



## New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116  
E.F. "Terry" Stockwell, *Chairman* | Thomas A. Nies, *Executive Director*

### MEMORANDUM

**DATE:** April 21, 2014

**TO:** Groundfish Oversight Committee (GF OSC)

**FROM:** Jamie Cournane, PhD, Groundfish Plan Coordinator

**SUBJECT:** Staff suggestions for Groundfish Framework Adjustment 52, to revise windowpane flounder accountability measures

**Due to time constraints, this memorandum is being produced by Council staff. The Groundfish Plan Development Team (PDT) will review the information within this memo shortly after the Council meeting. The contents of this memo should not be considered being reviewed or accepted by the full PDT at this time.**

#### 1. Activity

On April 4, the Groundfish Oversight Committee (GF OSC) tasked the Groundfish Plan Development Team (PDT) with further developing draft alternatives for consideration at the April Council meeting. Since the committee meeting, the PDT has not had the opportunity to meet. Instead, a sub-group of the PDT has worked to further develop the alternatives for consideration in Framework Adjustment 52 (FW 52). The contents of this memo should not be considered the work of the full PDT at this time.

This memo contains 1) a preliminary analysis of windowpane flounder discards in space and time and 2) draft alternatives for consideration in FW 52.

#### 2. Spatial and Temporal Patterns in Observed Discards of Windowpane Flounder

Strong seasonal patterns in discards of windowpane were not observed when the PDT developed the original AMs in Framework Adjustment 47 (FW 47). The analysis to develop the AM areas in FW 47 included an examination of windowpane flounder discards and fishing effort data in a spatially explicit model.

For the purposes of this analysis, a sub-group of the PDT examined 2012 and 2013 data in an exploratory data analysis to examine if seasonal patterns in windowpane flounder discards were evident. The group has not had the opportunity to compare or adjust these patterns relative to the overall distribution of fishing effort data, or examine if these patterns are only reflected in recent data (i.e., do patterns persist when compared to previous years). Therefore, these observations should be considered preliminary at this time.

### ***Temporal Trends in Recent Catches***

The 2012 and preliminary 2013 fishing year trawl catch monitoring data from the Data Matching and Imputation System (DMIS) was used to determine if seasonal patterns in the discarding of windowpane flounder by stock has changed recently in the groundfish fishery.

Discard to kept all ratios from observed trips by month from fishing years 2012-2013 were used to detect possible seasonal discard patterns for each stock (Figure 1 and Figure 2). Trends in the total observed discards of windowpane flounder and the kept all species are also shown to aid in the interpretation of discard ratios (e.g., discard rates can increase due to a decrease in the kept all in a particular month).

Strong seasonal trends in the discard rate were not apparent for either stock. In addition, discard estimates through catch monitoring are not stratified over the course of a fishing year.

The Northern windowpane flounder stock (GOM-GB) had higher discard rates in many months in 2013 relative to 2012 (Figure 1). However discard rates were lower in January-March in both 2013 and 2014 (FY 2012 and 2013 respectively) for the GOM-GB stock.

Seasonal trends in discard rates for the Southern windowpane flounder stock (SNE) were less apparent (Figure 2). However, there were more seasonal trends in the observed kept all for the SNE stock. The SNE stock appears to have less groundfish effort from August to September. Note that no observed trips occurred in July and September of 2012 in SNE.

### ***Spatial Trends in Recent Catches***

Spatial trends in windowpane flounder were examined on all observed trawl hauls (NEFOP and ASM, from the Observer Database System, OBDBS) which caught windowpane flounder in calendar year 2012 and 2013. A small number of observed trips had kept landings of windowpane flounder.

Overall, most hauls catch less than 25 pounds of windowpane flounder as show in Figure 3 and Figure 4. Throughout the year, catches below and above 25 pounds occur in similar locations (Figure 5). Therefore, all catches were included in the following examination of the data.

Spatial patterns of all windowpane flounder catches were further examined with bimonthly groupings of hauls: January-February, March-April, May-June, July-August, September-October, and November to December (Figure 6 and Figure 7) separately for each year. Table 1 provides a summary of the data included in these groupings.

In general, there seems to have been more trawl effort (based on data in the OBDBS) on the northern edge of Georges Bank in 2013, which may have contributed to higher discards of windowpane flounder for the GOM-GB stock in 2013 relative to 2012 (Figure 5). In addition, there also appears to be more effort and windowpane discards coming from the northern edge of Georges Bank (within statistical area 522) in the first half of the fishing year (May - October) relative to the second half for both years (2012-2013). Statistical area 522 for the first half of the fishing year may be an appropriate alternative gear restricted area to the existing AM area for the GOM-GB stock. However, these preliminary findings would need to be examined further with other information to verify these conclusions.

For the SNE stock the gear restricted areas seem to be in areas where most of the discards were occurring in 2012 and 2013. There appears to be less effect of season for SNE windowpane discards.

**Table 1- Observed bimonthly NEFOP and ASM trawl tow (hauls) data that caught windowpane flounder and had point location information.**

year	months	Number of tows	total observed windowpane discards (lbs)	observed maximum (lbs)
2012	Jan-Feb	933	49,795	746
2012	March-April	893	50,074	1,311
2012	May-June	568	11,293	755
2012	July-Aug	373	6,990	179
2012	Sept-Oct	623	22,937	582
2012	Nov-Dec	999	27,976	583
2013	Jan-Feb	491	17,323	317
2013	March-April	776	29,990	441
2013	May-June	1,058	70,394	3,364
2013	July-Aug	989	32,726	412
2013	Sept-Oct	559	23,709	711
2013	Nov-Dec	659	23,465	509

Figure 1 - Discard ratios (discard / kept all) (top), windowpane total observed discards (middle), and total observed kept all (bottom) by month for the GOM-GB windowpane stock using trawl gear in the groundfish fishing over the 2012-2013 fishing year using DMIS data.

