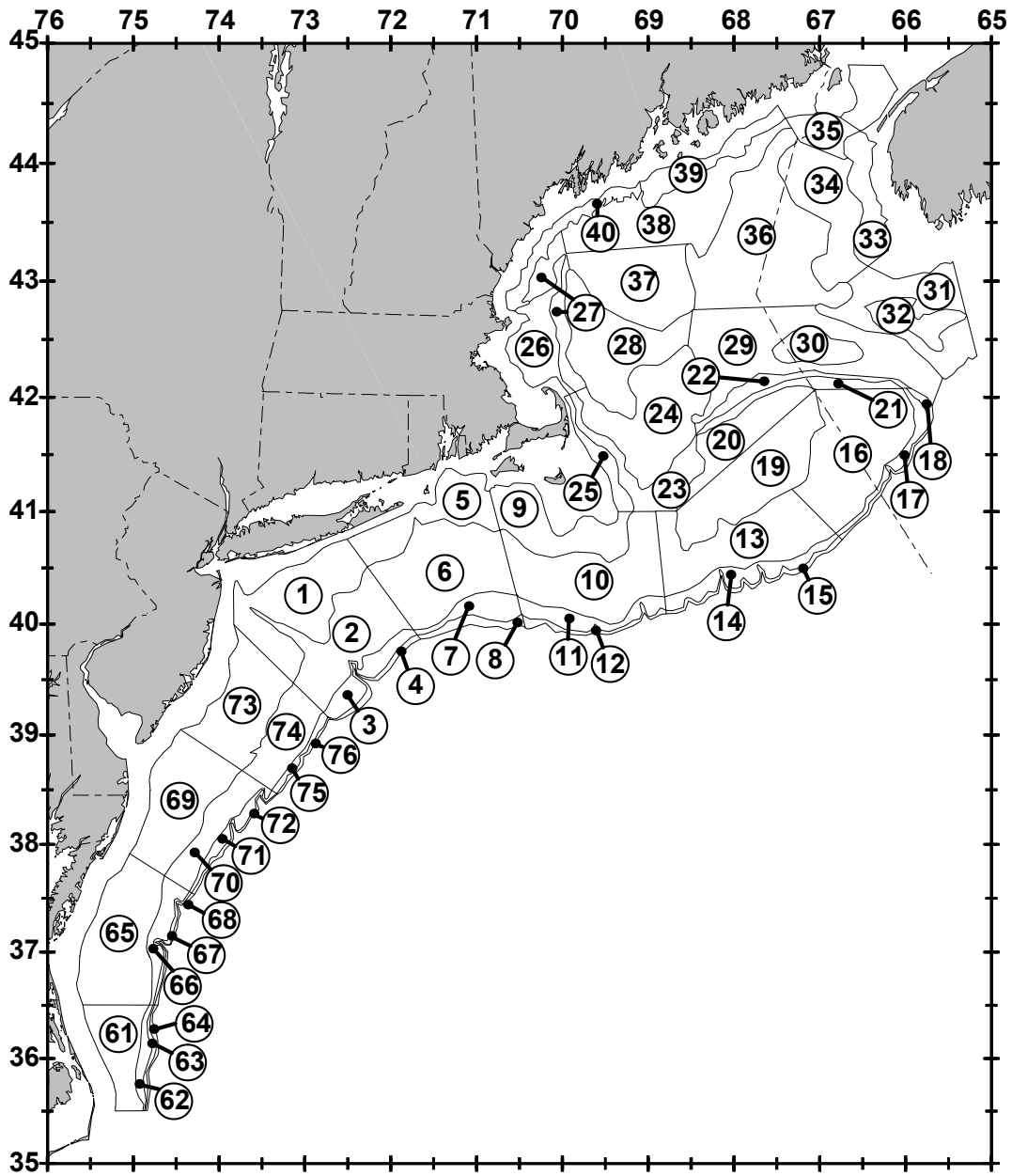


Figure 1: Strata sampled on NFESC offshore bottom trawl surveys. Depths range from 27 to >200 meters.

