New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
Eric Reid, *Acting Chairman* | Thomas A. Nies, *Executive Director*

MEMORANDUM

DATE: August 17, 2021

TO: Scientific and Statistical Committee (SSC)

CC: Groundfish Committee

FROM: Groundfish Plan Development Team (PDT)

SUBJECT: **Georges Bank yellowtail flounder Overfishing Limits and Acceptable Biological Catches for fishing years 2022 and 2023**

The Groundfish Plan Development Team (PDT) met on August 10, 2021, by webinar and discussed Georges Bank (GB) yellowtail flounder. However, the Transboundary Resources Assessment Committee (TRAC) Status Report (TSR) was not available for review in time for the PDT's meeting. Therefore, the Groundfish PDT compiled information and analysis for the Scientific and Statistical Committee (SSC) to consider when developing catch advice. The Scallop PDT provides information on the scallop fishery and bycatch of GB yellowtail flounder in Attachment #1. Both PDTs refer the SSC to the 2017-2020 memos on the subject for additional background[1]. The PDT received the TSR on August 11, 2021, and plans to meet on August 19, 2021, to discuss the report. Due to time constraints, the PDT will report out to the SSC with any additional information in its presentation.

Stock Status

NOAA Fisheries determined GB yellowtail flounder is overfished and overfishing is occurring.[2] GB yellowtail flounder is in a 26-year rebuilding plan, with a target rebuild by date of 2032.

PDT Analysis and Discussion

The PDT compiled updated information since its 2020 memo to the SSC on (1) catch performance for GB yellowtail flounder (2) the ratio of discards to landings for GB yellowtail flounder, (3) observed catches of GB yellowtail flounder, (4) in-season utilization of GB

[1] 2020 memo: https://s3.amazonaws.com/nefmc.org/4_200821-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo_210805_095034.pdf
2019 memo: https://s3.amazonaws.com/nefmc.org/A6_190815-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo-attached.pdf
2018 memo: https://s3.amazonaws.com/nefmc.org/A6_180809-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo-attachment.pdf
2017 memo: http://s3.amazonaws.com/nefmc.org/A6_170804-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo-attached_170807_114738.pdf

[2] See: https://www.fisheries.noaa.gov/national/population-assessments/fishery-stock-status-updates

yellowtail flounder by the commercial groundfish fishery, and (5) summary of economic information.

1. Catch performance of GB yellowtail flounder

Figure 1 and Table 1 summarize the total catch performance of GB yellowtail flounder in the US and Canadian fisheries. In the US, three fisheries have sub-annual catch limits (ACLs) for GB yellowtail flounder – the commercial groundfish fishery (sectors and common pool), the scallop fishery, and the small-mesh (primarily for whiting and squid) trawl fisheries. The utilization rate of the US groundfish fishery (i.e., percent groundfish ACL caught) was greater than 85 percent in FY2011, but it has been below 40 percent since FY2013, and below 15 percent since FY2018 (Table 2). At the same time, recent ACLs for the groundfish fishery have declined to about 5-7 percent of those in FY2011 (Table 2). Accountability measures (AMs) include in-season GB yellowtail flounder stock area closures for the commercial groundfish fishery and payback provisions under certain conditions. Information on catch performance and management in the US scallop fishery is provided in Attachment 1. The sub-ACL for GB yellowtail flounder in the small-mesh trawl fisheries was implemented in FY2013. AMs for the small-mesh trawl fisheries include gear-restricted areas in the GB yellowtail flounder stock area in a year following an overage of the sub-ACL. To date, small-mesh fisheries have not exceeded their sub-ACL (Table 3).

Figure 1 – Total US and Canada catch performance for GB yellowtail flounder including catches from CY2005- CY 2020 and historical ABCs since FY 2010. Overfishing status in the terminal year of the assessment indicated on the x-axis (Yes = overfishing, No= not overfishing, and unknown = unknown overfishing status). Note: "unknown" status presented in this graph is based on the stock assessment and is not the official stock status determined by NOAA Fisheries.

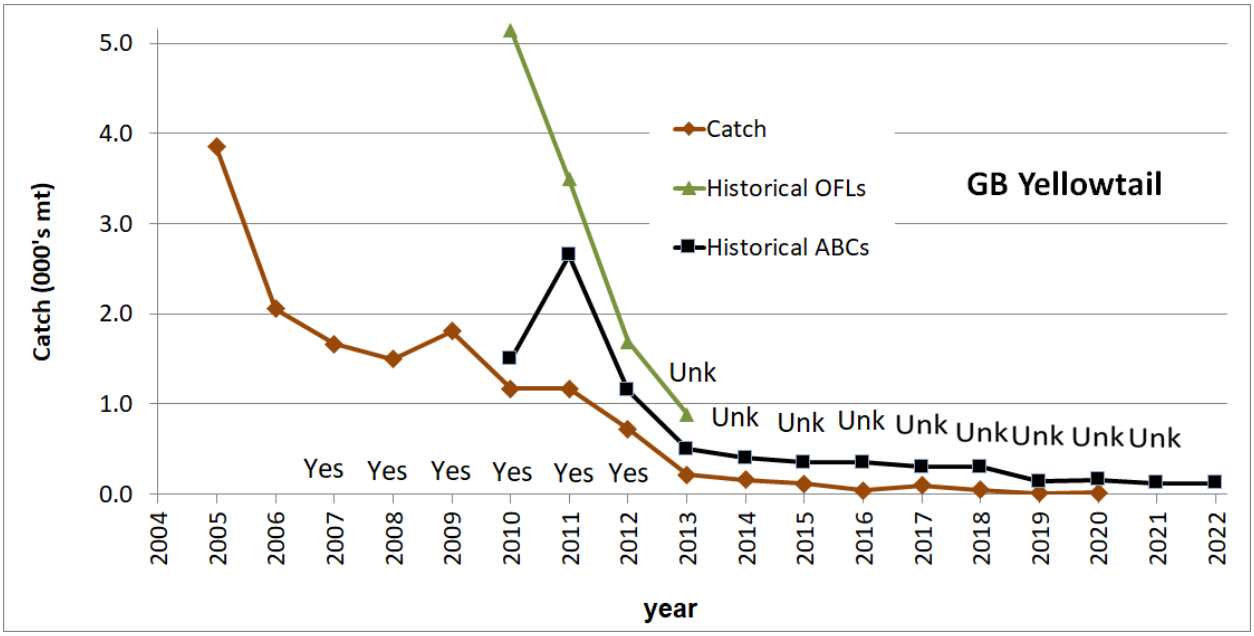


Table 1- Total US and Canada CY catch (mt) performance of GB yellowtail flounder, including OFLs and ABCs.

Year	CY Catch	OFLs	ABCs
2010	1,170	5,148	1,500
2011	1,171	3,495	2,650
2012	725	1,691	1,150
2013	218	882	500
2014	159	undefined	400
2015	118	undefined	354
2016	44	undefined	354
2017	95	undefined	300
2018	45	undefined	300
2019	8	undefined	140
2020	14	undefined	162
2021		undefined	125
2022		undefined	125

Table 2 - Recent GB yellowtail flounder TACs, groundfish fishery sub-ACLs, and catches for fishing years 2011 through preliminary 2020 and in-season preliminary 2021. Values shown in metric tons (mt). Source: GARFO.