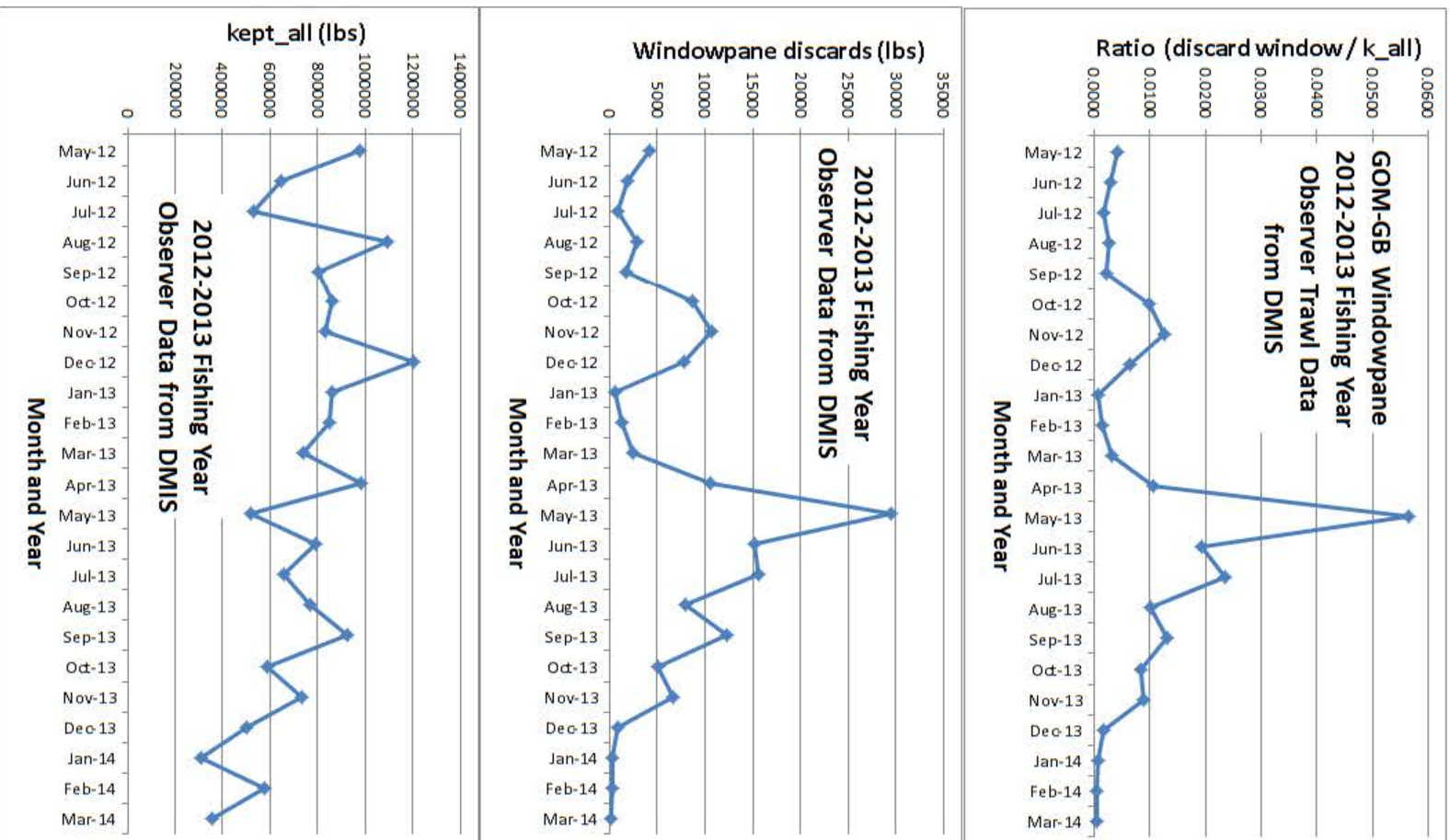


Figure 2- Discard ratios (discard / kept all) (top), windowpane total observed discards (middle), and total observed kept all (bottom) by month for the SNE windowpane stock using trawl gear in the groundfish fishing over the 2012-2013 fishing year using DMIS data. Note that no observed trips occurred in July and September of 2012 in SNE.

