New England Fishery Management Council
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Daniel Salerno, *Chair* | Cate O'Keefe, PhD, *Executive Director*

MEMORANDUM

DATE: October 14, 2025

TO: Scientific and Statistical Committee (SSC)

CC: Groundfish Committee

FROM: Groundfish Plan Development Team

SUBJECT: **Possible overfishing limits (OFLs) and acceptable biological catches (ABCs) for several groundfish stocks for fishing years (FY) 2026 through 2030**

The Groundfish Plan Development Team (PDT) met on October 7, 2025*, by webinar to discuss the 2025 management track assessments and develop possible overfishing limit (OFL) and acceptable biological catch (ABC) options for several groundfish stocks, including: Cape Cod/Gulf of Maine (CC/GOM) yellowtail flounder, Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder, Georges Bank (GB) winter flounder, GOM winter flounder, SNE/MA winter flounder, white hake, and Acadian redfish. The PDT includes one appendix to this memorandum: Appendix 1- Bridge-year catch estimates for calendar year (CY) 2025.

*Meeting Attendance**:** Robin Frede (Chair), Matt Ayer, Rich Balouskus, Tara Dolan, and Angelia Miller. Due to the partial federal government shutdown, NOAA staff were on furlough and unable to attend the PDT meeting. This memorandum reflects the discussion and input from the PDT members listed above. Information in tables and figures provided by NOAA PDT members prior to the shutdown.

The SSC has traditionally recommended groundfish specifications at three-year intervals, but recent reductions in federal agency resources have highlighted a potential need for increased flexibility in management and regulatory processes. Thus, rather than recommend specifications for FY2026-2028, the SSC is asked to make recommendations for a five-year period, considering specifications for FY2029 and FY2030 should future gaps in federal resources prevent the provision of updated data. The PDT provides possible OFLs and ABCs for FY2026-2030 for the seven groundfish stocks listed above.

Overview

In general, the PDT applies the Council's current ABC control rule for groundfish stocks (see Amendment 16) to provide catch advice options for the SSC's consideration:

The ABC control rules will be used in the absence of better information that may allow a more explicit determination of scientific uncertainty for a stock or stocks. If such information is available – that is, if scientific uncertainty can be characterized in a more accurate fashion -- it can be used by the SSC to determine ABCs. These ABC control rules can be modified in a future Council action (an amendment, framework, or specification package):

a. *ABC should be determined as the catch associated with 75% of F_{MSY}.*
b. *If fishing at 75% of F_{MSY} does not achieve the mandated rebuilding requirements for overfished stocks, ABC should be determined as the catch associated with the fishing mortality that meets rebuilding requirements ($F_{rebuild}$).*
c. *For stocks that cannot rebuild to B_{MSY} in the specified rebuilding period, even with no fishing, the ABC should be based on incidental bycatch, including a reduction in bycatch rate (i.e., the proportion of the stock caught as bycatch).*
d. *Interim ABCs should be determined for stocks with unknown status according to case- by case recommendations from the SSC*

To develop recommendations, the PDT reviewed the 2025 management track assessment and past assessment and specification setting information (stock assessment, peer review report, SSC report, and PDT report) for each stock.

Summary by Groundfish Stock

For each stock, this memo provides a brief overview of the 2025 management track assessment highlighting key points and main sources of uncertainty, summarizes stock status and rebuilding plan, provides fishery performance and economic information, and provides possible OFLs and ABCs for SSC consideration for FY2026-2030.

For possible OFL and ABC options, the PDT provides OFLs and ABCs resulting from following the control rule for the five years in the projections (FY2026-2030). The PDT notes past work which demonstrated projections beyond two to three years are not reliable[1], and refers to supplemental information provided demonstrating reliance of projected recruits (aka "paper fish") in the outyears of the projections. For stocks with projections, the PDT provides a sensitivity run holding the FY2028 OFL and ABC constant through FY2030 for comparison.

1. Cape Cod/Gulf of Maine yellowtail flounder

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

[1] Brooks, E. N., & Legault, C. M. (2016). Retrospective forecasting—Evaluating performance of stock projections for New England groundfish stocks. Canadian Journal of Fisheries and Aquatic Sciences, 73(6), 935–950; Wiedenmann, J., & Jensen, O. P. (2017). Could recent overfishing of New England groundfish have been prevented? A retrospective evaluation of alternative management strategies. Canadian Journal of Fisheries and Aquatic Sciences, 76(6), 1006-1018.

2025 Management Track Assessment:

Key points:

The 2025 stock assessment is an update to the Woods Hole Assessment Model (WHAM) developed during the Yellowtail Flounder Research Track Assessment that concluded last year. This is the first Management Track assessment using the WHAM model for this stock.

Prior to the WHAM model developed through the 2024 Research Track Assessment, CC/GOM yellowtail flounder was assessed with a Virtual Population Analysis (VPA) model in the 2022 management track assessment. In addition to the transition to a state space model, other major differences between the previous 2022 VPA model and 2024 Research Track Assessment WHAM model include model specification changes and dropping the MADMF spring and MENH spring surveys. Updates made between the 2024 WHAM model and 2025 WHAM model include: use of age-specific fleet selectivity with random effects, decoupling the yearly random effects in recruitment from the yearly random effects in ages 2+, a revision to maturity, and revised MADMF fall survey Age-Length Keys (ALKs). For a detailed comparison of assessment model changes, refer to supplemental materials provided in the stock assessment data portal.[2]

The change in stock status between the 2022 VPA assessment and the 2025 WHAM assessment reflects both differences in model formulation and signals from the data. In the VPA assessment, spawning stock biomass (SSB) was estimated at a much lower scale, largely due to assumptions of constant maturity, fixed natural mortality, and the use of Albatross-calibrated indices across the full time series. In contrast, the WHAM model uses time-varying maturity, age-specific natural mortality, age-structured random effects on abundance, and separates the NEFSC survey indices by vessel (Albatross vs. Bigelow). These changes, combined with recent data, shift the scaling of both SSB and recruitment upward. The current 2025 WHAM model results suggest that the stock remains below the new SSB_{MSY} proxy even though fishing pressure has been at historically low levels in recent years. Recruitment has been generally weak to moderate over the past decade, with no large year classes to accelerate rebuilding.

Main sources of uncertainty:

- Treatment of the plus age group, as recent catches indicate an expansion of older ages (6+), suggesting that the current grouping may not capture survival dynamics at the upper tail of the age distribution and could bias selectivity and F estimates.
- Self-test simulation diagnostics, which shows moderate systematic bias: fishing mortality tends to be overestimated, while recruitment and SSB are underestimated. These biases are likely driven from confounding effects among catchability, selectivity, and natural mortality, where the model may not be able to fully disentangle the relative contributions of each process.

Stock Status:

The 2025 Peer Review Panel concluded CC/GOM yellowtail flounder is overfished, and overfishing is not occurring. This is a change in status from the previous 2022 management track assessment in which the stock was not overfished. Official NOAA stock status determination is pending. It should be noted that this 2025 assessment shows the stock is not expected to be

[2] See Background document on "VPA Vs WHAM Comparison" and slides 2 and 30 in the Peer Review presentation "CCGOM Yellowtail MT 2025 Presentation" in NEFSC Stock Assessment Support Information data portal: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php

overfished in 2025. CC/GOM yellowtail flounder was previously in a rebuilding plan and was determined to be rebuilt as of 2022.

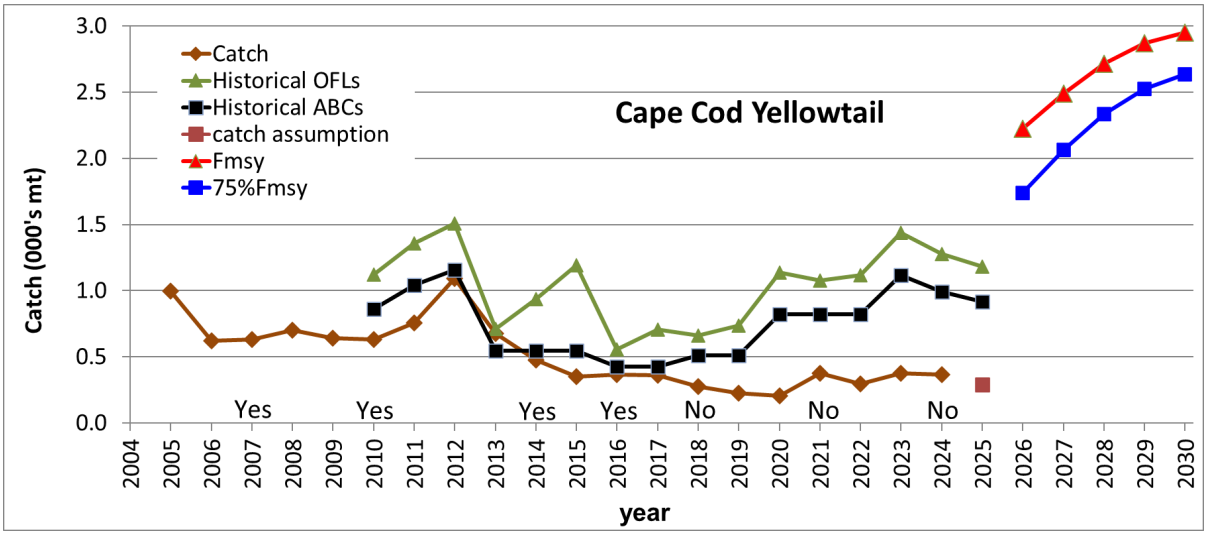
Catch Performance:

Table 1 and Figure 1 summarize catch performance and changes in overfishing status for CC/GOM yellowtail flounder.

Table 1- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and FMSY and 75%FMSY estimates for FY2026-FY2030 for CC/GOM yellowtail flounder.

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F_{MSY}	$75\%F_{MSY}$
2010	633	1,124	863			
2011	758	1,355	1,041			
2012	1,092	1,508	1,159			
2013	676	713	548			
2014	475	936	548			
2015	350	1,194	548			
2016	366	555	427			
2017	363	707	427			
2018	276	662	511			
2019	225	736	511			
2020	206	1,136	823			
2021	378	1,076	823			
2022	295	1,116	823			
2023	375	1,436	1,115			
2024	366	1,279	992			
2025		1,184	915	289		
2026					2,224	1,736
2027					2,488	2,062
2028					2,716	2,335
2029					2,871	2,526
2030					2,951	2,636

Figure 1- Catch performance for CC/GOM yellowtail flounder including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FMSY and 75%FMSY for FY2026-FY2030. Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



Additional Fishery Information:

Commercial Fishery – Figure 2 shows commercial groundfish (sector and common pool) catch of CC/GOM yellowtail flounder since FY2021 along with the FY2025 commercial annual catch limit (ACL). Utilization by the commercial groundfish fishery has been low in recent years.

Sectors - Table 2 compares the performance of the Quota Change Model (QCM) since FY2012 to the realized outcomes for CC/GOM yellowtail flounder. While predicted catch and utilization have varied over recent years, realized catch has been steady from FY2021-2024. Inter-sector ACE lease prices for CC/GOM yellowtail flounder have been $0 in recent years, following trends in utilization.

Other Fisheries and State Fisheries Sub-components – Other significant sources of CC/GOM yellowtail flounder catch include the scallop fishery (27.8 mt in FY2023) and state commercial fishery (8.5 mt in FY2023). These other fishery and state sub-components are expected catches and do not have accountability measures (AMs) associated.

Figure 2- In-season utilization of CC/GOM yellowtail flounder by the commercial (sectors and common pool) groundfish fishery.

