



New England Fishery Management Council

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**MEMORANDUM** **VERSION 1**

**DATE:** March 24, 2014

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

**FROM:** Groundfish Plan Development Team (GF PDT)

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

**1. Activity**

The Groundfish PDT held one conference call on March 4<sup>th</sup> and one in person meeting on March 18<sup>th</sup>, 2014 to discuss Framework Adjustment 52 (FW 52) and review the analysis completed. To date, the PDT has focused on summarizing background information on windowpane flounder and the current management system. The PDT will be having an additional conference call on March 31<sup>st</sup> to continue its discussion on FW 52. Then, the PDT plans to update this memo in advance of the April 4<sup>th</sup> Committee meeting.

**2. Background**

The Council initiated FW 52 at its February 2014 meeting. The purpose of FW52 is to revise accountability measures (AMs) for the commercial groundfish fishery for southern and northern windowpane flounder stocks. The current AMs were triggered for FY 2014 due to overages of the overall annual catch limits (ACLs) in FY 2012 for both windowpane stocks. The Council requested that any revision to the current AMs be applied retroactive to FY 2014, or any overages that occurred prior to FY 2014.

The Council expressed concern that the current gear restricted area AMs may not effectively prevent overages, and could negatively impact the groundfish fishery, in particular due to considerable economic losses in targeted flatfish fisheries (e.g., winter flounder and yellowtail flounder fisheries). The Council also discussed whether the current status of the stocks should be considered when determining if AMs should be implemented. Any revisions to the AMs for windowpane flounder would be intended to mitigate overages that have already occurred, better ensure that additional overages do not occur in FY 2014 and beyond, and help minimize economic impacts of the AMs on the commercial groundfish fishery.

### 3. Current Management System

Neither windowpane flounder stock is allocated to groundfish sectors (i.e., non-allocated stocks), and possession is prohibited. Because the stocks are not allocated to sectors, the AMs apply to the entire commercial groundfish fishery (sector and common pool vessels), and sectors may not request an exemption from these AMs. For northern windowpane flounder, no other fishery receives an allocation of this stock. As a result, the commercial groundfish fishery is 100% accountable for any overages of the overall ACL, regardless of what fishery caused the overage. For FY 2013 and beyond, the scallop fishery and the “other” sub-component receive an allocation of southern windowpane flounder, and thus, the AMs for southern windowpane are only triggered for a fishery if it exceeds its sub-ACL, and the overall ACL is also exceeded.

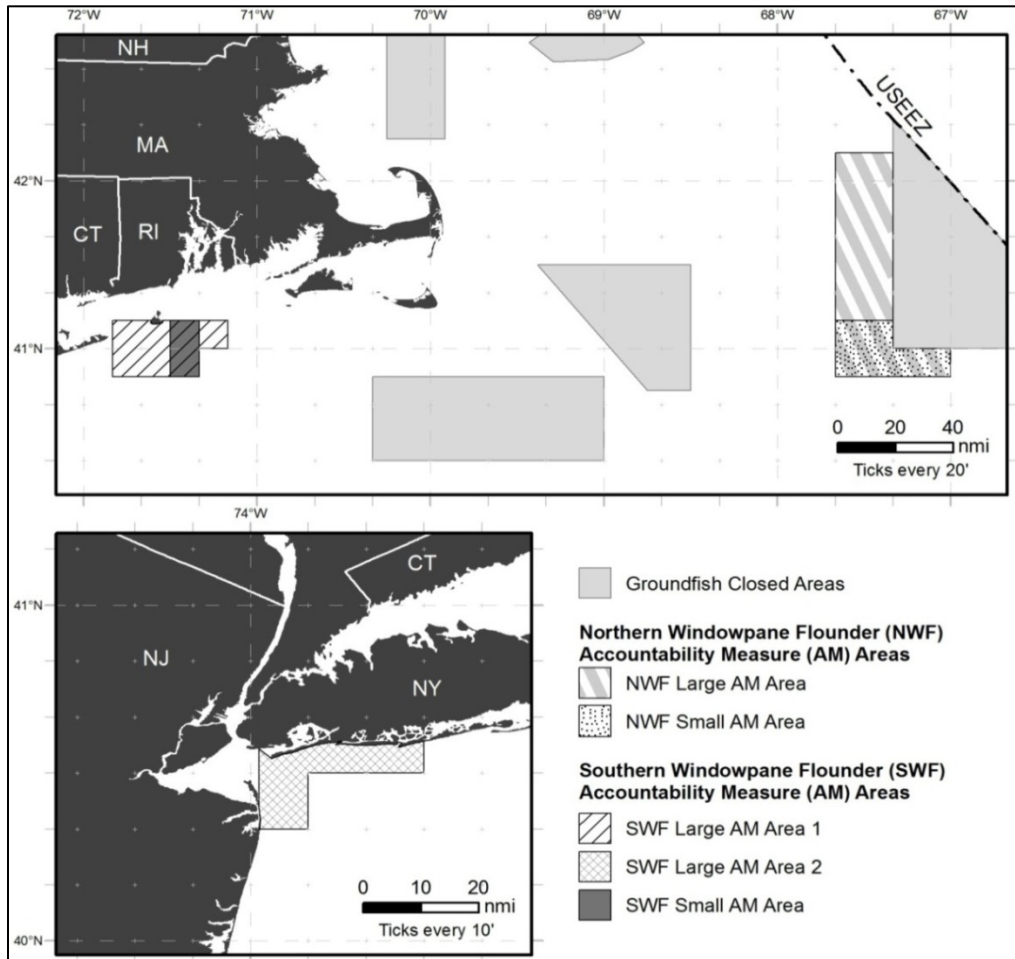
**Groundfish Fishery AMs-** The groundfish fishery AM for either stock of windowpane is implemented if the total ACL is exceeded by more than the management uncertainty buffer (which is approximately 5%), and in the case of southern windowpane, if the groundfish fishery also exceeds its sub-ACL.