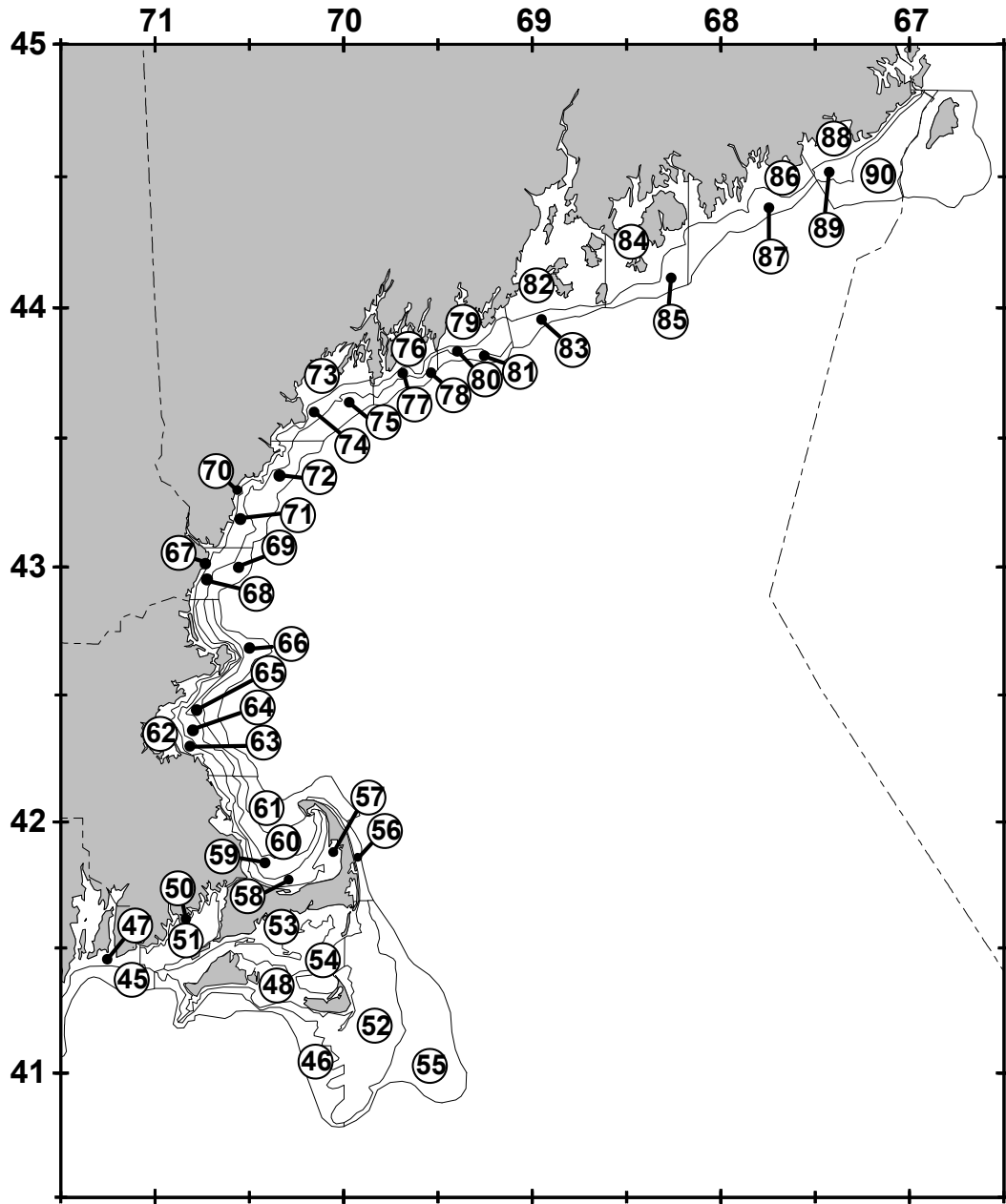


Figure 2: Strata sampled on NEFSC inshore bottom trawl surveys from Eastport, ME to Buzzards Bay, MA. Depths range from 0-54 meters.