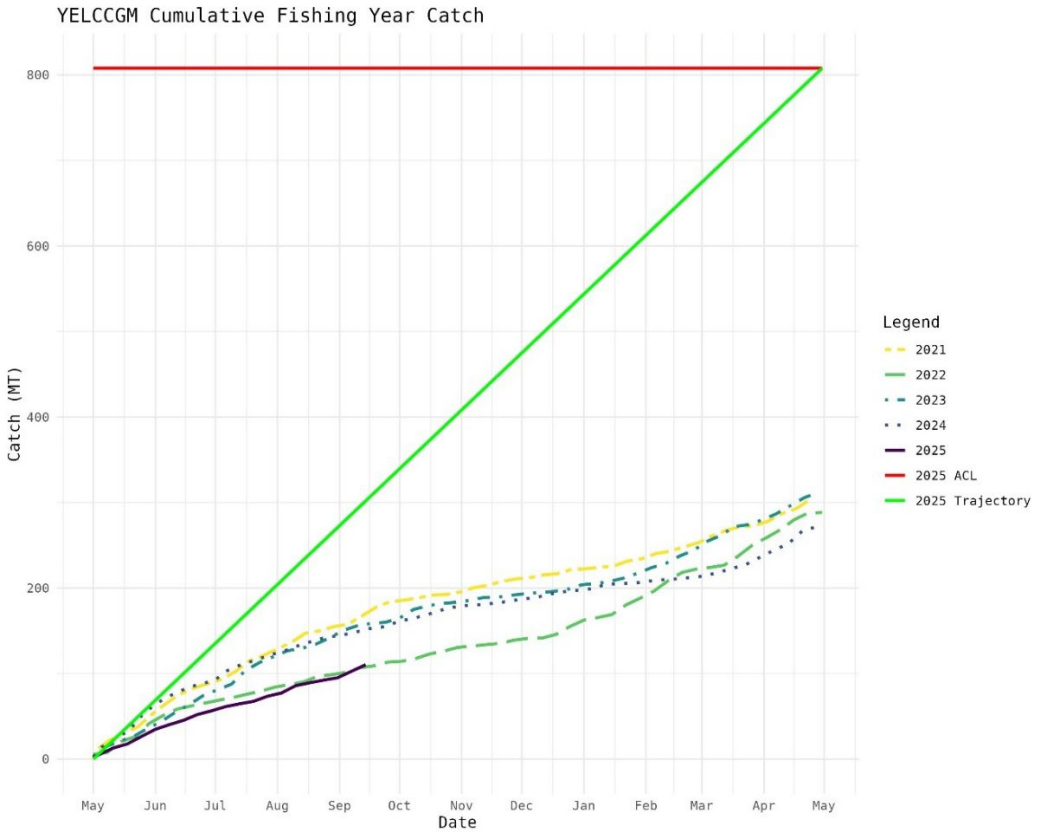


Table 2- CC/GOM yellowtail flounder stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			Realized	Predicted	*Realized*	*Predicted*	Realized	Predicted
CC/GOM Yellowtail Flounder	2012	1021	954	391	*0.94*	*0.33*	3.5	0.7
	2013	466	377	423	*0.81*	*0.74*	1.5	1.6
	2014	463	249	338	*0.54*	*0.72*	0.8	1.3
	2015	437	372	204	*0.85*	*0.46*	1.4	0.8
	2016	327	249	177	*0.76*	*0.54*	1.1	0.6
	2017	326	196	237	*0.60*	*0.73*	0.8	1.0
	2018	381	165	380	*0.43*	*1.00*	0.5	1.6
	2019	377	141	282	*0.37*	*0.74*	0.4	1.0
	2020	656	182	178	*0.28*	*0.27*	0.4	0.5
	2021	651	284	124	*0.44*	*0.19*	0.6	0.3
	2022	661	287	344	*0.43*	*0.53*	0.4	0.6
	2023	931	299	165	*0.32*	*0.18*	0.4	0.3
	2024	876	259	339	*0.30*	*0.41*	0.3	0.5

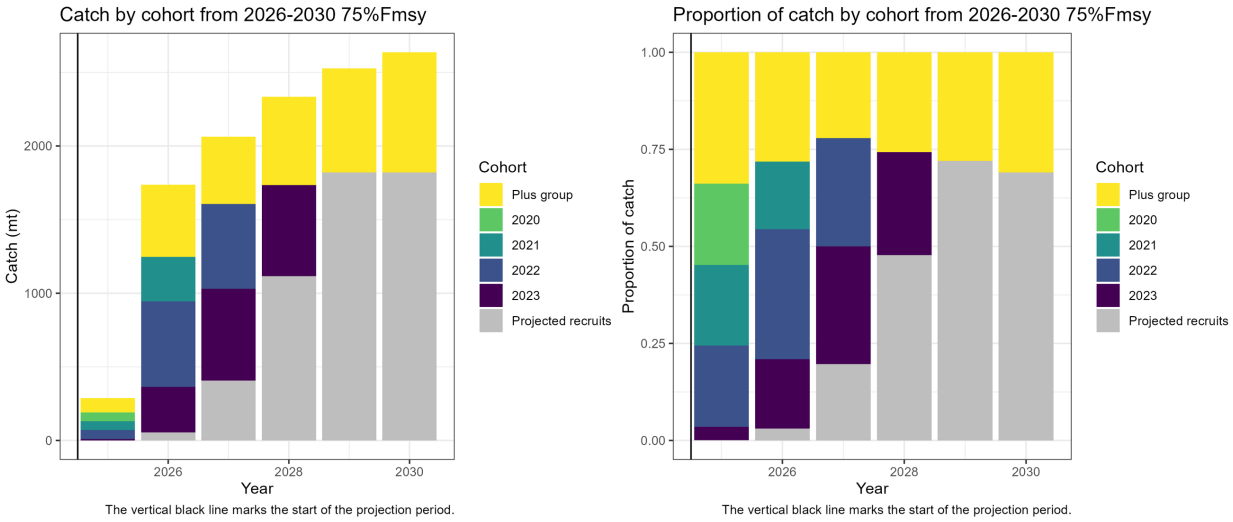
Projections:
Table 3 provides possible OFLs and ABCs for FY2026-FY2030 for CC/GOM yellowtail flounder, under 75%F_{MSY} projections.

As noted above, the PDT discussed uncertainties and past work demonstrating projections to be unreliable beyond two to three years. Figure 3 demonstrates that by 2028, projections are relying on greater than 50% of future year classes from modeled recruitment (aka "paper fish"). For these reasons, the PDT provides a sensitivity run of OFLs and ABCs under 75%F_{MSY} projections holding the FY2028 OFL and ABC constant for FY2029-FY2030 for comparison (Table 4).

Table 3- Possible OFLs and ABCs (mt) for FY2026-FY2030 for CC/GOM yellowtail flounder, following 75%Fmsy projections. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	2,224	1,736	0.373	9,056
2027	2,638	2,062	0.373	10,300
2028	2,984	2,335	0.373	11,163
2029	3,225	2,526	0.373	11,694
2030	3,364	2,636	0.373	12,000

Figure 3- Catch (mt) by cohort and proportion of catch by cohort from 75%F_{MSY} projections for FY2026-FY2030 for CC/GOM yellowtail flounder.



Source: NEFSC

Table 4- Sensitivity run of OFLs and ABCs (mt) for FY2026-FY2030 for CC/GOM yellowtail flounder, following 75%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	2,224	1,736	0.373	9,056
2027	2,638	2,062	0.373	10,300
2028	2,984	2,335	0.373	11,163
2029	2,984	2,335	0.341	11,783
2030	2,984	2,335	0.318	12,306

2. Southern New England/Mid-Atlantic yellowtail flounder

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

2025 Management Track Assessment:
Key points:
The 2025 stock assessment is an update to the WHAM model developed during the Yellowtail Flounder Research Track Assessment that concluded last year. This is the first Management Track assessment using the WHAM model for this stock.

Prior to the WHAM model developed through the 2024 Research Track Assessment, SNE/MA yellowtail flounder was assessed with an Age-Structured Assessment Program (ASAP) model in the 2022 management track assessment. In addition to the transition to a state space model, other major differences between the previous 2022 ASAP model and 2024 Research Track Assessment WHAM model are model specification changes, inclusion of an environmental covariate (Gulf Stream Index (GSI)) to inform recruitment, and dropping larval survey indices. Changes made between the 2024 WHAM model and 2025 WHAM model include turning off lognormal adjustment (best practice guidance is to turn off) and removal of iid random effects on fleet selectivity to resolve model convergence issues when additional years of data were added to the model configuration. For a detailed comparison of assessment model changes, refer to supplemental materials provided in the stock assessment data portal.[3]

Estimates of SSB and recuits remain at historical lows. Catches are also at historical lows.

Main sources of uncertainty:

- Lack of biological data (length, age, and maturity) in the terminal years. The terminal five years of the assessment have no age composition data (which is almost a full lifespan of the species).
- The behavior of the GSI in the future is difficult to predict. Recruitment is heavily driven by fluctuations in GSI, which makes recruitment difficult to accurately predict as well.
- Further development of the WHAM model is needed to be able to more appropriately consider zero values, which occur frequently in the recent time period for this stock.

[3] See slide 3 in the Peer Review presentation "2025 SNE/MA Yellowtail Flounder Presentation" in NEFSC Stock Assessment Support Information data portal: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php

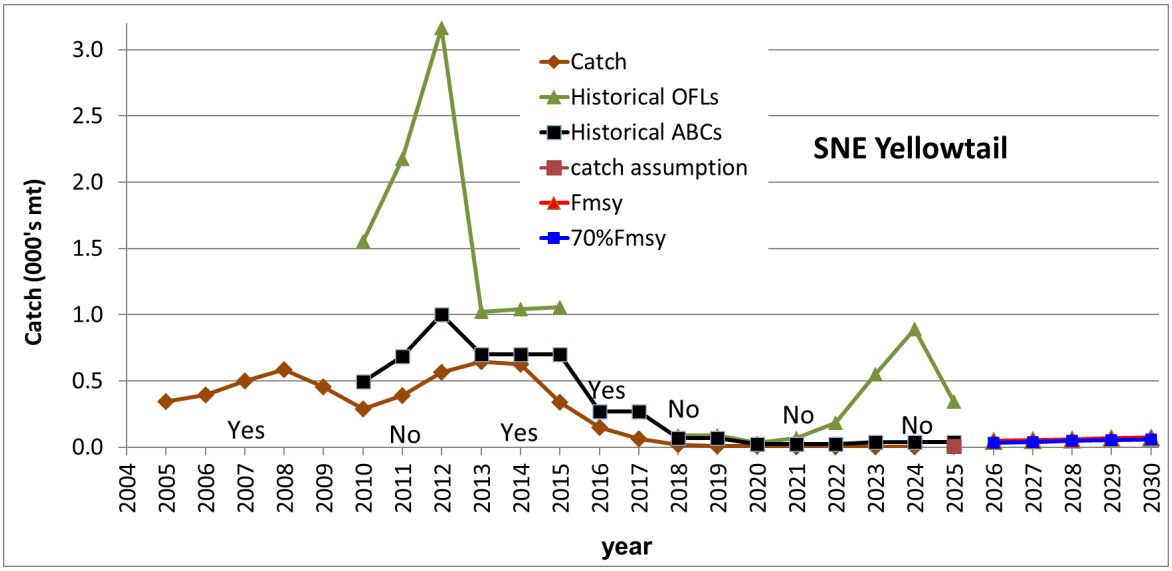
Stock Status and Rebuilding Plan:
The 2025 Peer Review Panel concluded SNE/MA yellowtail flounder is overfished, and overfishing is not occurring. SNE/MA yellowtail flounder is in a rebuilding plan with a rebuild by date of 2029.

Catch Performance:
Table 5 and Figure 4 summarize catch performance and changes in overfishing status for SNE/MA yellowtail flounder.

Table 5- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and FMSY and 70%FMSY estimates for FY2026-FY2030 for SNE/MA yellowtail flounder.

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F_{MSY}	$70\%F_{MSY}$
2010	291	1,553	493			
2011	388	2,174	687			
2012	563	3,166	1,003			
2013	646	1,021	700			
2014	625	1,042	700			
2015	338	1,056	700			
2016	150	undefined	267			
2017	64	undefined	267			
2018	18	90	68			
2019	8	90	68			
2020	6	31	22			
2021	4	71	22			
2022	4	184	22			
2023	3	550	40			
2024	2	890	40			
2025		345	40	6		
2026					46	33
2027					53	41
2028					60	48
2029					68	55
2030					74	60

Figure 4- Catch performance for SNE/MA yellowtail flounder including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FMSY and 70%FMSY for FY2026-FY2030. Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



Additional Fishery Information:

Commercial Fishery – Figure 5 shows commercial groundfish (sector and common pool) catch of SNE/MA yellowtail flounder since FY2021 along with the FY2025 commercial annual catch limits (ACL). Utilization by the groundfish fishery has been very low.

Sectors - Table 6 compares the performance of the QCM since FY2012 to the realized outcomes for SNE/MA yellowtail flounder. Catch and utilization were over-predicted in past years as ACLs declined. Since FY2021, utilization has been less than 1%. Inter-sector ACE lease prices for SNE/MA yellowtail flounder have been $0, which is logical given the very low utilization rate.

Scallop Fishery - The sea scallop fishery has a sub-ACL for SNE/MA yellowtail flounder. Presently, the sub-ACL is determined at 90% of the Scallop PDT's projected catch for the fishery, which was set at 2.7 mt for FY2023-2025. In FY2023, the scallop fishery caught 79% of its sub-ACL (2.1 mt out of 2.7 mt). An updated analysis for Scallop Framework 39 last year by the Scallop PDT indicated the fishery catch may approach the sub-ACL in FY2025. There are uncertainties in the bycatch projection estimates and the scallop fishery may realize values greater than or less than those projected. The preliminary in-season GARFO catch report indicates 191.5% of the sub-ACL has been caught in FY2025, and so the scallop fishery may exceed its sub-ACL in 2025.

AMs can be triggered under certain conditions, and these AMs would require gear modifications in a subsequent year following an overage. If the SNE/MA yellowtail flounder sub-ACL is exceeded by 50% or more (or if the scallop sub-ACL is exceeded by any amount and total catch exceeds the overall ACL), AMs that implement area-based gear restrictions on the scallop fishery may be triggered. The scallop fishery has exceeded its sub-ACL three times in the last ten years (2013, 2017, and 2019).

Figure 5- In-season utilization of SNE/MA yellowtail flounder by the commercial (sectors and common pool) groundfish fishery.

