



## New England Fishery Management Council

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

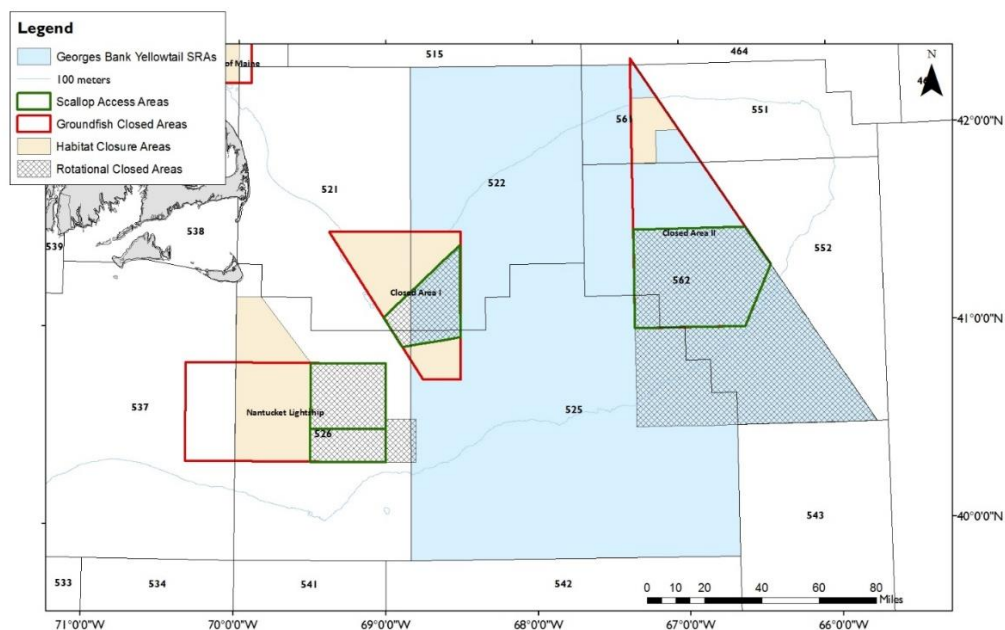
### MEMORANDUM

**DATE:** August 1, 2016  
**TO:** Groundfish PDT  
**FROM:** Scallop PDT  
**SUBJECT:** Scallop Fishery Catch of Georges Bank Yellowtail Flounder

On July 21, 2016 the Scallop PDT reviewed recent management measures within the Georges Bank yellowtail flounder (GB YT) stock area (statistical reporting areas 522, 525, 561, 562), catch estimates of GB YT, and scallop fishing effort within the GB YT stock boundary. In recent years, several management measures have been included in the Scallop FMP for the purpose of reducing GB YT bycatch. The PDT's discussion focused on the following five topics:

1. Scallop Fishery Allocations and Catch of GB YT
2. Rotational and Seasonal Closures within the GB YT Stock Area
3. Gear Modifications to Reduce Flatfish Catch
4. Bycatch Avoidance Efforts
5. Scallop fishery effort in the GB YT stock area

**Figure 1 - FY2016 Management Areas and Rotational Closures with Georges Bank Yellowtail Flounder statistical reporting areas (SRAs) shown in blue.**



## 1. Scallop Fishery Allocations and Catch of GB YT

The scallop fishery is currently allocated 16% (based on historic catch) of the GB YT US acceptable biological catch ([see Groundfish FW48](#)). The fishery's annual catch limit (ACL) reflects a reduction for management uncertainty. Provisions in both the groundfish and scallop fishery management plans require that NMFS estimate scallop fishery catch of GB YT annually in January to determine if the sub-ACL is likely to be exceeded. In years when NMFS projects that less than 90% of the scallop GB YT sub-ACL will be caught, the agency may initiate an allocation transfer from the scallop fishery to the groundfish fishery. In FY2015, NMFS transferred 7.9 mt of the GB YT from the scallop fishery to the groundfish fishery (~21% of the FY 2015 scallop GB YT sub-ACL).

Regulations governing the scallop fishery's retention of GB YT have varied in recent years. Landings of GB YT became prohibited for the scallop fishery in FY 2014 to remove any incentive to target yellowtail (Table 2). Prior to this, catch estimates were comprised of both landings and discards. In some years, there has been a requirement that vessels land any catch of yellowtail.

Since FY 2011, scallop fishery catch of GB YT has ranged from a high of 164 mt (FY 2012) to a low of 29.7 mt. The limited access component accounts for nearly all GB YT catch (i.e. very little LAGC IFQ catch). The PDT notes that the fishery has historically encountered yellowtail within the Closed Area II Access Area (CA II AA) and along the southern flank of Georges Bank in SRA 562 and 525 (Figure 1). Lower catches of yellowtail can be expected during closures of these areas (seasonal or year round).

