Summary of Seven 2025 Groundfish Management Track Assessments and Groundfish PDT Report

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Scientific and Statistical Committee

Boston, MA and by Webinar

October 21-22, 2025

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Discussion Order

1. Acadian redfish
2. Georges Bank (GB) winter flounder
3. Gulf of Maine (GOM) winter flounder*
4. Southern New England/Mid-Atlantic (SNE/MA) winter flounder*
5. White hake
6. Cape Cod/Gulf of Maine (CC/GOM) yellowtail flounder
7. SNE/MA yellowtail flounder

** Level 1 stock*

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Terms of Reference

A. Consider the results of the most recent stock assessments for groundfish stocks and information provided by the Council's Groundfish Plan Development Team (PDT).

B. Recommend OFLs and ABCs for the following groundfish stocks for FY 2026-2030 that will prevent overfishing, be consistent with the Council's groundfish ABC control rule and rebuilding plans, and consider the Council's Risk Policy Statement and Concept:

- Acadian redfish
- Winter flounder: GB, GOM, SNE/MA
- White hake
- Yellowtail flounder: CC/GOM and SNE/MA

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Council's Groundfish Control Rule

These 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.

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Projection Uncertainty

- 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 (Brooks and Legault 2016, Wiedenmann and Jensen 2017) 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.

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Acadian Redfish OFLs & ABCs for FY2026 - FY2030

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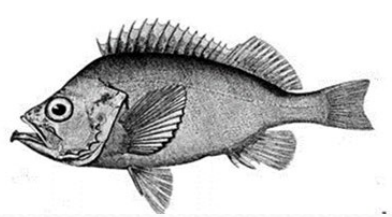
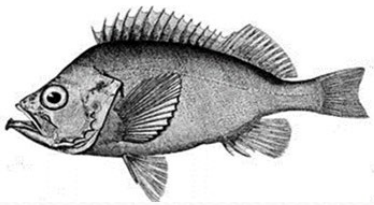


Acadian Redfish

MODEL	WHAM ('ASAP-like'), Level 3
STOCK STATUS	Not Overfished, Overfishing is not occurring
REBUILDING	Rebuilt
RETROSPECTIVE ADJUSTMENT	Yes for stock status determination. No for short-term projections (no option in WHAM)
UNCERTAINTIES	- Lack of age data from fishery and spring survey in many years is a major source of uncertainty. - Lack of model fit to spring and fall survey indices in recent assessments. WHAM improves the fit to both survey indices, but still fails to fit most recent two years of the fall index.
CHANGES	- Added 4 years of historic commercial age data and 3 years of historic spring survey age data - Change assessment start year from 1913 to 1963 - Change in recruitment model: mean recruitment with AR1 random effects - Use of age-specific fishery and survey selectivity - Change fishery and survey age composition likelihoods: logistic-normal, AR1, missing 0s



Acadian Redfish

	2023	2025
F_{MSY} *proxy*	0.037	0.037 (0.036 - 0.039)
SSB_{MSY} (mt)	184,322	131,411 (120,997 - 142,722)
MSY (mt)	6,825	4,965 (4,569 - 5,396)
Median recruits (age 1) (000s)	19,366	10,707
Overfishing	No	No
Overfished	No	No

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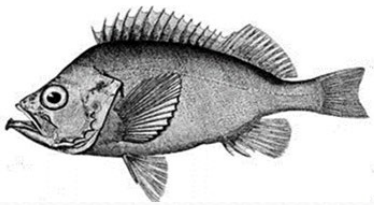
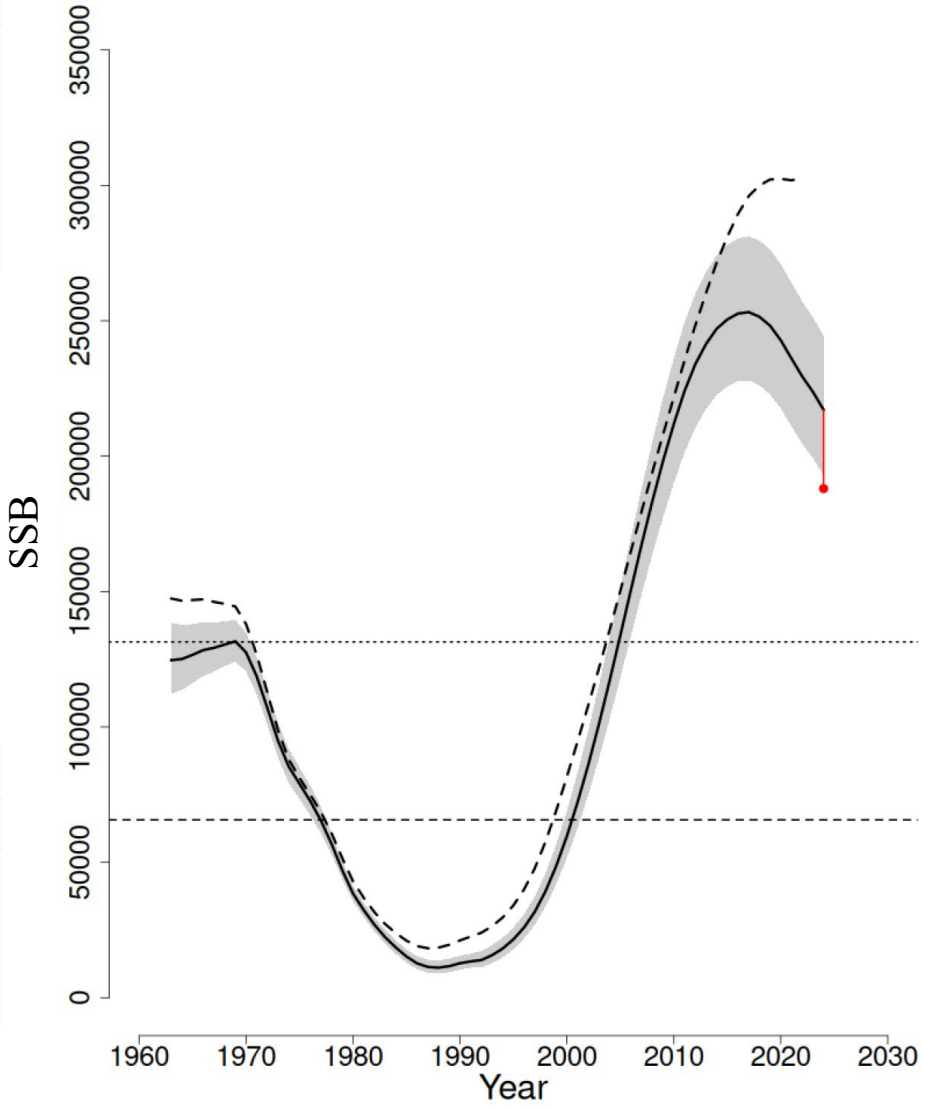
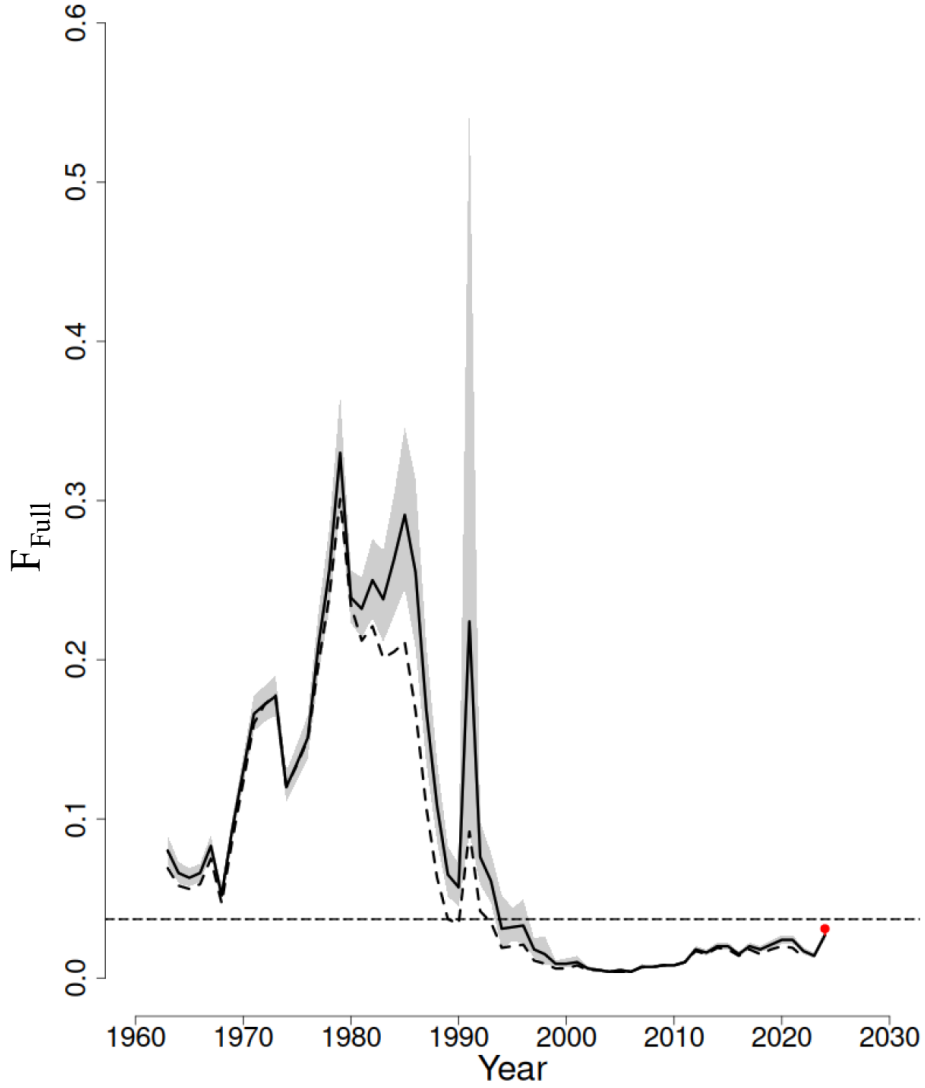
Acadian Redfish







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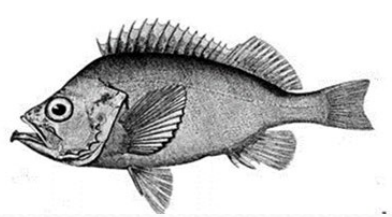
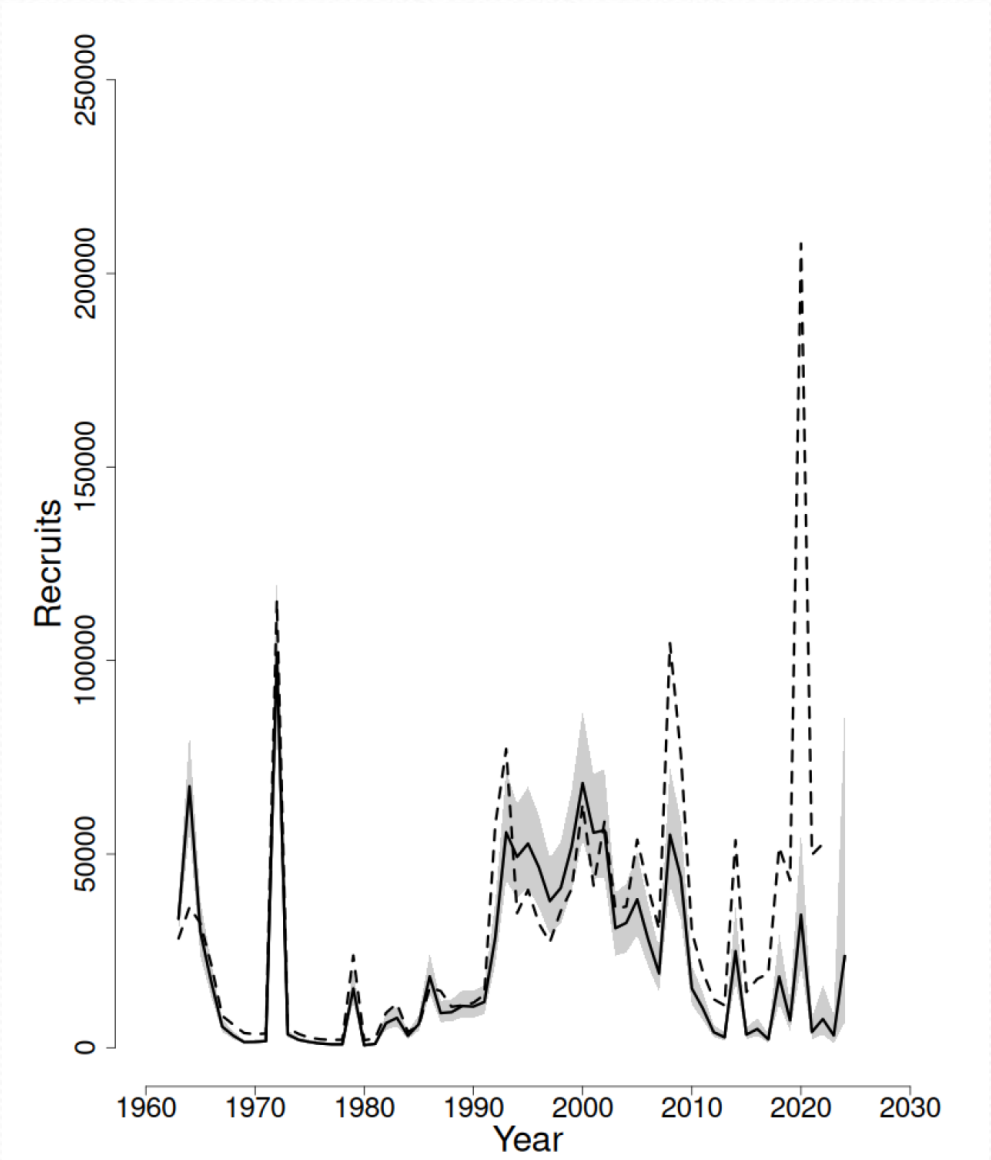
Acadian Redfish





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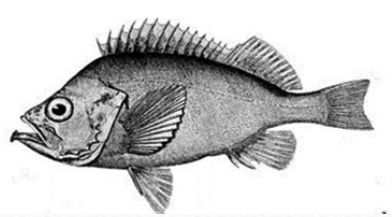
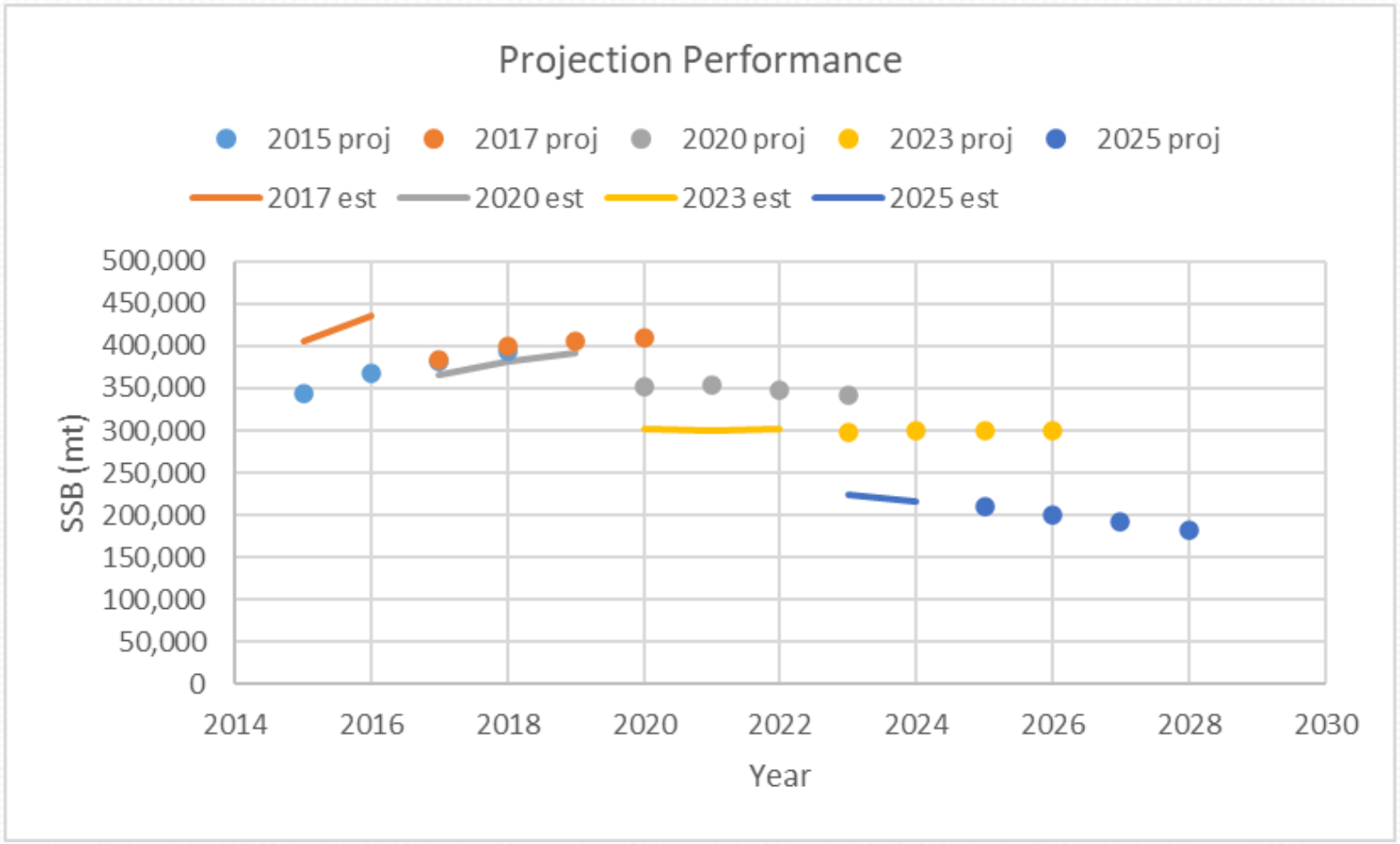
Acadian Redfish





- Projected SSB tends to be higher than estimated SSB in subsequent assessments, due to the retrospective pattern
- Retrospective adjusted projections: 2015, 2017 and 2020