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 (e.g., separator trawl, Ruhle trawl, mini-Ruhle trawl, or rope separator trawl) when fishing in the AM areas (Figure 1). 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%. 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.

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. 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.

Figure 1 - Northern and southern windowpane flounder AM areas.



**4. FY 2012 Windowpane Flounder Catches**

The ACLs for both windowpane flounder stocks were exceeded in FY 2012 thus triggering the AMs. The northern windowpane flounder catch limit was exceeded by 28%, and the southern windowpane flounder catch limit was exceeded by 36% (Table 1). Below additional detail on the non-groundfish fisheries catches for FY 2012 is also provided (Table 2).

Table 1 - FY 2012 windowpane flounder catches by the groundfish fishery and other fisheries.

Stock	OFL (mt)	ABC (mt)	Total ACL (mt)	Catch (mt)				% of Catch Limit Caught
				Total	Groundfish Fishery	State Waters	Non-Groundfish Fisheries	
Northern windowpane flounder	230	173	163	209	130	2	77	128%
Southern windowpane flounder	515	386	381	521	107	34	380	136%

**Table 2 - FY 2012 windowpane flounder catch detail for non-groundfish fisheries.**

Stock	Scallop	Fluke	Scup	Small-Mesh Fisheries (squid/whiting)	Unknown
Northern windowpane flounder	75.7	0.0	0.0	1.0	0.0
Southern windowpane flounder	125.8	75.9	65.8	28.0	80.4

**5. Preliminary FY 2013 Windowpane Flounder Catches**

Preliminary FY 2013 catch estimates for both stocks of windowpane flounder are presented in Table 3 based on data reported through March 19, 2014. Inseason catch estimates are not available for state waters or the other sub-component. The preliminary FY 2013 catch estimate for northern windowpane flounder (227 mt), which only includes commercial groundfish catches, exceeds both the FY 2013 ABC (151 mt), and the FY 2013 OFL (202 mt) (Table 4).

**Table 3 - Preliminary FY 2013 windowpane flounder catches, data as reported 3/19/2014.**

Stock		Total	Groundfish	Scallop	State Waters	Other sub-component
Northern windowpane	Catch Limit	144	97	NA	2	44
	Preliminary FY 2013 Catch	227	227	NA	NA	NA
Southern windowpane	Catch Limit	527	102	183	55	186
	Preliminary FY 2013 Catch	215	106	104	NA	NA

**6. 2014 Windowpane AMs for the Groundfish Fishery**

Due to the FY 2012 overages for both windowpane stocks, the respective AMs will be implemented for FY 2014. In addition because the overages for both stocks was greater than 20% of the ACL, both the large AM areas will be triggered for northern and southern windowpane (Figure 1). The AM will only apply to commercial groundfish vessels. Allocations for the scallop fishery and the other sub-component were not made until FY 2013, so groundfish vessels will be held 100% accountable for the FY 2012 overage, regardless of what fisheries contributed to the overage.