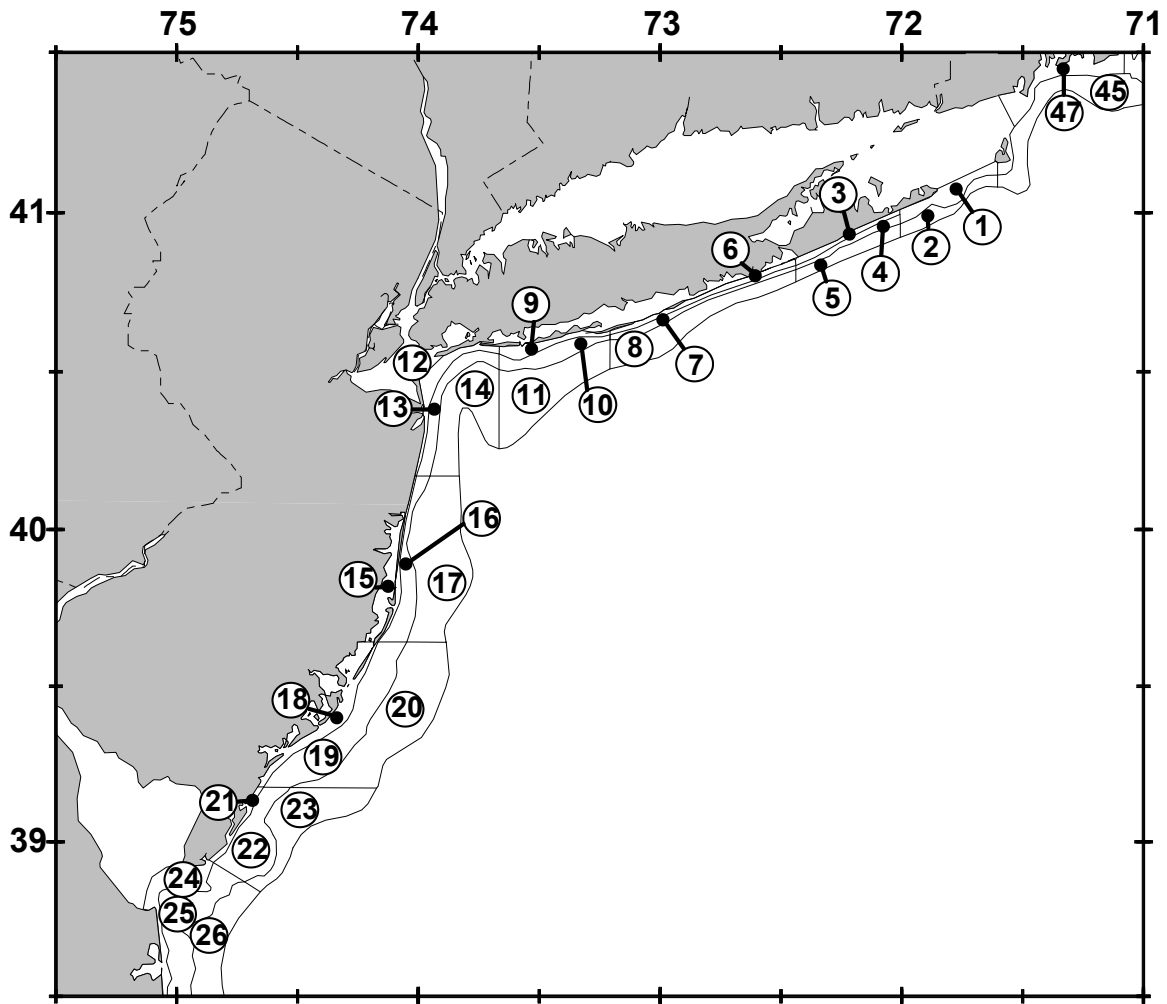


Figure 3: Strata sampled on NEFSC inshore bottom trawl surveys from Buzzards Bay, MA to Delaware Bay, DE. Depths range from 0-27 meters.