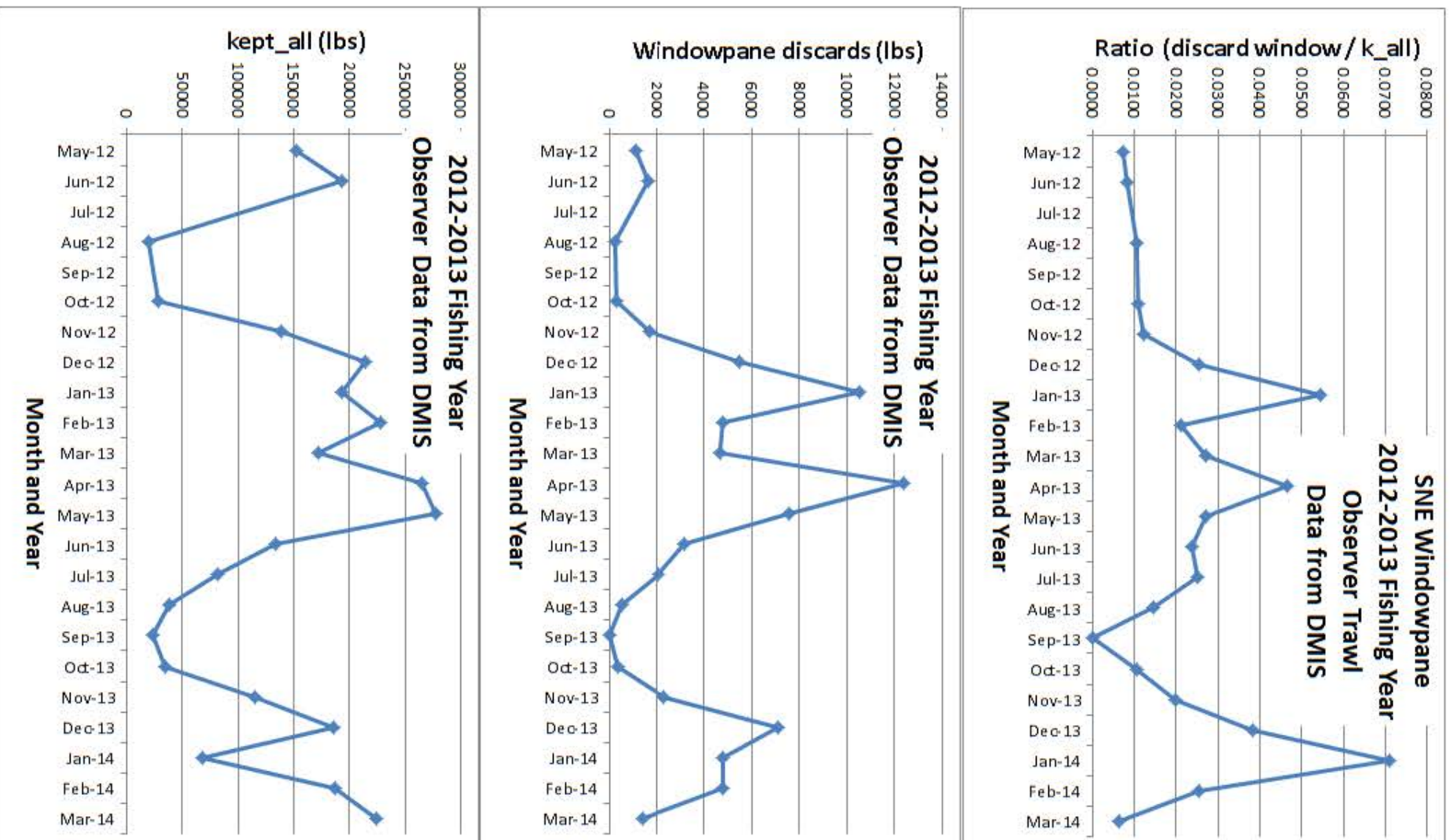


Figure 3- Frequency of NEFOP and ASM observed calendar year 2012 trawl tows which caught windowpane flounder by different weight bins. Total number of trips and tows observed is also given.

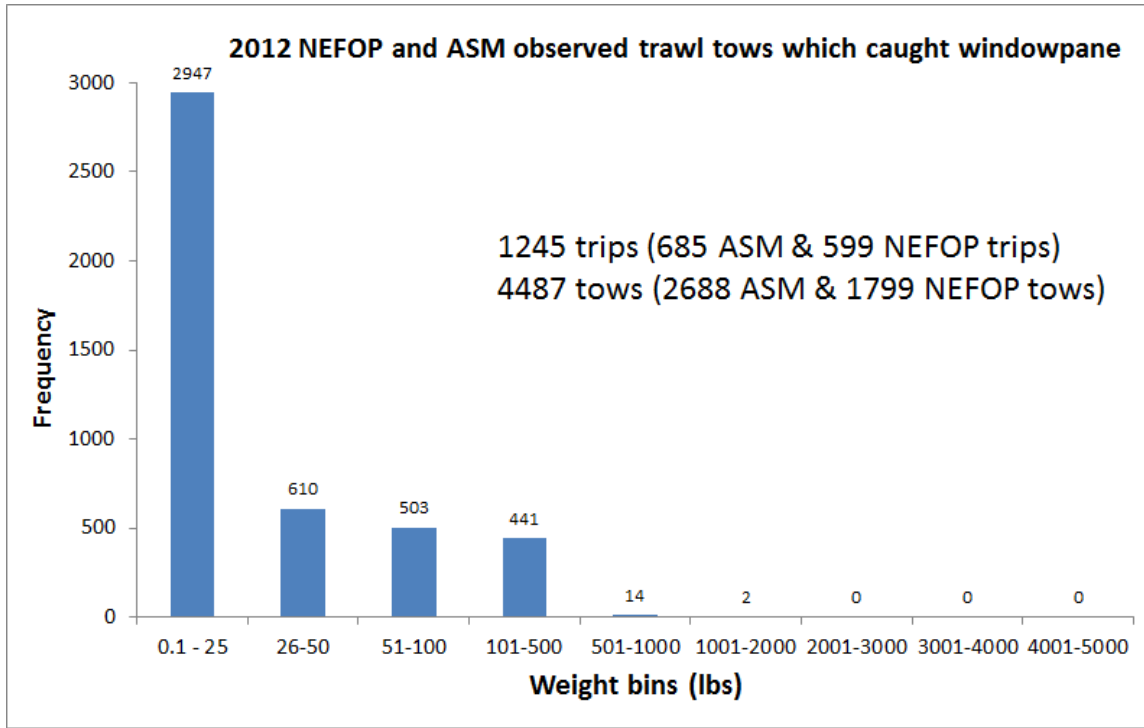


Figure 4- Frequency of NEFOP and ASM observed calendar year 2013 trawl tows which caught windowpane flounder by different weight bins. Total number of trips and tows observed is also given.