**7. OFLs, ABCs, and ACLs for FY 2013-2015**

The ABCs for FY 2013-FY 2015 for both stocks of windowpane flounder were held constant (Table 4). The SSC concluded that the index-based assessment projections for both windowpane flounder stocks are too unreliable for determining ABCs, and therefore, were not used to determine specifications for the windowpane flounder stocks. Instead, OFLs and ABCs were estimated from the most recent three year average of biomass from the fall survey.. The OFL was calculated as the  $F_{MSY}$  proxy applied to the most recent biomass estimate. The ABC was

calculated as 75% of  $F_{MSY}$  applied to the most recent biomass estimate. These specifications were implemented through FW 50 (see Appendix III to FW 50 for additional details).

**Table 4 - OFLs, ABCs, and ACLs for FY 2013, FY 2014 and FY 2015 for both windowpane flounder stocks.**

Stock	Year	OFL	ABC	Total ACL	Groundfish	Scallop	State Waters	Other sub-component
Northern windowpane	2013	202	151	144	98	NA	2	44
	2014							
	2015							
Southern windowpane	2013	730	548	527	102	183	55	186
	2014							
	2015							

**Recent Assessment** - Both stock assessments for the Northern (Gulf of Maine – Georges Bank) and Southern New England windowpane stocks are index based assessments using the AIM model.

However, the SSC concluded that the AIM model projections for both windowpane flounder stocks are too unreliable for determining ABCs. Subsequently, the windowpane flounder ABCs were estimated using a three year average of the fall biomass index multiplied by  $75\%F_{MSY}$ . This estimate was held constant for the three years specified (FY 2012-FY 2014).

In addition, fall windowpane flounder R/V Bigelow conversion coefficients were estimated at 1.901 for biomass and 2.044 for abundance. While, spring conversion coefficients were estimated at 3.311 for abundance and 3.069 for biomass. The R/V Bigelow survey indices were converted to R/V Albatross units.

## 8. Status of the Stocks

Both windowpane flounder stocks are assessed using a lagging 3-year moving average of the NEFSC fall survey biomass index. These assessments are based on data from fall NEFSC bottom-trawl surveys because the fall surveys demonstrate a stronger relationship with the fishery catch time series compared to the spring surveys (see GARM III). The stock assessments for windowpane flounder were most recently updated in 2012, and the assessment had a terminal year of 2010. A summary of the 2012 assessment results for both stocks is below. The assessments for both stocks are tentatively scheduled to be updated in early 2015, though it is unclear if the results of these updates will be available in time for the start of the 2015 fishing year, which begins on May 1, 2015.

**Northern (GOM/GB) Windowpane Flounder-** Biomass indices for this stock have fluctuated above and below the time series median as fishing mortality rates have fluctuated below and above the point where the stock could replenish itself. Biomass indices increased to levels at or slightly above the median during 1998-2003, but then fell below the median from 2004-2010. Biomass was 29% of  $B_{MSY}$  in 2010 (NEFSC 2012). According to the 2012 assessment update, the stock was overfished and overfishing was occurring in 2010.

**Southern (SNE/MAB) Windowpane Flounder-** In 2009 and 2010, biomass indices for this stock were above the median, and the 2010 biomass was well above the  $B_{MSY}$  proxy (146%). According to the 2012 assessment update, the stock is not overfished and overfishing was not occurring (NEFSC 2012). As a result, NOAA Fisheries declared this stock rebuilt in May 2012.

## **9. Recent Survey Catches and Distribution**

**Survey Trends-** The converted spring survey indices show a larger shift in the index for both stocks when the R/V Bigelow series began in 2009 (Figures 2-5). It is not clear if this is a reflection of increases in biomass or due to uncertainty with the calibration factors. The fall northern windowpane flounder stock biomass index increased in 2010 but the 2010-2011 indices were relatively low in comparison to previous years (Figures 2-3). Increases in the biomass indices from 2009-2013 relative to the mid-2000s were seen for the southern windowpane flounder stock (Figures 4-5).

**Distribution-** In general, windowpane flounder are widely distributed across the shallower portions of Georges Bank and inshore waters of the Mid-Atlantic and Southern New England (Figure 7). Windowpane flounder are also more widely distributed into relatively deeper water in the spring survey in comparison to the fall survey.