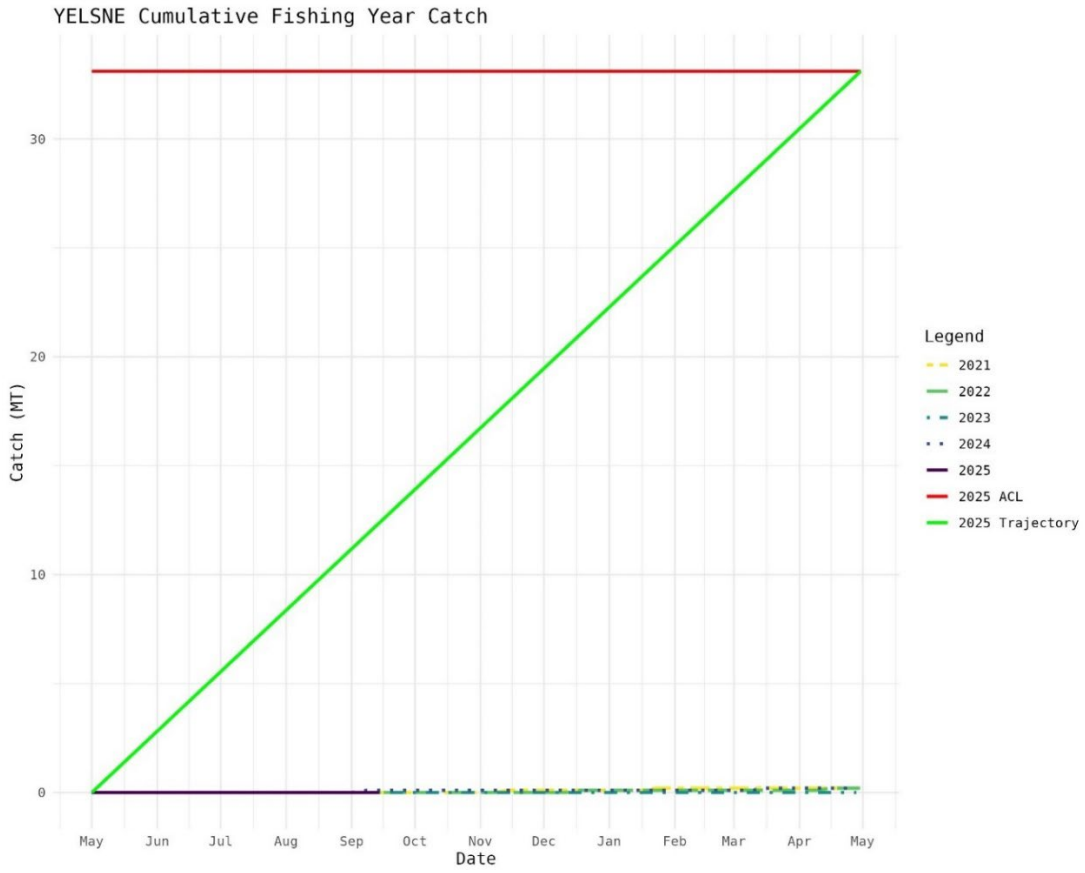


Table 6- SNE/MA yellowtail flounder stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

		Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
	FY		Realized	Predicted	*Realized*	*Predicted*	Realized	Predicted
SNE/MA Yellowtail Flounder	2012	607	426	148	*0.70*	*0.20*	1.9	0.1
	2013	488	282	455	*0.58*	*0.88*	1.5	1.9
	2014	462	313	450	*0.68*	*1.00*	1.4	2.0
	2015	460	174	457	*0.38*	*1.00*	0.9	1.8
	2016	169	45	138	*0.26*	*0.95*	0.4	0.5
	2017	176	11	120	*0.06*	*0.77*	0.1	0.4
	2018	35	7	34	*0.20*	*1.00*	<0.1	0.1
	2019	36	3	16	*0.07*	*0.61*	<0.1	0.1
	2020	13	1	12	*0.07*	*1.00*	<0.1	<0.1
	2021	12	<1	3	*0.02*	*0.25*	<0.1	<0.1
	2022	12	<1	1	*0.01*	*0.09*	<0.1	<0.1
	2023	25	<1	1	*0.00*	*0.02*	<0.1	<0.1
	2024	27	<1	<1	*0.01*	*0.00*	<0.1	<0.1

Projections:

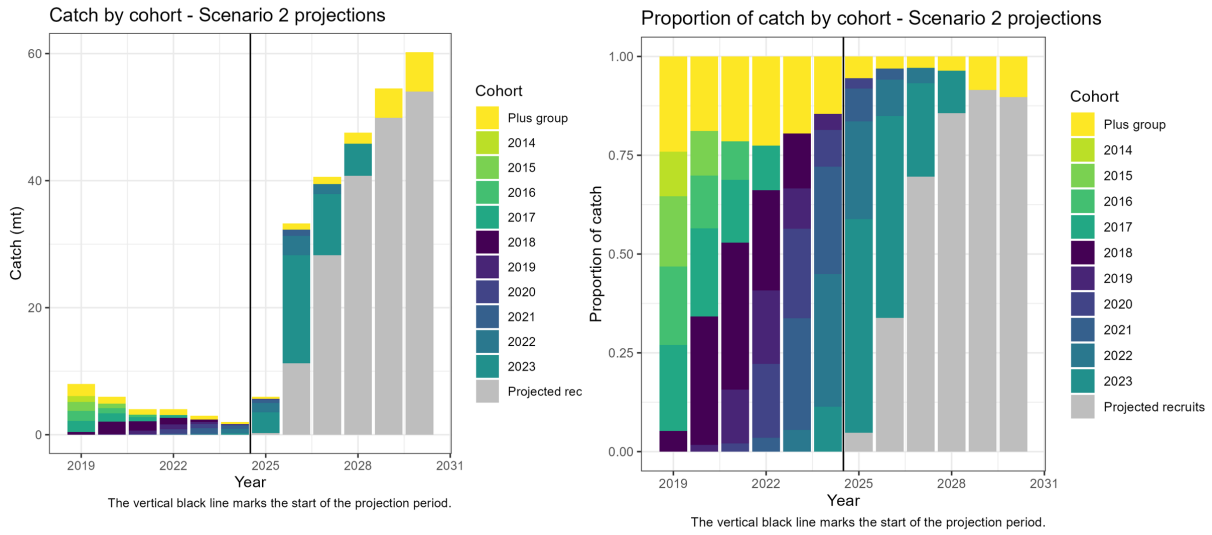
Table 7 provides possible OFLs and ABCs for FY2026-FY2030 for SNE/MA yellowtail flounder, under 70%F_{MSY} projections.

As noted above, the PDT discussed uncertainties and past work demonstrating projections to be unreliable beyond two to three years. Figure 6 demonstrates that by 2027-2028, projections are relying on greater than 50% of future year classes from modeled recruitment (aka "paper fish"). For these reasons, the PDT provides a sensitivity run of OFLs and ABCs under 70%FMSY projections holding the FY2028 OFL and ABC constant for FY2029-FY2030 for comparison (Table 8).

Table 7- Possible OFLs and ABCs (mt) for FY2026-FY2030 for SNE/MA yellowtail flounder, following 70%Fmsy projections. Projected F and SSB (mt) are also included.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	46	33	0.26	132
2027	56	41	0.26	163
2028	65	48	0.26	192
2029	75	55	0.26	221
2030	82	60	0.26	244

Figure 6- Catch (mt) by cohort and proportion of catch by cohort from 70%FMSY projections for FY2026-2030 for SNE/MA yellowtail flounder.



Source: NEFSC

Table 8- Possible OFLs and ABCs (mt) for FY2026- FY2030 for SNE/MA yellowtail flounder, following 70%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also included.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	46	33	0.26	132
2027	56	41	0.26	163
2028	65	48	0.26	192
2029	65	48	0.23	223
2030	65	48	0.20	255

3. Georges Bank winter flounder

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

2025 Management Track Assessment:
Key points:
The 2025 stock assessment is an update to the WHAM model, which was developed for GB winter flounder as part of the State Space Modeling Research Track Assessment that concluded last year. This is the first Management Track assessment using the WHAM model for this stock.

Prior to the WHAM model developed through the 2024 Research Track Assessment, GB winter flounder was assessed with a VPA model in the 2022 management track assessment.

Catch values were revised in the 2025 assessment to account for an error that incorrectly scaled landings at age values prior to 2003. Revised catch reduced the scale of historical removals. This revision had minimal impact on assessment diagnostics and stock status. However, the transition to WHAM did result in a change in scale for the biological reference points. Other updates between the 2024 WHAM model and 2025 WHAM model include decoupling of numbers-at-age (NAA) random effects, which had a minimal impact.

Older ages are caught in all three surveys in recent years. Weights-at-age are consistent with the previous management track assessment. Recent fishery catches are low compared to historical removals.

The PDT noted that there had been a Winter Flounder Research Track Assessment in progress, but that research track is currently on pause.

Main sources of uncertainty:

- The estimate of natural mortality, which is based on longevity (max. age =20). Natural mortality is not well studied in GB winter flounder and is assumed to be constant over time. Natural mortality affects the scale and trends of the biomass and fishing mortality estimates.
- Discards from the Canadian bottom trawl are not available for inclusion in the assessment, and the precision of the Canadian scallop dredge discard estimates are

uncertain. In addition, there are no size composition data for the Canadian landings or discards.

- Low sampling of commercial landings in recent years.

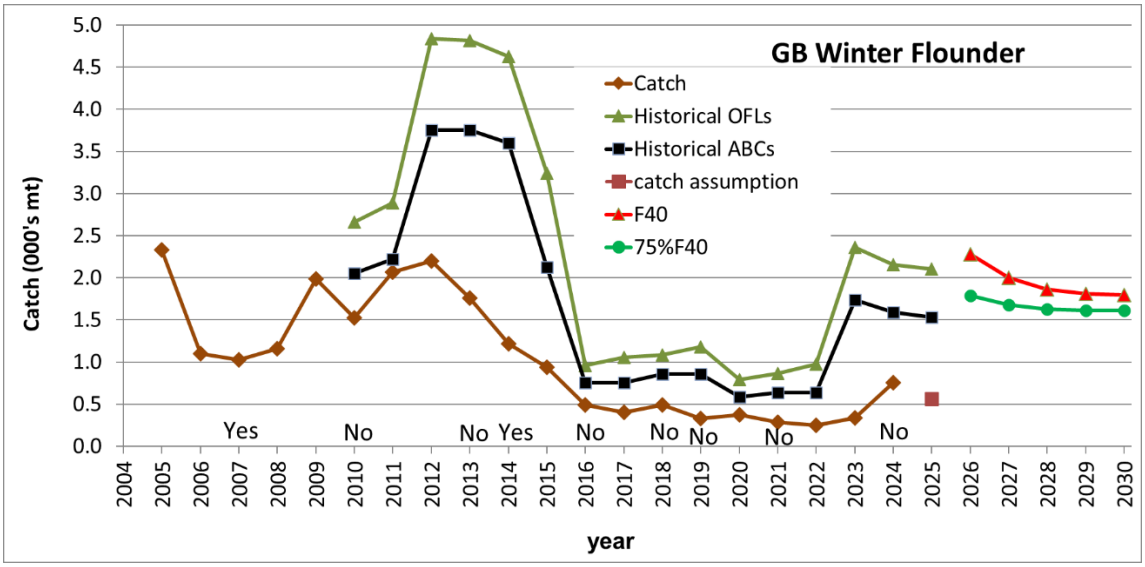
Stock Status and Rebuilding Plan:
The 2025 Peer Review Panel concluded GB winter flounder is not overfished, and overfishing is not occurring. GB winter flounder is in a rebuilding plan with a rebuild by date of 2029. According to the 2025 assessment, the stock is now rebuilt. Official NOAA stock status determination is pending.

Catch Performance:
Table 9 and Figure 7 summarize catch performance and changes in overfishing status for GB winter flounder.

Table 9- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and FMSY and 75%FMSY estimates for FY2026-FY2030 for GB winter flounder.

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F40	75%F40
2010	1,523	2,660	2,052			
2011	2,068	2,886	2,224			
2012	2,199	4,839	3,753			
2013	1,761	4,819	3,750			
2014	1,219	4,626	3,598			
2015	940	3,242	2,124			
2016	492	957	755			
2017	400	1,056	755			
2018	488	1,083	855			
2019	328	1,182	855			
2020	374	790	587			
2021	288	865	634			
2022	249	974	634			
2023	336	2,361	1,740			
2024	756	2,153	1,587			
2025		2,100	1,528	565		
2026					2,279	1,785
2027					2,003	1,681
2028					1,865	1,627
2029					1,813	1,613
2030					1,795	1,612

Figure 7- Catch performance for GB winter flounder including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FMSY and 75%FMSY for FY2026-FY2030. Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



Additional Fishery Information:

Commercial Fishery – Figure 8 shows commercial groundfish (sector and common pool) catch of GB winter flounder since FY2021 along with the FY2025 commercial annual catch limit (ACL). Utilization by the groundfish fishery has been increasing in recent years, notably in FY2024 and in-season 2025. Catches exhibit a strong seasonal pattern, with almost all of the catch occurring in the first half of the fishing year.

Sectors - Table 10 compares the performance of the QCM since FY2012 to the realized outcomes for GB winter flounder. In some years the model over-predicts catch and utilization, while under-predicting in other years. In FY2024, utilization was under-predicted by 24%, likely explained by the large increase in realized catch. Inter-sector ACE lease prices for GB winter flounder have been $0 in recent years, and trends have followed utilization trends.

Other Fisheries Sub-components - Other significant sources of GB winter flounder catch include the scallop fishery (55.9 mt in FY2023). These other fishery sub-components are expected catches and do not have AMs associated.

Figure 8- In-season utilization of GB winter flounder by the commercial (sectors and common pool) groundfish fishery.