**Table 1 – Recent Georges Bank Yellowtail TACs and scallop fishery sub-ACLs and catches. Values shown in metric tons (mt).**

	Total Shared TAC – US & CA (mt)	US % Share	US TAC (mt)	% US TAC Caught	Scallop sub-ACL (mt)	Scallop catch (mt)	% Scallop ACL Caught
FY2011	2,650	55%	1,458	76%	200.8	83.9	41.8%
FY2012	1,150	49%	564	68%	156.9	164	104.5%
FY2013	500	43%	215	43%	41.5	37.5	90.4%
FY2014*	400	82%	328	37%	50.9	59	115.9%
FY2015*	354	70%	248	***	38	29.7	78.1%
FY2016*	354	76%	269	***	42	3.3**	7.8%
FY2017*		69%					
* Indicates that retention of GB YT was prohibited for scallop fishery **FY2016 GB YT scallop catch estimate as of June 2, 2016 ***Indicates that final catch data is not yet available							

## 2. Rotational and Seasonal Closures within the GB YT Stock Area

Rotational area management is the cornerstone of scallop fisheries management. There are four types of areas in this system: 1) “open areas” where scallop fishing can occur using DAS or IFQ; 2) areas completely closed to scallop fishing year-round to reduce impacts on EFH and/or groundfish mortality; 3) areas temporarily closed to scallop vessels to protect small scallops until a future date; and 4) areas open to very restricted levels of scallop fishing called “access areas.” When scallop vessels are fishing in these areas they are limited in terms of total removal and sometimes season. All four types of management areas have been employed within the GB YT stock area (Figure 1).

The PDT focused its discussions on management measures since FY 2011 because this was the first year that a sub-ACL was allocated to the scallop fishery. Table 2 describes limited access DAS and access area trip allocations since FY 2011, along with details about the management of the CA II AA and management within the GB YT statistical reporting area (SRA).

The CA II AA is situated within the GB YT SRA. After a series of openings, the CA II AA was closed in FY2015 and FY2016. In FY2016, the area to the south of CA II was designated as a rotational closure (Figure 1). In FY2013 and FY 2014, seasonal closures from August 15 – November 15 were employed within the CAII AA to help reduce the catch of GB YT by the fishery.

**Table 2 - Limited Access scallop fishery allocations by FY and recent schedule of CAII access**

<b>FY</b>	<b>Action</b>	<b>LA DAS (Full Time)</b>	<b>AA trips</b>	<b>CA II AA</b>	<b>Notes re: CA II AA and other management</b>
2011	FW22	32	4 (2 MA)	0.5 trips (157 vessels; 18K lbs/trip)	10% access area bycatch cap; GB stock-wide monitoring of YT sub-ACL; Bycatch Avoidance Program CAI and CAII
2012	FW22	34	4	1 trip (313 vessels; 18K lbs/trip)	GB stock-wide monitoring of YT sub-ACL; Bycatch Avoidance Program CAI and CAII
2013	FW24	33	2	182 trips (13K lbs/trip)	Seasonal closure of CAII Aug 15 – Nov 15; GB stock-wide monitoring of YT sub-ACL; Bycatch Avoidance Program CAII
2014	FW25	31	2	197 trips (12K lbs/trip)	16% GB YT sub-ACL; YT landings prohibited; Seasonal closure of CAII Aug 15 – Nov 15; GB stock-wide monitoring of YT sub-ACL; Bycatch Avoidance Program CAII
2015	FW26	30.86	51K lbs to MAAA	Closed	In-season transfer to groundfish fishery (7.9 mt).
2016	FW27	34.55	3 (51K lbs to MAAA)	Closed	‘CAII Extension’ closure of open areas to protect small scallops

### 3. Gear Modifications to Reduce Flatfish Catch

Through scallop Framework 26, the Council approved measures that restrict the maximum number of rows in the dredge apron to 7 in all areas as shorter aprons have been shown to reduce flatfish bycatch and improve fish escapement (see Scallop FW 24, Appendix IV). Part of the rationale for this 7 row restriction was to reduce flatfish bycatch and prevent sub-ACLs from being exceeded and triggering reactive accountability measures. The restriction was implemented for in FY2015. The PDT also notes that the fishery-wide requirement to use of a 10” twine top (Amendment 10, 2004) improved the escapement of yellowtail flounder.