Figure 2- Fall survey biomass index, stratified mean weight per tow (top), and survey abundance index, numbers per tow (bottom) for Northern (Gulf of Maine – Georges Bank) windowpane flounder. R/V Albatross trawl door, gear, and vessel conversion factors applied as appropriate. R/V Bigelow abundance and weight conversion factors applied from 2009-2013. Bootstrap 90% confidence intervals are also shown. Data Source: NEFSC fall bottom-trawl surveys 1975-2013.

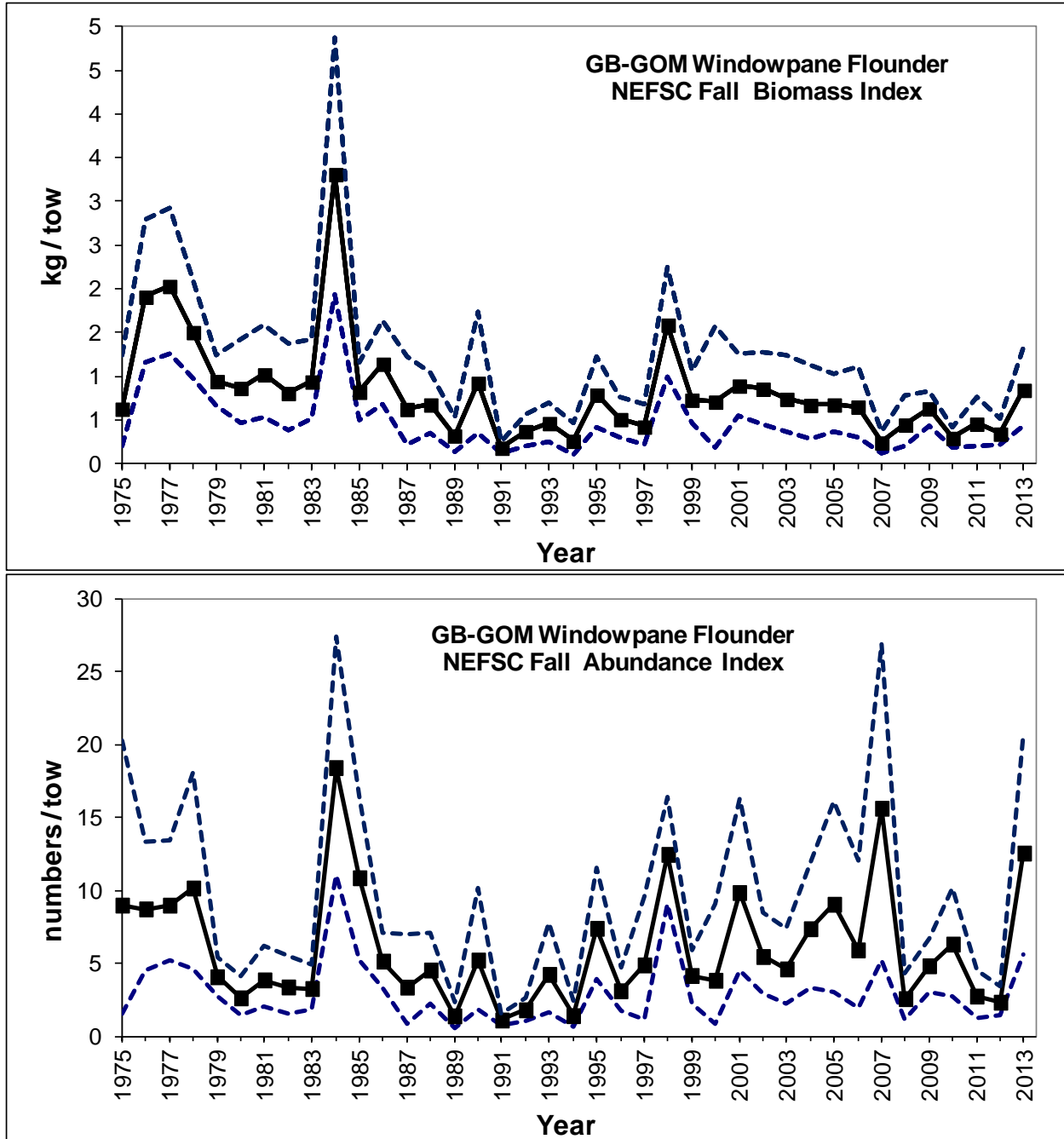


Figure 3 - Spring survey biomass index, stratified mean weight per tow (top), and survey abundance index, numbers per tow (bottom) for Northern (Gulf of Maine – Georges Bank) windowpane flounder. R/V Albatross trawl door, gear, and vessel conversion factors applied as appropriate. R/V Bigelow abundance and weight conversion factors applied from 2009-2013. Bootstrap 90% confidence intervals are also shown. Data Source: NEFSC spring bottom-trawl surveys 1975-2013.