	Total Shared TAC – US & CA (mt)	US % Share	US TAC (mt)	US catch (mt)	% US TAC Caught	Groundfish sub-ACL (mt)	Groundfish catch (mt)	Percent Groundfish ACL Caught (%)
FY2011	2,650	55%	1,458	1,105.9	75.9%	1142.0	990.0	86.7%
FY2012†	1,150	49%	564	384.9	68.2%	368.3	215.5	58.5%
FY2013†	500	43%	215	93.3	43.4%	154.5	55.8	36.1%
FY2014	400	82%	328	122.8	37.4%	254.5	62.5	24.5%
FY2015†	354	70%	248	68.2	27.5%	202.9	38.4	18.9%
FY2016†	354	76%	269	30.7	11.4%	250.8	23.9	9.5%
FY2017	300	69%	207	84.0	40.6%	162.6	31.4	19.1%
FY2018†	300	71%	213	40.5	19.0%	187.9	27.6	14.7%
FY2019†	140	76%	106	4.8	4.6%	99.8	3.1	3.1%
FY2020*	162	26%	120	8.0	6.7%	95.4	6.4	6.7%
FY2021**	125	64%	80			63.6	0.7	1.0%
	† Groundfish sub-ACL in table reflects final quota after in-season transfer from scallop to groundfish fishery, as required by regulation. *Indicates preliminary year-end catch data. **Preliminary in-season catch estimate as report run on August 12, 2021, GARFO catch reports. Catch includes discards based on assumed discard rate from FY2019.							

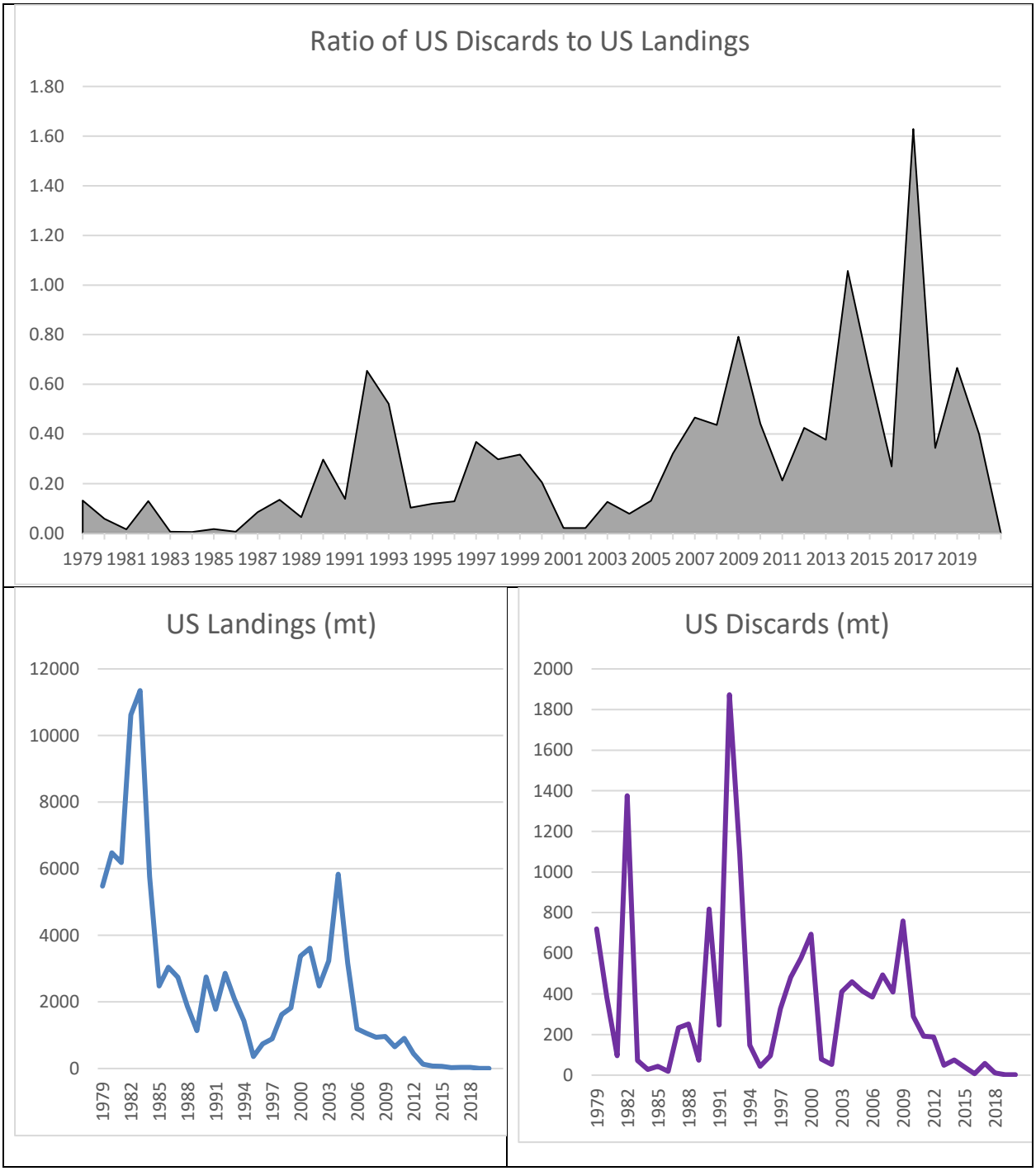
Table 3- Recent GB yellowtail flounder small-mesh fisheries sub-ACLs and catches (mt) for fishing years 2013 through FY2019. Values shown in metric tons (mt). Source: GARFO. The sub-ACL was implemented in FY2013 and is not evaluated in-season.

	Small-mesh fisheries sub-ACL (mt)	Small-mesh fisheries (mt)	Percent small-mesh fisheries Caught (%)
FY2013	4	2.5	63.7%
FY2014	6.1	1.1	18.1%
FY2015	5	0.1	1.0%
FY2016	5	4.8	95.2%
FY2017	4	0.4	9.7%
FY2018	4	0.1	2.5%
FY2019	2	<0.0	1.5%
FY2020	2		
FY2021	1.5		

2. *Ratio of US discards to US landings of GB yellowtail flounder*

Figure 2 displays the ratio of US discards to US landings of GB yellowtail flounder. In CY2014 and CY2017, US discards are greater than US landings (i.e., ratio >1). The US scallop fishery had access to the Closed Area II rotational management area in both FY 2014 and FY2017, which led to the increase in the magnitude of yellowtail flounder discards. Overall, total recent US catches continue to be low relative to historical catches.

Figure 2 – Ratio of US discards to US landings of GB yellowtail flounder, CY1979-2020 (top), US landings in mt (bottom left), and US discards (bottom right). Data Source: Draft GB Yellowtail Flounder TSR for 2021, TRAC, Table A1, pp. 13



3. Information on US observed catches of GB yellowtail flounder

Table 4 summarizes the count of observed large-mesh hauls of yellowtail flounder by haul weight (binned in 100 lb. increments) and statistical reporting areas (SRAs) for fishing year 2020. These data are all large-mesh bottom trawl hauls (NEGEAR=050) and are not filtered by fishery. New areas in FY2020 relative to FY2019 are highlighted. No observed hauls occurred in 525 or 613 in FY2020.