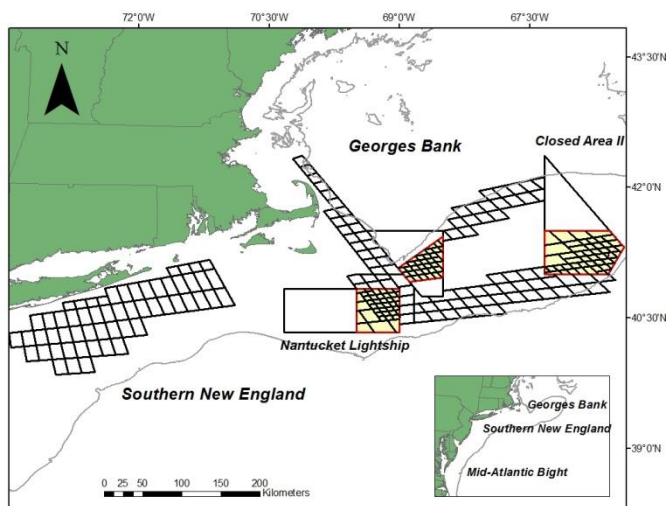
### 4. Bycatch Avoidance Efforts

The SMAST Yellowtail Flounder Bycatch Avoidance System is a voluntary program to exchange real-time, spatially-specific information on yellowtail flounder bycatch in the rotational and open areas of Georges Bank and southern New England. The system uses fishery-dependent data to provide advice on bycatch hotspots. Vessels can use the near real-time advice to change fishing behavior and avoid regions with high bycatch rates. The system was implemented in 2010, and has continued each year with additional participating vessels and areas of bycatch reporting and avoidance (Table 3; Figure 2).

**Table 3 - SMAST Bycatch Avoidance Program areas 2010-2016. Numbers in parentheses represent the number of participating vessels in each year. Closed Area II row is shown in gray.**

	2010 (122)	2011 (214)	2012 (244)	2013 (252)	2014 (253)	2015 (258)	2016 (258)
NLCA	x		x				
NLCA Extended				x	x		
CAI		x	x	x			
CAII		x	x	x	x		
North GB Open				x	x	x	x
South GB Open				x	x	x	x
SNE Open					x	x	x
Channel Open						x	X