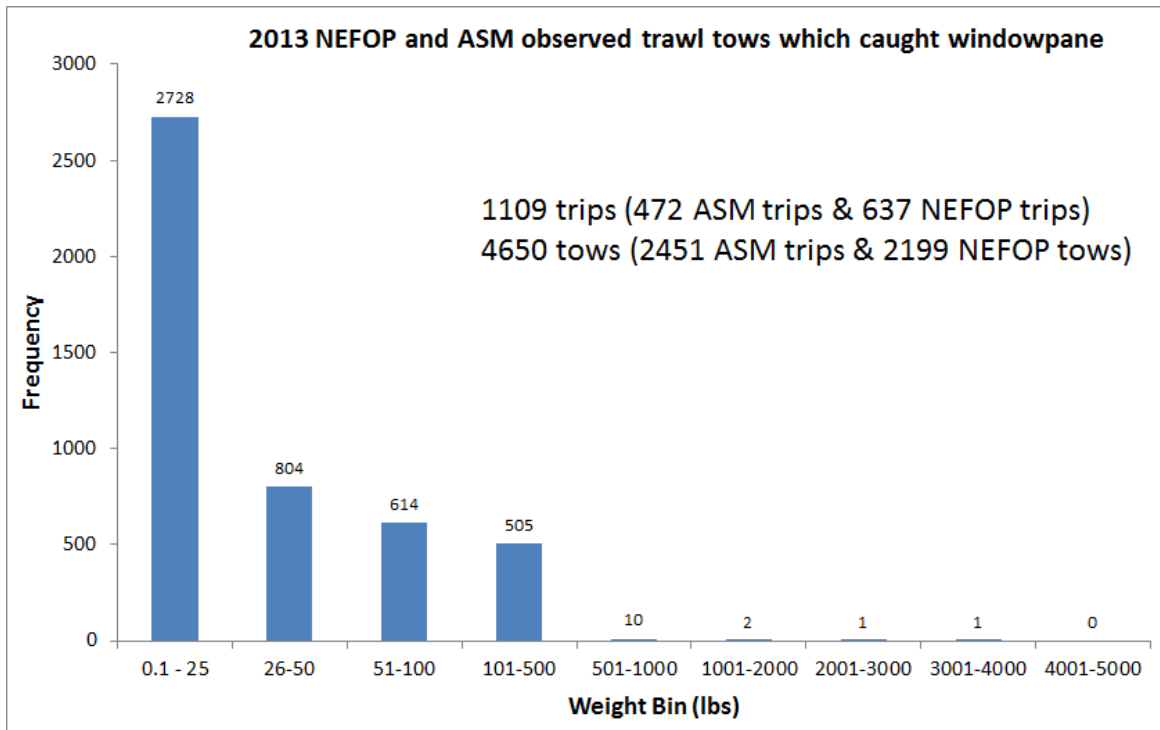


Figure 5 – Commercial trawl fishery windowpane flounder catches (lbs/haul) by calendar year (2012- left panels and 2013- right panels) and level (tows with 25 lbs or less- top panels, tows with greater than 25 lbs- bottom panels). Each circle represents a haul with windowpane flounder catches present (i.e., hauls with zero catches are not shown). The relative size the circle represents the magnitude of the catches, with the location of the haul at the center. Source: NEFOP and ASM, 2012-2013. Maps are courtesy of the NEFSC.