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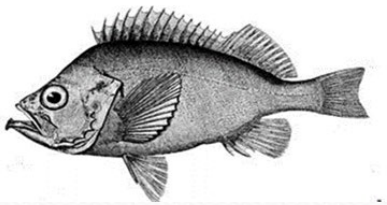
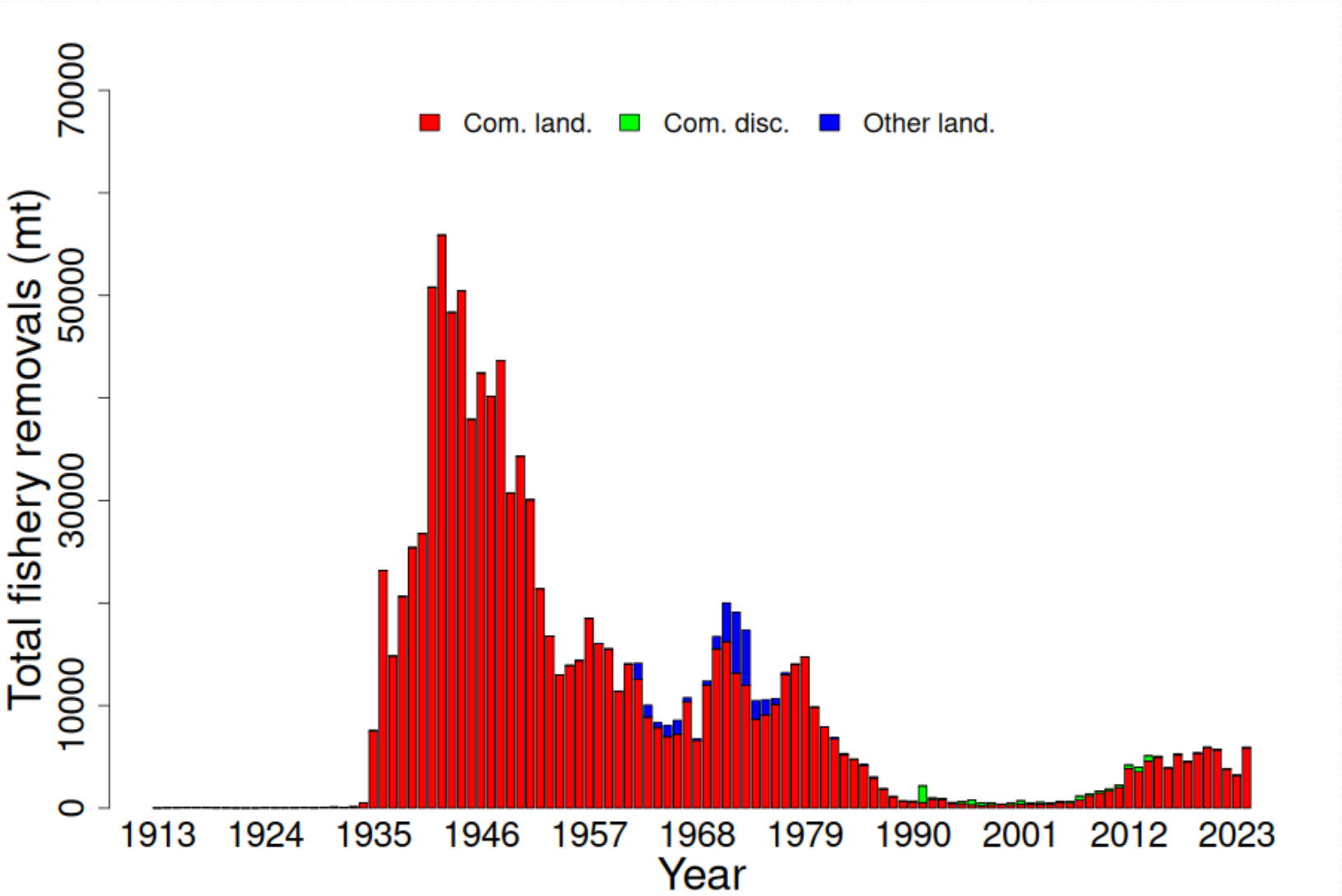
Acadian Redfish





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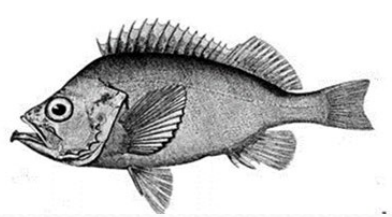
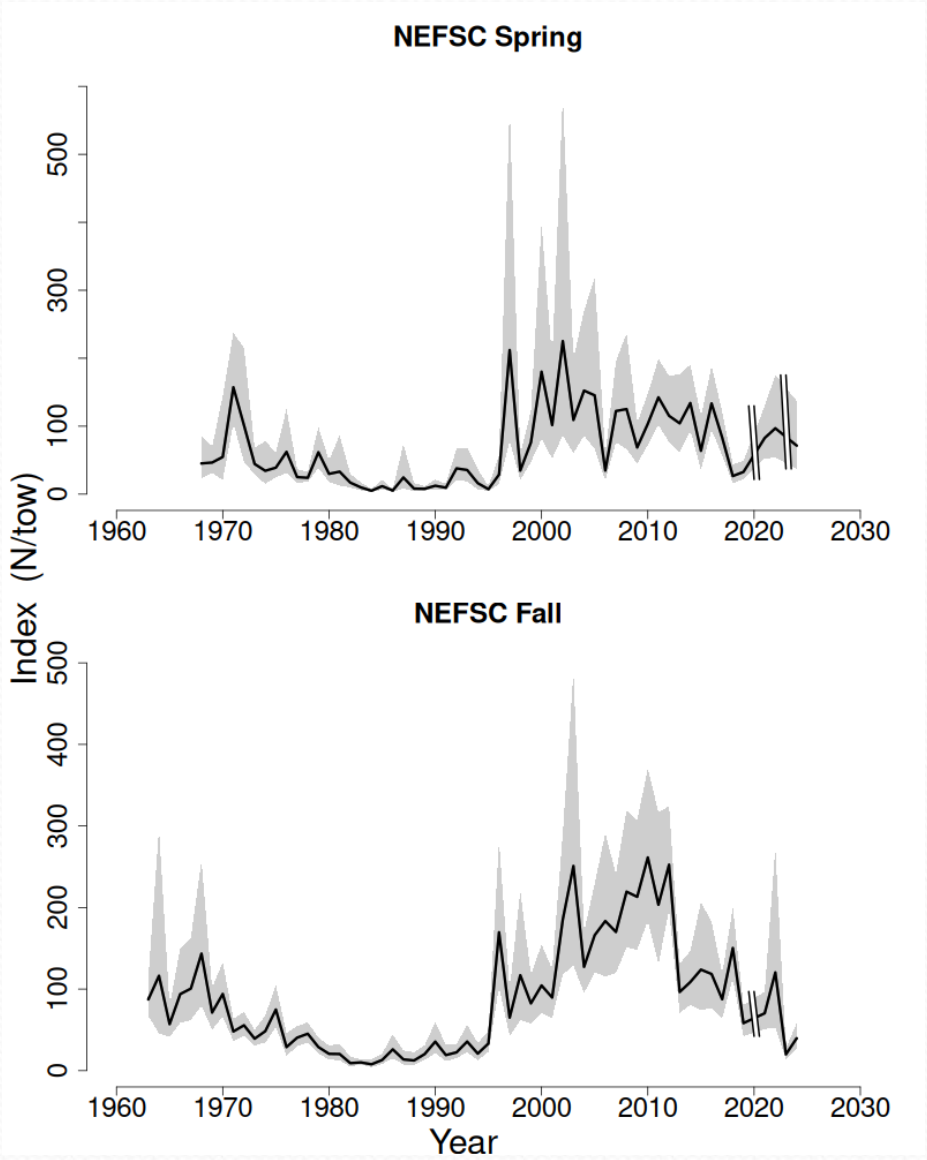
Acadian Redfish





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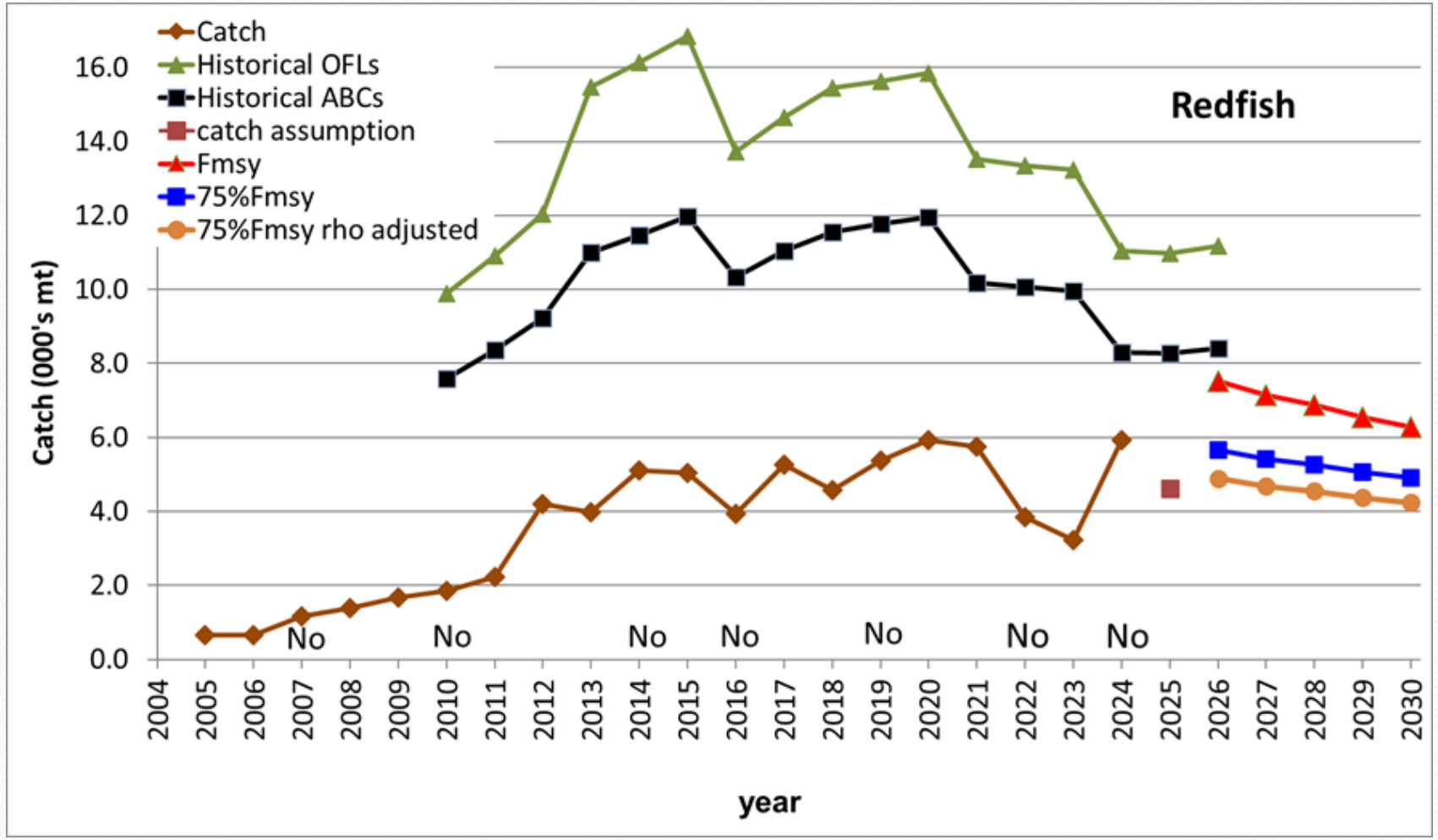
Catch Performance



Overfishing status in the terminal year of the assessment indicated on the x-axis ("No" = not overfishing).

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Catch Performance

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

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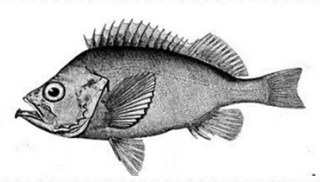
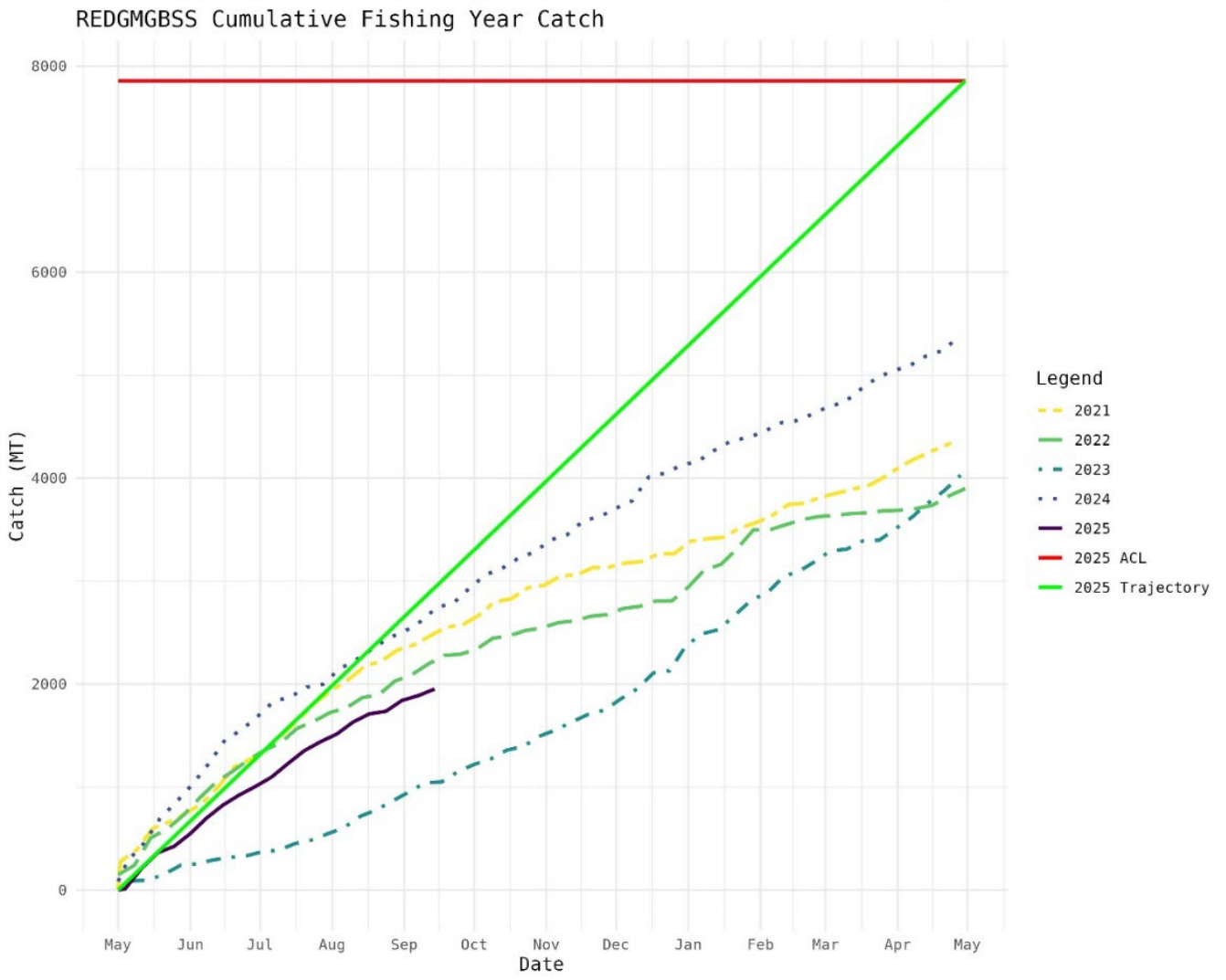


Commercial Groundfish Fishery In-Season Catch



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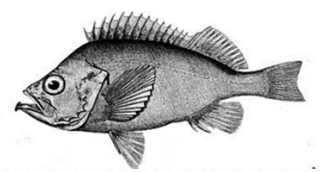
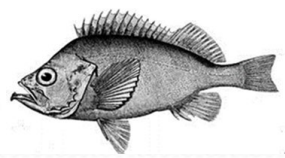


Quota Change Model Results - Sectors

	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

Inter-sector ACE lease prices have been $0



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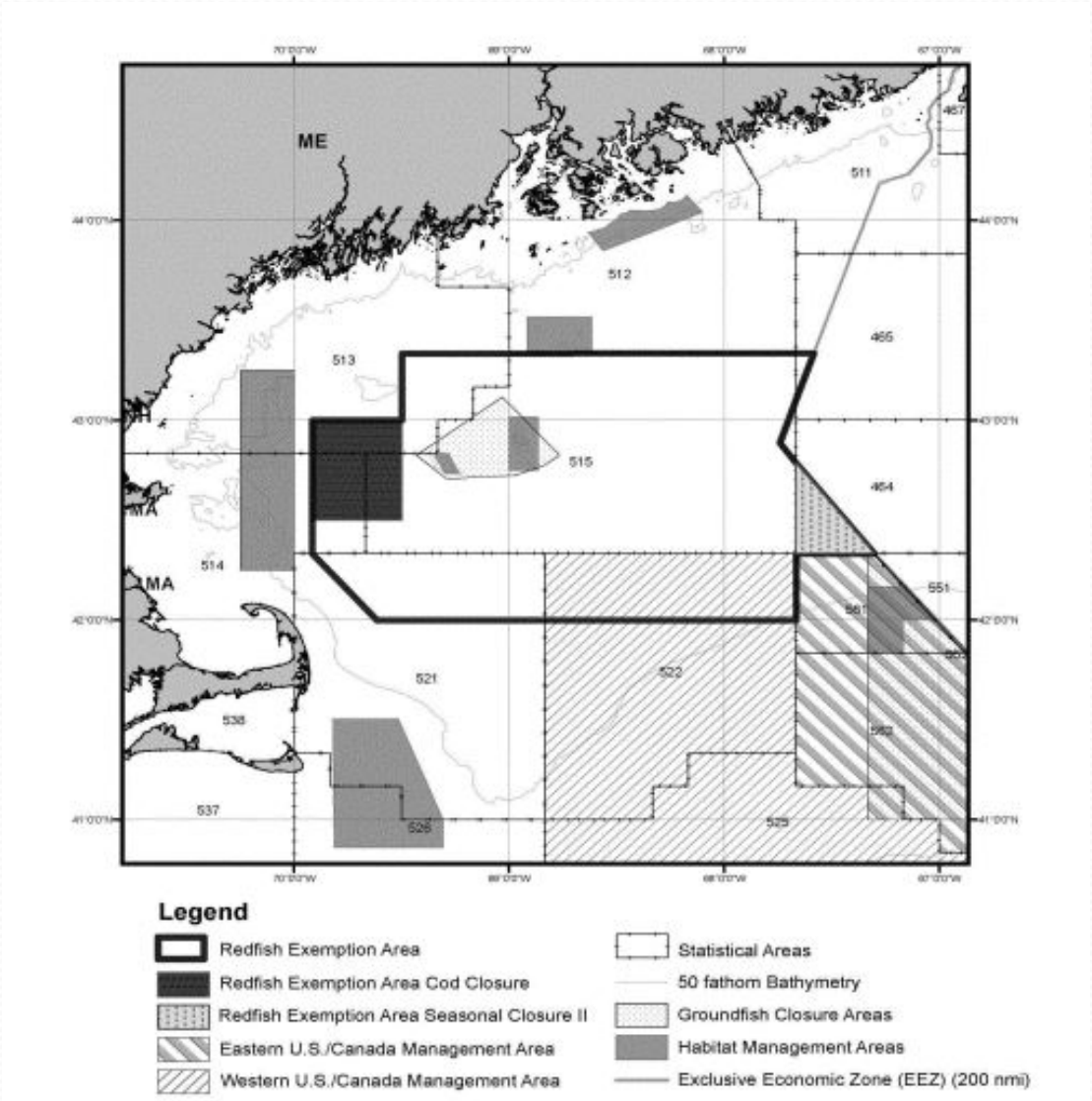
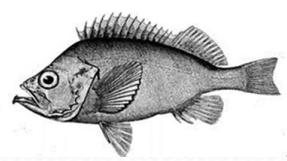
Redfish Sector Exemption Program