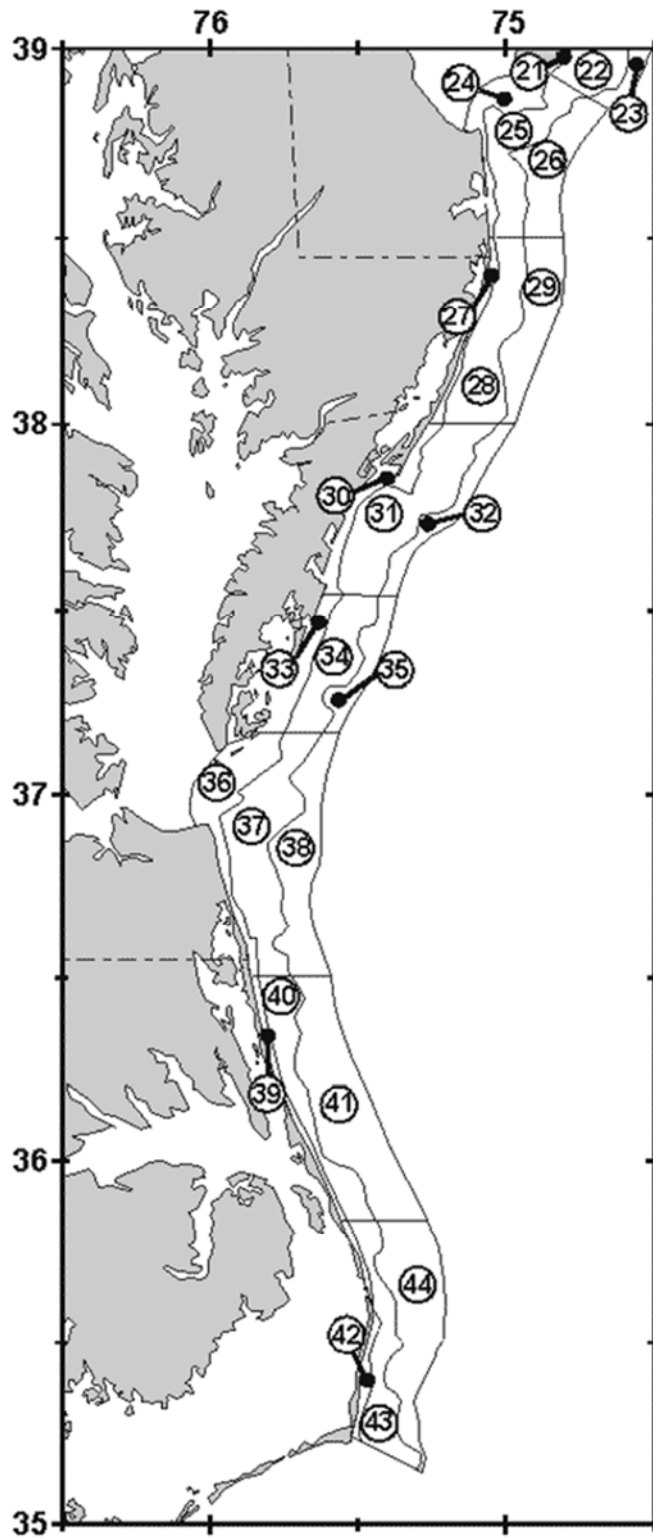


Figure 4: Strata sampled on NEFSC inshore bottom trawl surveys from Delaware Bay, DE to Cape Hatteras, NC. Depths range from 0-27 meters.