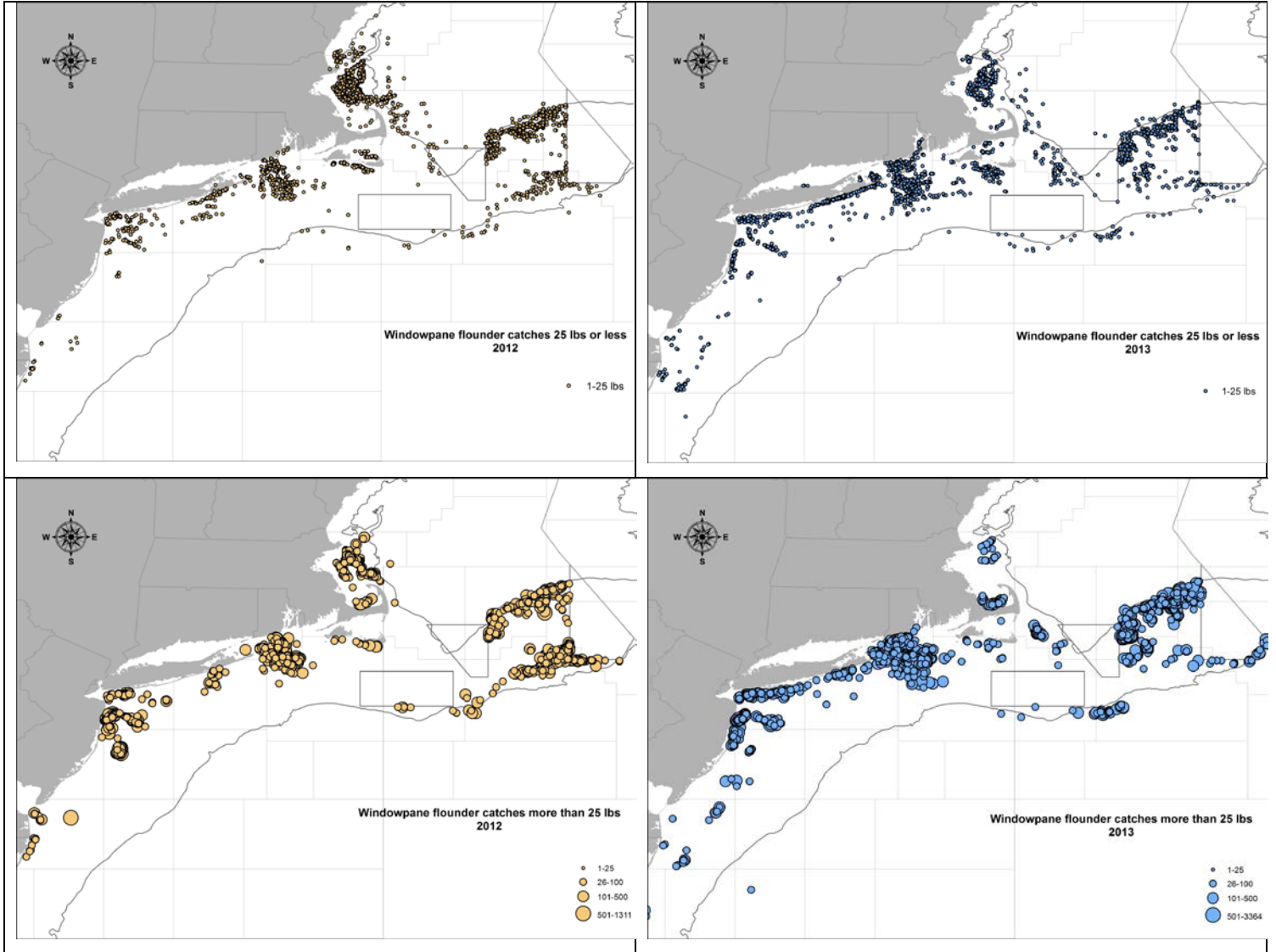




Figure 6- Commercial trawl fishery windowpane flounder catches (lbs/haul) by calendar year (2012- left panels and 2013- right panels) and bimonthly grouping (January-February, March-April, and May-June). Each circle represents a haul with windowpane flounder catches present (i.e., hauls with zero catches are not shown). The relative size the circle represents the magnitude of the catches, with the location of the haul at the center. Source: NEFOP and ASM, 2012-2013. Maps are courtesy of the NEFSC.