Allows use of smaller mesh (≥ 5.5”) to target redfish in exemption area



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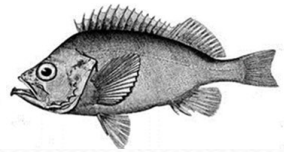
Catch Projections

75% F_{MSY}

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



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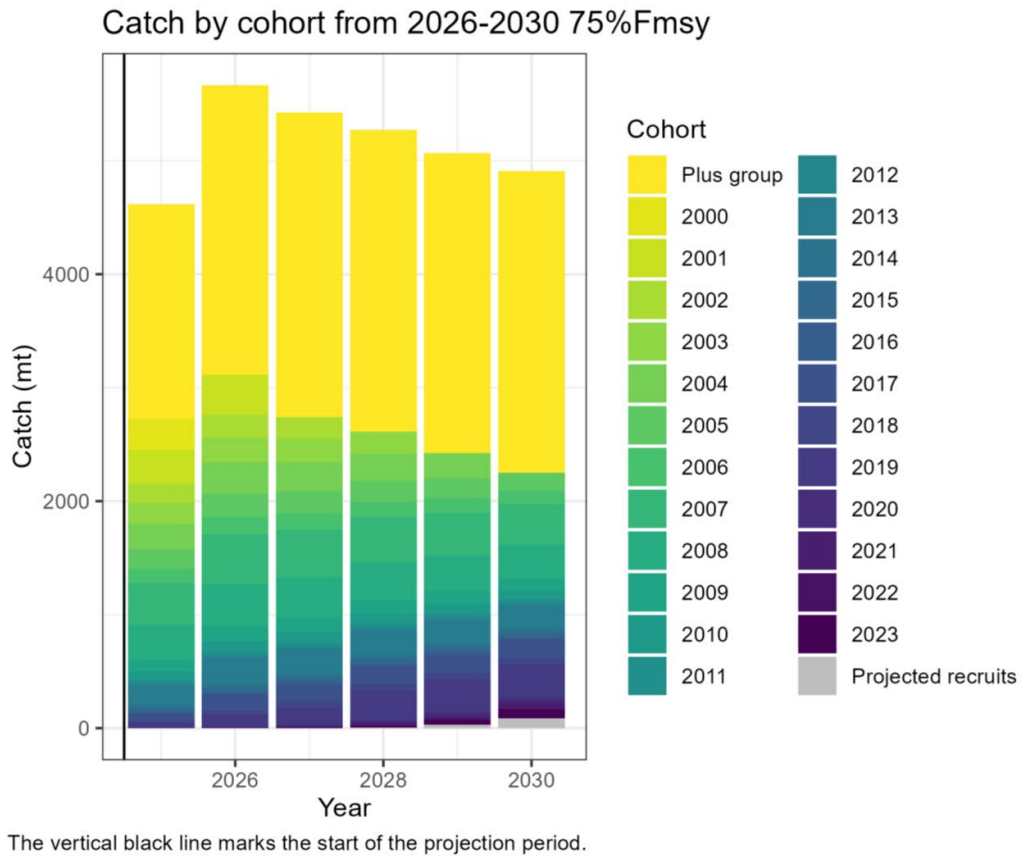
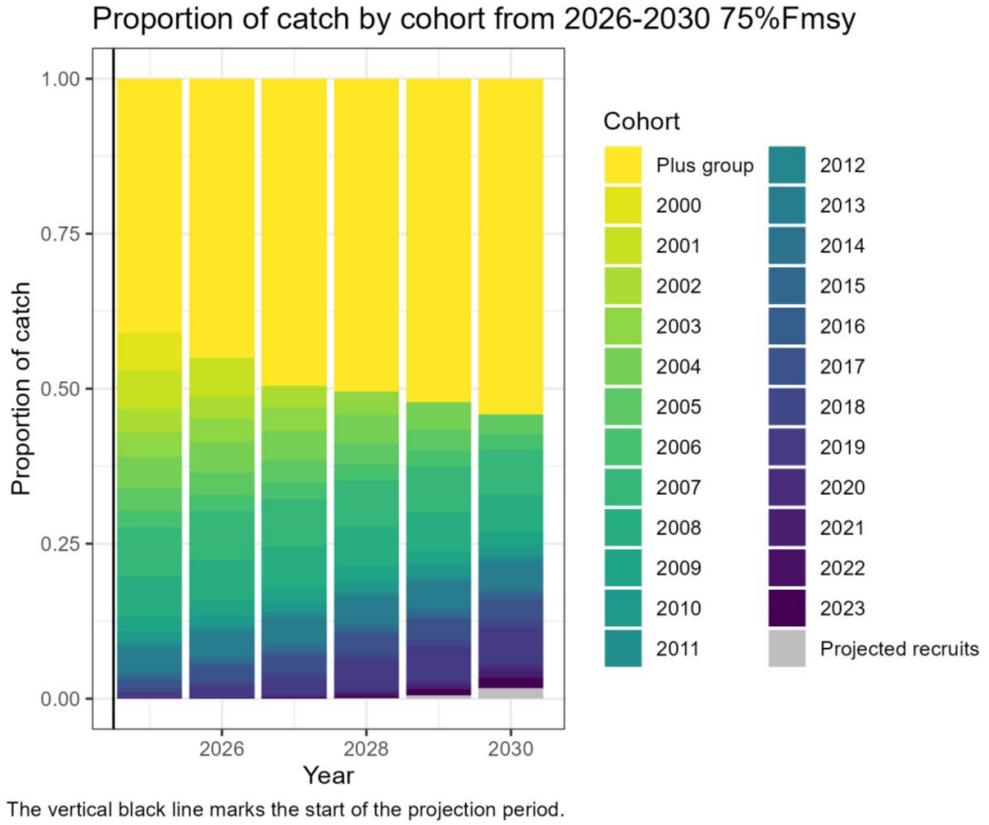
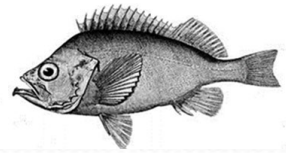
Projected Cohorts





Source: NEFSC

Reliance on projected recruits in catch projections less of an issue for redfish – given life history as long-lived species



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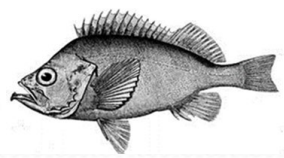
Catch Projections

FY2028 constant 75% F_{MSY} sensitivity

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



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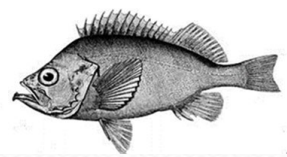
Catch Projections

75% F_{MSY} rho-adjusted sensitivity

- 2025 assessment has major retrospective pattern, but WHAM does not have option to rho-adjust projections within model framework
- 2025 Peer Review Panel accepted unadjusted projections – retrospective pattern not severe and doesn't alter stock status – and requested rho-adjusted projections to be provided as a sensitivity

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



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Georges Bank Winter Flounder OFLs & ABCs for FY2026 - FY2030

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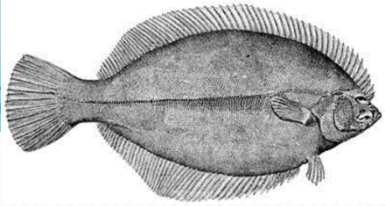
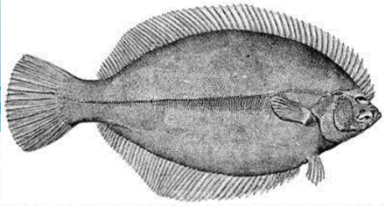
Georges Bank Winter Flounder



MODEL	WHAM, Level 3
STOCK STATUS	Not Overfished, Overfishing is not occurring
REBUILDING	2029. 2025 assessment indicates rebuilt.
RETROSPECTIVE ADJUSTMENT	No
UNCERTAINTIES	- Low sampling of commercial landings in recent years. - 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. No size composition data for the Canadian landings or discards. -The estimate of natural mortality is not well studied and is assumed to be constant over time.
CHANGES	- Revision to catch data to account for an error that incorrectly scaled landings at age values prior to 2003 - Decoupling of numbers-at-age (NAA) random effects



Georges Bank Winter Flounder

	2022	2025
F_{MSY} *proxy*	0.45	0.431
SSB_{MSY} (mt)	7,503	5,182 (4,179 - 6,426)
MSY (mt)	2,757	1,808 (1,455 - 2,247)
Mean recruits (age 1) (000s)	8,759	6,365
Overfishing	No	No
Overfished	No	No

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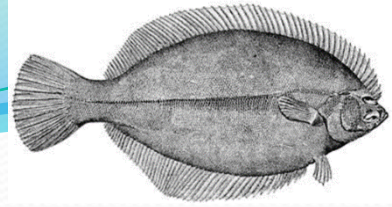
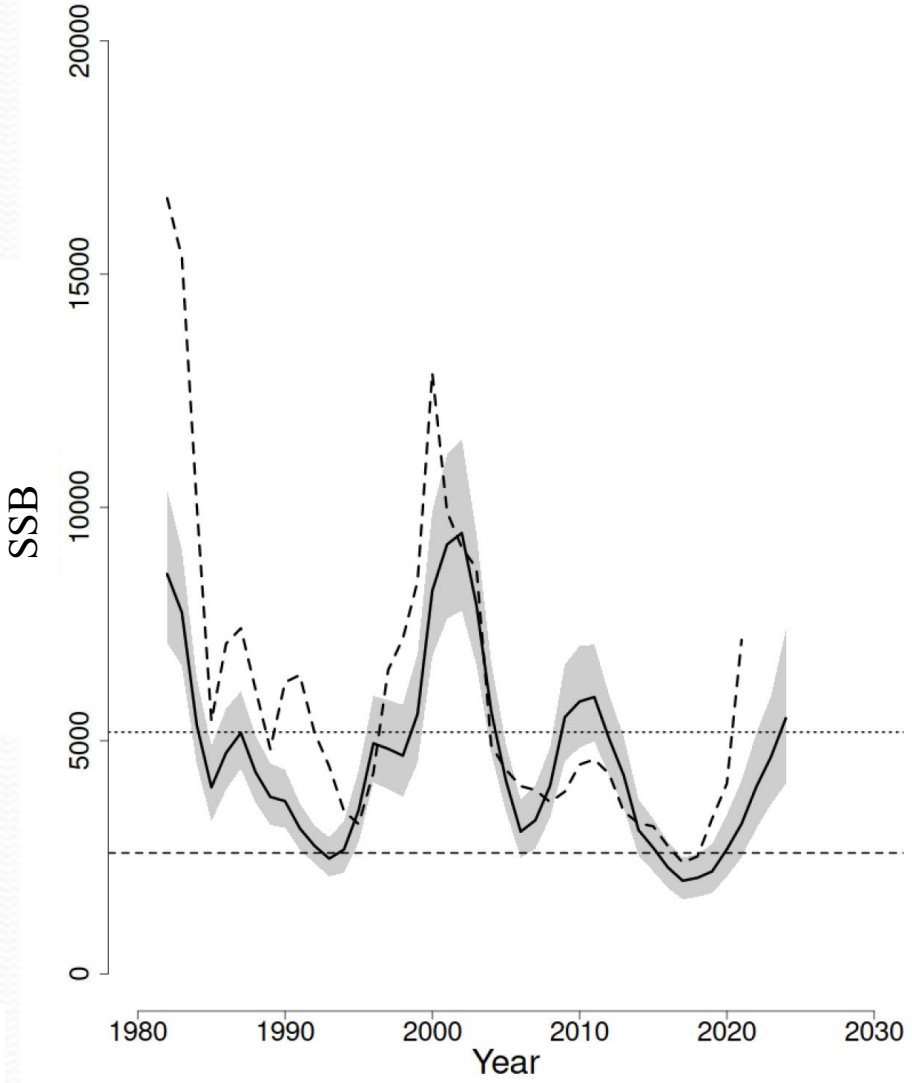
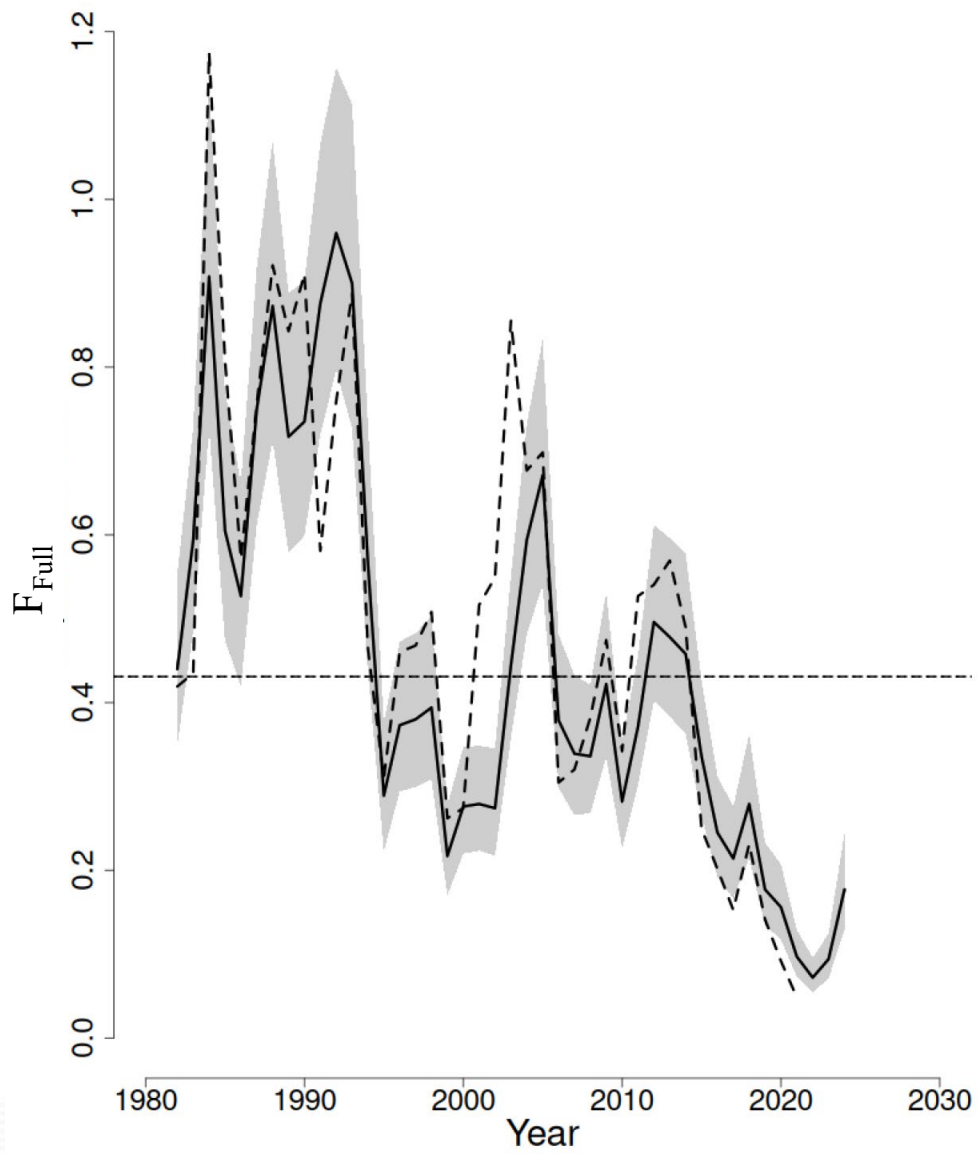
Georges Bank Winter Flounder







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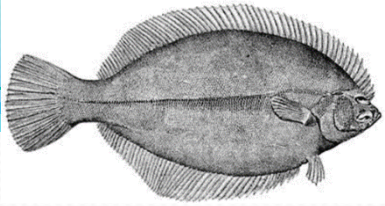
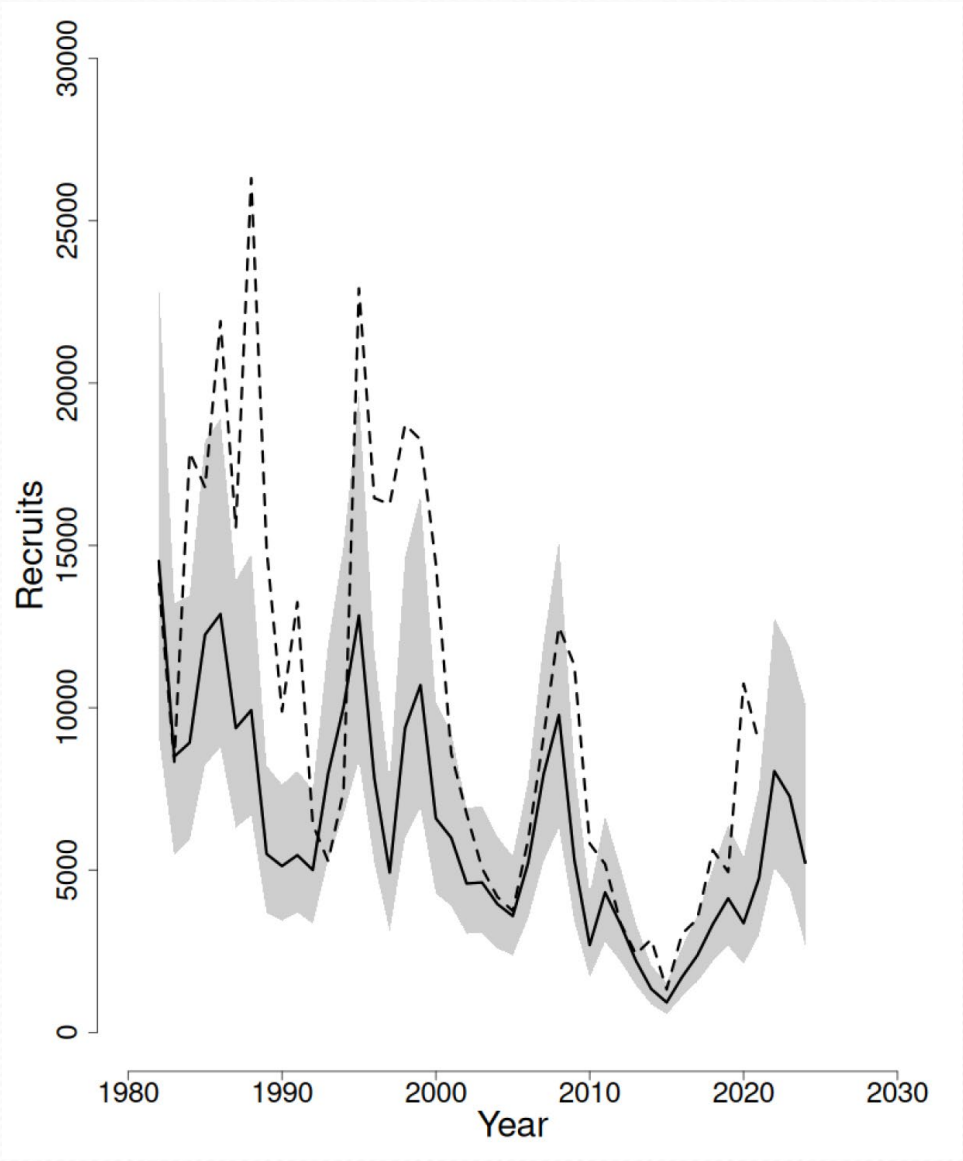