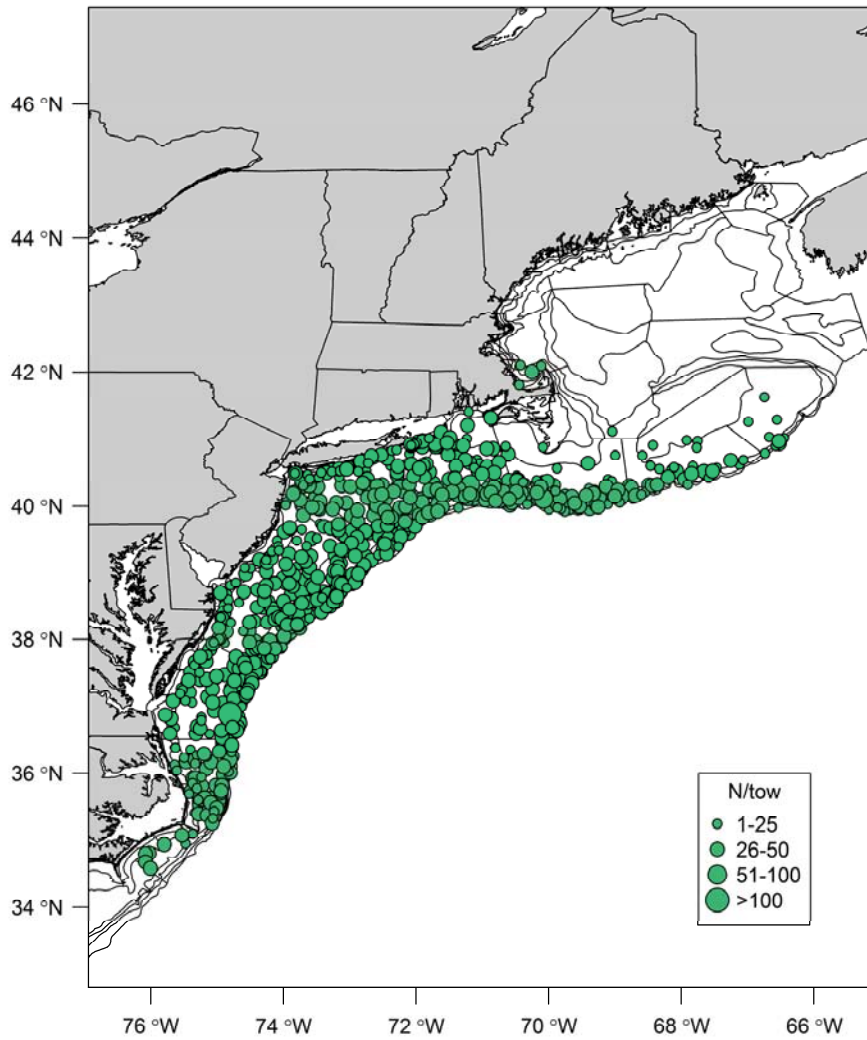


Figure 5: Summer flounder NEFSC spring survey, 2010-2015.