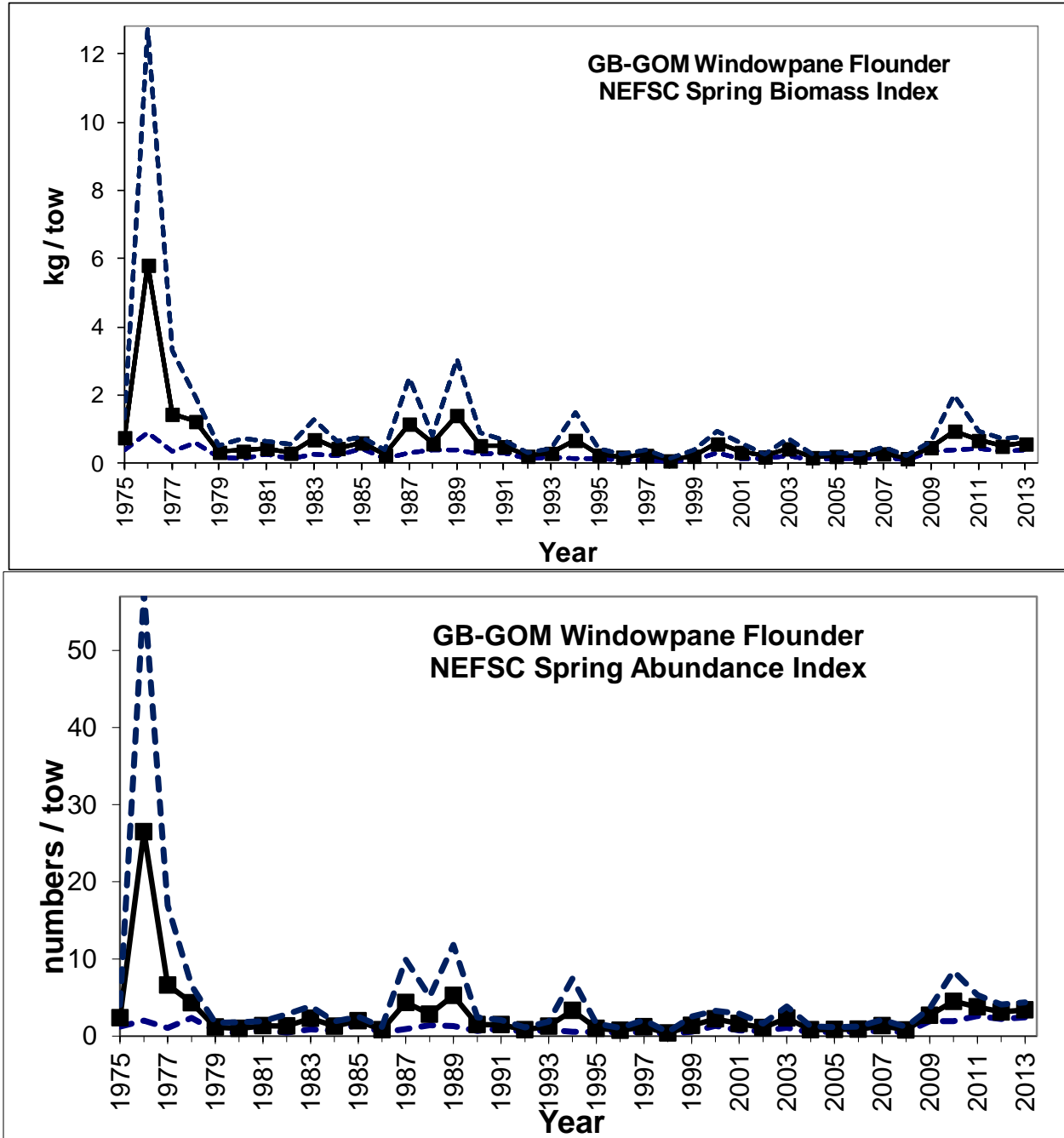




Figure 4 - Fall survey biomass index, stratified mean weight per tow (top), and survey abundance index, numbers per tow (bottom) for Southern (SNE) windowpane flounder. R/V Albatross trawl door, gear, and vessel conversion factors applied as appropriate. R/V Bigelow abundance and weight conversion factors applied from 2009-2013. Bootstrap 90% confidence intervals are also shown. Data Source: NEFSC fall bottom-trawl surveys 1975-2013.