Georges Bank Winter Flounder



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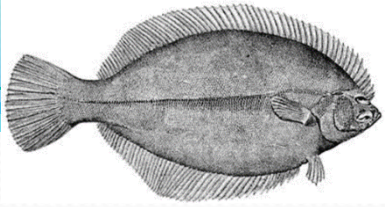
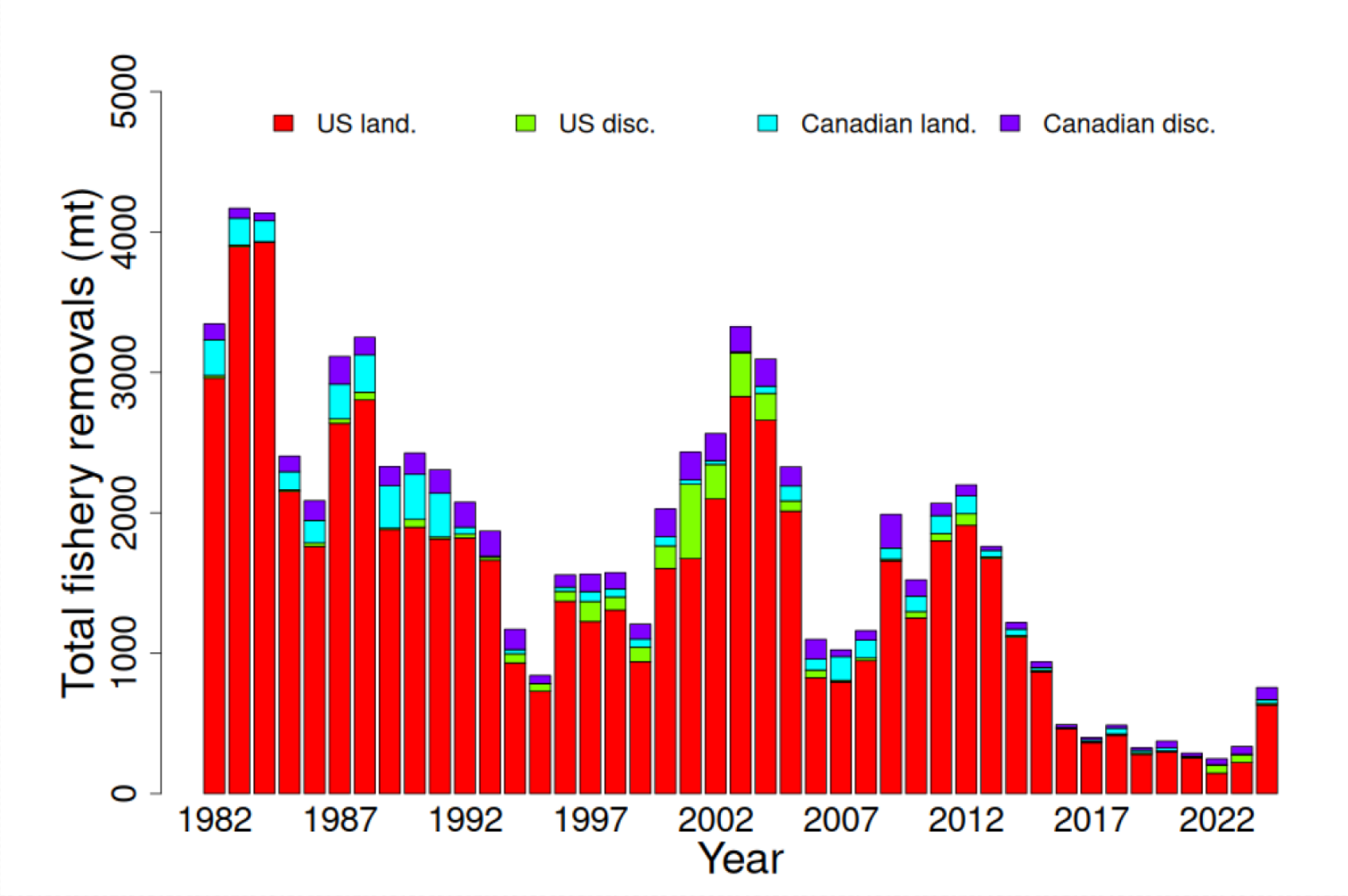


Georges Bank Winter Flounder



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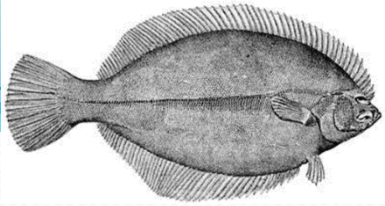
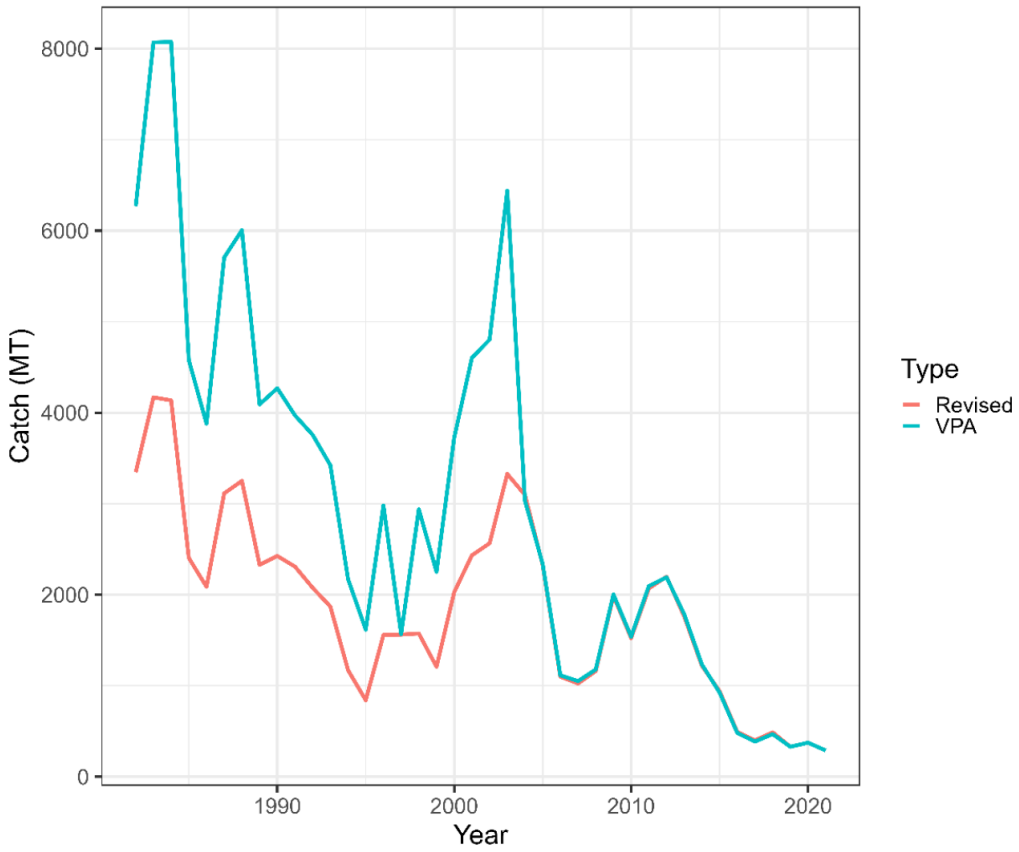


Georges Bank Winter Flounder

Catch revision



- Revised catch affects scale of assessment and biological reference points (BRPs)
- Details in supplemental materials found in assessment data portal

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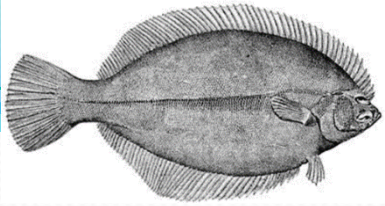
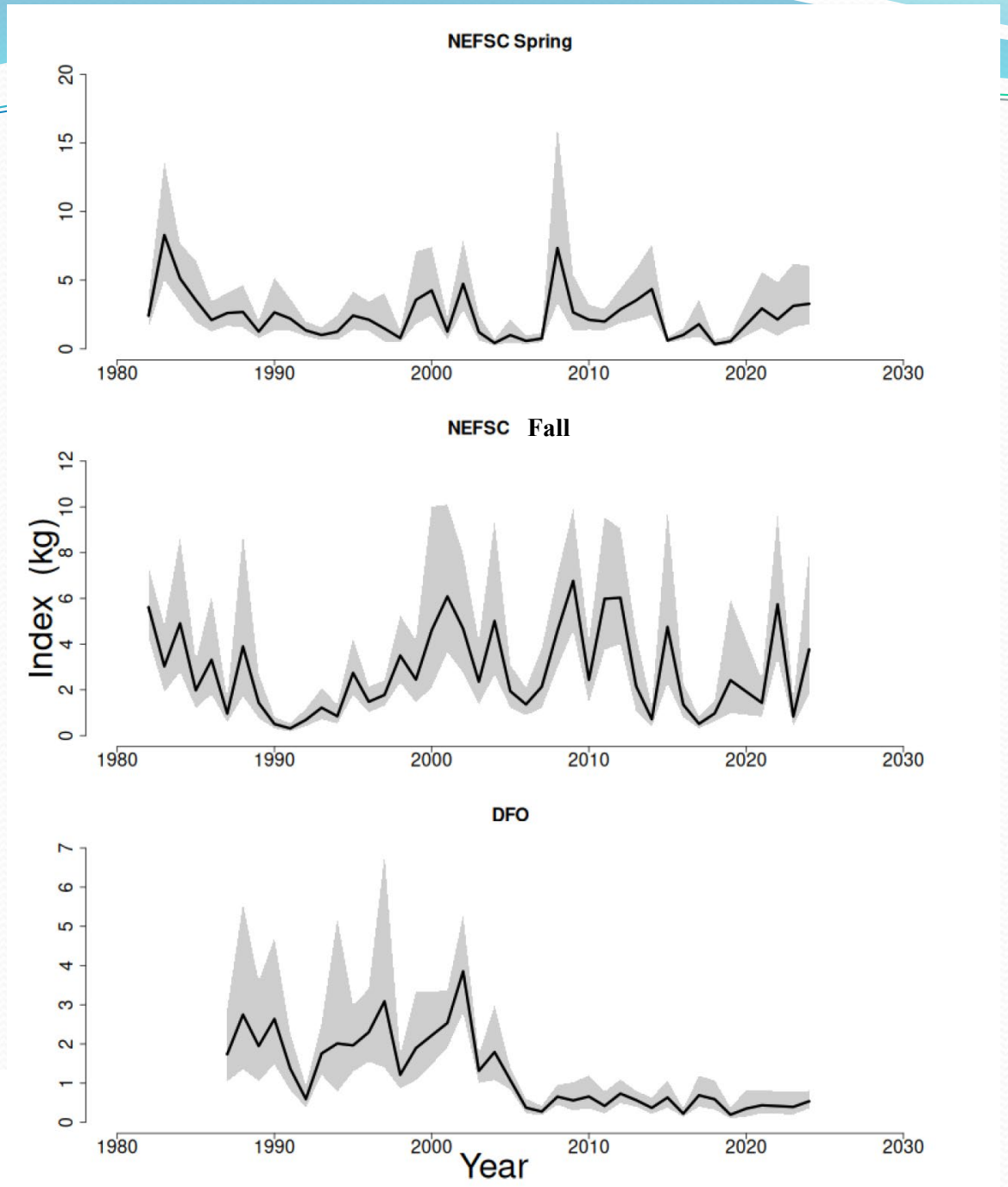
Georges Bank Winter Flounder



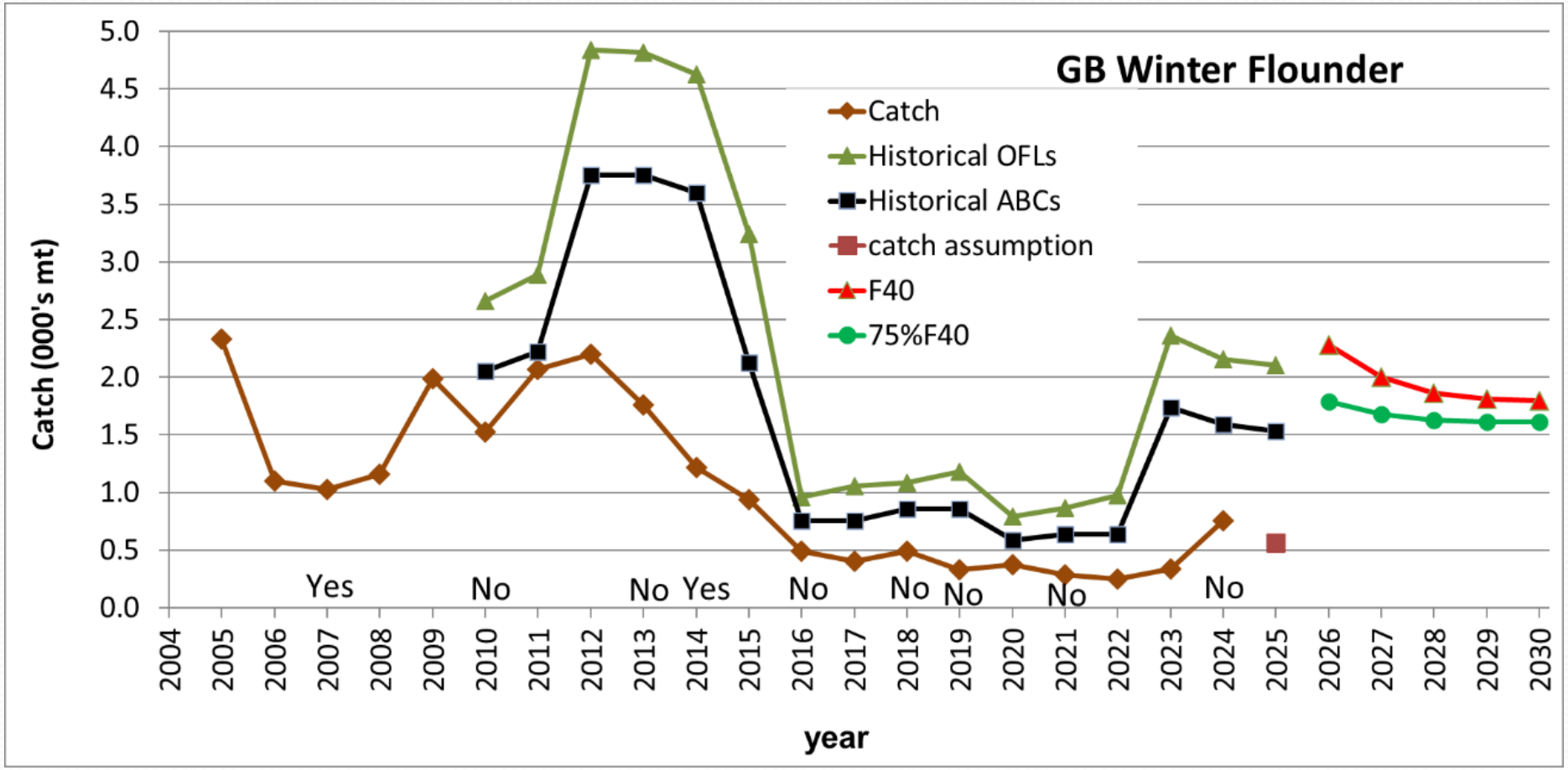


Missing 2020 spring and fall and 2023 spring BTS

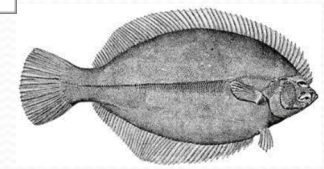
Missing 2022 DFO

New England Fishery Management Council

Catch Performance



Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).