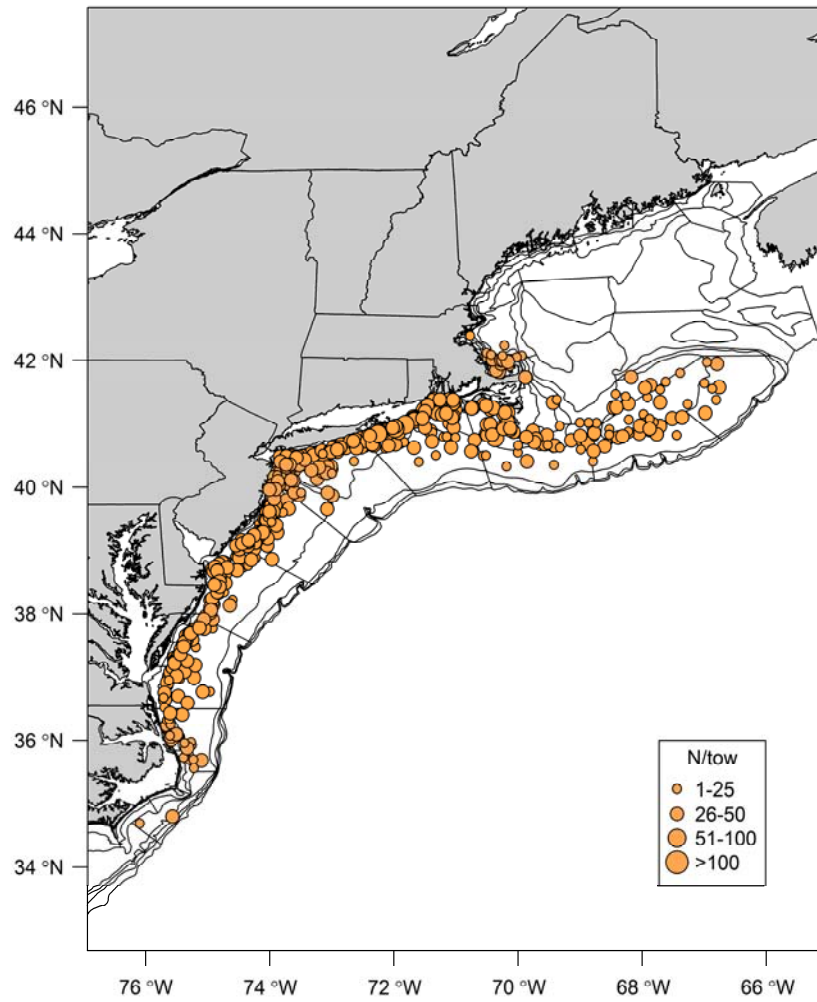


Figure 6: Summer flounder NEFSC fall survey, 2011-2015.

APPENDIX II: Example Tables for Revised Quota Triggers Under Alternative 2C

The tables below mirror Table 3 in the October 27 commercial allocation options staff memo, but with revised triggers as recommended by the Demersal Committee, as well as the revised distribution of additional quota to each state. **Table 2** below includes examples for a 5-year average commercial quota trigger (8.40 million lb) and **Table 3** includes examples for a 10-year average commercial quota trigger (10.71 million pounds). For both, hypothetical coastwide commercial quotas include an 8.12 million pound quota and a 14.00 million pound quota.

Table 2: Allocation under alternative 2C-1, with modified distribution of additional coastwide commercial quota beyond 8.40 million pounds (5-year average quota; 2014-2018). Hypothetical quota examples represent initial quotas prior to any transfers or deductions for overages.

State	Allocation (%) of baseline quota up to and including 8.40 million lb	Allocation (%) of additional quota beyond 8.40 million lb	Example allocation (lbs) based on 8.12 million lb quota ^a	Example allocation (lb) based on 14.00 million lb quota ^b				Comparison to <i>Status quo</i>
				<i>Status Quo</i> distribution of 8.40 mil lb base quota	<i>New</i> distribution of 5.60 mil lb additional quota	Total quota under 14.00 mil lb CQ	Total new allocation percentage under 14.00 mil lb CQ ^c	<i>Status quo</i> allocation under a 14.00 million lb quota
ME	0.04756	0.3333	3,862	3,995	18,666	22,662	0.162%	6,658
NH	0.00046	0.3333	37	39	18,666	18,705	0.134%	64
MA	6.82046	12.375	553,821	572,919	693,000	1,265,919	9.042%	954,864
RI	15.68298	12.375	1,273,458	1,317,370	693,000	2,010,370	14.360%	2,195,617
CT	2.25708	12.375	183,275	189,595	693,000	882,595	6.304%	315,991
NY	7.64699	12.375	620,936	642,347	693,000	1,335,347	9.538%	1,070,579
NJ	16.72499	12.375	1,358,069	1,404,899	693,000	2,097,899	14.985%	2,341,499
DE	0.01779	0.3333	1,445	1,494	18,666	20,161	0.144%	2,491
MD	2.03910	12.375	165,575	171,284	693,000	864,284	6.173%	285,474
VA	21.31676	12.375	1,730,921	1,790,608	693,000	2,483,608	17.740%	2,984,346
NC	27.44584	12.375	2,228,602	2,305,451	693,000	2,998,451	21.418%	3,842,418
Total	100	100	8,120,001	8,400,000	5,600,000	14,000,000	100%	14,000,000