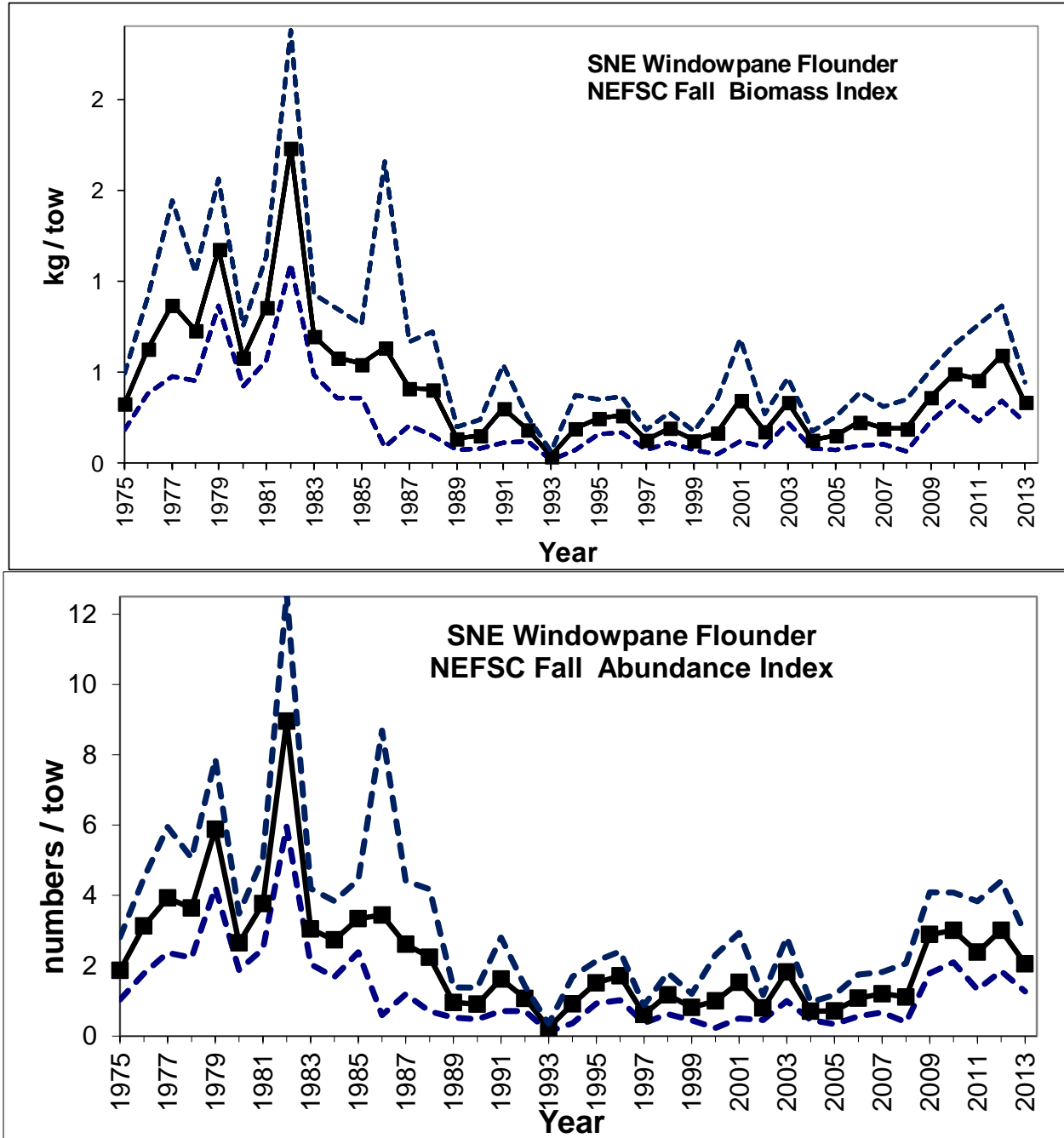


Figure 5 - Spring survey biomass index, stratified mean weight per tow (top), and survey abundance index, numbers per tow (bottom) for Southern (SNE) windowpane flounder. R/V Albatross trawl door, gear, and vessel conversion factors applied as appropriate. R/V Bigelow abundance and weight conversion factors applied from 2009-2013. Bootstrap 90% confidence intervals are also shown. Data Source: NEFSC spring bottom-trawl surveys 1975-2013.