Table 4- Count of observed hauls of yellowtail flounder by haul weight (lbs.) and SRA for FY2020 and by stock: Cape Cod/Gulf of Maine (CC/GOM) yellowtail flounder (513, 514, and 521), GB yellowtail flounder (522 and 525), and Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder (537, 539, and 613).

	CC/GOM				GB				SNE/MA		
	513	**514**	**515**	**521**	**522**	**525**	**561**	**562**	**537**	**539**	**613**
<100 lbs.	70	343	8	141	37		9	11	12	15	
100-<200 lbs.	*	53									
200-<300 lbs.		26									
<300+ lbs.		31									

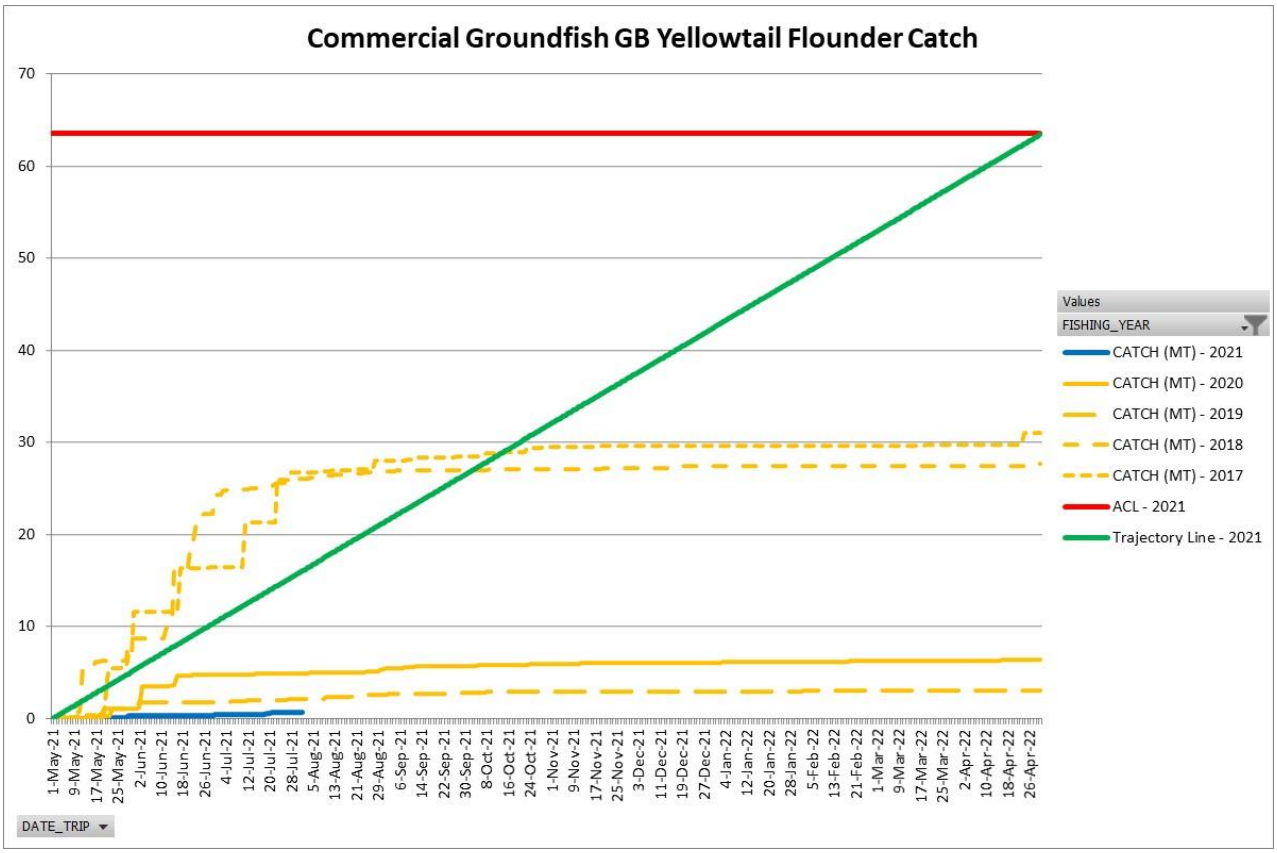
* Indicates confidential data based on <3 vessels.

4. In-season utilization by the commercial groundfish fishery.

Figure 3 shows groundfish commercial (sector and common pool) GB yellowtail flounder catches since FY2017 along with the FY2021 commercial ACL. GB yellowtail catch has been substantially below the sub-ACL from FY2017 to FY2020, not exceeded 10% utilization of the commercial ACL in the last two fishing years.

In the past, GB yellowtail catches in the groundfish commercial fishery showed a strong seasonal component with most of the catch occurring from late April into August. FY2019 and FY2020 had substantially lower catch than other years. Absent any large increases in the quota, it appears that directed fishing effort for GB yellowtail flounder is unlikely to increase in FY2021 or FY2022.

Figure 3-In-season utilization of GB yellowtail flounder by the commercial groundfish fishery.



5. Summary of Economic Information

Table 5 compares the performance of the quota-change model (QCM) since FY 2011 to realized outcomes. Performance of the QCM varies year to year (in some years it underpredicts, while in others it overpredicts) but generally has accurately predicted utilization trends (except for FYs 2014, 2019, and 2020), where utilization has been predicted to be low in recent fishing years as the sector-sub-ACLs have declined. Utilization was considerably lower in FY 2020 compared to predicted utilization, with only 5 mt of the 93 mt sub-ACL being caught. The actual total ex-vessel value for GB yellowtail in FY2020 was only $15,000 (in 2019$).

Table 5- Stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2011 and 2020 compared to realized catch and revenue (in 2019$).

		Sector	Catch (mt)		Utilization (%)		Gross Rev ($mil, 2019)	
	FY	sub-ACL	Realized	Predicted	Realized	Predicted	Realized	Predicted
GB Yellowtail Flounder	2011	1142	997.5	901.1	*0.873*	*0.789*	2.9	2.4
	2012	364.1	214.8	323.3	*0.59*	*0.888*	0.7	1
	2013	100	55.8	99.6	*0.558*	*0.996*	0.2	0.3
	2014	251.5	61.2	161.1	*0.243*	*0.641*	0.2	0.6
	2015	192.3	38.4	52.5	*0.2*	*0.273*	0.1	0.2
	2016	207	23.9	21.5	*0.116*	*0.104*	0.1	0.1
	2017	119.8	31	19.4	*0.259*	*0.162*	0.1	0.1
	2018	167	27.6	36.8	*0.166*	*0.22*	0.1	0.2
	2019	83	3.1	37.3	0.037	0.449	0.1	0
	2020	93	5.0	27.1	0.054	0.291	0	0.1

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
John F. Quinn, J.D., Ph.D., *Chairman* | Thomas A. Nies, *Executive Director*

MEMORANDUM

DATE: August 9, 2021

TO: Groundfish PDT

FROM: Scallop PDT

SUBJECT: **Scallop Fishery Activity in Georges Bank Yellowtail Flounder Stock Area**

Preface

For several years, the Scallop Plan Development Team (PDT) has provided memos to the Groundfish PDT for consideration during the Scientific and Statistical Committee (SSC)'s deliberations of the Georges Bank yellowtail flounder (GB yellowtail) Total Allowable Catch (TAC). These memos outline recent management measures within the GB yellowtail stock area, catch estimates of GB yellowtail, scallop fishing effort within the GB yellowtail stock area, and information on GB yellowtail catch advice (see Appendix I). The Scallop PDT revisited discussion on these topics at their July 28, 2021 meeting as well as through correspondence. This document communicates recent information on scallop fishing in the GB yellowtail stock area as well as the outlook for the scallop fishery and GB yellowtail bycatch on eastern Georges Bank in fishing year (FY) 2022.