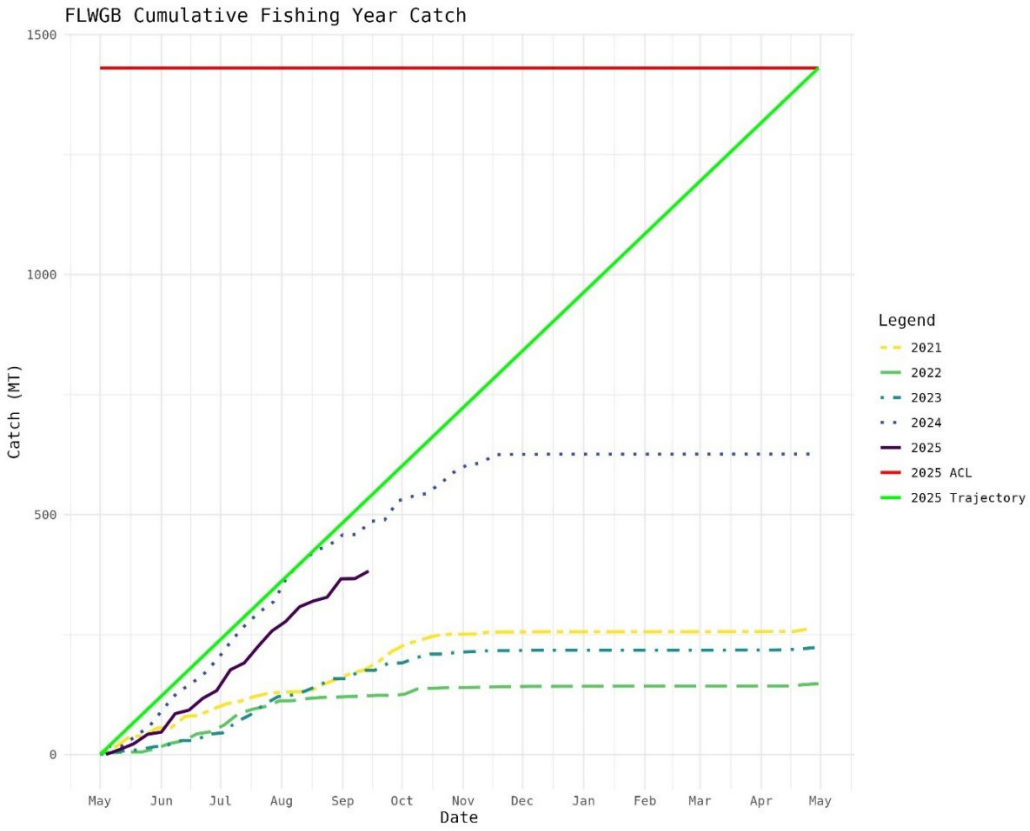


Table 10- GB winter flounder stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

		Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
	FY		Realized	Predicted	*Realized*	*Predicted*	Realized	Predicted
GB Winter Flounder	2012	3,367	1,931	941	*0.57*	*0.16*	11.3	5.2
	2013	3,506	1,722	1,780	*0.49*	*0.46*	8.2	10.2
	2014	3,356	1,149	2,031	*0.34*	*0.60*	6.5	11.7
	2015	1,873	869	1,870	*0.46*	*1.00*	4.9	9.0
	2016	585	423	456	*0.72*	*0.78*	4.1	3.2
	2017	615	378	409	*0.61*	*0.66*	3.4	3.5
	2018	725	420	598	*0.58*	*0.83*	3.7	5.6
	2019	742	306	480	*0.41*	*0.63*	2.4	4.2
	2020	502	290	498	*0.58*	*0.99*	1.5	4.3
	2021	517	262	292	*0.51*	*0.54*	1.8	2.2
	2022	551	148	236	*0.27*	*0.46*	0.9	1.6
	2023	1,585	222	232	*0.14*	*0.15*	1.0	1.2
	2024	1,488	627	257	*0.42*	*0.18*	2.7	1.2

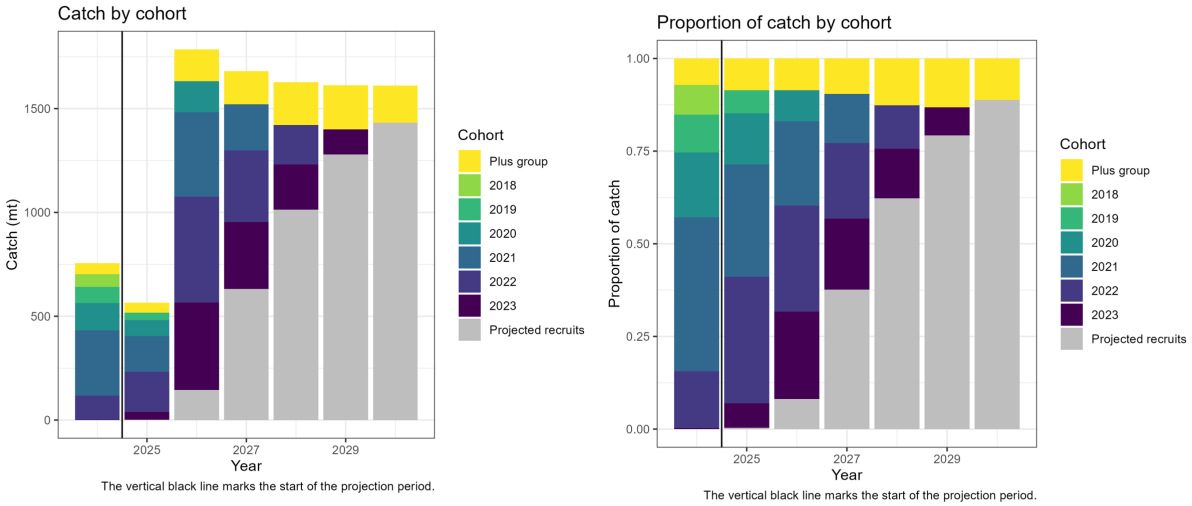
Projections:
Table 11 provides possible OFLs and ABCs for FY2026-FY2030 for GB winter flounder, under 75%F_{MSY} projections.

As noted above, the PDT discussed uncertainties and past work demonstrating projections to be unreliable beyond two to three years. Figure 9 demonstrates that by 2028, projections are relying on greater than 50% of future year classes from modeled recruitment (aka "paper fish"). For these reasons, the PDT provides a sensitivity run of OFLs and ABCs under 75%F_{MSY} projections holding the FY2028 OFL and ABC constant for FY2029-FY2030 for comparison (Table 12). Note that the projections for GB winter flounder decrease over the five-year period.

Table 11- Possible OFLs and ABCs (mt) for FY2026-FY2030 for GB winter flounder, following 75%Fmsy projections. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	2,279	1,785	0.32	6,534
2027	2,148	1,681	0.32	6,213
2028	2,079	1,627	0.32	6,035
2029	2,061	1,613	0.32	5,974
2030	2,060	1,612	0.32	5,970

Figure 9- Catch (mt) by cohort and proportion of catch by cohort from 75%FMSY projections for FY2026-FY2030 for GB winter flounder.



Source: NEFSC

Table 12- Sensitivity run of OFLs and ABCs (mt) for FY2026-FY2030 for GB winter flounder, following 75%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	2,279	1,785	0.32	6,534
2027	2,148	1,681	0.32	6,213
2028	2,079	1,627	0.32	6,035
2029	2,079	1,627	0.33	5,970
2030	2,079	1,627	0.33	5,953

4. Gulf of Maine winter flounder

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

2025 Management Track Assessment:
Key points:
The 2025 stock assessment is an update to the empirical area swept assessment used in the 2022 management track assessment. The 2025 update incorporates the use of a re-estimated q through an average estimate of efficiency from 2009-2024 fall and 2009-2025 spring (q=0.79 fall and q=0.71 spring) from the sweep study for the NEFSC survey. This updated q assumption (0.79) results in a slightly higher estimates of 30+ biomass (4,537 mt in 2024) relative to the 2022 estimate q=0.81 assumption (4,453 mt in 2024) for the fall surveys.

Survey indices have been relatively flat with little change in the size structure over time. There have been large declines in the commercial and recreational removals since the 1980s, but this does not appear to have resulted in a clear response in the stock's size structure within the catch and surveys nor has it resulted in a change in the survey indices of abundance. However, there have been some general more recent increases in the fall and the spring area-swept biomass estimates. If increasing biomass trends continue then perhaps this may be the beginning of a response to time series lows in exploitation rates.

The PDT noted that there had been a Winter Flounder Research Track Assessment in progress, but that research track is currently on pause.

Main sources of uncertainty:

- Direct estimates of stock biomass from survey area-swept estimates originate from the survey gear catchability (q). Biomass and exploitation rate estimates are sensitive to the survey q assumption. More uncertainty is associated with the efficiency in state surveys due to the lack of sweep studies. Therefore, higher confidence is given to the fall survey estimates which possess a higher proportion of the stock in the more offshore NEFSC survey.
- Biomass based reference points cannot be determined and overfished status is unknown with this assessment method.

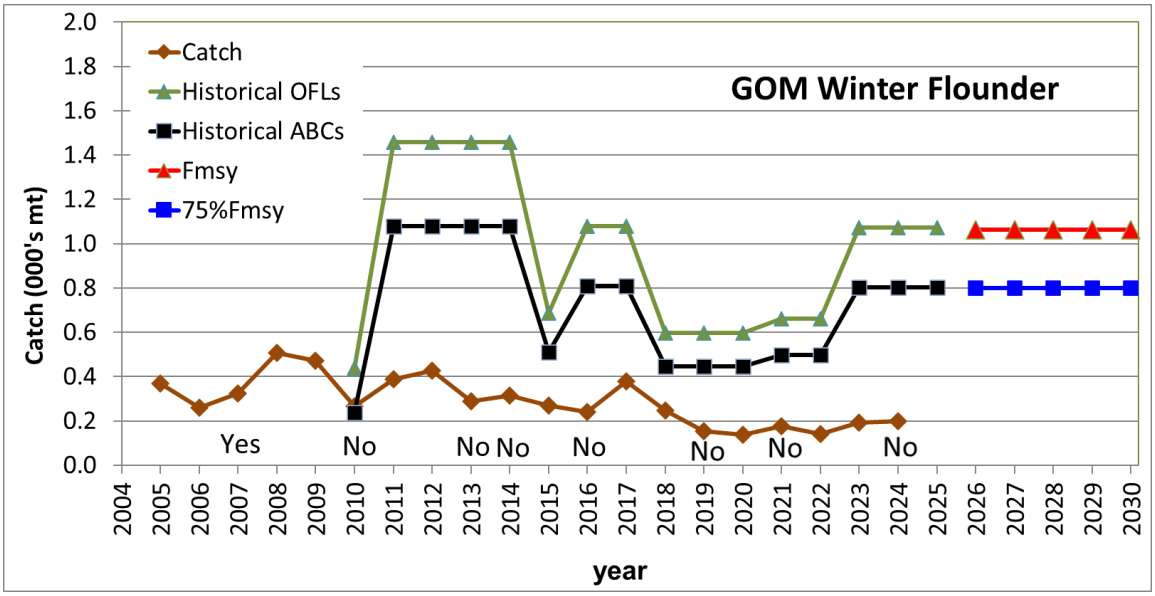
Stock Status:
The 2025 Peer Review Panel concluded GOM winter flounder overfished status is unknown, and overfishing is not occurring. GOM winter flounder has never been determined to be overfished and therefore has never been in a rebuilding plan.

Catch Performance:
Table 13 and Figure 10 summarize catch performance and changes in overfishing status for GOM winter flounder.

Table 13- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and using a constant OFL and ABC approach (FY2026-FY2030) for GOM winter flounder.

Year	Catch	Historical OFLs	Historical ABCs	F_{MSY}	$75\%F_{MSY}$
2010	268	441	238		
2011	389	1,458	1,078		
2012	426	1,458	1,078		
2013	288	1,458	1,078		
2014	315	1,458	1,078		
2015	271	688	510		
2016	240	1,080	810		
2017	378	1,080	810		
2018	247	596	447		
2019	155	596	447		
2020	138	596	447		
2021	177	662	497		
2022	142	662	497		
2023	192	1,072	804		
2024	198	1,072	804		
2025		1,072	804		
2026				1,064	798
2027				1,064	798
2028				1,064	798
2029				1,064	798
2030				1,064	798

Figure 10- Catch performance for GOM winter flounder including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FY2026-FY2030 constant OFLs and ABCs. Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



Additional Fishery Information:

Commercial Fishery – Figure 11 shows commercial groundfish (sector and common pool) catch of GOM winter flounder since FY2021 along with the FY2025 commercial annual catch limit (ACL). Utilization by the groundfish fishery has been similar in recent years and is generally low.

Sectors - Table 14 compares the performance of the QCM since FY2012 to the realized outcomes for GOM winter flounder. In some years the model over-predicts catch and utilization, while under-predicting in other years. For example, in FY2021 the model over-predicted utilization by 31%, while in FY2023 utilization was under-predicted by 13%. Inter-sector ACE lease prices for GOM winter flounder have been $0, which is logical given the low utilization rate.

Other Fishery and State Fishery Sub-components – There are notable recreational catches of GOM winter flounder in state waters (67.6 mt in FY2023), as well as commercial state fishery catches (43.6 mt in FY2023). These other fishery and state sub-components are expected catches and do not have AMs associated.

Figure 11- In-season utilization of GOM winter flounder by the commercial (sectors and common pool) groundfish fishery.