**Figure 2 - Map of all reporting grids used for the SMAST Bycatch Avoidance Program.**

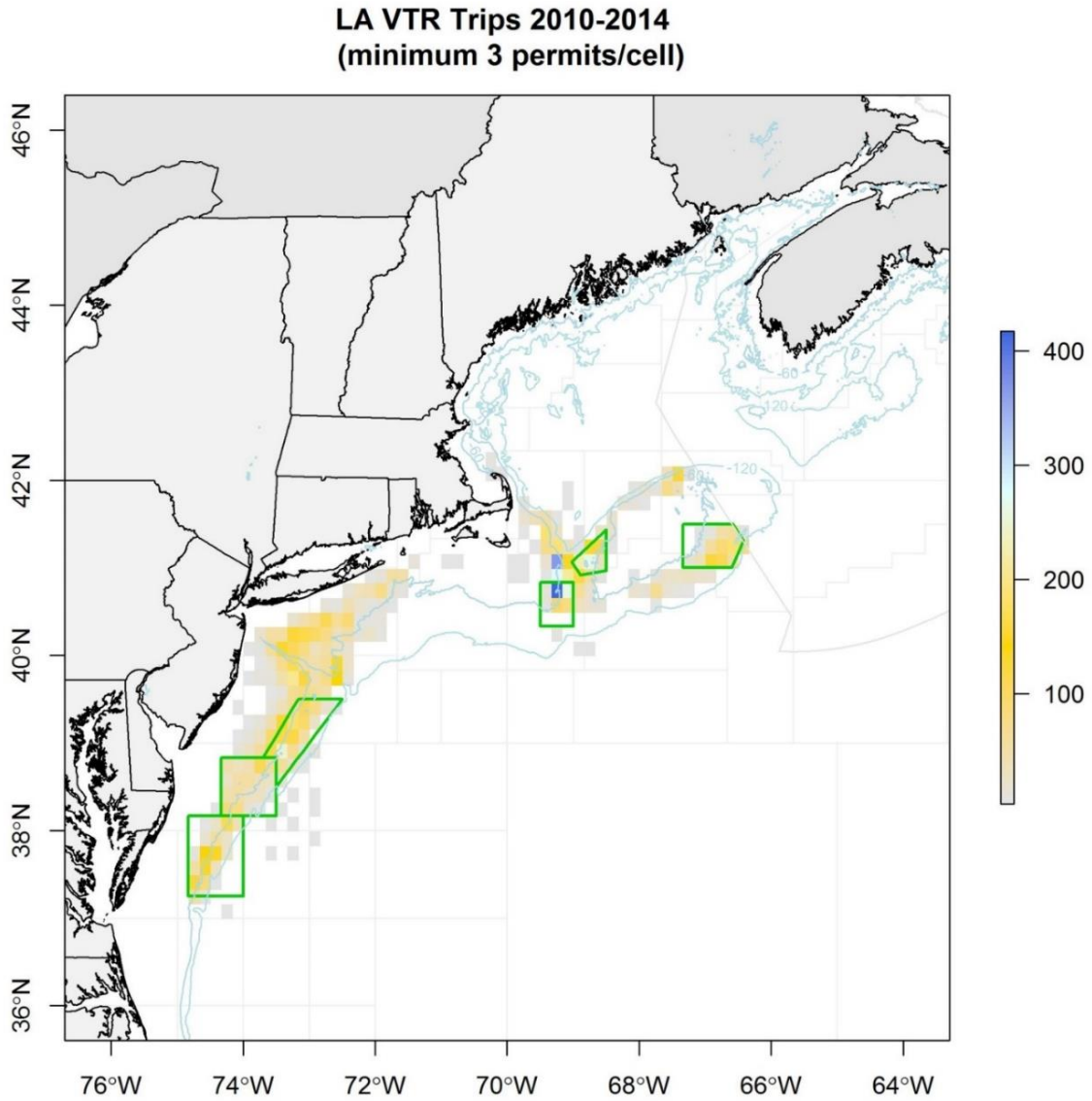


### 5. Scallop Fishery Effort in GB YT stock area

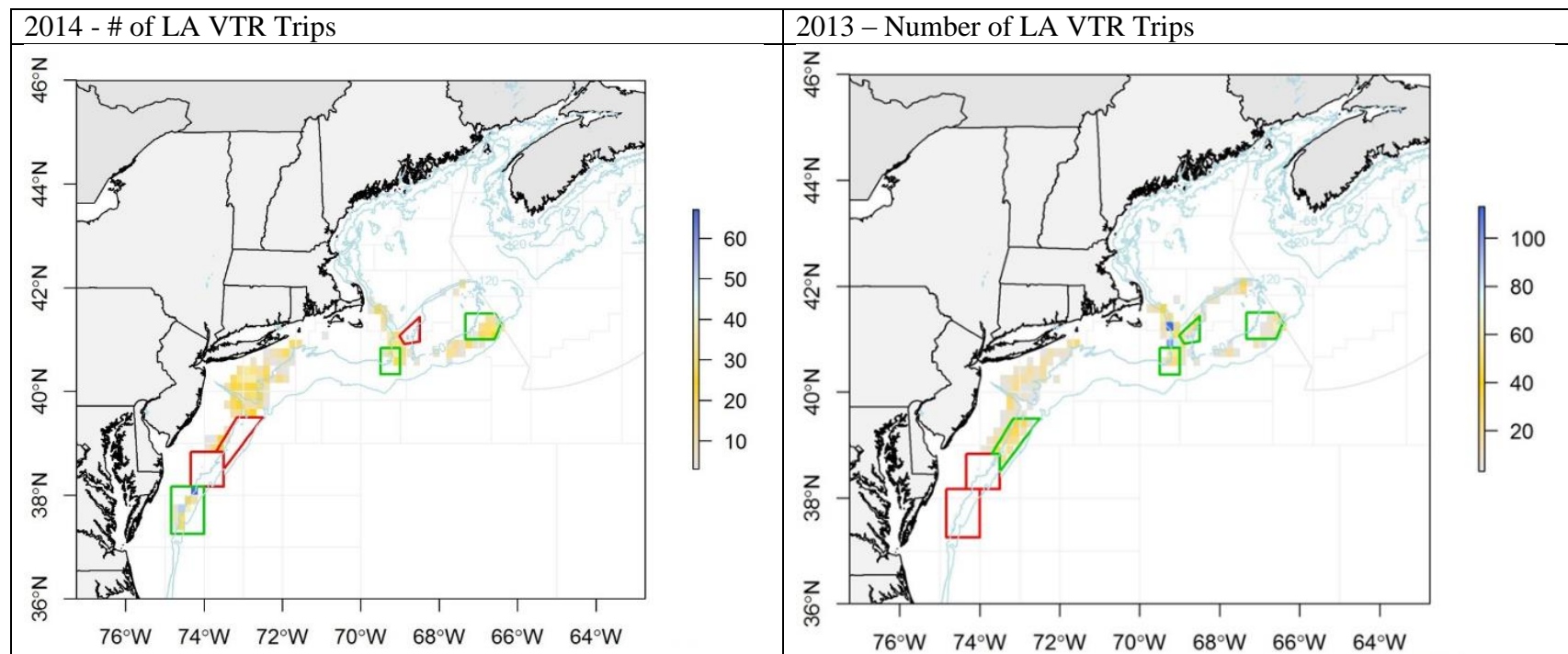
The Scallop PDT summarized fishing effort using limited access vessel trip report data, focusing on FY2011 – FY2014. Fishing effort is shown by 10-minute squares throughout the range of the fishery. Maps were developed using VTR effort data from all trips (open area and access area) of limited access vessels from 2011 – 2014 (Figures 3 and 4). Note that the scales of effort vary by year. The bathymetry lines follow the 60m and 120m contours, which translates to ~30 and ~60 fathoms respectively. In Figure 4, scallop access areas are shown in green when open, and red when they are closed in a particular fishing year. The PDT noted that while VTR locations are considered less accurate than VMS since they generally only have one self-reported location per trip, this approach sufficiently captures annual effort within the GB YT stock area.