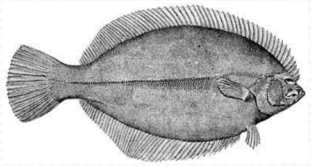


New England Fishery Management Council

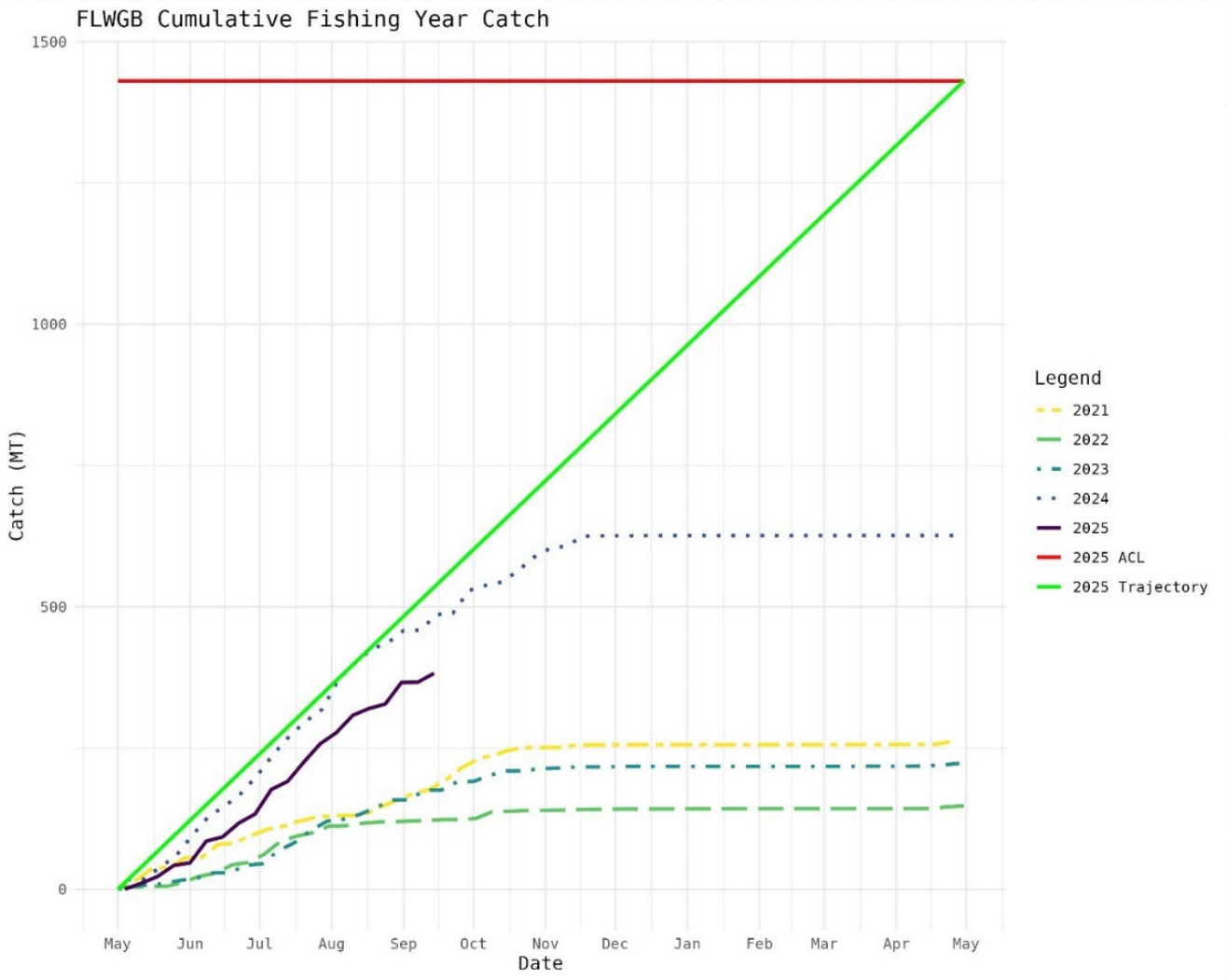
Catch Performance

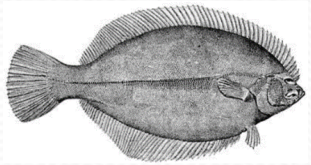
Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F40	75%F40
2010	1,523	2,660	2,052			
2011	2,068	2,886	2,224			
2012	2,199	4,839	3,753			
2013	1,761	4,819	3,750			
2014	1,219	4,626	3,598			
2015	940	3,242	2,124			
2016	492	957	755			
2017	400	1,056	755			
2018	488	1,083	855			
2019	328	1,182	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

New England Fishery Management Council



Commercial Groundfish Fishery In-Season Catch



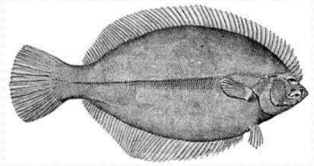


New England Fishery Management Council

Quota Change Model Results - Sectors

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			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

Inter-sector ACE lease prices have been $0 in recent years

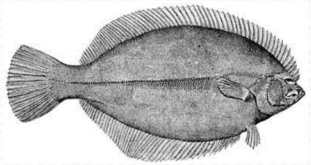


New England Fishery Management Council

Other Fisheries Sub-components Catch

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 accountability measures (AMs) associated.

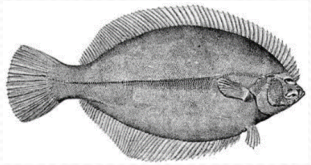


New England
Fishery Management Council

Catch Projections

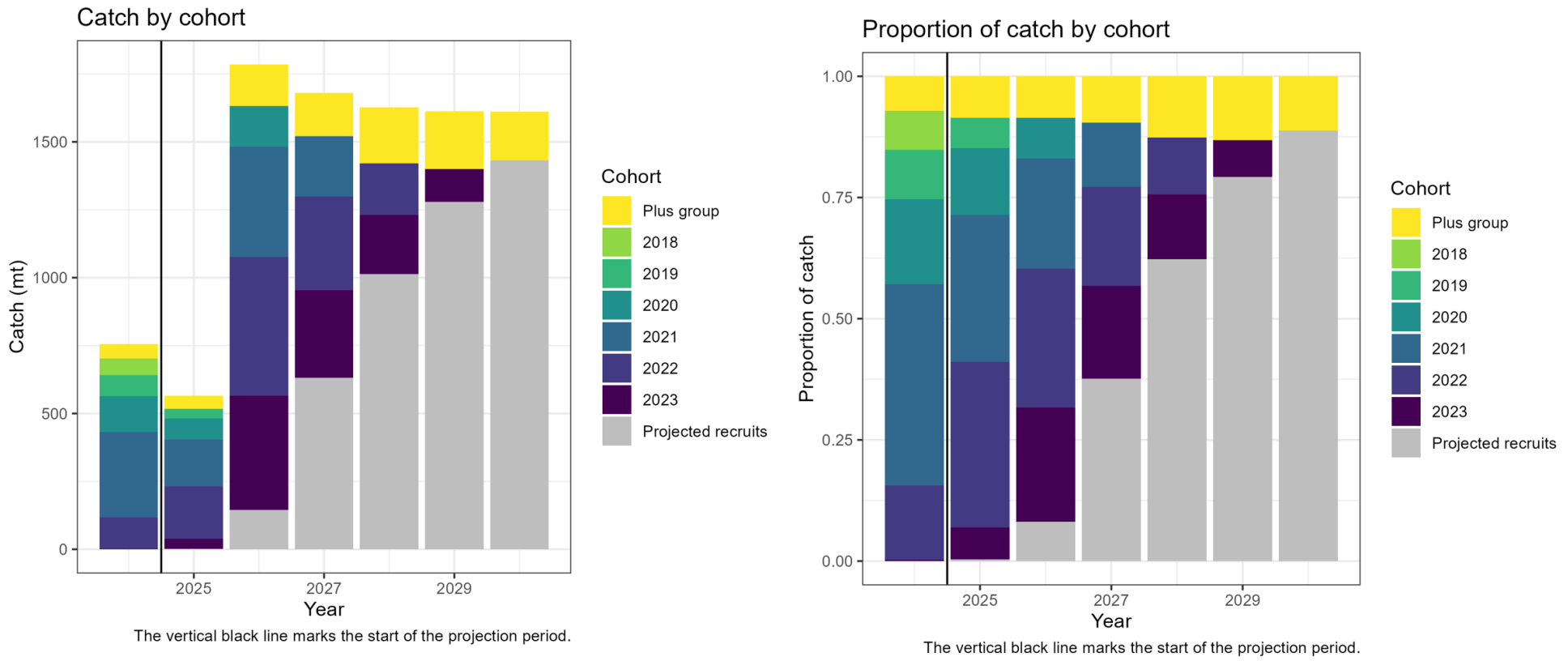
75% F_{MSY}

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



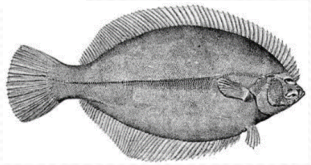
New England Fishery Management Council

Projected Cohorts



Source: NEFSC

By 2028 greater than 50% of projected catch is from projected recruits

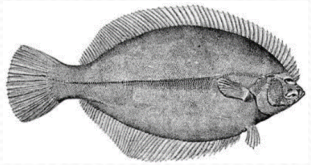


New England Fishery Management Council

Catch Projections

FY2028 constant 75% F_{MSY} sensitivity

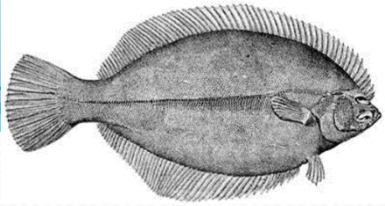
Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	2,279	1,785	0.32	6,534
2027	2,148	1,681	0.32	6,213
2028	2,079	1,627	0.32	6,035
2029	2,079	1,627	0.33	5,970
2030	2,079	1,627	0.33	5,953



New England Fishery Management Council

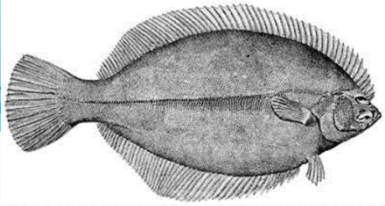
Gulf of Maine Winter Flounder OFLs & ABCs for FY2026 - FY2030

New England
Fishery Management Council



Gulf of Maine Winter Flounder

MODEL	Empirical 30+ Area-Swept, Level 1
STOCK STATUS	Overfished status is unknown, Overfishing is not occurring
REBUILDING	Not in a rebuilding plan and never was declared overfished.
RETROSPECTIVE ADJUSTMENT	NA
UNCERTAINTIES	- Missing 2020 and 2023 survey - Survey Q uncertainty especially with State surveys - Biomass based reference points cannot be determined and overfished status is unknown with this assessment method - Lack of biomass response to low exploitation. Though there have been more recent increases in the fall and the spring area-swept biomass estimates.
CHANGES	- Revised the catchability estimate, changed from 0.81 to 0.79 in the fall and 0.70 to 0.71 in the spring, using updated surveys averages from the sweep experiment (Miller et al., 2023) - Returned to previous assessment method using average of two most recent fall survey indices

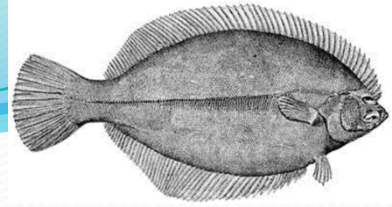


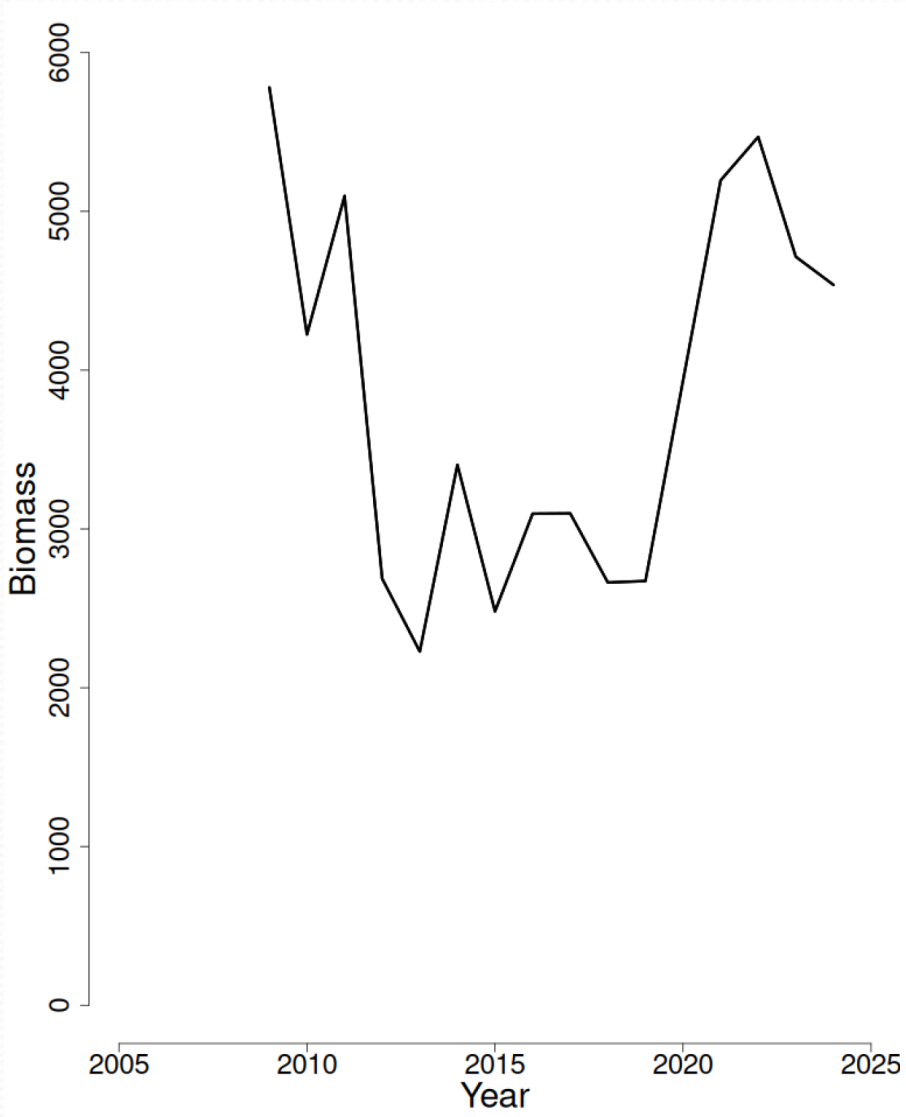
Gulf of Maine Winter Flounder

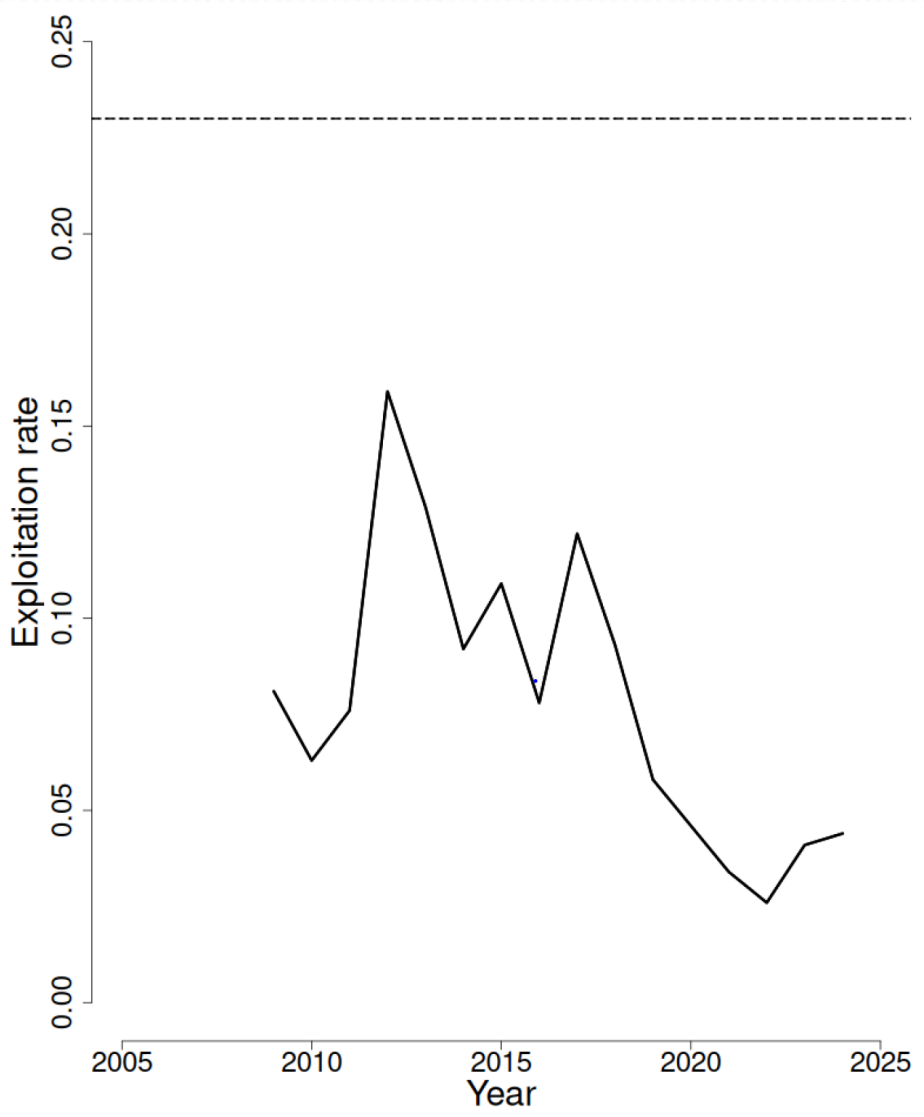
	2022	2025
E_{MSY} *proxy*	0.23	0.23
B_{MSY}	Unknown	Unknown
MSY (mt)	Unknown	Unknown
Overfishing	No	No
Overfished	Unknown	Unknown

New England
Fishery Management Council

Georges Bank Winter Flounder







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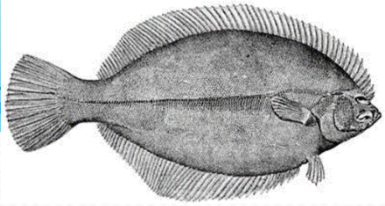
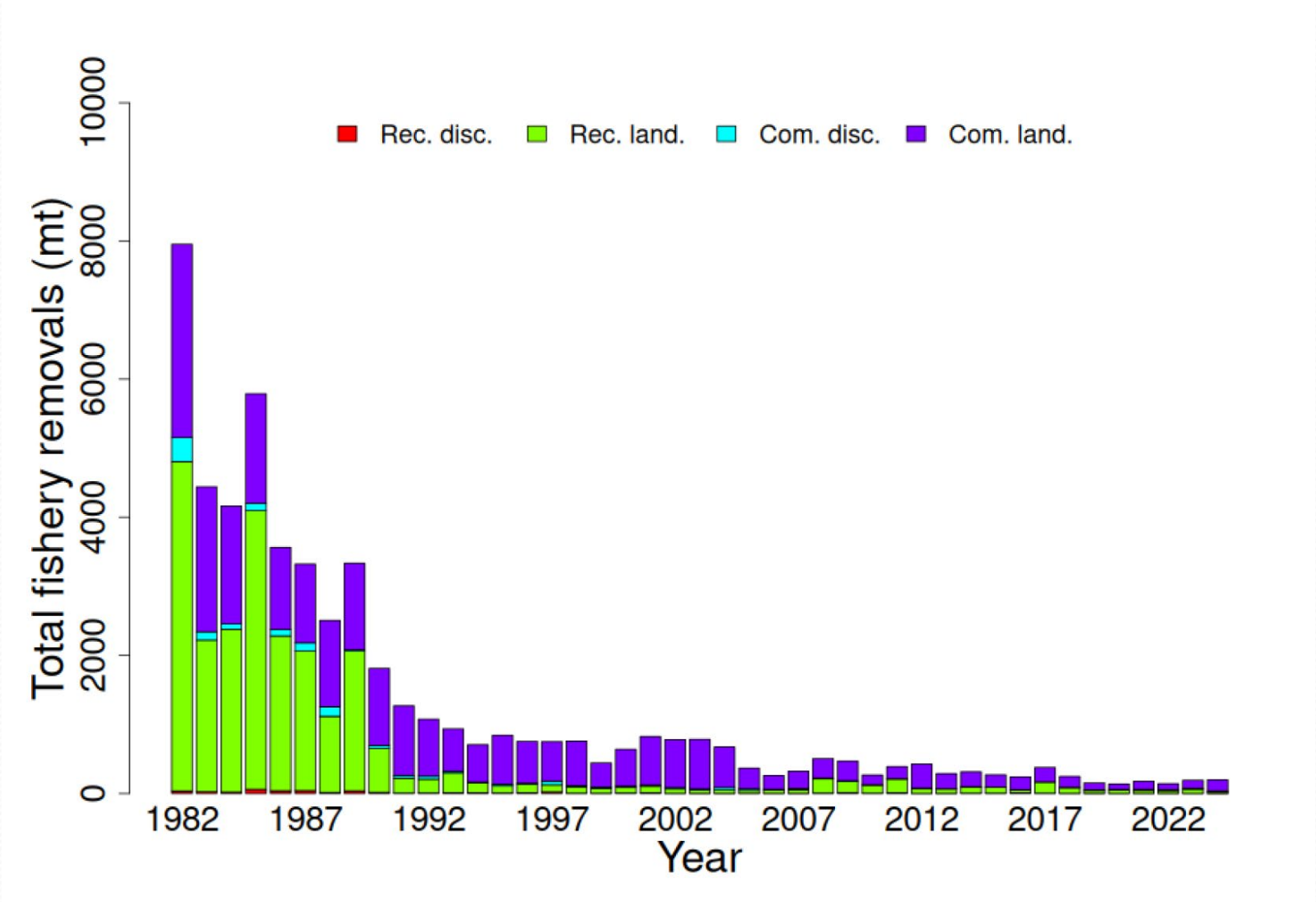