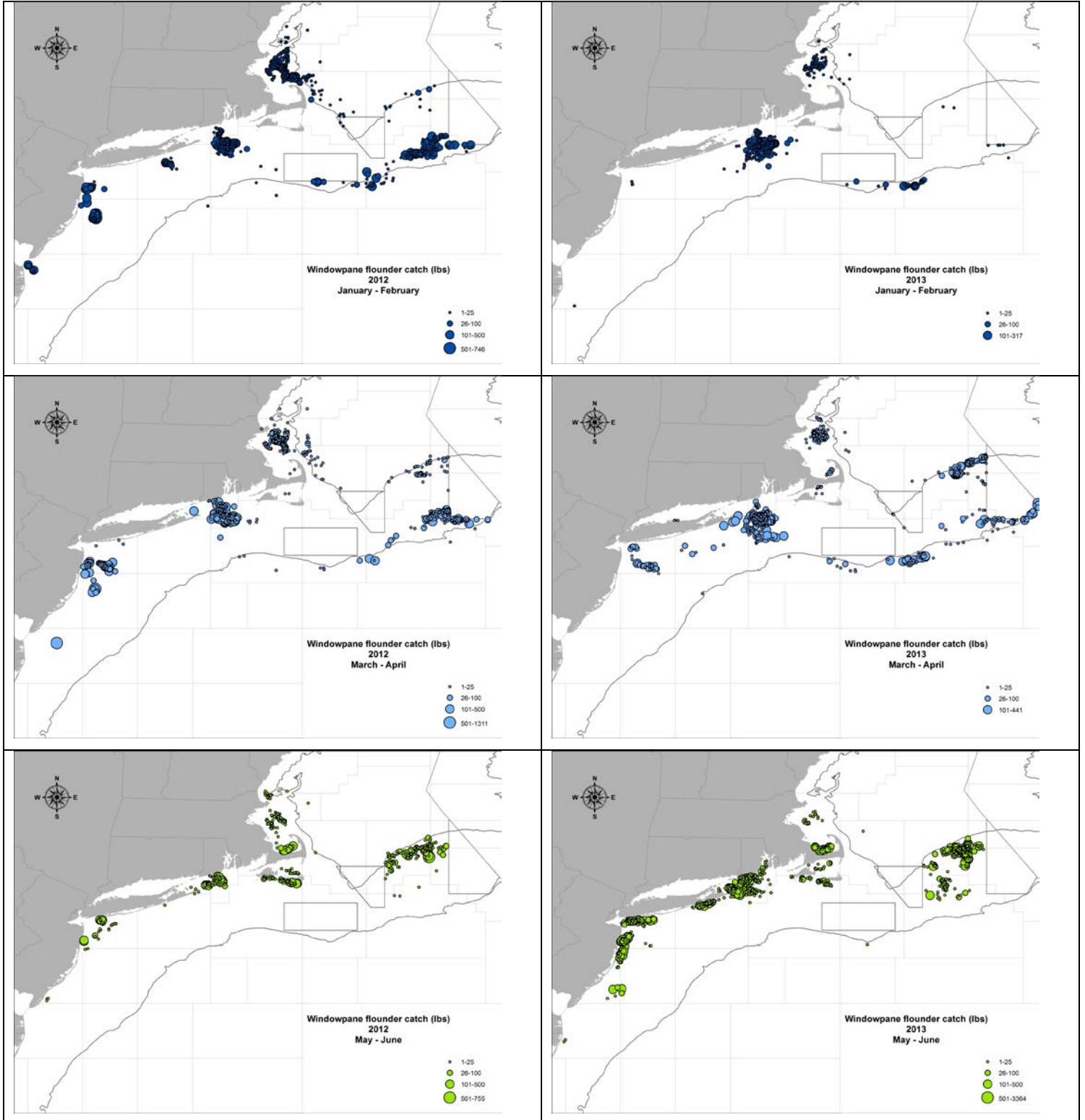
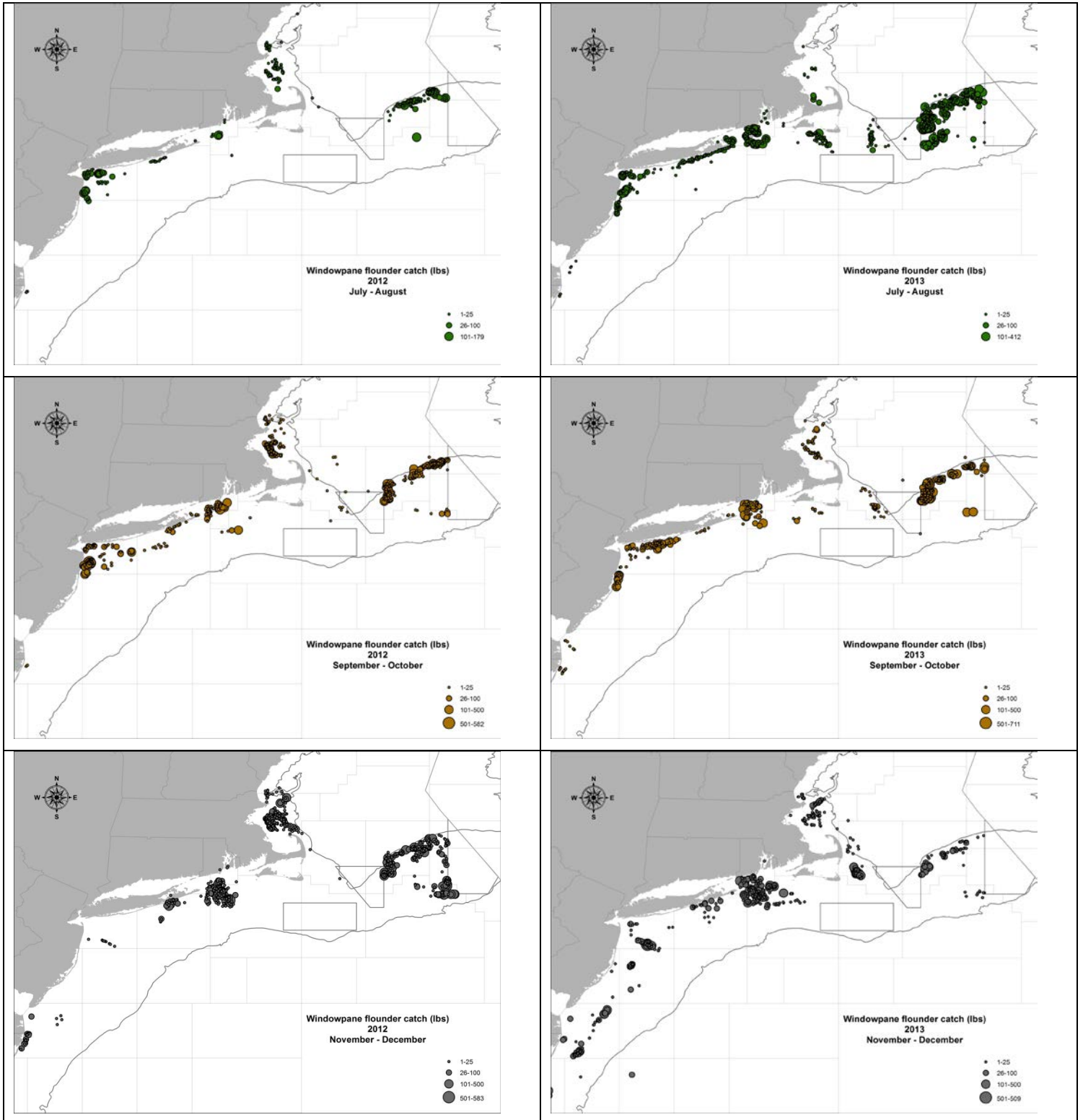




Figure 7- Commercial trawl fishery windowpane flounder catches (lbs/haul) by calendar year (2012- left panels and 2013- right panels) and bimonthly grouping (July-August, September-October, and November-December). Each circle represents a haul with windowpane flounder catches present (i.e., hauls with zero catches are not shown). The relative size the circle represents the magnitude of the catches, with the location of the haul at the center. Source: NEFOP and ASM, 2012-2013. Maps are courtesy of the NEFSC.