The scallop fishery primarily operates between the 30 and 60 fathom curves along the southern flank and northern flanks of Georges Bank, and within the Closed Area II access area. The majority of trips on Georges Bank from 2010 – 2014 (Figure 3) are concentrated within the CA II access area, though effort varies annually (Figure 4). Effort on the northern edge of the bank has been concentrated to the west of the habitat closure area within CA II (see Figure 1). The PDT noted that the highest discard to kept ratios (d:k) of yellowtail to scallop meats in the GB YT stock area have been observed in Closed Area II and areas to the south. Less yellowtail catch has been observed along the northern portion of the bank.

Figure 3 - Number of LA VTR trips over five year period from 2010 – 2014 by ten minute squares.

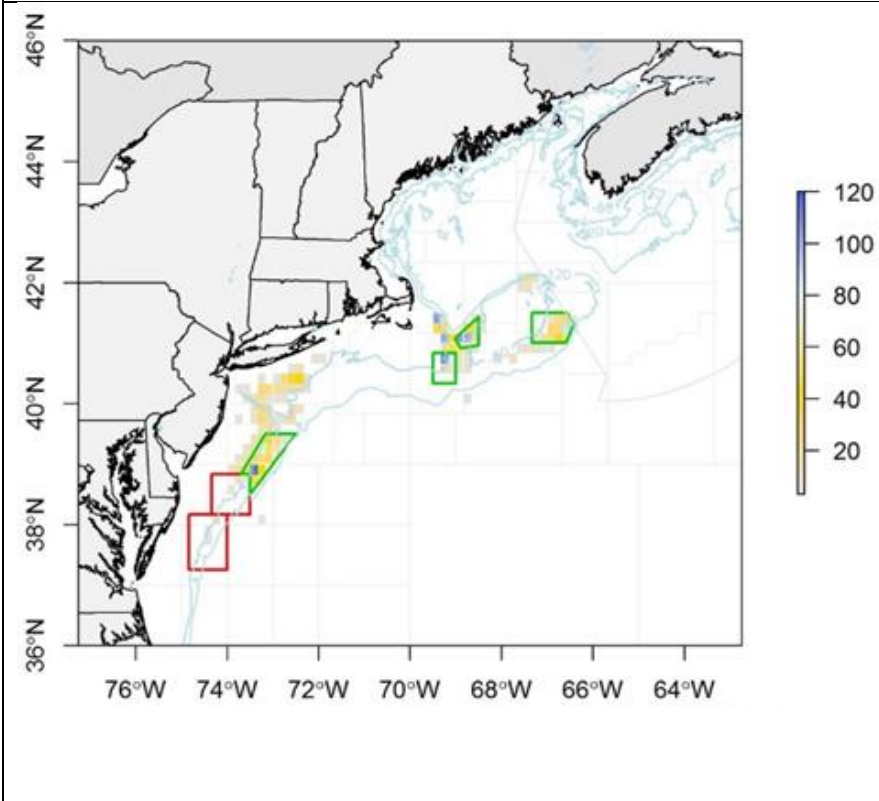


**Figure 4 - Annual spatial distribution of VTR trips by ten-minute squares (FY 2011 – FY2014). Access areas green when open and red when closed.**





2012 - # of LA VTR Trips



2011 - # of LA VTR Trips