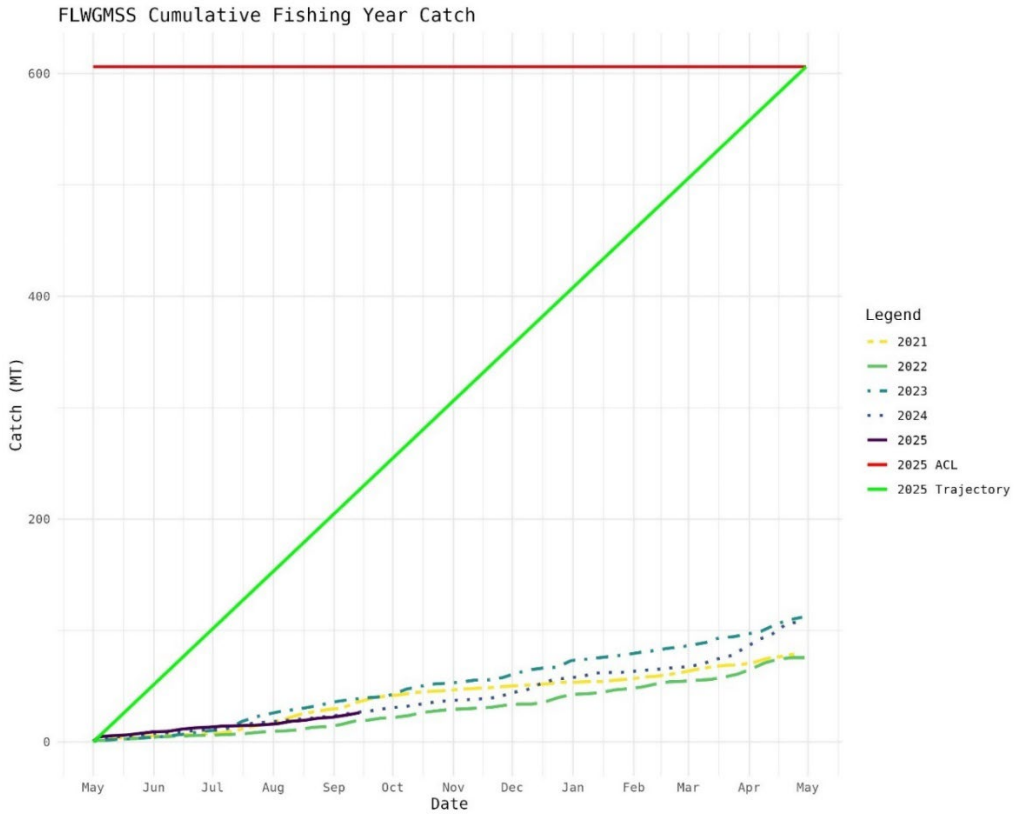


Table 14- GOM winter flounder stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

		Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
	FY		Realized	Predicted	*Realized*	*Predicted*	Realized	Predicted
GOM Winter Flounder	2012	690	258	33	*0.37*	*0.05*	1.5	0.1
	2013	688	168	119	*0.24*	*0.16*	0.8	0.7
	2014	683	124	117	*0.18*	*0.17*	0.7	0.7
	2015	371	118	96	*0.32*	*0.26*	0.6	0.5
	2016	607	109	85	*0.18*	*0.14*	0.8	0.4
	2017	607	111	148	*0.18*	*0.24*	0.9	1.0
	2018	339	91	164	*0.27*	*0.48*	0.6	1.2
	2019	337	57	161	*0.17*	*0.48*	0.4	1.1
	2020	272	55	95	*0.20*	*0.35*	0.4	0.6
	2021	267	69	48	*0.26*	*0.18*	0.3	0.3
	2022	259	75	87	*0.29*	*0.33*	0.3	0.4
	2023	519	105	41	*0.20*	*0.07*	0.4	0.2
	2024	553	100	93	*0.18*	*0.18*	0.5	0.3

Projections:

Table 15 provides possible OFLs and ABCs for FY2026- FY2030 for GOM winter flounder. Catch advice is based on 75% of E40% using the average of 2023 and 2024 fall surveys. A two-year average of the most recent fall surveys is used to help stabilize the biomass estimates and

catch advice. The fall survey is also thought to be a better estimate of the exploitable biomass due to concerns of missing fish within the estuaries during the spawning late winter/early spring season.

Catch projections are not possible for this stock. The PDT applies a constant approach for OFLs and ABCs.

Table 15- Possible OFLs and ABCs (mt) for FY2026- FY2030 for GOM winter flounder, based on a constant approach at 75% F_{MSY} for ABCs.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)
2026	1,064	798
2027	1,064	798
2028	1,064	798
2029	1,064	798
2030	1,064	798

5. Southern New England/Mid-Atlantic winter flounder

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

2025 Management Track Assessment:
Key points:
The 2025 stock assessment is an update to the ASAP model used in the 2022 management track assessment.

SNE/MA winter flounder shows an overall declining trend in SSB over the time series, with the current estimate at the second lowest in the time series. Estimates of fishing mortality have been declining since 2015 and the current value is among the lowest of the time series. Recruitment has remained low and steady over the past decade with a slight increase at the end of the time series.

The PDT noted that there had been a Winter Flounder Research Track Assessment in progress, but that research track is currently on pause.

Main sources of uncertainty:

- The estimate of natural mortality based on longevity, which is not well studied in SNE/MA winter flounder. Natural mortality affects the scale of the biomass and fishing mortality estimates. There is still uncertainty in the true max age of the population and the resulting natural mortality estimate.
- Recreational discards are a small component of the total catch, but the assessment suffers from very little length information used to characterize the recreational discards.

- The population projections are sensitive to the recruitment model chosen, as well as the temporal period selected from which recruitment estimates are drawn. In addition, recruitment and natural mortality are both likely to be dependent on environmental conditions, which cannot be explored within the ASAP framework. Investigations of environmental covariates within a state-space model framework are ongoing.

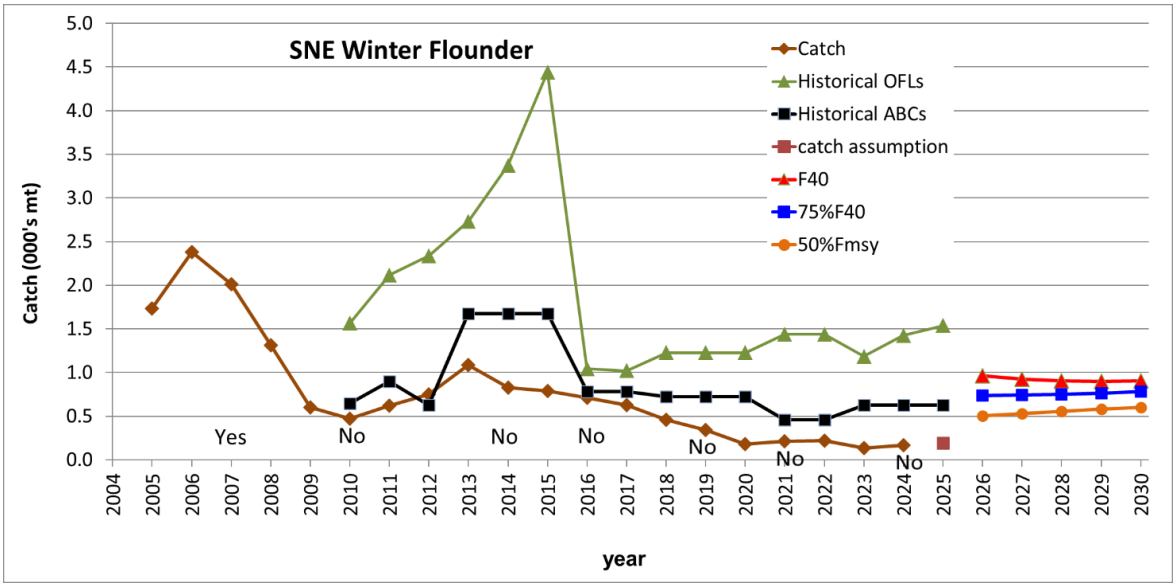
Stock Status:
The 2025 Peer Review Panel concluded SNE/MA winter flounder is not overfished, and overfishing is not occurring. SNE/MA winter flounder is rebuilt as of 2022. However, the previous 2022 management track assessment updated the recruitment stanza to a truncated, more recent time series (2002-2021) for the biological reference point calculations and projections, which resulted in the change in stock status. While the updated biological reference points meant the stock is no longer considered overfished, model estimates and fishery independent survey indices all indicated a continued poor stock condition. The 2025 management track assessment does not indicate a change from poor stock condition.

Catch Performance:
Table 16 and Figure 12 summarize catch performance and changes in overfishing status for SNE/MA winter flounder.

Table 16- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and FMSY, 75%FMSY, and 50%FMSY estimates for FY2026-FY2030 for SNE/MA winter flounder.

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F_{40}	$75\%F_{40}$	50%Fmsy
2010	469	1,568	644				
2011	620	2,117	897				
2012	750	2,336	626				
2013	1,085	2,732	1,676				
2014	826	3,372	1,676				
2015	787	4,439	1,676				
2016	708	1,041	780				
2017	629	1,021	780				
2018	460	1,228	727				
2019	342	1,228	727				
2020	179	1,228	727				
2021	210	1,438	456				
2022	219	1,438	456				
2023	136	1,186	627				
2024	169	1,425	627				
2025		1,536	627	194			
2026					961	740	507
2027					922	742	532
2028					902	750	556
2029					901	765	580
2030					905	779	602

Figure 12- Catch performance for SNE/MA winter flounder including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FMSY, 75%FMSY, and 50%FMSY for FY2026-FY2030. Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



Additional Fishery Information:

Commercial Fishery – Figure 13 shows commercial groundfish (sector and common pool) catch of SNE/MA winter flounder since FY2021 along with the FY2025 commercial annual catch limit (ACL). Utilization by the groundfish fishery has been very low.

Sectors - Table 17 compares the performance of the QCM since FY2012 to the realized outcomes for SNE/MA winter flounder. In recent years the model has tended to over-predict catch and utilization, except in FY2024 when catch and utilization were both under-predicted. Inter-sector ACE lease prices for SNE/MA winter flounder have been $0, which is logical given the low utilization rate.

Other Fishery and State Fishery Sub-components – Other significant sources of SNE/MA winter flounder catch include the scallop fishery (17.4 mt in FY2023), squid fishery (19.4 mt in FY2023), and state recreational fishery (20.8 mt in FY2023). These other fishery and state sub-components are expected catches and do not have AMs associated.

The PDT raised questions about the state recreational catches, noting that these recent estimates appeared high. It was noted that these recreational catches are mainly from Massachusetts, and the PDT discussed the potential for misattribution by Marine Recreational Information Program (MRIP) intercept location, i.e., some of these recreational winter flounder catches could have occurred in Cape Cod Bay (GOM) but recorded as SNE/MA based on angler intercept location. The PDT recognized the Winter Flounder Research Track Assessment Working Group had not yet initiated a detailed investigation of catch data prior to the pause in the research track. Therefore, recreational catch data for this stock may warrant further scrutiny in the future. Additionally, the overall low utilization of SNE/MA winter flounder, regardless of recreational catch magnitude, was also noted by the PDT.

Figure 13- In-season utilization of SNE/MA winter flounder by the commercial (sectors and common pool) groundfish fishery.

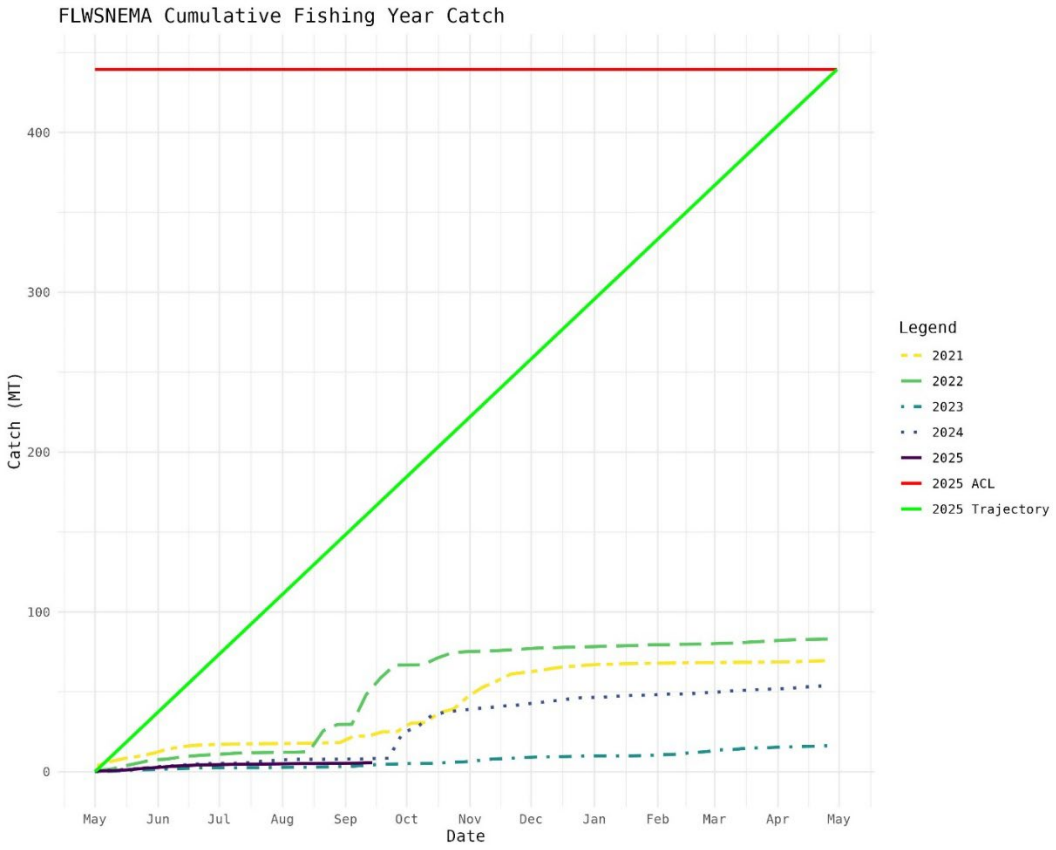


Table 17- SNE/MA winter flounder stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			Realized	**Predicted**	***Realized***	***Predicted***	**Realized**	**Predicted**
SNE/MA Winter Flounder	2012	N/A	105	69	*N/A*	*N/A*	5.4	1.2
	2013	1,074	670	125	*0.62*	*0.37*	4.2	0.0
	2014	1,063	490	95	*0.46*	*0.10*	3.6	0.0
	2015	1,147	583	833	*0.51*	*0.73*	3.5	3.5
	2016	523	397	355	*0.76*	*0.69*	2.6	2.0
	2017	515	372	386	*0.72*	*0.74*	2.6	3.3
	2018	456	229	428	*0.50*	*0.94*	3.4	3.3
	2019	444	135	455	*0.30*	*1.00*	3.4	3.5
	2020	475	97	314	*0.21*	*0.68*	3.6	3.5
	2021	247	83	163	*0.34*	*0.64*	3.4	3.1
	2022	250	78	131	0.31	*0.53*	0.3	0.7
	2023	387	14	168	0.04	*0.44*	0.1	0.8
	2024	408	50	13	0.12	*0.03*	0.2	<0.1