Gulf of Maine Winter Flounder



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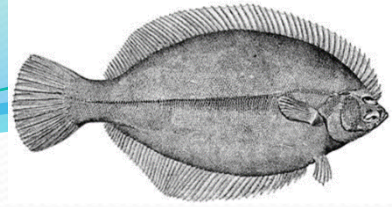
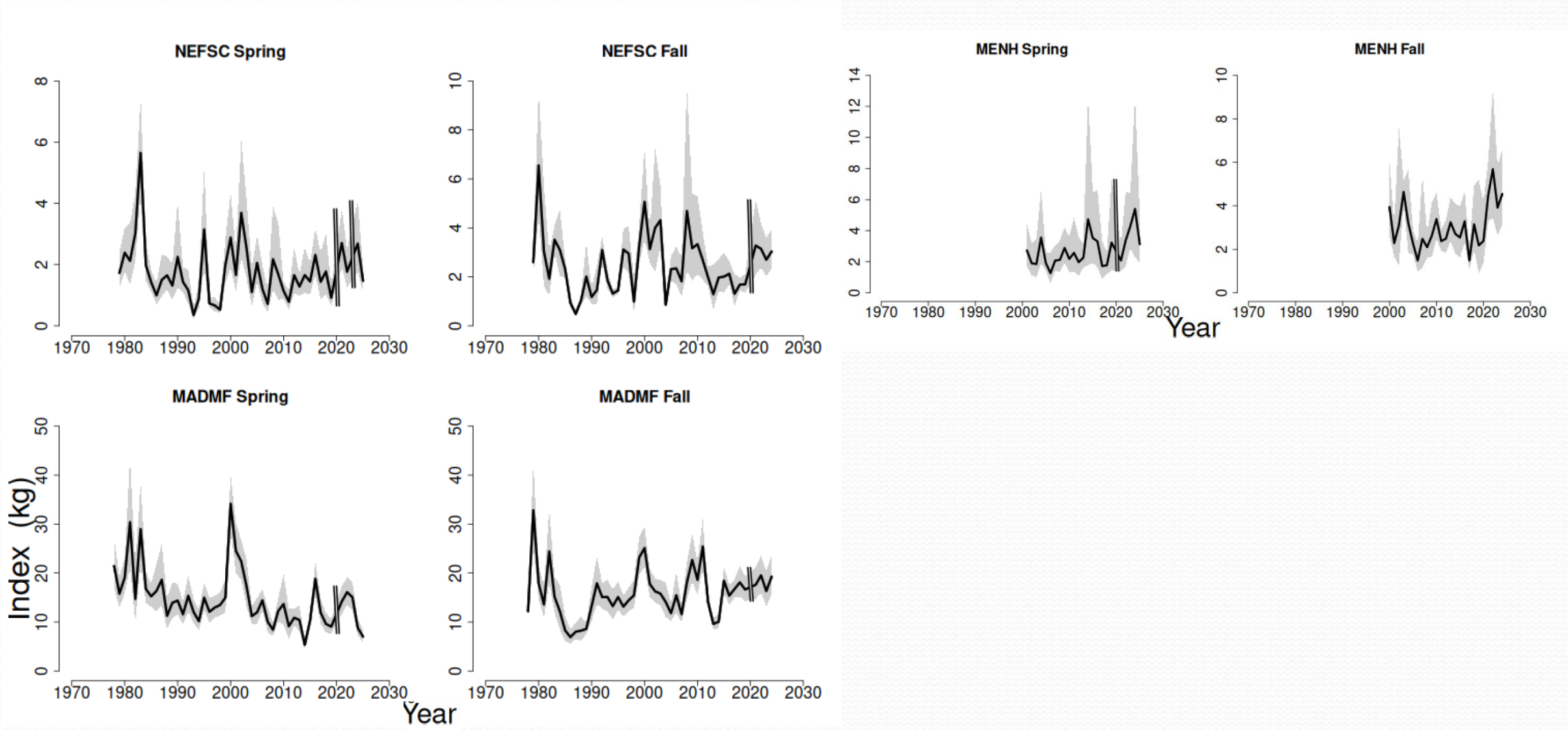
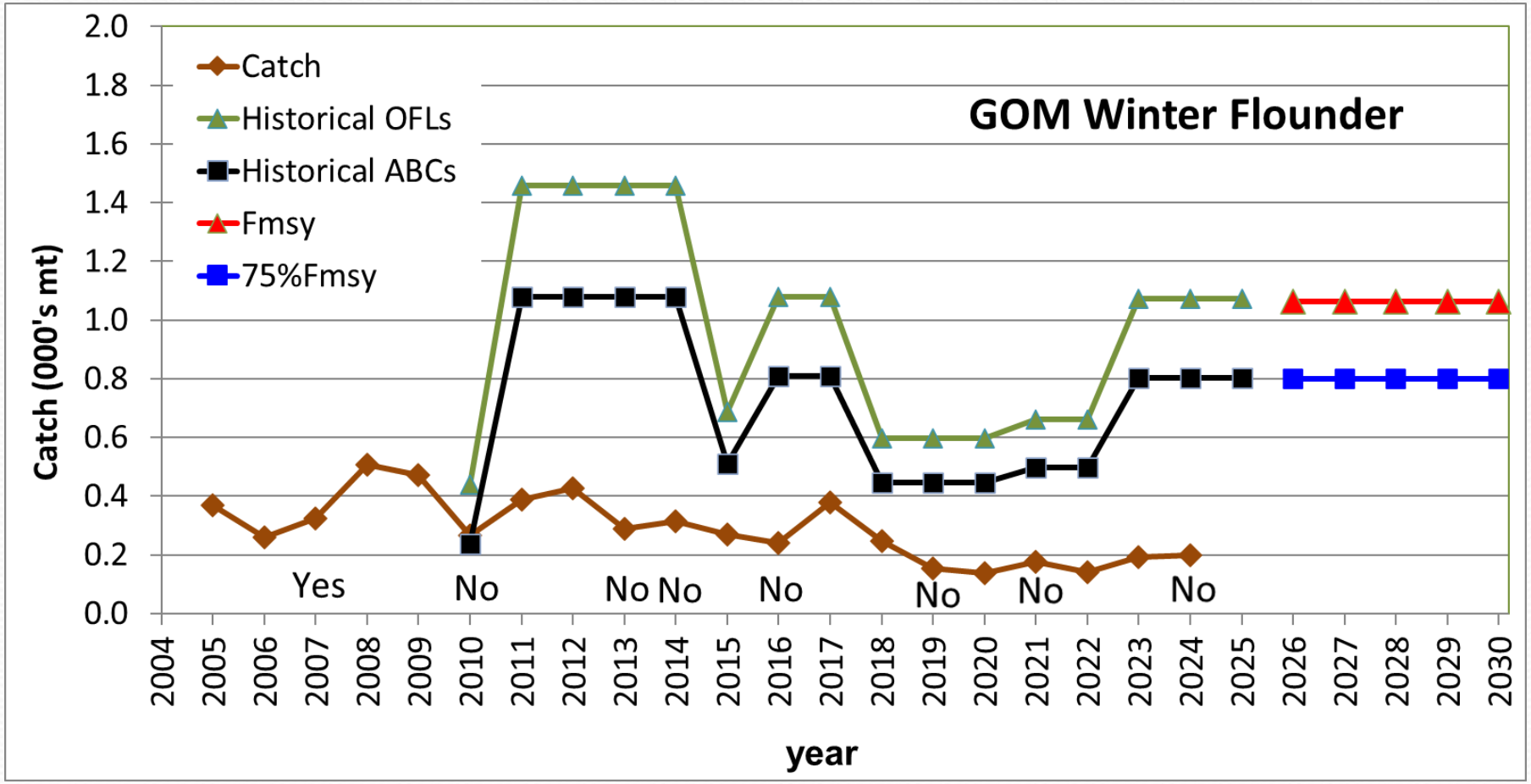
Gulf of Maine Winter Flounder

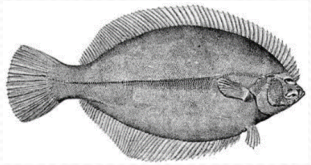




Catch Performance



Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).

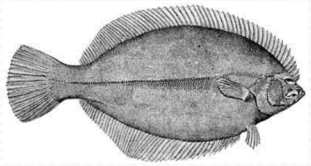


New England Fishery Management Council

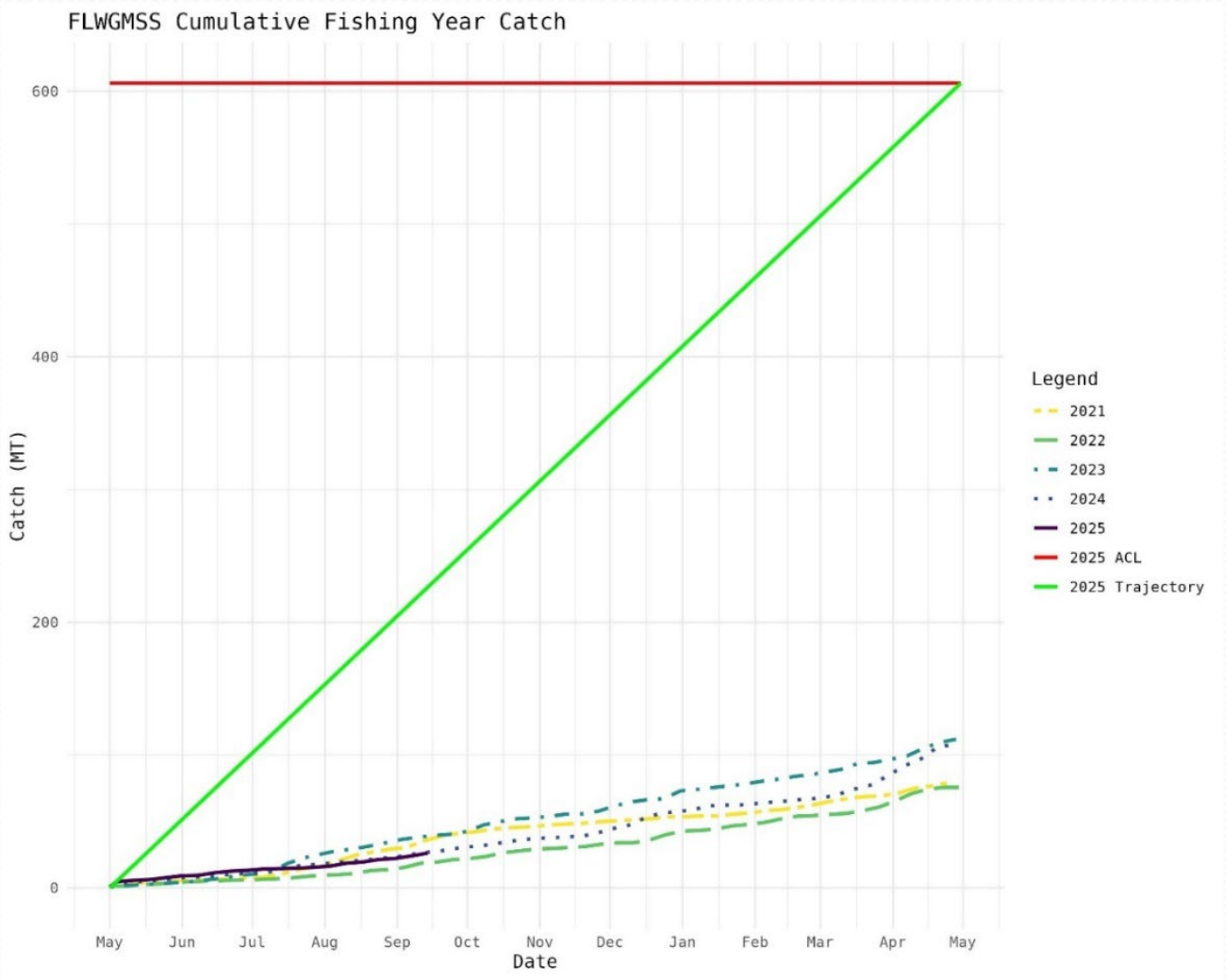
Catch Performance

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

New England Fishery Management Council



Commercial Groundfish Fishery In-Season Catch



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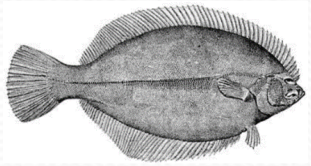
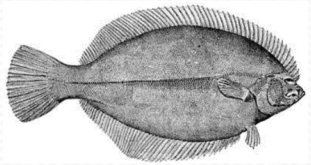


Quota Change Model Results - Sectors

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			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

Inter-sector ACE lease prices have been $0 in recent years

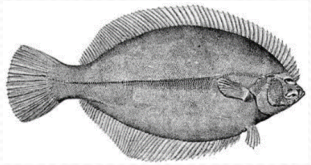


New England Fishery Management Council

Other Fishery and State Fishery Sub-components Catch

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 fishery sub-components are expected catches and do not have accountability measures (AMs) associated.

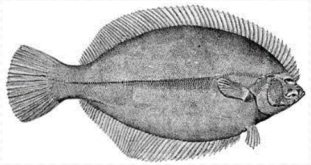


New England Fishery Management Council

Catch Projections

Average of 2023 and 2024 Fall Surveys X 75%Fmsy
Constant Approach

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

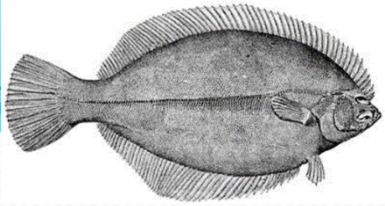


New England
Fishery Management Council

Southern New England/Mid-Atlantic Winter Flounder OFLs & ABCs for FY2026 - FY2030

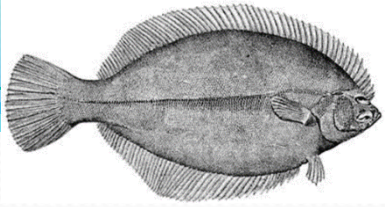
New England Fishery Management Council

Southern New England/Mid-Atlantic Winter Flounder



MODEL	ASAP, Level 2
STOCK STATUS	Not Overfished, Overfishing is not occurring
REBUILDING	Rebuilt as of 2022.
RETROSPECTIVE ADJUSTMENT	No
UNCERTAINTIES	- Population projections are sensitive to the recruitment model chosen, as well as the temporal period selected from which recruitment estimates are drawn. - 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. - Few length data to characterize recreational discards (though a small component of the total catch). - The estimate of natural mortality is not well studied and is assumed to be constant over time. Uncertainty in the true max age
CHANGES	- Data updated through 2024

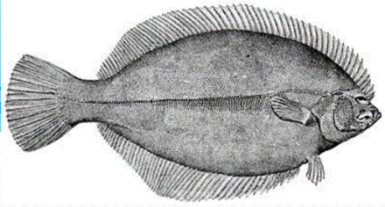
Southern New England/Mid-Atlantic Winter Flounder