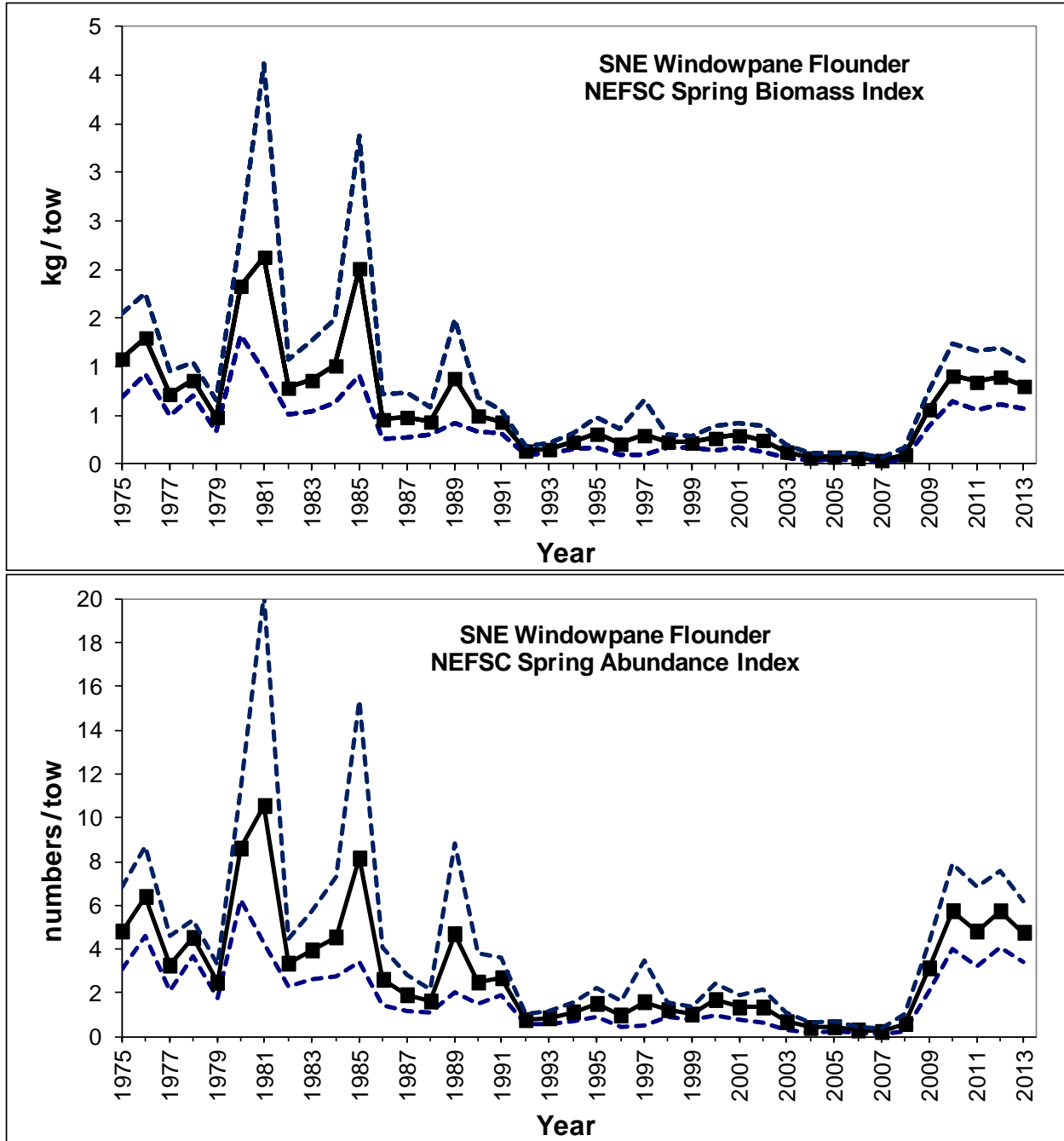


Figure 6 - Fall windowpane flounder bottom-trawl survey catches (number/tow) by year (2008-2013). Each black circle represents a survey tow with windowpane flounder catch present (i.e., survey tows with zero catches are not shown). The relative size the black circle represents the of the survey catch compared to other survey catches; the location of the survey tow is at the center of the circle. Note that surveys after 2008 were conducted on the R/V Bigelow. Data Source: NEFSC fall bottom-trawl surveys, 2008-2013. Maps are courtesy of the NEFSC.