Projections:
Table 18 provides possible OFLs and ABCs for FY2026-FY2030 for SNE/MA winter flounder, under 75%F_{MSY} projections. In the last assessment cycle in 2022, the PDT raised concerns about setting OFLs and ABCs at 75%F_{MSY}, given the updated biological reference points resulted in the stock no longer being considered overfished and declared rebuilt, but all signs in the assessment pointed to a poor stock condition, and the SSC recommended using 50%F_{MSY}. Given the poor stock condition persists with this assessment update, the PDT also provides possible OFLs and ABCs at 50%F_{MSY} for consideration (Table 19).

As noted above, the PDT discussed uncertainties and past work demonstrating projections to be unreliable beyond two to three years, with outyears of the projections relying primarily on modeled recruitment (aka "paper fish"). Note: no figure available for SNE/MA winter flounder with ASAP and AGEPRO. For these reasons, the PDT provides a sensitivity run of OFLs and ABCs under 75%F_{MSY} projections and 50%F_{MSY} projections, holding the FY2028 OFL and ABC constant for FY2029-FY2030 (Table 20 and Table 21).

Table 18- Possible OFLs and ABCs (mt) for FY2026-FY2030 for SNE/MA winter flounder, following 75%Fmsy projections. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	961	740	0.175	3,395
2027	965	742	0.175	3,460
2028	976	750	0.175	3,483
2029	995	765	0.175	3,535
2030	1,016	779	0.175	3,612

Table 19- Possible OFLs and ABCs (mt) for FY2026-FY2030 for SNE/MA winter flounder, following 50%Fmsy projections. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	961	507	0.117	3,434
2027	1,009	532	0.117	3,691
2028	1,055	556	0.117	3,882
2029	1,101	580	0.117	4,068
2030	1,143	602	0.117	4,252

Table 20- Sensitivity run of OFLs and ABCs (mt) for FY2026-FY2030 for SNE/MA winter flounder, following 75%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	961	740	0.175	3,395
2027	965	742	0.175	3,460
2028	976	750	0.175	3,483
2029	976	750	0.171	3,537
2030	976	750	0.167	3,632

Table 21- Sensitivity run of OFLs and ABCs (mt) for FY2026-FY2030 for SNE/MA winter flounder, following 50%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	961	507	0.117	3,434
2027	1,009	532	0.117	3,691
2028	1,055	556	0.117	3,882
2029	1,055	556	0.112	4,072
2030	1,055	556	0.107	4,281

6. White hake

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

2025 Management Track Assessment:
Key points:
The 2025 stock assessment is an update to the ASAP model used in the 2022 management track assessment.

The spring and fall NMFS bottom longline survey (BLSS) indices were evaluated and recommended by the 2025 Peer Review Panel for inclusion in this assessment. The BLLS provides additional catch-at-age information for larger white hake.

Survey indices continue to show declining trends and recent recruitment estimates are near time series lows. Recruitment has been persistently weak over the past two decades, with no strong year classes to drive rebuilding.

The white hake assessment uses different recruitment methods between short-term and long-term projections: $SSB_{MS}Y$ is estimated using the SAW56 approved method of long-term projections at an F40%proxy for F_{MSY} using a cumulative distribution function (CDF) of recruitment from the model times series minus the last two years (1963-2022). However, short-term projections used for catch advice were developed using the SAW56 method of recruitment from 1995-2022 since

there was a declining trend in recruitment. Questions have been raised at past management track assessments on the appropriateness of using a recruitment time series reaching back to 1995, and contract work was conducted to explore internal consistency between biological reference points and projections and consider change point analysis or recruit-per-spawner analysis to inform recruitment time stanzas. This 2025 management track assessment brought forward an alternative projection approach (Cadrin 2023) [4] that uses projected recruitment based on a lognormal distribution with autocorrelated error in recruitment. Using the autocorrelation in recruitment in the projections eliminates the need for the development of a separate long-term projection for biological reference points estimates and short-term projections for catch advice.

The 2025 Peer Review Panel discussed tradeoffs between these two approaches, and ultimately recommended continued use of the projection methodology from the SAW56 benchmark, with the autocorrelated recruitment (AR1) projections to be provided as a sensitivity. The Panel provided several research recommendations regarding continued exploration of alternative projection approaches.

Main sources of uncertainty:

- Catch at age information is not well characterized, due to possible mis-identification of species in the commercial and observer data, particularly in early years, low sampling of commercial landings in some years, and sparse discard length data.
- Pooled age-length keys and use of survey ALKs to age commercial catch
- Possible seasonal movement out of defined stock area.
- Inconsistency between recruitment methods used in the long-term and short-term projections (explored in this assessment but not resolved).

Stock Status and Rebuilding Plan:
The 2025 Peer Review Panel concluded white hake is not overfished, and overfishing is not occurring. White hake is in a rebuilding plan with a rebuild by date of 2031.

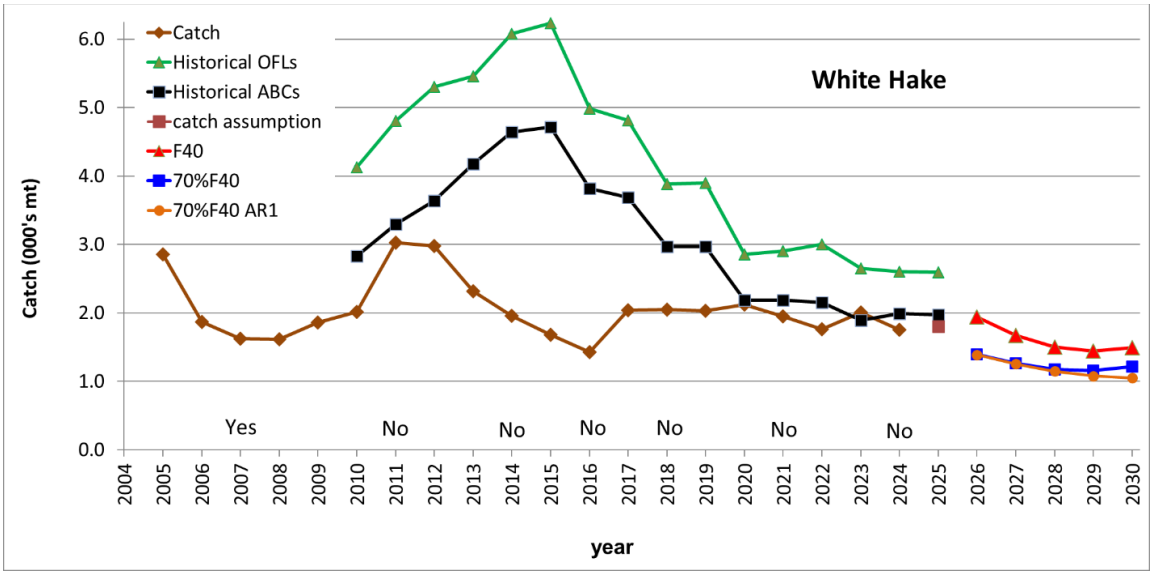
Catch Performance:
Table 22 and Figure 14 summarize catch performance and changes in overfishing status for white hake.

[4] Cadrin S. 2023. Has Mean Recruitment of White Hake Changed? Report to the New England Fishery Management Council. August 4, 2023. See: https://d23h0vhsm26o6d.cloudfront.net/A6_231214_Groundfish_FW66_Appendix_VI_White_Hake_Recruitment_Assumptions.pdf

Table 22- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and FMSY, 70%FMSY, and 70%FMSY autocorrelated recruitment (AR1) sensitivity estimates for FY2026-FY2030 for white hake.

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F40%	Frebuild 70%F40	Frebuild 70%F40 AR1
2010	2,014	4,130	2,832				
2011	3,029	4,805	3,295				
2012	2,981	5,306	3,638				
2013	2,316	5,462	4,177				
2014	1,959	6,082	4,642				
2015	1,681	6,237	4,713				
2016	1,426	4,985	3,816				
2017	2,040	4,816	3,686				
2018	2,046	3,885	2,971				
2019	2,030	3,898	2,971				
2020	2,122	2,857	2,186				
2021	1,947	2,906	2,186				
2022	1,761	3,002	2,155				
2023	2,009	2,650	1,897				
2024	1,754	2,607	1,991				
2025		2,591	1,978	1,802			
2026					1,943	1,393	1,391
2027					1,677	1,261	1,255
2028					1,502	1,174	1,149
2029					1,443	1,157	1,080
2030					1,493	1,215	1,049

Figure 14- Catch performance for white hake including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FMSY, 70%FMSY, and 70%FMSY autocorrelated recruitment sensitivity for FY2026-FY2030. Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



Additional Fishery Information:

Commercial Fishery – Figure 15 shows commercial groundfish (sector and common pool) catch of white hake since FY2021 along with the FY2025 commercial annual catch limits (ACL). Utilization by the groundfish fishery has been very high over the last five years.

Sectors - Table 21 compares the performance of the QCM since FY2012 to the realized outcomes for white hake. As utilization increased, predicted utilization and catch have tracked realized values in recent years. Utilization rates have been over 90% since FY2021. White hake is a highly constraining stock for the groundfish sector fishery. Inter-sector ACE lease prices for white hake have ranged from $0.25/lb to $1.00/lb over the last five years (Figure 16).

Figure 15- In-season utilization of white hake by the commercial (sectors and common pool) groundfish fishery.

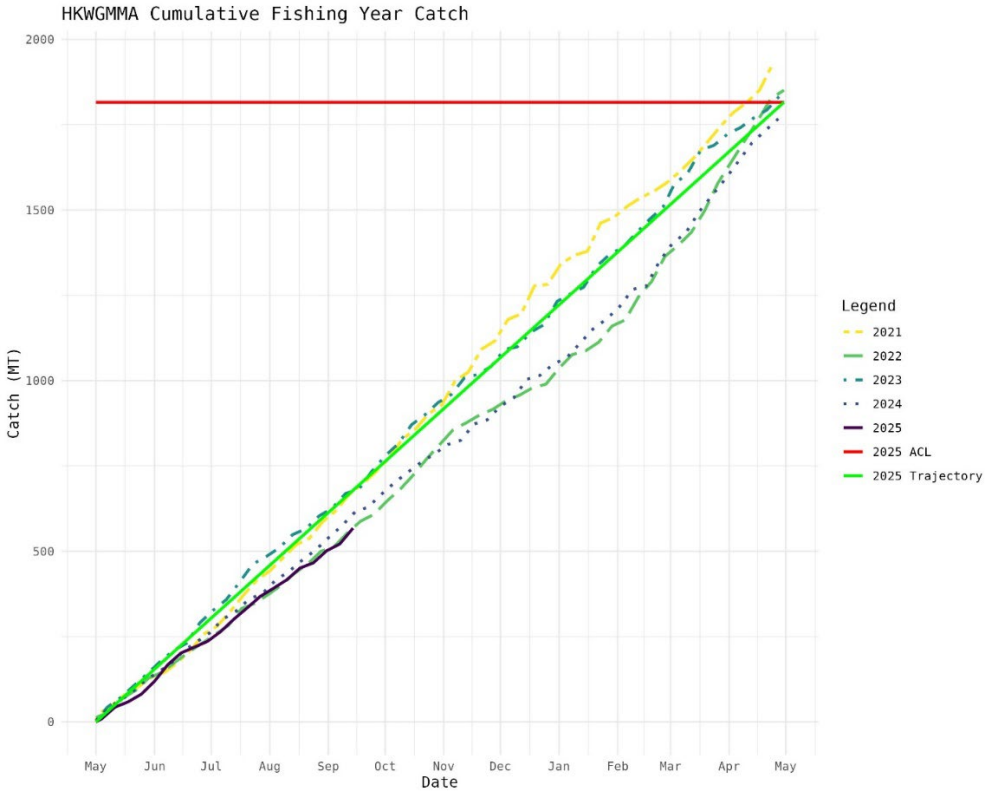
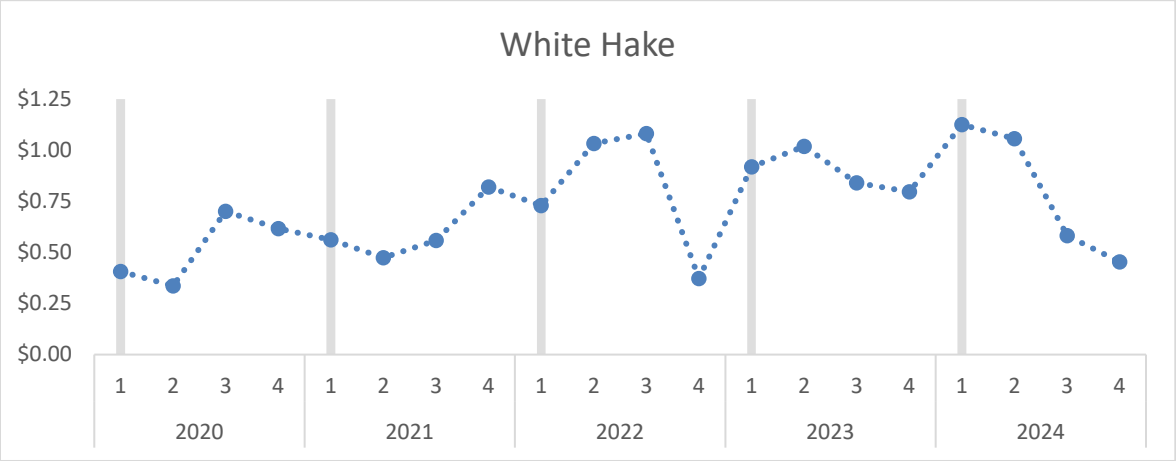