Table of Contents

Preface 1
Key Points – Scallop Fishing Activity in Closed Area II Access Area 2
Key Points – Georges Bank Yellowtail Flounder 2
2020 Scallop Survey Information and FY2021 Spatial Management 2
Scallop Fishery Allocations and Bycatch Estimates of GB Yellowtail 7
References 8
Appendix I: Recent Memos from Scallop PDT to Groundfish PDT re: GB yellowtail 9
Appendix II: Rotational Management within the GB Yellowtail Stock Area and Recent Allocations 9
Appendix III: Recent Scallop Fishery VMS Effort 12

Key Points – Scallop Fishing Activity in Closed Area II Access Area

- For FY2021, full time limited access vessels were allocated one and a half (1.5) 18,000-pound trips to Closed Area II Access Area (CAII AA) for (27,000-pound allocation per vessel). The configuration of CAII AA in FY2021 includes the western portion of the traditional access area combined with the CAII Extension (i.e., CAII Southwest and Extension; Figure 1).
- The 2020 surveys of eastern Georges Bank observed the majority of exploitable biomass in the western portion of the traditional access area (Figure 2, Figure 3) as well as in the open bottom directly west of CAII AA in the Southern Flank (SF) Scallop Area Management Simulator (SAMS) area (Figure 2, Figure 3). The eastern portion of CAII AA (i.e., CAII East; Figure 1) was closed for FY2021 to protect small scallops and reduce bycatch of GB yellowtail and northern windowpane flounder. Note that CAII East supported access area fishing by limited access vessels in FY2020. The year class of smaller scallops in CAII East is not expected to reach full growth potential by FY2022, meaning this area is likely to remain closed in FY2022. The seasonal closure of CAII AA for FY2021 is from August 15 to November 30, 2021 (Figure 1); similar to FY2020, this includes a 2-week extension of the existing seasonal closure to further mitigate impacts to flatfish stocks.
- Results of the 2020 surveys suggested that access area fishing in the CAII region may be possible for FY2022. There were three scallop surveys of CAII AA and surrounding open areas (dredge, drop camera, and HabCam) in 2021. The Scallop PDT will consider findings from the 2021 surveys in its discussion around accessing scallops on eastern Georges Bank in FY2022.

Key Points – Georges Bank Yellowtail Flounder

- The scallop fishery is allocated a sub-Annual Catch Limit (sub-ACL) of GB yellowtail equivalent to 16% of the US TAC.
- Since 2012, the scallop fleet has caught an average of 31% of the US catch and 68% of the scallop sub-ACL.
- The scallop fishery's estimated catch of GB yellowtail has fluctuated in recent years. This is attributed to changes in rotational management (see Appendix II), specifically access to CAII AA and open areas directly adjacent to CAII AA.
- The Scallop PDT projected GB yellowtail bycatch to be about 16.4 mt for FY2021 (see Framework 33). This is largely due to the scallop fishery having access to CAII AA in FY2021.
- The scallop fishery accountability measure (AM) is structured in a way that the fishery would be able to continue to harvest scallops even if the AM is triggered. If the reactive AM is triggered for either GB yellowtail or northern windowpane, the fishery would be required to use a gear modification while fishing on eastern Georges Bank. Preliminary data suggests that the northern windowpane sub-ACL was exceeded by more than 150% in FY2020. This would mean that the gear restricted area (GRA) would be in effect in FY2022 and that a reduction in GB yellowtail catch could be expected in CAII AA in FY2022 as a result of the AM.

2020 Scallop Survey Information and FY2021 Spatial Management

The 2020 surveys of eastern Georges Bank continued to track several distinct year classes of scallops: one year class of juvenile scallops that was first observed in 2018 in the western extent

of CAII, and another older, larger year class that settled in the eastern portion of CAII (i.e., CAII East). Length frequencies for CAII East suggested that the larger year class was being fished down and that an incoming year class of juveniles had settled on the eastern edge of the area (Figure 3). The 2020 surveys also indicated that the dominant year class in the western part of the traditional access area (i.e., CAII-Southwest SAMS area in Figure 2) and CAII Extension (i.e., CAII-Ext SAMS area in Figure 2) had grown faster than anticipated and that most of these scallops would recruit to the fishery in FY2021. The focal point of this high-density concentration of scallops was observed in the CAII Southwest SAMS area, but also straddled the boundary of the CAII Extension SAMS area (see Figure 2). Another aggregation of scallops was observed along the shared boundary of the CAII Extension and the Southern Flank SAMS areas that was distributed mostly in the open area of eastern Georges Bank (see Figure 2); this aggregation was comprised of several year classes of adults and juveniles. Aside from the juvenile scallops mixed in the aggregation in the Southern Flank and the highly concentrated juveniles observed in CAII East, the majority of scallops observed on eastern Georges Bank were expected to recruit to the fishery in FY2021 and to support both open and access area fishing opportunities for the next several years (Figure 3).

The Council considered the multiple year classes and observations of incoming juvenile scallops on eastern Georges Bank when setting specifications for FY2021 through Framework 33. Scallop fishery specifications for FY2021 include one and a half 18,000-pound trips (i.e., 27,000 pounds total) to the modified CAII AA (i.e., CAII Southwest and Extension) for full time limited access vessels. The remainder of the traditional CAII AA (i.e., CAII East) is closed for the entirety of FY2021. The goal of the year-round closure was: 1) allow the year class of small scallops observed in the 2020 surveys to grow without fishing pressure, and 2) reduce scallop fishing effort where GB yellowtail bycatch has historically been high.

In addition to the closure within CAII East, the Council identified another key measure to further mitigate impacts of the scallop fishery on GB yellowtail and Northern windowpane flounder. Similar to FY2020, for FY2021, the existing CAII AA seasonal closure was extended by two weeks in November, making the newly configured area closed from August 15 until November 30, as a means to further reduce bycatch of Georges Bank yellowtail flounder and northern windowpane flounder (Figure 1). The seasonal closure incorporates the entirety of CAII AA based on the FY2021 configuration (i.e., western portion of traditional area, as well as CAII Extension). This proactive accountability measure is discussed in past memos to the Groundfish PDT (see Appendix I).