^a Allocation is divided based on *status quo* allocation percentages due to coastwide quota being lower than 8.40 million pounds. This hypothetical quota results in the same quota distribution as in Alternative 2A.

^b Allocation of first 8.40 million pounds is divided based on *status quo* allocation percentages. Additional 5.60 million pounds (14.00-8.40) is divided evenly between all remaining states after the states of NH, DE, and ME split 1% of the coastwide quota.

^c Note that total revised state allocation percentages will vary with varying coastwide quotas, depending on how much "additional" quota is available.

Table 3: Allocation under alternative 2C-2, with modified distribution of additional coastwide commercial quota beyond 10.71 million pounds (10-year average quota, 2009-2018). Hypothetical quota examples represent initial quotas prior to any transfers or deductions for overages.

State	Allocation (%) of baseline quota <u>up to</u> and including 10.71 million lb	Allocation (%) of <u>additional</u> quota beyond 10.71 million lb	Example allocation (lb) based on 8.12 million lb quota ^a	Example allocation (lb) based on 14.00 million lb quota ^b				Comparison to <u>Status quo</u>
				Status Quo distribution of 10.71 mil lb base quota	New distribution of 3.29 mil lb additional quota	Total quota under 14.00 mil lb CQ	Total new allocation percentage under 14.00 mil lb CQ ^c	Status quo allocation under a 14.00 million lb quota
ME	0.04756	0.3333	3,862	5,094	10,967	16,060	0.115%	6,658
NH	0.00046	0.3333	37	49	10,967	11,016	0.079%	64
MA	6.82046	12.375	553,821	730,471	407,138	1,137,609	8.126%	954,864
RI	15.68298	12.375	1,273,458	1,679,647	407,138	2,086,785	14.906%	2,195,617
CT	2.25708	12.375	183,275	241,733	407,138	648,871	4.635%	315,991
NY	7.64699	12.375	620,936	818,993	407,138	1,226,130	8.758%	1,070,579
NJ	16.72499	12.375	1,358,069	1,791,246	407,138	2,198,384	15.703%	2,341,499
DE	0.01779	0.3333	1,445	1,905	10,967	12,872	0.092%	2,491
MD	2.03910	12.375	165,575	218,388	407,138	625,525	4.468%	285,474
VA	21.31676	12.375	1,730,921	2,283,025	407,138	2,690,162	19.215%	2,984,346
NC	27.44584	12.375	2,228,602	2,939,449	407,138	3,346,587	23.904%	3,842,418
Total	100	100	8,120,001	10,710,000	3,290,000	14,000,000	100%	14,000,000

^a Allocation is divided based on *status quo* allocation percentages due to coastwide quota being lower than 10.71 million pounds. This hypothetical quota results in the same quota distribution as in Alternative 2A.

^b Allocation of first 10.71 million pounds is divided based on *status quo* allocation percentages. Additional 3.29 million pounds (14.00-10.71) is divided evenly between all remaining states after the states of NH, DE, and ME split 1% of the coastwide quota.

^c Note that total revised state allocation percentages will vary with varying coastwide quotas, depending on how much "additional" quota is available.