Table 23- White hake stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			Realized	Predicted	*Realized*	*Predicted*	Realized	Predicted
White Hake	2012	3,257	2,414	1,980	*0.74*	*0.43*	9.3	5.8
	2013	4,142	2,025	2,570	*0.49*	*0.70*	7.7	8.2
	2014	4,308	1,721	1,932	*0.40*	*0.45*	7.3	7.4
	2015	4,313	1,581	1,689	*0.37*	*0.39*	6.3	6.4
	2016	3,434	1,432	1,780	*0.42*	*0.52*	5.6	7.1
	2017	3,333	2,014	2,071	*0.60*	*0.62*	5.6	8.3
	2018	2,713	2,083	1,907	*0.77*	*0.70*	5.4	7.1
	2019	2,715	2,044	2,691	*0.75*	*0.99*	5.1	7.1
	2020	2,004	1,790	1,839	*0.89*	*0.92*	5.2	4.8
	2021	1,994	1,930	1,995	*0.97*	*1.00*	6.6	4.6
	2022	1,970	1,824	1,906	*0.93*	*0.97*	5.7	5.8
	2023	1,808	1,747	1,719	*0.97*	*0.95*	4.9	5.6
	2024	1,905	1,741	1,904	*0.91*	*1.00*	4.8	5.2

Figure 16- ACE lease prices estimated for white hake for fishing years 2020-2024 using a hedonic price model comprised of inter-sector ACE leases. First quarter (May-July) lease prices are indicated by the vertical gray bars.



Projections:

Table 22 provides possible OFLs and ABCs for FY2026- FY2030 for white hake, under 70%F_{MSY} projections.

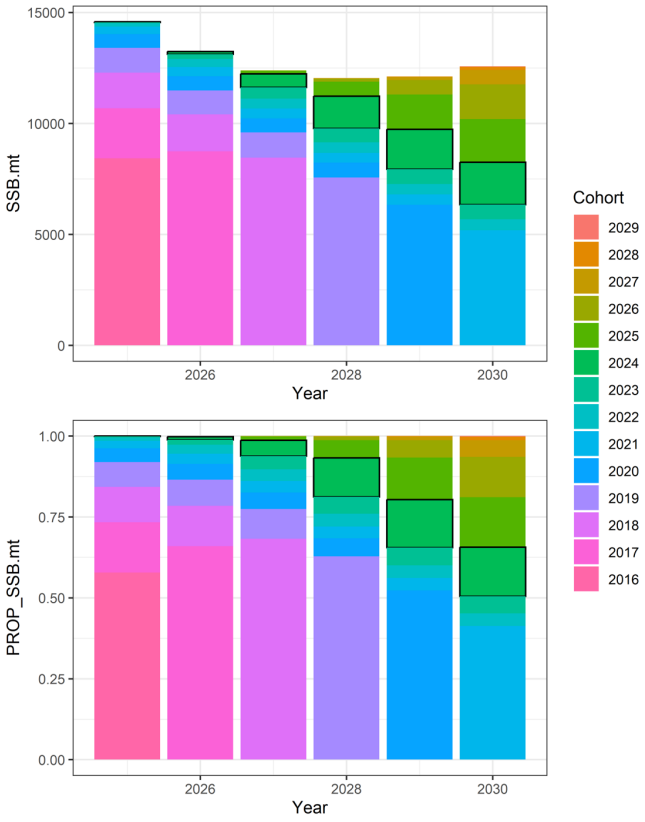
As noted above, the PDT discussed uncertainties and past work demonstrating projections to be unreliable beyond two to three years. Figure 17 demonstrates that by 2028, projections are relying on greater than 50% of future year classes from modeled recruitment (aka "paper fish"). Note: ASAP and AGEPRO are unable to provide this for catch and use SSB instead. For these reasons, the PDT provides a sensitivity run of OFLs and ABCs under 70%F_{MSY} projections holding the FY2028 OFL and ABC constant for FY2029-FY2030 (Table 23). Note that the projections for white hake decrease through FY2029 before increasing in FY2030.

Based on the 2025 Peer Review Panel recommendations, projections continue the use of the projection methodology from the SAW56 benchmark, which uses the full time series of recruitment for biological reference point projections and 1995-2022 recruitment time series for short-term catch advice projections. Projections using the alternative approach of autocorrelated recruitment (AR1) are provided as a sensitivity (Table 24).

Table 24- Possible OFLs and ABCs (mt) for FY2026-FY2030 for white hake, following 70%Fmsy projections. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	1,943	1,393	0.123	12,293
2027	1,760	1,261	0.123	11,497
2028	1,640	1,174	0.123	11,204
2029	1,618	1,157	0.123	11,252
2030	1,698	1,215	0.123	11,673

Figure 17- SSB (mt) by cohort and proportion of SSB by cohort from 70%FMSY projections for FY2026-FY2030 for white hake.



Source: NEFSC

Table 25- Sensitivity run of OFLs and ABCs (mt) for FY2026-FY2030 for white hake, following 70%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	1,943	1,393	0.123	12,293
2027	1,760	1,261	0.123	11,497
2028	1,640	1,174	0.123	11,204
2029	1,640	1,174	0.125	11,248
2030	1,640	1,174	0.119	11,662

Table 26- Sensitivity run of ABCs (mt) for FY2026-FY2030 for white hake, following 70%Fmsy AR1 projections.

Fishing Year	Possible ABC (mt)
2026	1,391
2027	1,255
2028	1,149
2029	1,080
2030	1,049

7. Acadian redfish

Information Reviewed:
Information the PDT reviewed included: the 2025 management track assessment, SSC reports, PDT reports, catch information, and economic information.

2025 Management Track Assessment:
Key points:
The 2025 stock assessment is an update to the WHAM model, which was developed for Acadian redfish as part of the State Space Modeling Research Track Assessment that concluded last year. This is the first Management Track assessment using the WHAM model for this stock.

Prior to the WHAM model developed through the 2024 State Space Modeling Research Track Assessment, redfish was assessed with an ASAP model in the 2023 management track assessment. The WHAM model developed is an "ASAP like" WHAM model intended to be a bridge from the 2023 ASAP model and does not yet include all the additional state-space model processes (i.e., random effects on NAA). There were several updates between the 2024 WHAM model and 2025 WHAM model including: a change in the assessment start year, change in recruitment model, use of age-specific fishery and survey selectivity, and change in fishery and survey age composition likelihoods.

Total fishery removals have been relatively constant since the 2010s. At the same time, the spring and fall survey indices have shown a decrease in relative abundance, which the previous ASAP model struggled to fit. The current WHAM improves the fit to the survey indices, which results in the stock being estimated as less productive than previous assessments suggested.

While the stock status has not changed from the last assessment, the terminal year estimates of SSB and fully selected F are closer to the SSB and F thresholds than in previous assessments. If model fits to the indices are further improved in the future, then the perception of the stock and its productivity may continue to change.

This assessment has a major retrospective pattern in SSB and F. The assessment report notes this major retrospective pattern is due more to the tight confidence intervals produced by the model, than to particularly high Mohn's rho values for SSB and full selected F. A retrospective adjustment to the terminal year SSB and fully selected F was used for the purpose of stock status determination, but not for short term projections. The WHAM model does not include an option to rho-adjust projections within the model framework.

The 2025 Peer Review Panel discussed concerns about the projections not being rho-adjusted when the guidance indicates a retrospective adjustment should be applied to stock status and projections. The Panel accepted the projections without the rho adjustment given the retrospective pattern was not severe and stock status does not change with the adjustment. However, the Panel requested that rho-adjusted projections be provided, if possible, as a sensitivity.

Main sources of uncertainty:

- One of the primary sources of uncertainty is the lack of age data, from the commercial fishery and spring survey, though this update did include additional years of age data.
- Lack of model fit to the spring and fall survey indices in recent assessments. While the WHAM model used in this assessment improves the fit to both the spring and fall survey indices, it still fails the fit the most recent two years of the fall survey index, which are the lowest index values since the index began increasing in the mid-1990s.

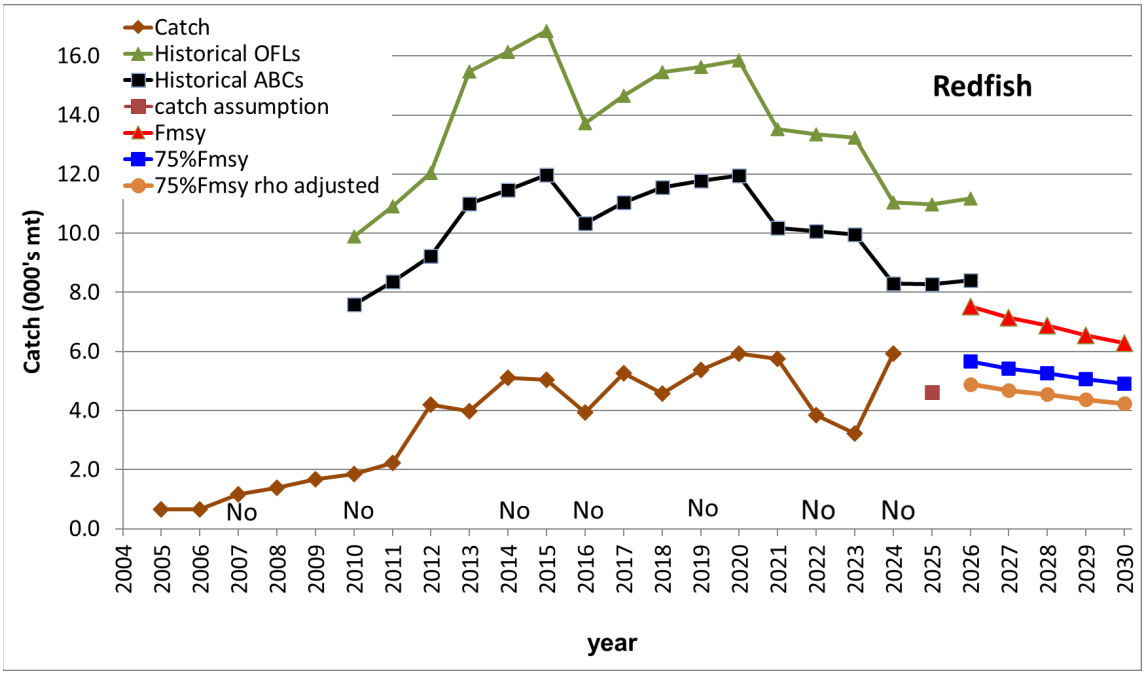
Stock Status:
The 2025 Peer Review Panel concluded Acadian redfish is not overfished, and overfishing is not occurring. Redfish is rebuilt.

Catch Performance:
Table 27 and Figure 18 summarize catch performance and changes in overfishing status for Acadian redfish.

Table 27- Catch performance (CY2010-CY2024), historical OFLs and ABCs (FY2010-FY2025), and FMSY, 75%FMSY, and 75%FMSYrho adjusted sensitivity estimates for FY2026-FY2030 for Acadian redfish.