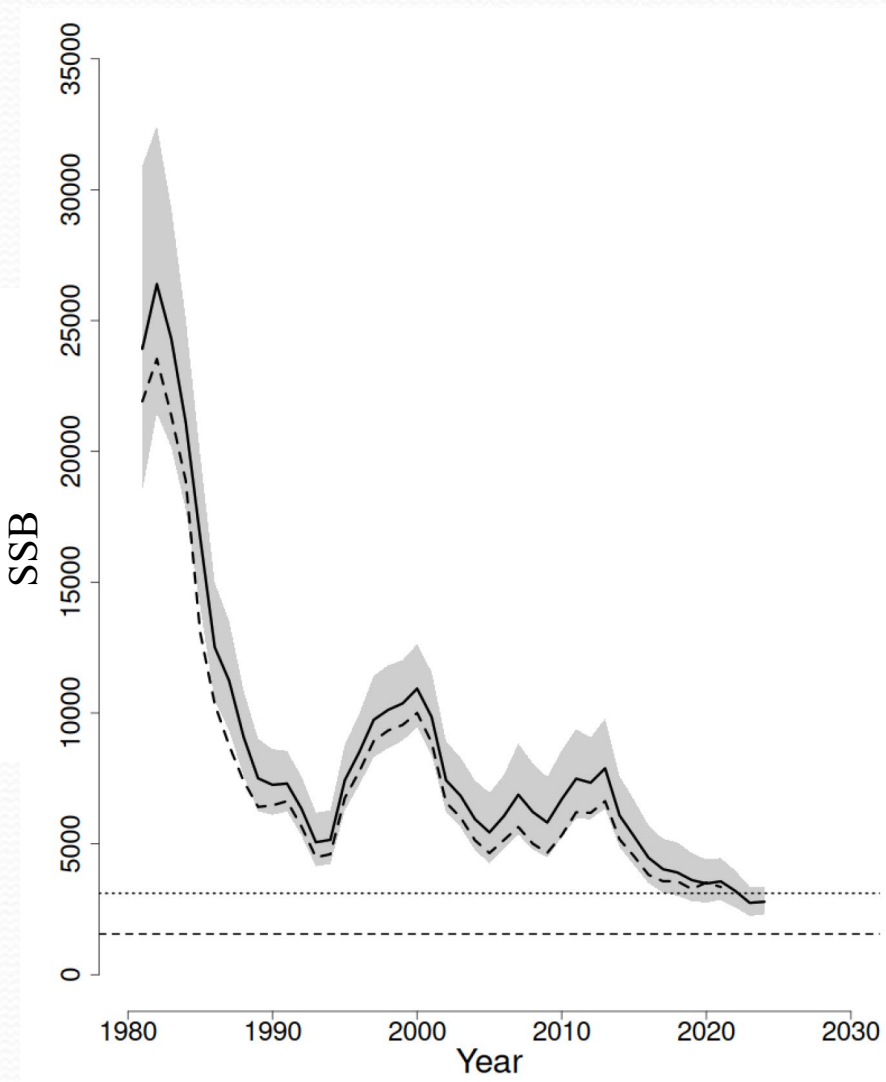


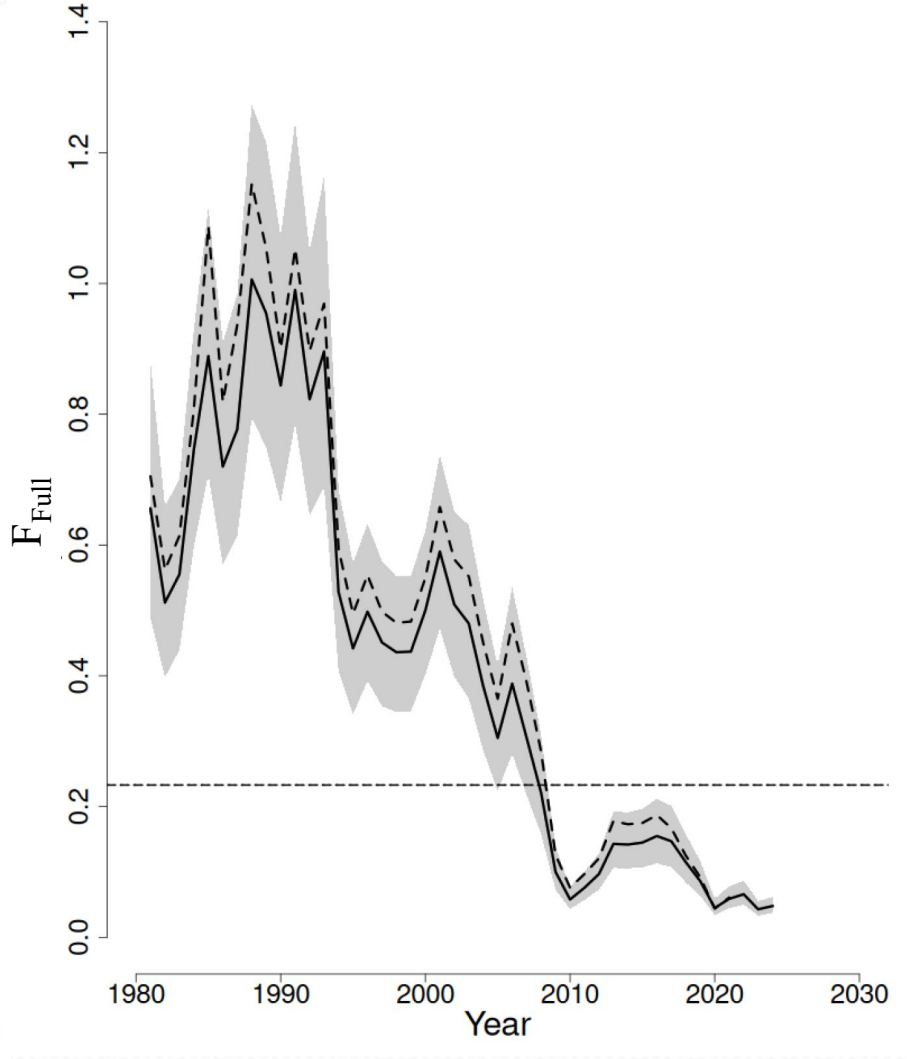
	2022	2025
F_{MSY} *proxy*	0.265	0.233
SSB_{MSY} (mt)	3,314	3,114 (2,180 - 4,515)
MSY (mt)	1,025	910 (642 - 1,317)
Median recruits (000s)	4,752	4,633
Overfishing	No	No
Overfished	No	No

New England
Fishery Management Council

Southern New England/Mid-Atlantic Winter Flounder

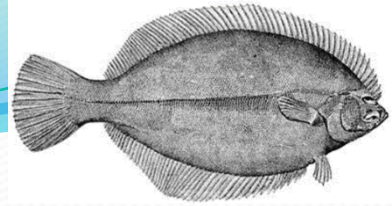


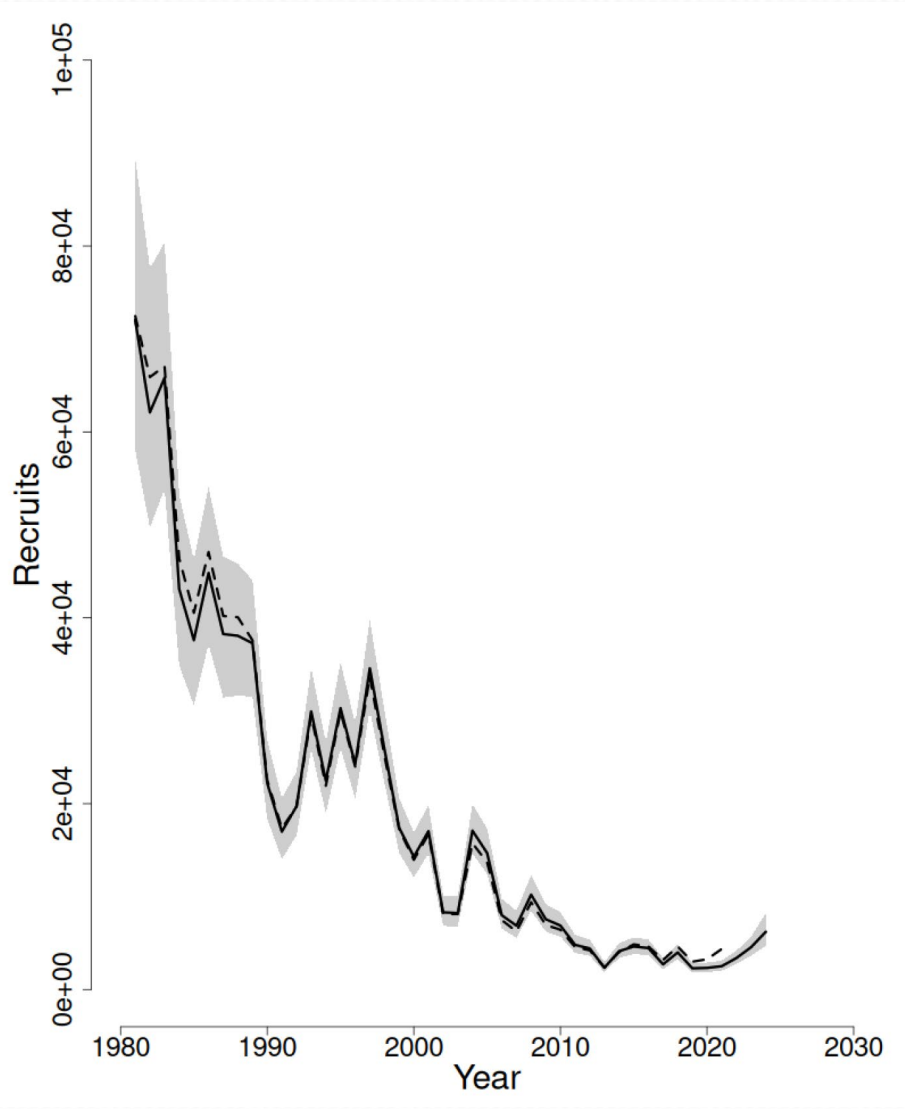




New England Fishery Management Council

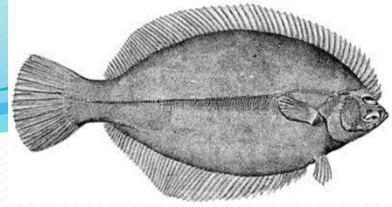
Southern New England/Mid-Atlantic Winter Flounder

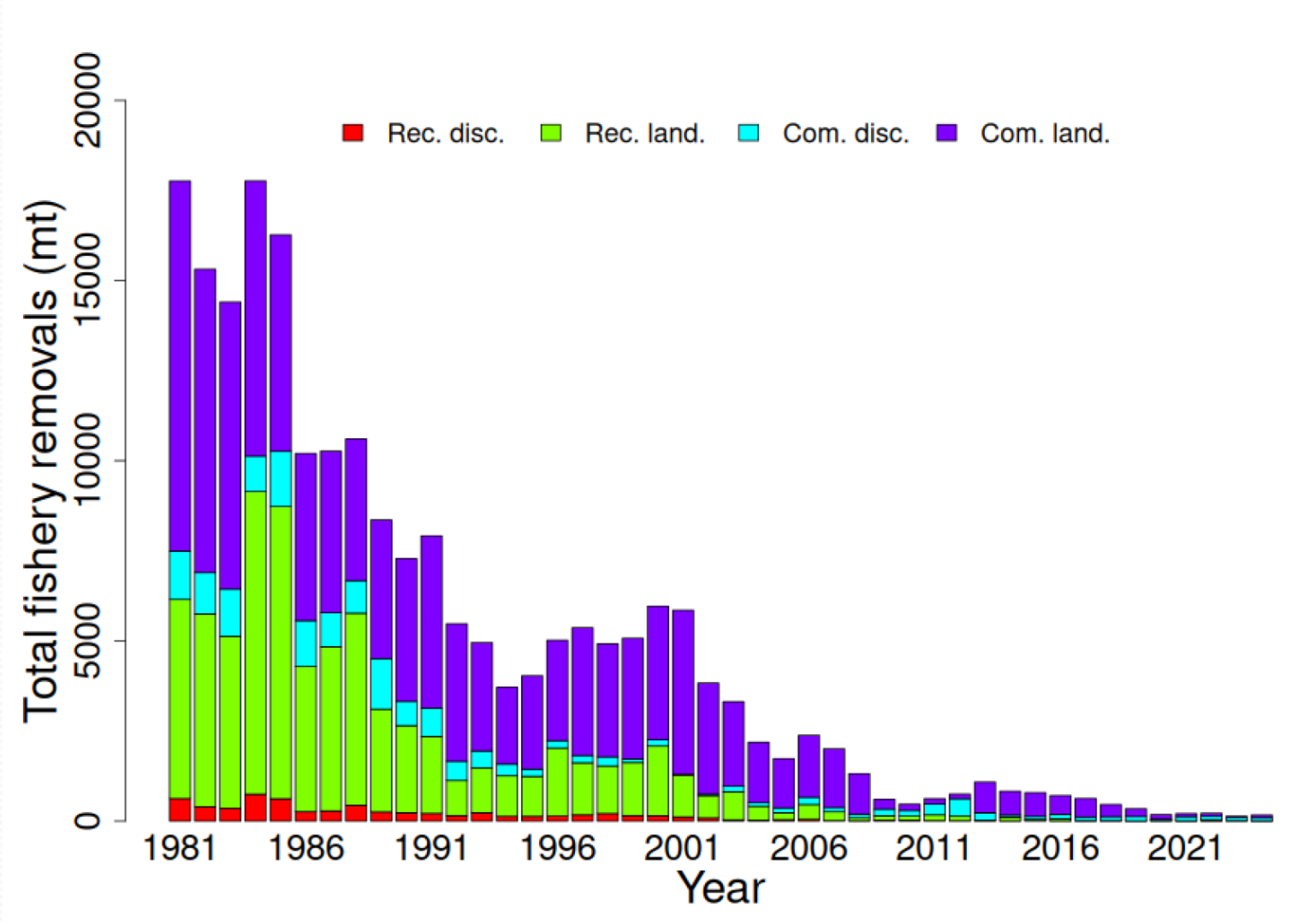




New England
Fishery Management Council

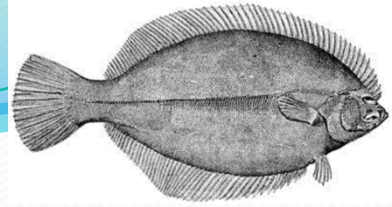
Southern New England/Mid-Atlantic Winter Flounder

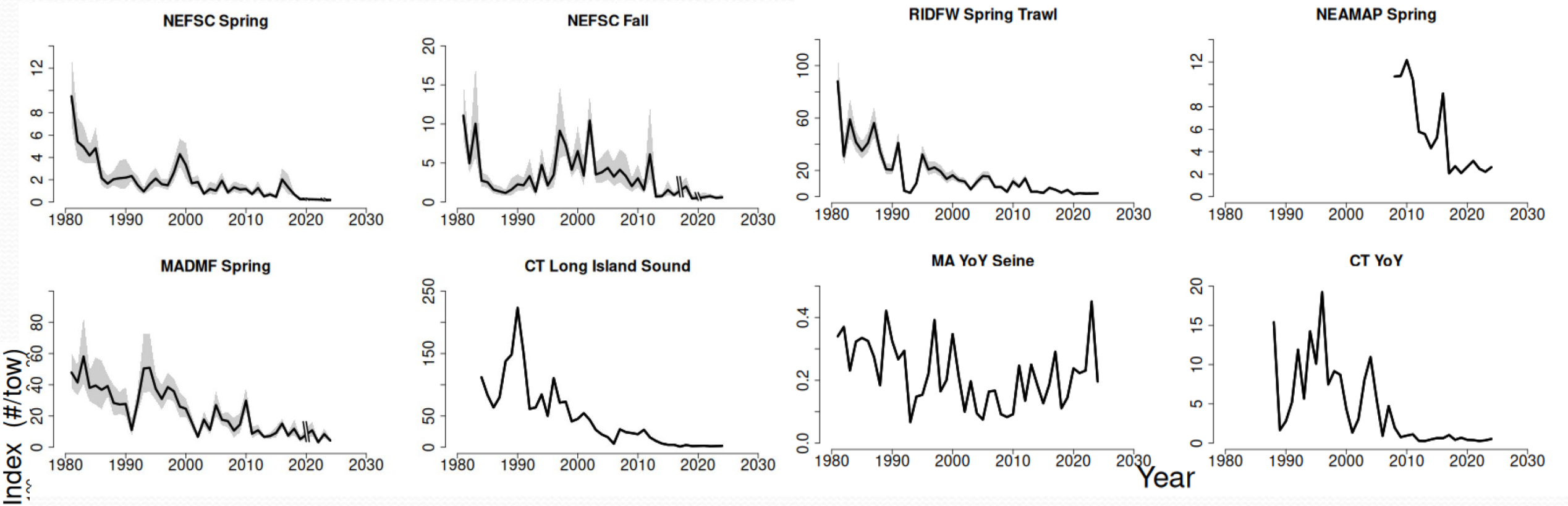




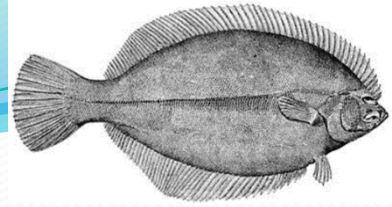
New England Fishery Management Council

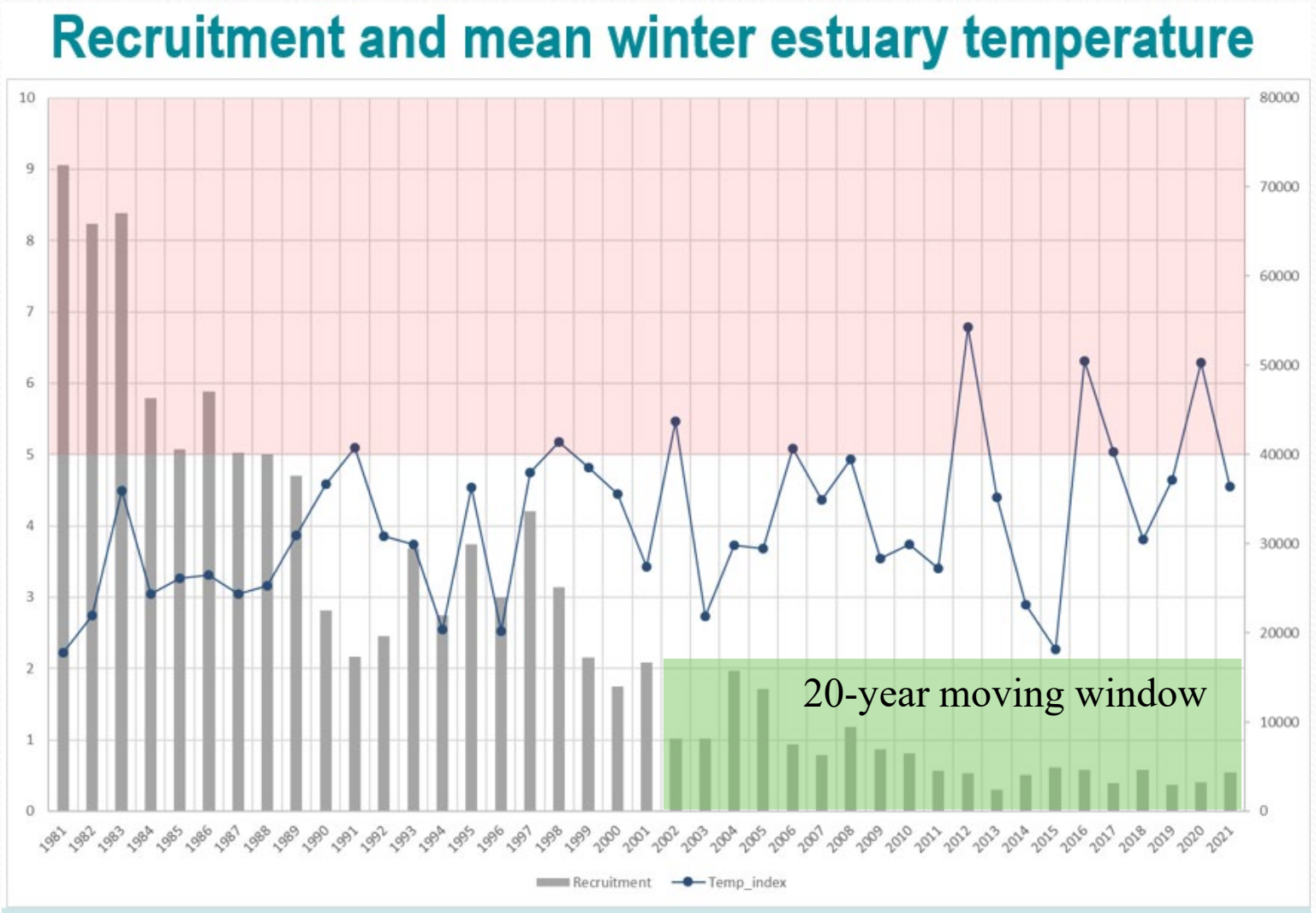
Southern New England/Mid-Atlantic Winter Flounder