### **3. Draft Alternatives**

#### **4.0 DRAFT Alternatives Under Consideration**

#### **4.1 Updates to Status Determination Criteria, Formal Rebuilding Programs and Annual Catch Limits**

This section is not applicable for this action.

#### **4.2 Commercial and Recreational Fishery Measures**

##### **4.2.1 Windowpane Flounder Accountability Measures in the Groundfish Fishery**

Accountability measures being considered for windowpane flounder in the groundfish fishery are reactive AMs. The alternatives to the No Action were developed based on the characteristics of the fishery and stock assessment. Windowpane flounder is a discard only stock that is not allocated. It is also not commercially viable. The assessment is index-based. The transferability and feasibility of these AM alternatives to other stocks has not been evaluated.

These AMs are designed to apply to groundfish fishing activity by both common pool and sector groundfish fishing vessels. Since the design of these AMs is based on constraining all groundfish fishing activity, sectors cannot request an exemption from the AM provisions. The AM was originally established in Framework Adjustment 47 to the Multispecies (Groundfish) Fishery Management Plan.

##### **4.2.1.1 Option 1: No Action**

##### **Area-Based Accountability Measures for Windowpane Flounder**

Timing: The AM is only implemented at the start of the fishing year, and never inseason. Inseason catch information is not readily available for state or non-groundfish fisheries, so a final ACL determination cannot typically be made until after the fishing year ends. If there is an overage the AM is implemented:

- At the start of Year 2 if, based on reliable data, NMFS determined inseason during Year 1 that the total ACL was exceeded; or
- At the start of Year 3, if final catch estimates after the end of Year 1, indicate that the total ACL was exceeded.

The groundfish fishery AM for either stock of windowpane is implemented if the total ACL is exceeded by more than the management uncertainty buffer (which is approximately 5%), and in the case of southern windowpane, if the groundfish fishery also exceeds its sub-ACL.

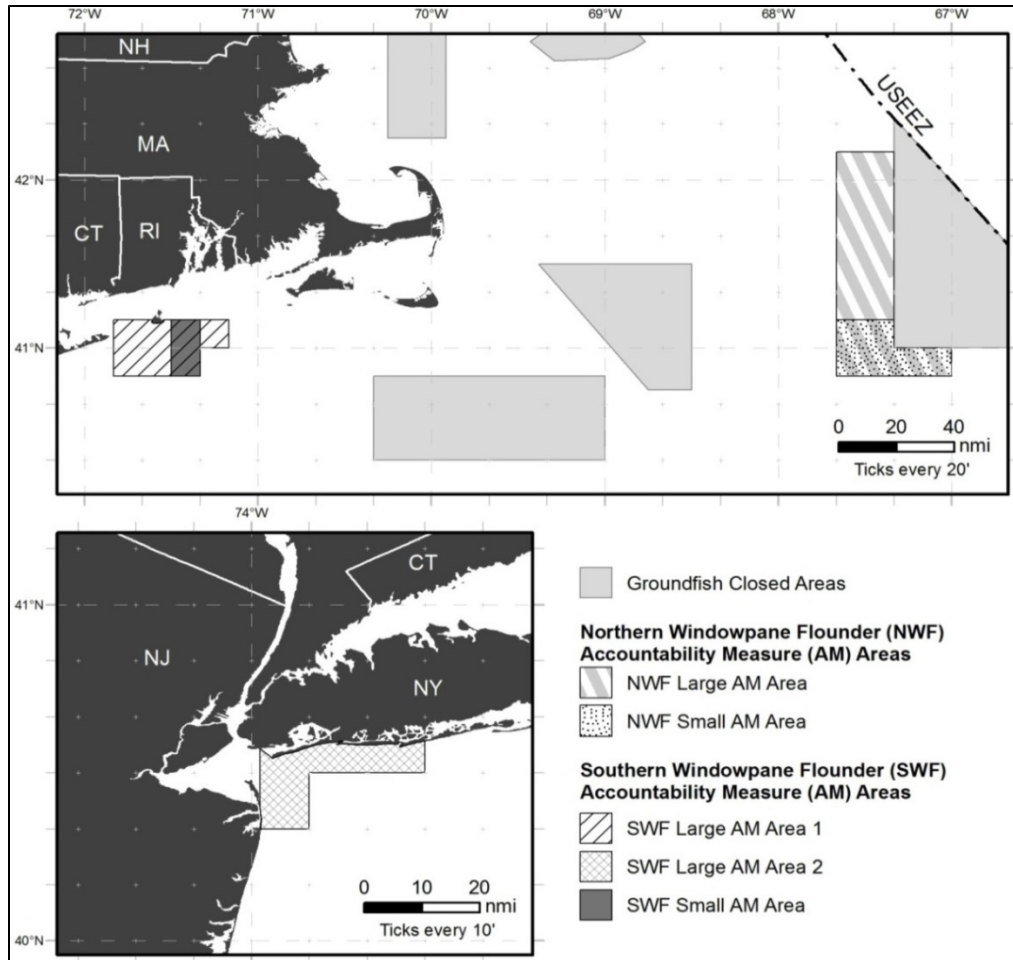
Should a sub-ACL be allocated to another fishery and AMs developed for that fishery, the AMs for both fisheries will be implemented only if the total ACL for the stock is exceeded.