Figure 1 – Area coverage of the year-round closure of CAII East and seasonal closure of CAII Southwest and Extension (Aug. 15 – Nov. 30, 2021) implemented for fishing year 2021.

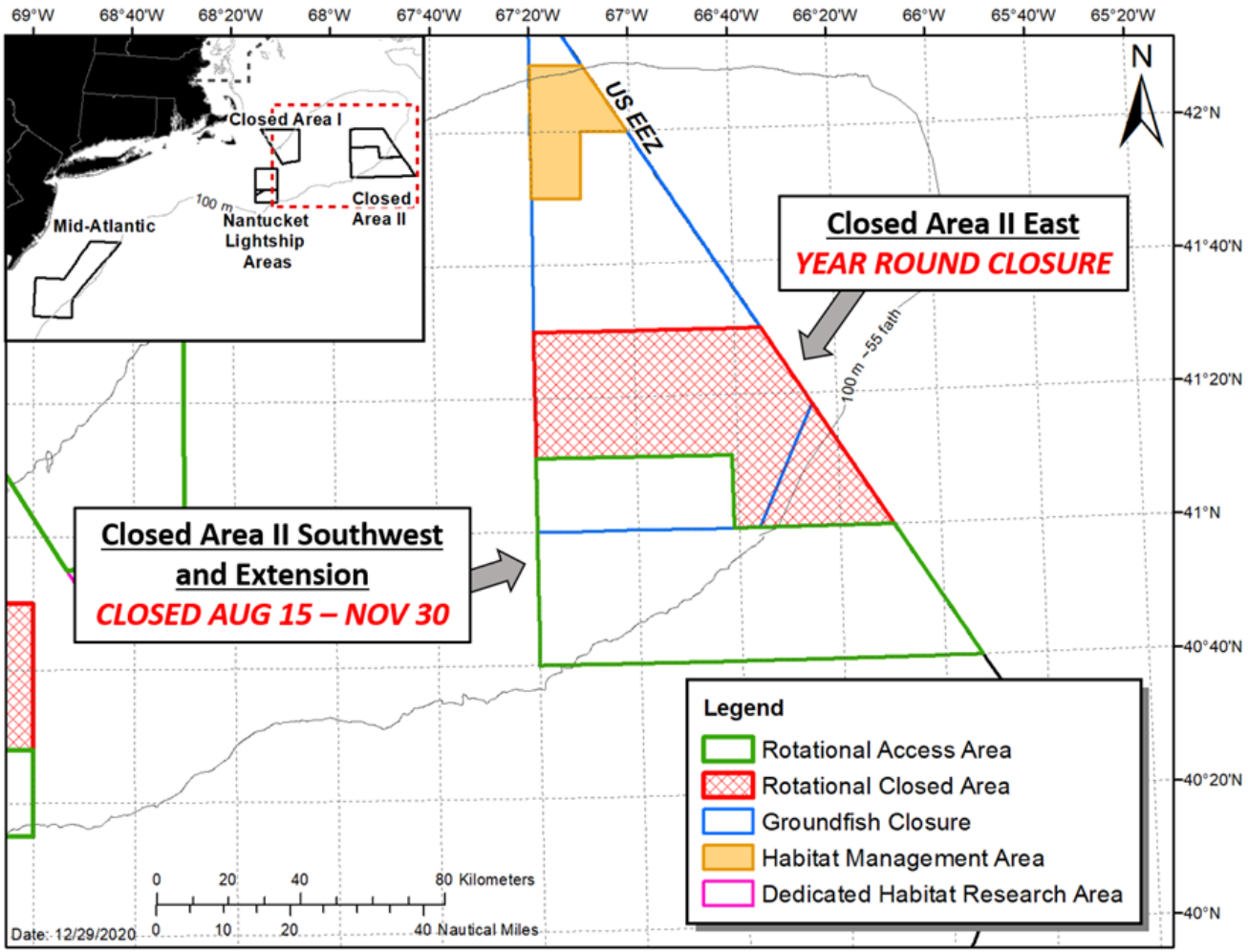


Figure 2 – Predicted scallop biomass (kg per km^2) of scallops greater than 40 mm shell height from the 2020 Coonamessett Farm Foundation (CFF) HabCam survey of eastern Georges Bank relative to FY2021 rotational management areas and groundfish/habitat closures. The dotted red lines and red labels show Scallop Area Management Simulator (SAMS) areas (note that 'SF' refers to the Southern Flank SAMS area).