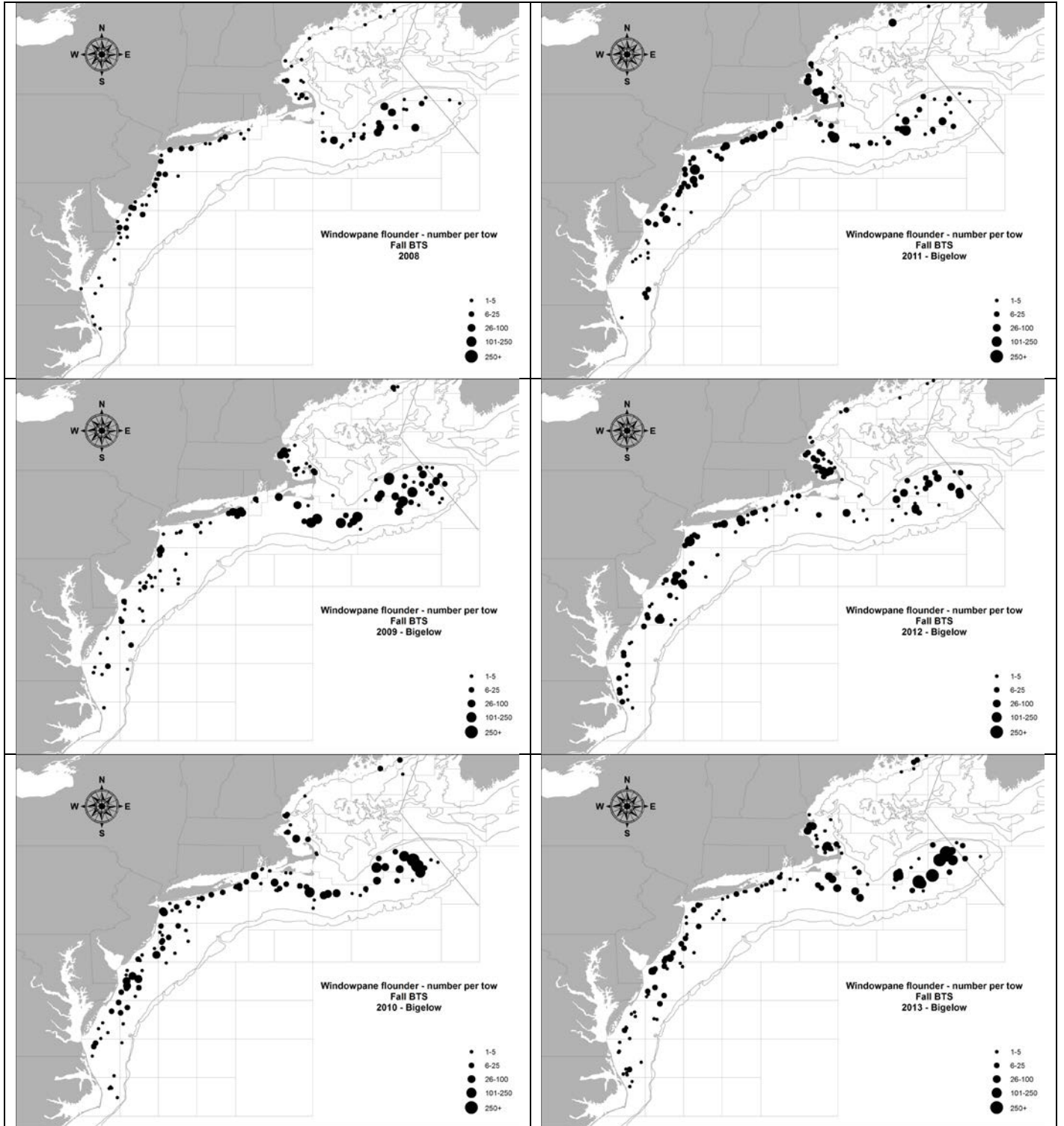


Figure 7 - Spring windowpane flounder bottom-trawl survey catches (number/tow) by year (2008-2013). Each black circle represents a survey tow with windowpane flounder catch present (i.e., survey tows with zero catches are not shown). The relative size the black circle represents the of the survey catch compared to other survey catches; the location of the survey tow is at the center of the circle. Note that surveys after 2008 were conducted on the R/V Bigelow. Data Source: NMFS fall bottom-trawl surveys, 2008-2013. Maps are courtesy of the NEFSC.