Selective gear: Common pool and sector vessels fishing on a groundfish trip with trawl gear are required to use selective trawl gear to minimize catch of flatfish. Approved gears include the separator trawl, Ruhle trawl, mini-Ruhle trawl, rope trawl, and other gear authorized by the Council in a management action or approved for use consistent with the process defined in 50 CFR 648.85 (b)(6). There would be no restrictions on longline or gillnet gear. The AM does not apply to longline or gillnet gear since these gears comprise such a small amount of the total catch of windowpane flounder.

Areas: The applicable areas where gear restrictions would apply are shown below including the coordinates. The areas are designed to be stock specific – the areas on GB are implemented only if the ACL for northern windowpane flounder is exceeded; the areas in SNE are implemented only if the southern windowpane flounder ACL is exceeded and if the groundfish fishery also exceeds its sub-ACL.

The size of the areas for the restrictions is based on the amount of the overage. Only the small AM area is implemented if the ACL overage is less than 20%, and the large AM areas are implemented if the ACL overage is more than 20%.

<p>Northern Windowpane Flounder AM area – Small</p> <p>41-10N 67-40W          41-10N 67-20W          41-00N 67-20W          41-00N 67-00W          40-50N 67-00W          40-50N 67-40W</p>	<p>Northern Windowpane Flounder AM area – Large</p> <p>42-10N 67-40W          42-10N 67-20W          41-00N 67-20W          41-00N 67-00W          40-50N 67-00W          40-50N 67-40W</p>
<p>Southern Windowpane Flounder Area – Small</p> <p>41-10N 71-30W          41-10N 71-20W          40-50N 71-20W          50-50N 71-30W</p>	<p>Southern Windowpane Flounder Area - Large</p> <p>41-10N 71-50W          41-10N 71-10W          41-00N 71-10W          41-00N 71-20W          40-50N 71-20W          40-50N 71-50W</p> <p>And</p> <p>NY coast at 73-30W          40-30N 73-30W          40-30N 73-50W          40-20N 73-50W          NJ coast at 73-50W          North along 73-50W to NY coast</p>



4.2.1.2 Option 2: Revise the accountability measure trigger

Two options are being considered to revise the trigger for the accountability measure. All other aspects of the current AM would remain the same.

Sub-Option A: AM trigger that incorporates stock status/biomass

If the total ACL is exceeded, and the large AM area is triggered, the appropriate body (e.g., PDT, NMFS) would determine whether the following criteria are met: 1) the stock is rebuilt or on its rebuilding trajectory and 2) the biological consequences of the overage are small, or negligible.

If the designated body determines that all of the above criteria are met, based on updated information, then only the small AM Area would be implemented.

*Rationale:* This type of AM trigger would better account for the uncertainties in these index-based stocks because it would not rely on a single point estimate (FY catch ÷ ACL), but would incorporate other updated information. Updated information could be used to determine whether there is a need, or a reduced need, to adjust management measures in order to reduce catch of the stock following an overage. This would minimize the economic impacts of the AM for a healthy stock, or a stock that continues to rebuild, while still accounting for any potential biological consequences of an overage. This idea is similar to a recent MAFMC’s recreational AM action that scales the amount of an overage payback relative to stock biomass.

The PDT is currently exploring how the above mentioned criteria could be evaluated using examples from other index-based stocks. The PDT proposes that the approach be formulaic in order preserve objectivity and expediency.

Sub-Option B: Account for Year 2 performance when an AM has been triggered for Year 3

If a subsequent overage does not occur in Year 2, the AM is not implemented in Year 3. As soon as an overage was determined for Year 1, NMFS would announce the possibility of an AM being implemented in Year 3. NMFS would make final ACL determinations for Year 2 as quickly as possible, and on May 1 of Year 2, NMFS would implement the small AM area, and then would either announce as close to May 1 as possible that an AM was not necessary, or would withdraw the small area AM inseason in Year 3 if final Year 2 catch information becomes available after the start of Year 3.

*Rationale*: Due to the delayed implementation of AMs for windowpane flounder stocks, it is possible that although an overage occurs in Year 1, a subsequent overage may not occur in Year 2. If an overage does not occur in Year 2, particularly if the Year 2 ACL is underharvested by the amount of the Year 1 overage, implementing an AM in Year 3 may not be operationally or biologically necessary. In addition, this measure would provide a greater incentive for vessels to voluntarily reduce catch of a stock to avoid the pending AM in Year 3.

4.2.1.3 Option 3: Revise the accountability measure areas to be seasonal

For northern windowpane flounder only, the AM area would be replaced with statistical area 522 as the AM area. The duration of the AM would be linked to the amount of the overage. The AM would be in place for May- August for an overage greater than 5% and up to 20% and May-December for an overage greater than 20%. All other aspects of the current AM would remain the same.

Rationale: The duration of the gear-restricted areas would be adjusted based on the magnitude of the overage. This would ensure that the overage was mitigated while minimizing economic impacts of the AM on the groundfish fishery. The PDT has not examined whether these seasonal AM areas would have disproportionate impacts on components of the groundfish fishery.