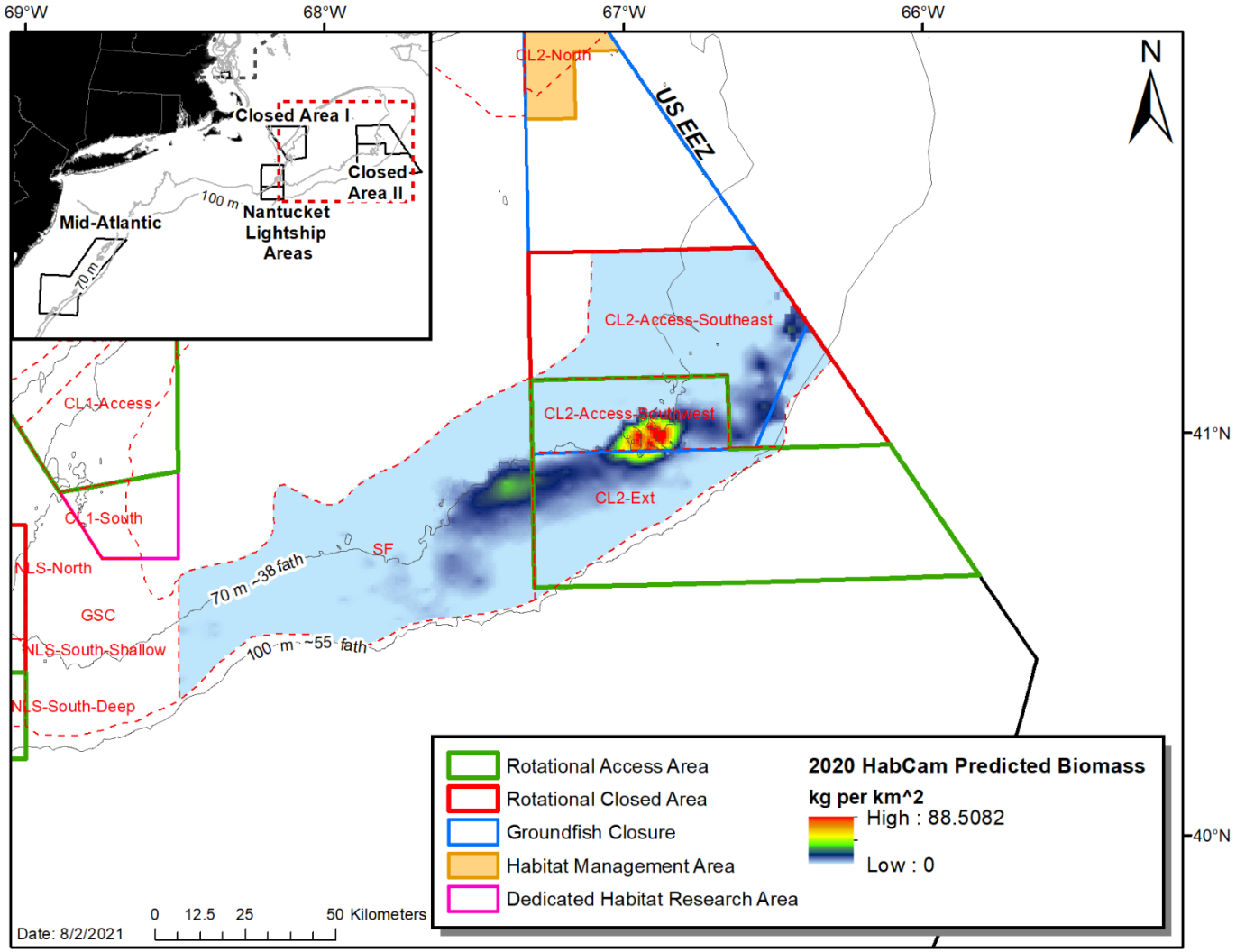
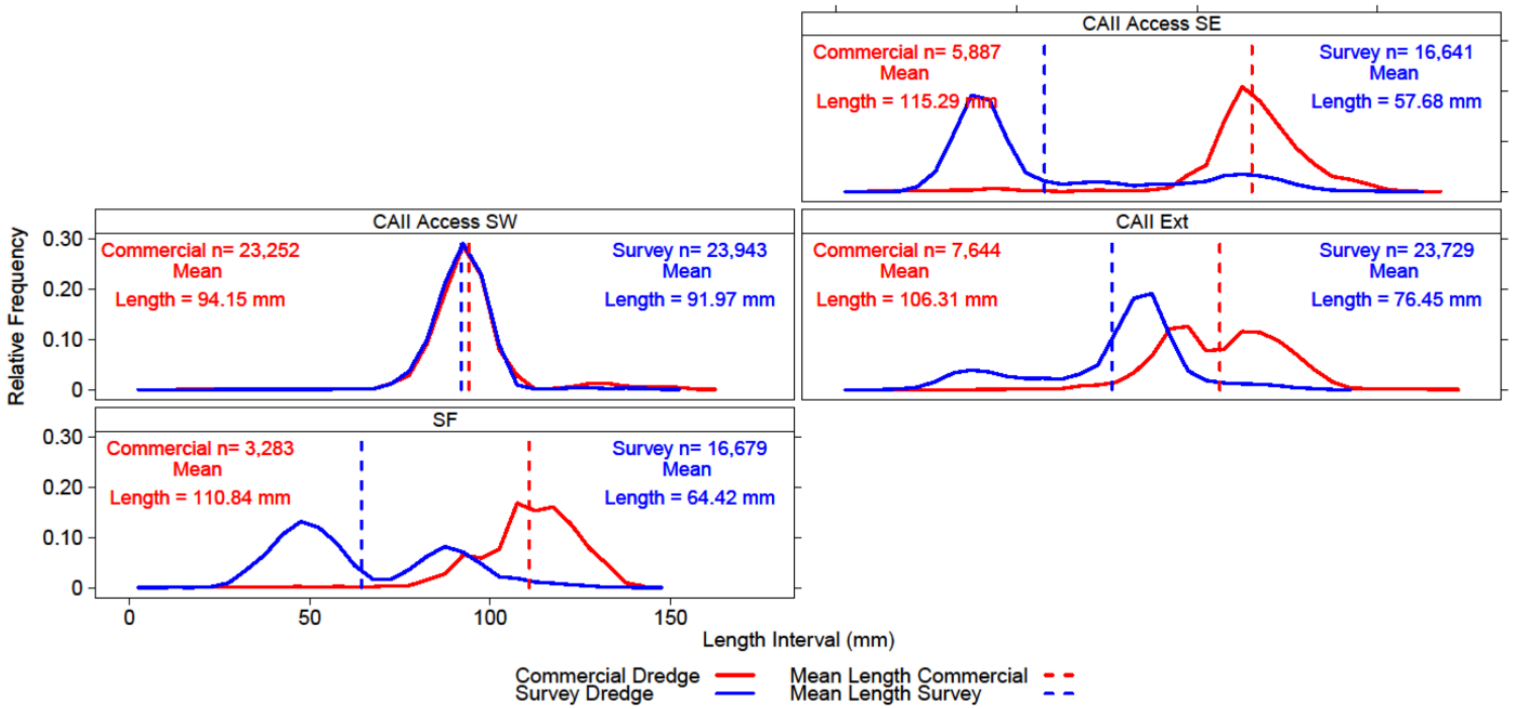


Figure 3 – Scallop length frequencies from the 2020 Virginia Institute of Marine Science (VIMS) survey of eastern Georges Bank from the survey and commercial dredge. Each plot shows length frequencies for the different SAMS areas of eastern Georges Bank: CAII-Southwest (CAII Access SW), Southern Flank (SF), CAII East (CAII Access SE), and CAII Extension (CAII Ext).



Scallop Fishery Allocations and Bycatch Estimates of GB Yellowtail

The scallop fishery is currently allocated 16% of the US share of the GB yellowtail ABC. Recently, the scallop fishery's average catch of GB yellowtail has been a higher percentage of the overall US catch, ranging from 6-57% with a mean of 31% of the US ABC between 2012 and 2020 (Table 1). The Scallop PDT notes that due to a lack of observer coverage in 2020, the GB yellowtail discard rates were derived using two years (2019, 2020) of observer information. Due to the lack of coverage in CAII in both 2019 and 2020, CAII bycatch estimates were based on the overall broad stock discard rate from 2019. The Scallop PDT anticipates that observer coverage will increase in FY2021.

Table 1. Georges Bank (GB) yellowtail (YT) landings and discards (metric tons) from 2002-2020 based on the Transboundary Resource Assessment Committee (TRAC) 2021 assessment of GB yellowtail). Light gray shading indicates years considered in Framework 48; dark gray shading indicates years since Framework 48.

Calendar Year	US Landings	US Discards	US Catch	Scallop Landings of GBYT	Scallop Discards of GBYT	Total Scallop Catch of GBYT	Scallop Catch as % of US Catch
2002	2476	53	2529	0.2	29	29.2	1%
2003	3236	410	3646	0.1	293	293.1	8%
2004	5837	460	6297	3	81	84	1%
2005	3161	414	3575	8.1	186	194.1	5%
2006	1196	384	1580	2.6	251	253.6	16%
2007	1058	493	1551	1.5	120	121.5	8%
2008	937	409	1346	0.3	128	128.3	10%
2009	959	759	1718	1.9	170	171.9	10%
2010	654	289	943	0.2	8	8.2	1%
2011	904	192	1096	8.6	104	112.6	10%
2012	443	188	631	25	139	164	26%
2013	130	49	179	3.5	34	37.5	21%
2014	70	74	144	0	59	59	41%
2015	63	41	104	0	29.7	29.7	29%
2016	26	7	33	0	2.1	2.1	6%
2017	35	57	92	0	52.6	52.6	57%
2018	32	11	43	0	12.7	12.7	30%
2019	3	2	5	0	1.7	1.7	34%
2020	5.2	1.2	6.4	0	1.5	1.5	23%
Retention of GB yellowtail prohibited in scallop fishery 2014 to present							
Mean scallop catch of total US GB yellowtail catch 2002-2011 was 7%							
Mean scallop catch of total US GB yellowtail catch 2012-2020 was 31%							

Table 2 – Recent Georges Bank (GB) yellowtail Total Allowable Catch limits (TAC), scallop fishery sub-Annual Catch Limits (sub-ACL) and catches, by fishing year (FY). Values are shown in metric tons (mt).