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	Fmsy	75%Fmsy	75%Fmsy rho adjusted
2010	1,854	9,899	7,586				
2011	2,237	10,903	8,356				
2012	4,203	12,036	9,224				
2013	3,973	15,468	10,995				
2014	5,102	16,130	11,465				
2015	5,044	16,845	11,974				
2016	3,926	13,723	10,338				
2017	5,267	14,665	11,050				
2018	4,568	15,451	11,552				
2019	5,380	15,640	11,785				
2020	5,932	15,852	11,942				
2021	5,750	13,519	10,186				
2022	3,835	13,354	10,062				
2023	3,217	13,229	9,967				
2024	5,926	11,041	8,307				
2025		10,982	8,273	4,616			
2026		11,177	8,418		7,519	5,665	4,890
2027					7,137	5,427	4,684
2028					6,870	5,273	4,552
2029					6,544	5,065	4,373
2030					6,286	4,907	4,240

Figure 18- Catch performance for Acadian redfish including: catches from CY2005-CY2024, historical OFLs and ABCs since FY2010, and FMSY, 75%FMSY, and 75%FMSY rho adjusted sensitivity estimates for FY2026-FY2030. Overfishing status in the terminal year of the assessment indicated on the x-axis ("No" = not overfishing).



Additional Fishery Information:

Commercial Fishery –Figure 19 shows commercial groundfish (sector and common pool) catch of Acadian redfish since FY2021 along with the FY2025 commercial annual catch limit (ACL). Utilization by the groundfish fishery has been similar in recent years, with an increase in FY2024.

Sectors - Table 28 compares the performance of the QCM since FY2012 to the realized outcomes for Acadian redfish. In FY2024, catch was under-predicted by ~2,400 mt, utilization by 48%, and revenue by $2.3 million. Realized utilization rates have ranged between 40% and 65%.

There is a redfish sector exemption which allows the use of smaller mesh (≥ 5.5") to target redfish in certain times and areas and following certain program stipulations (Figure 20). The Council began conducting a review of the redfish sector exemption this year, but that work was paused with a change in 2025 Council groundfish priorities.

Figure 19- In-season utilization of redfish by the commercial (sectors and common pool) groundfish fishery.

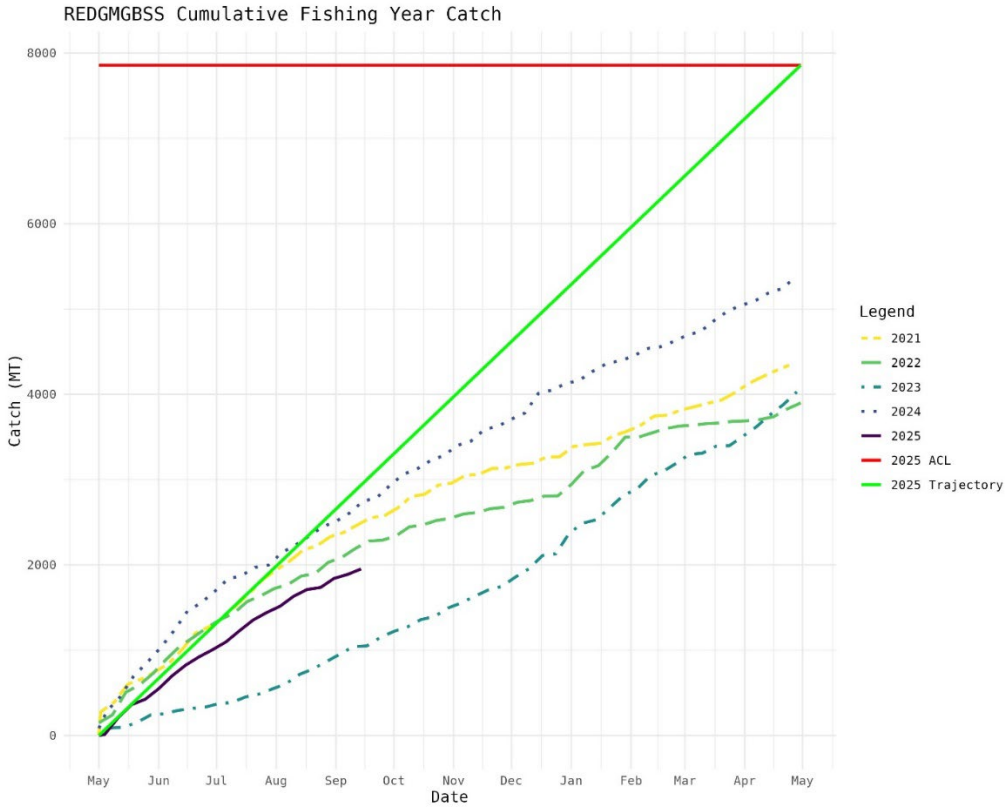
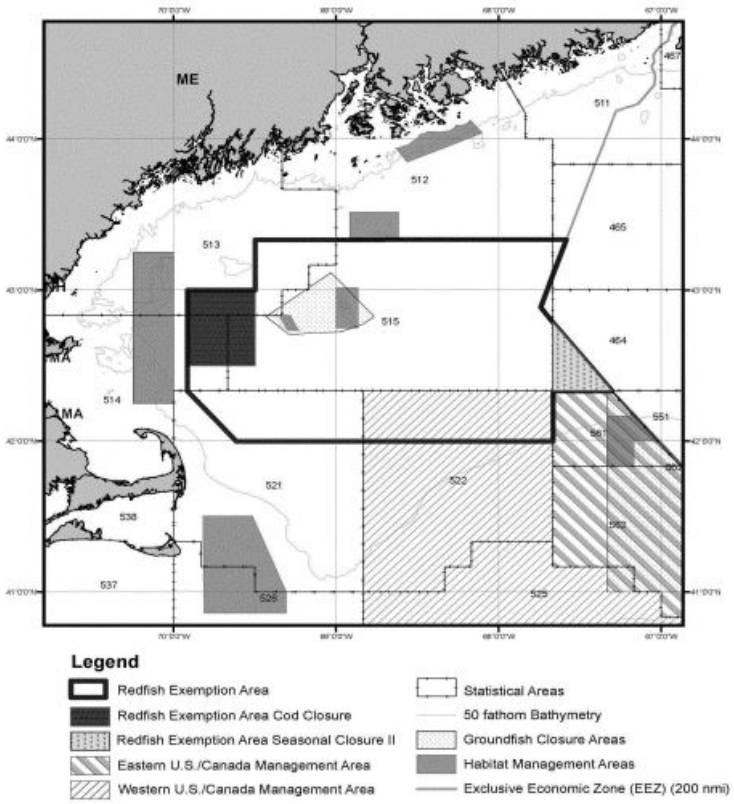


Table 28- Redfish stock-level catch and revenue predictions from the Quota Change Model (QCM) for each fishing year between 2012 and 2024 compared to realized catch and revenue (in 2024$).

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			Realized	Predicted	*Realized*	*Predicted*	Realized	Predicted
Redfish	2012	8,291	4,423	2,064	*0.53*	*0.17*	7.4	3.1
	2013	10,092	3,996	3,361	*0.40*	*0.31*	5.7	5.4
	2014	10,521	4,682	3,363	*0.45*	*0.32*	7.0	4.8
	2015	10,970	5,284	4,145	*0.48*	*0.38*	8.5	5.9
	2016	9,474	4,078	6,860	*0.43*	*0.72*	6.8	10.5
	2017	10,127	4,647	4,199	*0.46*	*0.41*	6.9	6.6
	2018	10,705	5,361	4,650	*0.50*	*0.43*	7.2	7.4
	2019	10,915	4,957	4,993	*0.45*	*0.46*	7.0	7.1
	2020	11,085	6,712	4,894	*0.61*	*0.44*	9.5	6.4
	2021	9,537	4,353	4,634	*0.46*	*0.49*	6.5	6.3
	2022	9,459	3,856	5,267	*0.41*	*0.56*	6.3	6.8
	2023	9,369	3,921	4,027	*0.42*	*0.43*	5.8	6.3
	2024	8,226	5,347	2,912	*0.65*	*0.37*	6.7	4.4

Figure 20- Redfish sector exemption boundaries.



Projections:
Table 29 provides possible OFLs and ABCs for FY2026- FY2030 for Acadian redfish, under 75%F_{MSY} projections.

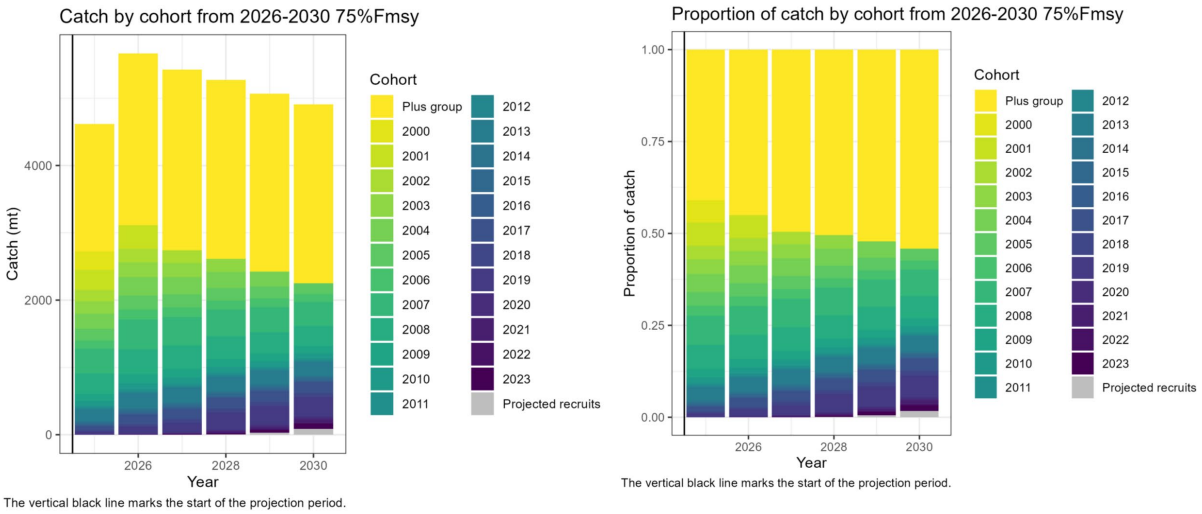
Unlike with other stocks, redfish doesn't demonstrate the same potential issue of reliance on projected recruits in the outyears of the projections, given the different life history as a long-lived, late maturing species (Figure 21). The PDT discussed that for this stock there are fewer uncertainties with the reliability of projections beyond two to three years. Still, the PDT provides a sensitivity run of OFLs and ABCs under 75%F_{MSY} projections holding the FY2028 OFL and ABC constant for FY2029-2030 for comparison (Table 30). Note that the projections for redfish decrease over the five-year period.

Based on the 2025 Peer Review Panel recommendations, the projections follow the approach used in the 2025 WHAM assessment and do not include rho adjustments. Projections with rho adjustments are provided as a sensitivity (Table 31).

Table 29- Possible OFLs and ABCs (mt) for FY2026- FY2030 for Acadian redfish, following 75%Fmsy projections. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	7,519	5,665	0.028	201,902
2027	7,203	5,427	0.028	194,296
2028	6,999	5,273	0.028	187,354
2029	6,723	5,065	0.028	181,267
2030	6,513	4,907	0.028	176,177

Figure 21- Catch (mt) by cohort and proportion of catch by cohort from 75%FMSY projections for FY2026-2030 for Acadian redfish.



Source: NEFSC

Table 30- Sensitivity run of OFLs and ABCs (mt) for FY2026-FY2030 for Acadian redfish, following 75%Fmsy projections and holding FY2028 OFL and ABC constant. Projected F and SSB (mt) are also provided.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	7,519	5,665	0.028	201,902
2027	7,203	5,427	0.028	194,296
2028	6,999	5,273	0.028	187,354
2029	6,999	5,273	0.029	181,185
2030	6,999	5,273	0.030	175,834

Table 31- Sensitivity run of ABCs (mt) for FY2026-FY2030 for Acadian redfish, following 75%Fmsy rho-adjusted projections.

Fishing Year	Possible ABC (mt)
2026	4,890
2027	4,684
2028	4,552
2029	4,373
2030	4,240

CY2025 Northeast Multispecies Projected Catch Estimates (mt)

Stock	Total Catch	Groundfish	Sector	Common Pool	Recreational	Scallop	Small Mesh	State	Other
	A to G	A+B+C	A	B	C	D	E	F	G
CC/GOM Yellowtail Flounder	289	235	232	3	-	NA*	NA*	14	40
SNE/MA Yellowtail Flounder	6	0	0	0	-	5	NA*	0	1
GB Winter Flounder	565	558	NA**	NA**	-	NA*	NA*	NA	7
SNE/MA Winter Flounder	171	55	51	4	NA*	NA*	NA*	28*	88*
White Hake	1771	1723	1709	14	-	NA*	NA*	2	46
Redfish	4616	4610	4604	6	-	NA*	NA*	4	2

* - Recreational Data for FY24 are not yet available NA* - When no sub-ACL is allocated, component is part of 'other' category NA** - Sector and Common Pool values combined for confidentiality

Methods: Calendar 2024 catch data are scaled using the mean difference in catch from CY24 to CY25 over the period June 1st - July 14th.

Amounts in metric tons of live weight

Data source: CAMS database, data through 7/14/2025, queried 7/28/2025

Source: NMFS Greater Atlantic Regional Fisheries Office

July 31, 2025

Note: for SNE/MA winter flounder recreational catch - assessment lead got estimate from NEFSC directly

Canadian catch included in bridge year estimate for the following stocks:

White hake	3 year avg	30.8 mt
GB winter flounder	*assessment lead got directly from DFO*	