FY	Total Shared TAC	US % Share	US TAC	% US TAC Caught	Scallop sub-ACL	Scallop catch	% Scallop sub-ACL Caught
FY2010	1,500	64%	1,200	68%	146	17.6	12%
FY2011	2,650	55%	1,458	76%	200.8	83.9	42%
FY2012	1,150	49%	564	68%	156.9	164.0	105%
FY2013	500	43%	215	43%	41.5	37.5	90%
FY2014*	400	82%	328	37%	50.9	59.0	116%
FY2015*	354	70%	248	28%	38	29.7	78%
FY2016*	354	76%	269	12%	42	2.1	5%
FY2017*	300	69%	207	44%	32	52.6	164%
FY2018*	300	71%	213	20%	33	12.7	38%
FY2019*	140	76%	106	5%	17	1.7	10%
FY2020*	162	74%	120	7%	19	1.5	8%
* retention of GB yellowtail prohibited for scallop fishery							

References

New England Fishery Management Council/Scientific and Statistical Committee. 2015. Overfishing levels and acceptable biological catch recommendations for Georges Bank yellowtail Flounder for fishing years 2016 and 2017. September 8, 2015: https://s3.amazonaws.com/nefmc.org/2_SSC_response_groundfish_Sept2015_.pdf

New England Fishery Management Council/Scientific and Statistical Committee. 2016. Overfishing levels and acceptable biological catch recommendations for Georges Bank yellowtail Flounder for fishing years 2017 and 2018. August 22, 2016: https://s3.amazonaws.com/nefmc.org/2_SSC_response_GBYTF_Aug2016_FINAL.pdf

New England Fishery Management Council/Scientific and Statistical Committee. 2017. Overfishing levels and acceptable biological catch recommendations for Georges Bank yellowtail Flounder for fishing years 2018 and 2019. August 14, 2017: https://s3.amazonaws.com/nefmc.org/2_SSC_response_GBYTF_Aug2017_Final.pdf

TRAC. 2014. Stock Assessment of Georges Bank Yellowtail Flounder for 2014. Reference Document 2014/01. https://www.nefsc.noaa.gov/saw/trac/TRD_2014_01_E_.pdf

TRAC. 2014. Georges Bank Yellowtail Flounder. TRAC Status Report 2014/03. https://www.nefsc.noaa.gov/saw/trac/TSR_2014_03_E_revised.pdf

TRAC. 2015. Georges Bank Yellowtail Flounder. TRAC Status Report 2015/03. https://www.nefsc.noaa.gov/saw/trac/TSR_2015_GBYellowTailFlounder.pdf

TRAC. 2016. Georges Bank Yellowtail Flounder. TRAC Status Report 2016/03. https://www.nefsc.noaa.gov/saw/trac/tsr-2016-03-yellowtail-flounder.pdf

TRAC. 2017. Georges Bank Yellowtail Flounder. TRAC Status Report 2017/03. https://www.nefsc.noaa.gov/saw/trac/tsr_2017_gbytail.pdf

TRAC. 2018. Georges Bank Yellowtail Flounder. TRAC Status Report 2018/03. https://www.nefsc.noaa.gov/saw/trac/2019_TSR%20Georges%20Bank%20Yellowtail%202018.pdf

TRAC. 2019. Georges Bank Yellowtail Flounder. TRAC Status Report 2019/XX. See SSC Meeting Materials for August 21, 2019.

Appendix I: Recent Memos from Scallop PDT to Groundfish PDT re: GB yellowtail

Table 3 – Links to past memos from the Scallop PDT to the Groundfish PDT regarding GB yellowtail.

Date	Link
August 1, 2016	See page 14: https://s3.amazonaws.com/nefmc.org/B.2-160805-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-attachments_corrected-081716.pdf
August 2, 2017	See page 7: https://s3.amazonaws.com/nefmc.org/A6_170804-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo-attached_170807_114738.pdf
July 27, 2018	See page 7: https://s3.amazonaws.com/nefmc.org/A6_180809-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo-attachment.pdf
August 13, 2019	https://s3.amazonaws.com/nefmc.org/Doc.9-190813_Scallop-PDT-memo-to-Groundfish-PDT-re-GB-yellowtail.pdf
August 12, 2020	See page 11: https://s3.amazonaws.com/nefmc.org/5a_200821-GF-PDT-memo-to-SSC-re-GB-yellowtail-flounder-with-Scallop-PDT-memo_200921_093835.pdf

Appendix II: Rotational Management within the GB Yellowtail Stock Area and Recent Allocations

The scallop fishery is managed through a rotational area management system. This system directs effort throughout the resource at varying levels using the following types of spatial management areas: 1) "open area", where scallop vessels may operate using Days-At-Sea (DAS; limited access vessels) or Individual Fishing Quota (IFQ; limited access general category vessels); 2) "permanent closures", where scallop fishing is prohibited to reduce impacts on essential fish habitat and (or) groundfish mortality; and 3) "scallop rotational areas", where

scallop fishing is either temporarily prohibited or periodically allowed at controlled levels of access, depending on the condition of the resource inside their boundaries. Generally, scallop rotational areas (also known as "access areas") will 'close' to protect small scallops, and 'open' when scallops are large enough to be harvested by a commercial dredge (i.e., 4" ring). The duration of a closure depends on many factors, but for access areas in the Georges Bank region, closures typically have ranged from two to three years. Area closures are also utilized on a seasonal basis to mitigate impacts on non-target stocks.

CAII AA is a scallop rotational area located within the GB yellowtail stock boundary. Along with being productive scallop grounds, CAII AA and areas directly south and west have also historically supported yellowtail flounder. In light of this overlap, bycatch of GB yellowtail in the scallop fishery is highly variable and dependent on access to CAII AA. Table 4 describes allocations to the limited access fishery and the level of effort directed to CAII AA from FY2011 to FY2021.

Bycatch projections were analyzed during the development of FY2021 specifications (Framework 33). Projected scallop fishery bycatch of GB yellowtail was estimated to be 16 mt under the Council's preferred specification alternative for FY2021. However, due to several caveats associated with the data used for projections and lack of current observer information on bycatch rates of flatfish stocks on eastern Georges Bank, the Scallop PDT noted that the FY2021 GB yellowtail bycatch projection was likely overestimated. A full description of the caveats and anticipated bycatch of GB yellowtail for FY2021 is contained in Section 6.3.3.5 of Framework 33.

Table 4 – Full-time (FT) limited access (LA) scallop fishery allocations by fishing year (FY) and Council Framework (FW), and recent schedule of Closed Area II (CAII) Access Area (AA).

FY	Action	LA DAS (Full Time)	FT LA AA (trips)	CA II AA	Notes re: CA II AA and other management
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; In- season transfer to groundfish fishery (39.8 mt)
2017	FW28	30.41	4 (18K each)	1 trip (313 vessels; 18k lbs trip)	CAII Extension closure of open areas to protect small scallops; no research set-aside (RSA) compensation fishing in CAII; seasonal closure of CAII Aug 15—Nov 15; Bycatch Avoidance Program CAII
2018	FW29	24	6 (18K each)	Closed	CAII Extension reverted back to open area. Reactive AM for GB yellowtail changed from time-area closure to gear modification in CAII. In-season transfer to groundfish fishery (18.53 mt)
2019	FW30	24	7 (18K each)	Closed	CAII Extension continues as part of GB open area.
2020	FW32	24	6 (mixed trip limit)	1 trip (18,000 lbs)	Western part of CAII and CAII Extension closed year-round. Seasonal closure extended to protect GB yellowtail (Aug. 15-Nov. 30, 2020)
2021	FW33	24	4	1.5 trips (18,000 lbs)	Eastern part of CAII closed year round. Seasonal closure extended to protect GB yellowtail (Aug. 15-Nov. 30, 2021) in CAII (including CAII Extension).

Appendix III: Recent Scallop Fishery VMS Effort

Vessel Monitoring System (VMS) data were used to estimate scallop fishery effort in FY2020 and FY2021 to date (April through June). The VMS data represent combined scallop fishery activity in terms of hours fished, aggregated at a resolution of 3 nautical mile squares with a minimum of 20 hours recorded per square. A speed filter of 2 to 5 kts was applied to remove vessel activity that was likely a result of transiting to and from fishing grounds.

In FY2020, scallop effort in the GB yellowtail stock area occurred mostly in CAII East and in the open area directly south and southwest of CAII AA, referred to as the Southeast Parts (Figure 4). The Southeast Parts encompass the CAII Extension, an area that has been accessible to the scallop fishery as part of Georges Bank open area in FY2018 and FY2019, but was closed to the fishery for FY2020 to protect the smaller scallops observed there in the 2019 surveys. Effort was also directed along the northern flank of Georges Bank in FY2019, but to a lesser extent than in the Southeast Parts.

Available VMS data for FY2021 (April through June) suggest scallop effort in access and open areas increased on eastern Georges Bank relative to FY2020 (Figure 5). Access area effort was focused in both CAII East and to a greater extent in CAII Southwest and Extension. Note that CAII East did close in FY2021; however, the effort observed in CAII East in early FY2021 was from scallop vessels fishing access area allocations from FY2020 in the 60-day carryover window. Effort in CAII Southwest and Extension generally followed the large year class of scallops observed in this part of the resource in the 2020 surveys (see Figure 2). This was also the case for open area fishing in the Southeast Parts, with concentrated effort observed in the Southern Flank SAMS area during the first several months of FY2021.

The spatial extent of effort on Georges Bank in FY2022 is expected to be similar to what has been observed to date in FY2021 (Figure 5).

Figure 4 – Scallop fishery effort in terms of Vessel Monitoring System (VMS) hours fished for fishing year 2020 on Georges Bank. Scallop Area Management Simulator (SAMS) area boundaries are shown in red.

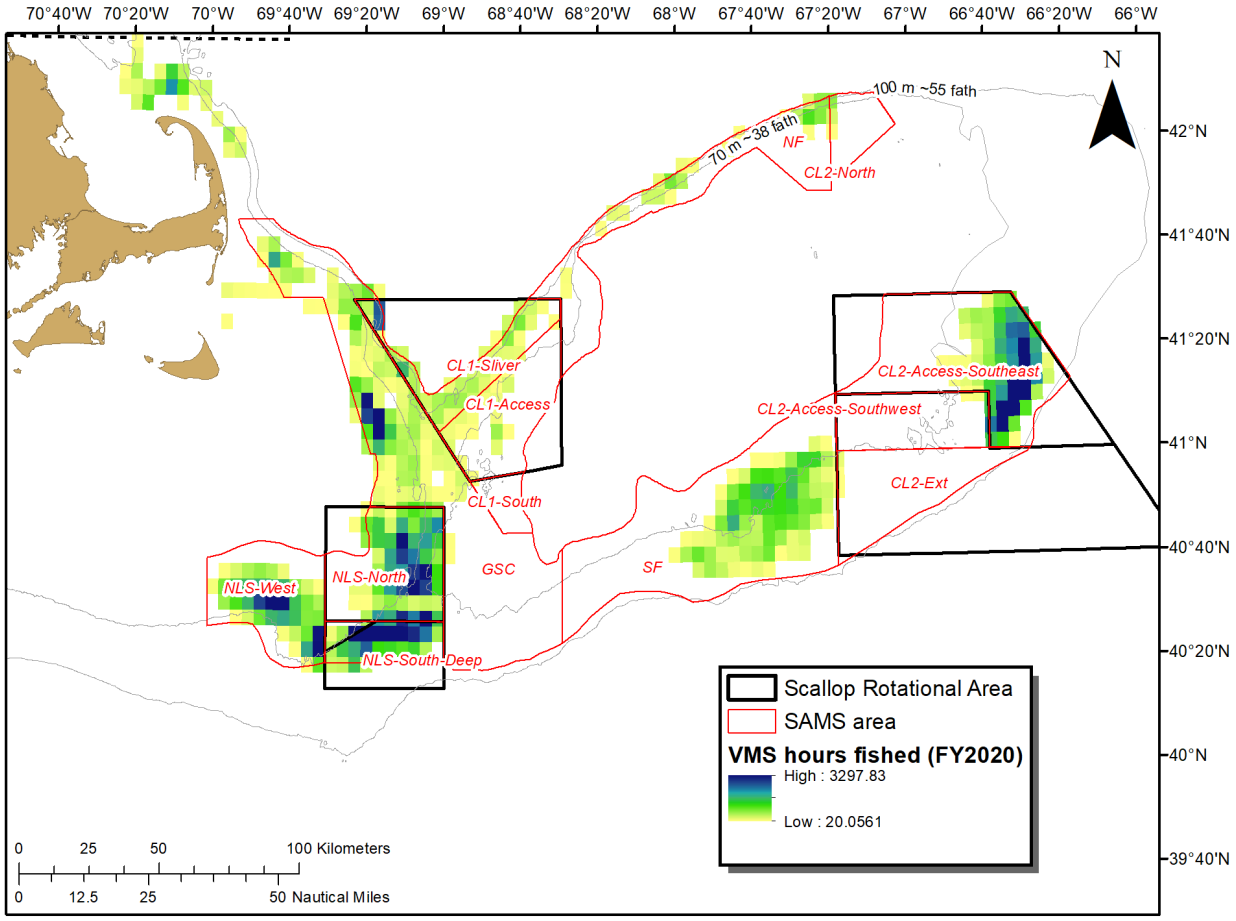


Figure 5 – Scallop fishery effort in terms of Vessel Monitoring System (VMS) hours fished for April through June 2021 on Georges Bank. Scallop Area Management Simulator (SAMS) area boundaries are shown in red.