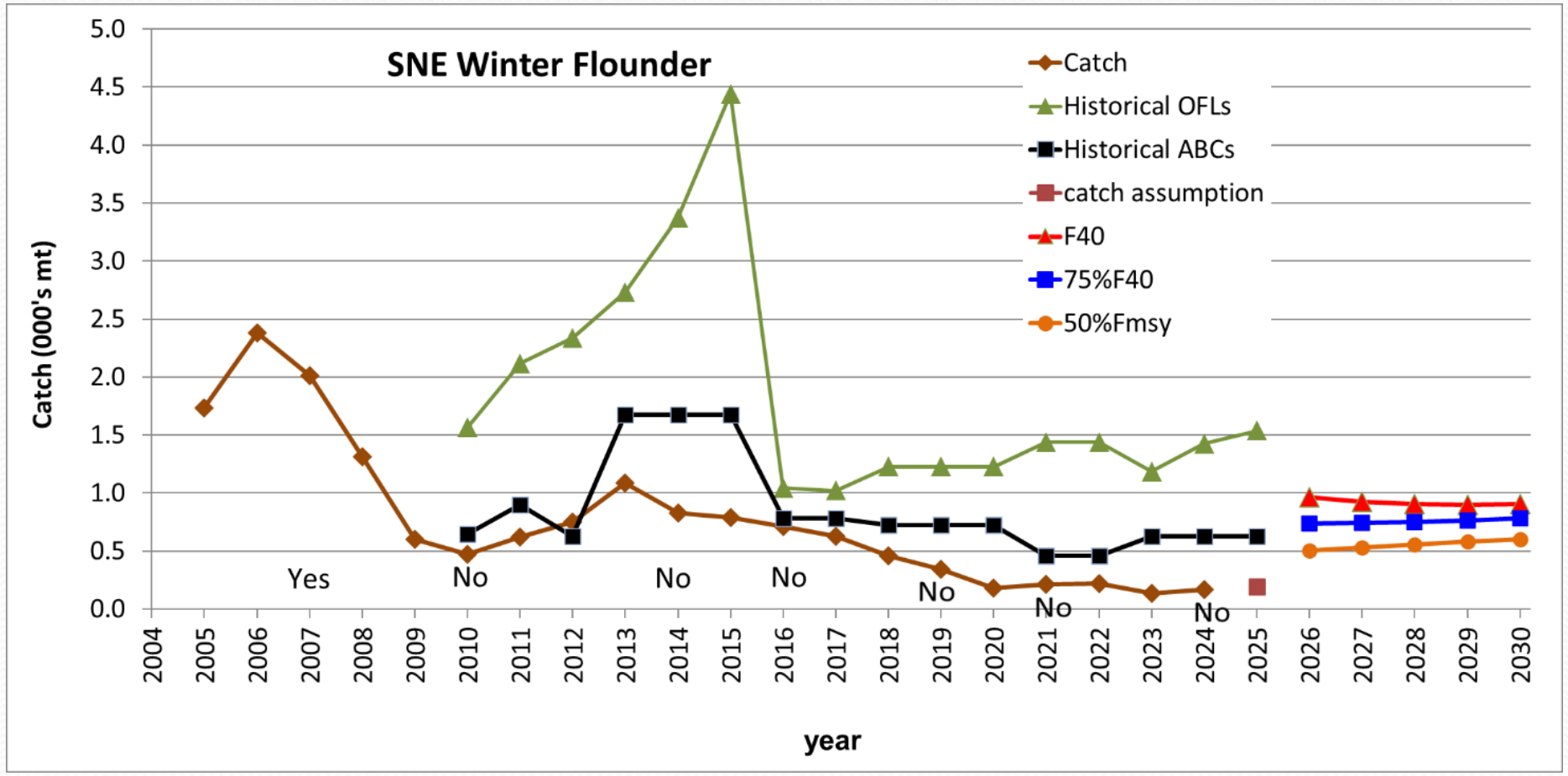
Southern New England/Mid-Atlantic Winter Flounder



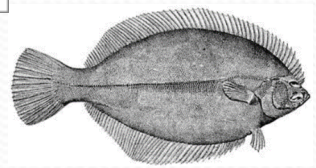


- 2022 assessment: projections and BRP calculations used a truncated stanza for recruitment (2002-2021 (last 20 years)) to reflect recent productivity
- Led to a much-reduced biomass target resulting in the stock being no longer overfished and declared rebuilt
- However, the perception of the stock did not change (still poor condition)
- 2025 assessment: updates recruitment stanza

Catch Performance



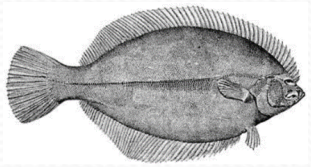
Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



New England Fishery Management Council

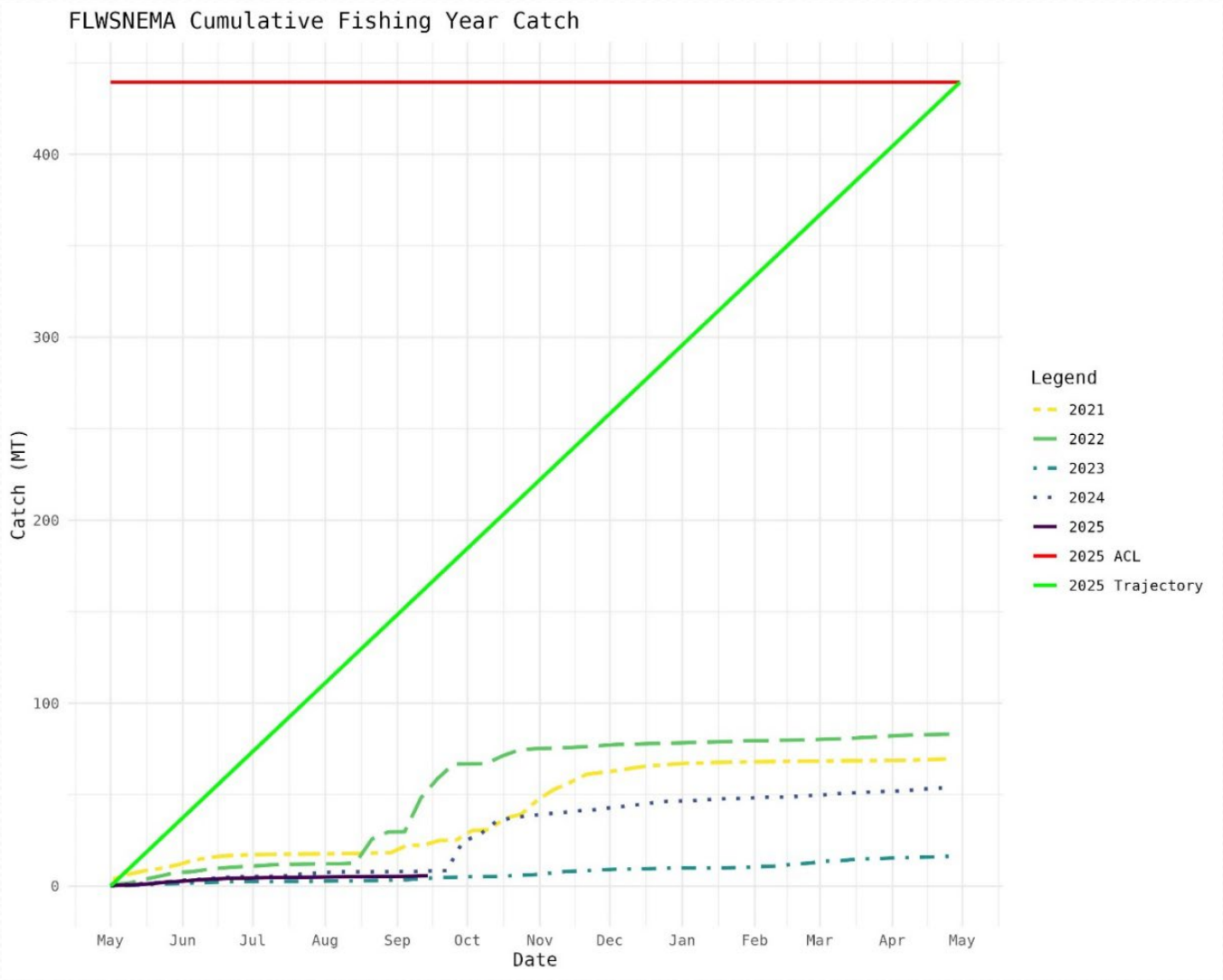
Catch Performance

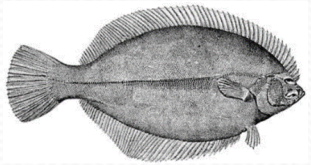
Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F_{40}	$75\%F_{40}$	50%Fmsy
2010	469	1,568	644				
2011	620	2,117	897				
2012	750	2,336	626				
2013	1,085	2,732	1,676				
2014	826	3,372	1,676				
2015	787	4,439	1,676				
2016	708	1,041	780				
2017	629	1,021	780				
2018	460	1,228	727				
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



New England Fishery Management Council

Commercial Groundfish Fishery In-Season Catch



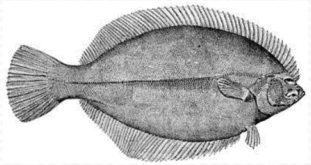


New England Fishery Management Council

Quota Change Model Results - Sectors

	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

Inter-sector ACE lease prices have been $0 in recent years



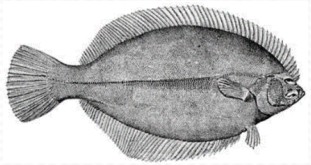
New England Fishery Management Council

Other Fishery and State Fishery Sub-components Catch

Other significant sources of SNE/MA winter flounder catch include:

- 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 accountability measures (AMs) associated.

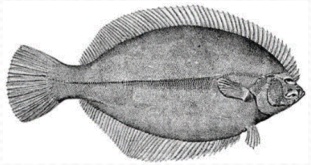


New England Fishery Management Council

Catch Projections

75% F_{MSY}

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

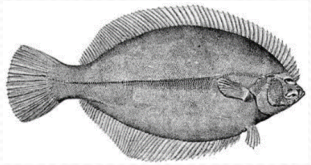


New England Fishery Management Council

Catch Projections

50% F_{MSY}
Approach used in 2022

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

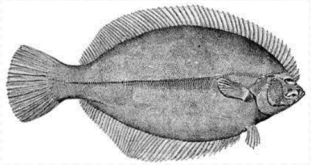


New England
Fishery Management Council

Catch Projections

FY2028 constant 75% F_{MSY} sensitivity

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

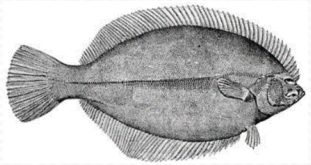


New England Fishery Management Council

Catch Projections

FY2028 constant 50% F_{MSY} sensitivity

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



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White Hake OFLs & ABCs for FY2026 - FY2030

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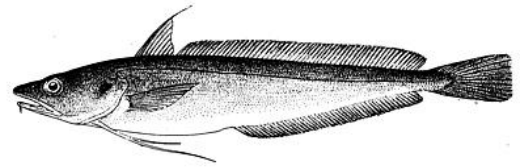
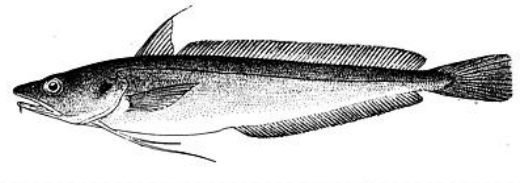


White Hake

MODEL	ASAP, Level 3
STOCK STATUS	Not Overfished, Overfishing is not occurring
REBUILDING	2031 (70%F_{MSY} Frebuild)
RETROSPECTIVE ADJUSTMENT	No
UNCERTAINTIES	- 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. - Recent addition of an extra-large market category causing possible bias in the age composition - Pooled age-length keys (ALKs) 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).
CHANGES	- Added bottom longline survey (BLSS) spring and fall indices - Re-aged catch using a combined NEFSC bottom trawl survey (BTS) and BLLS ALK for 2014–2024



White Hake

	2022	2025
F_{MSY} *proxy*	0.161	0.176
SSB_{MSY} (mt)	28,191	25,004 (19,125 - 32,611)
MSY (mt)	4,186	3,818 (2,892 - 5,021)
Median recruits (age 1) (000s)	4,232	3,633
Overfishing	No	No
Overfished	No	No

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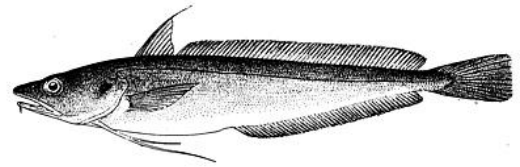
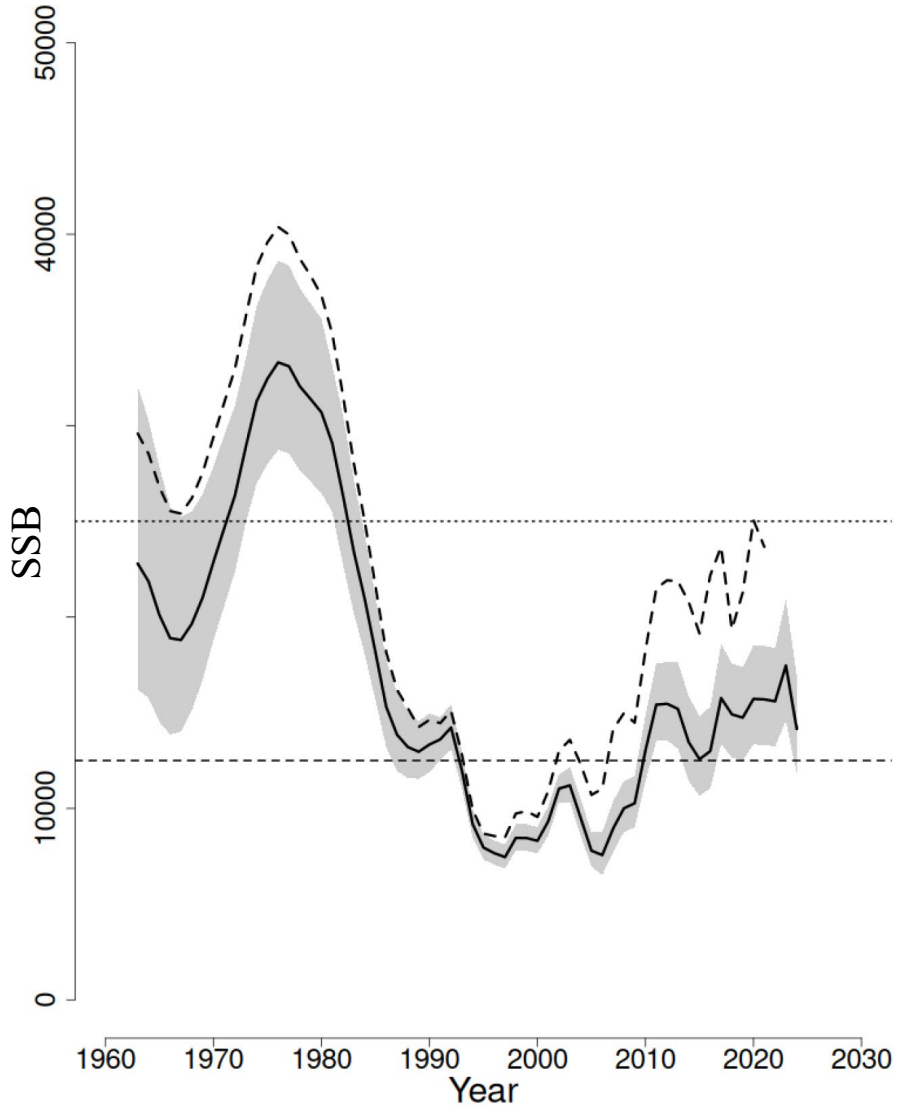
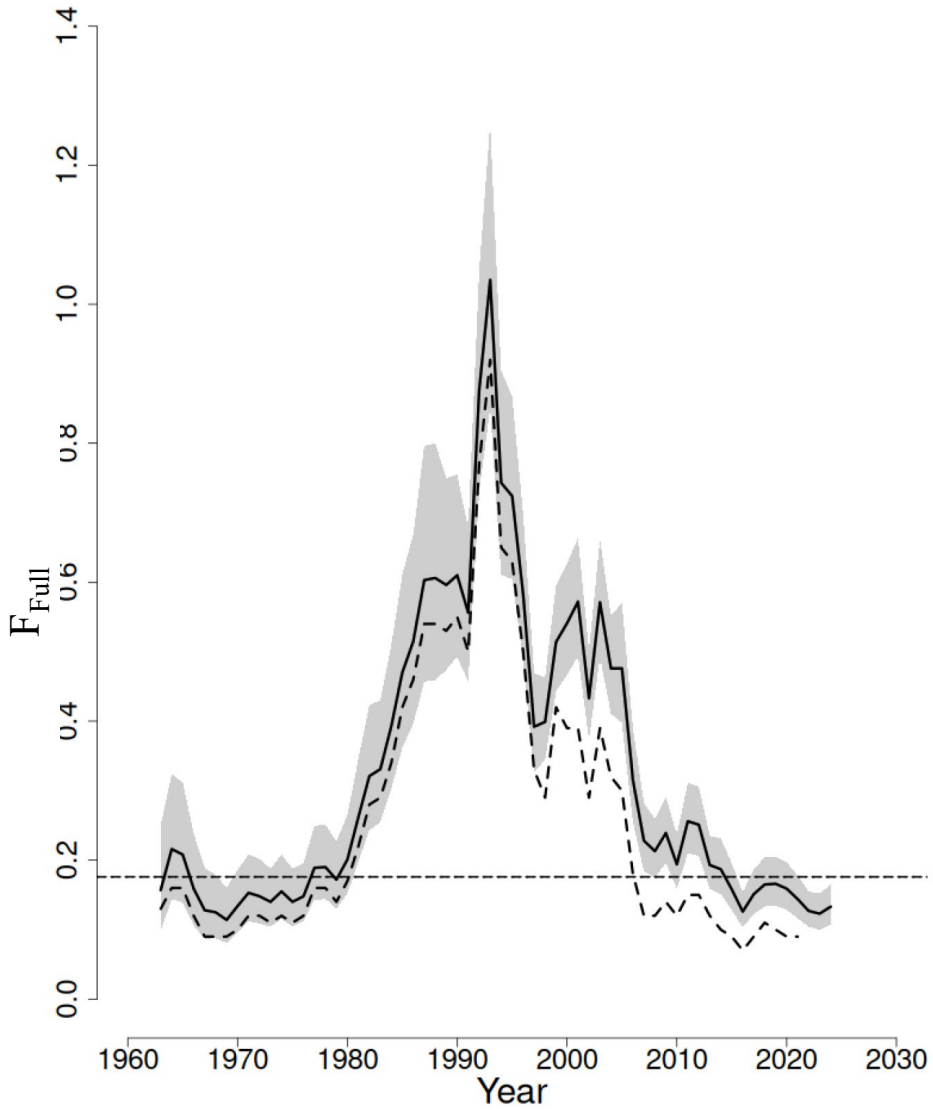
White Hake







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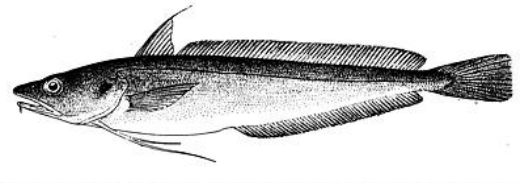

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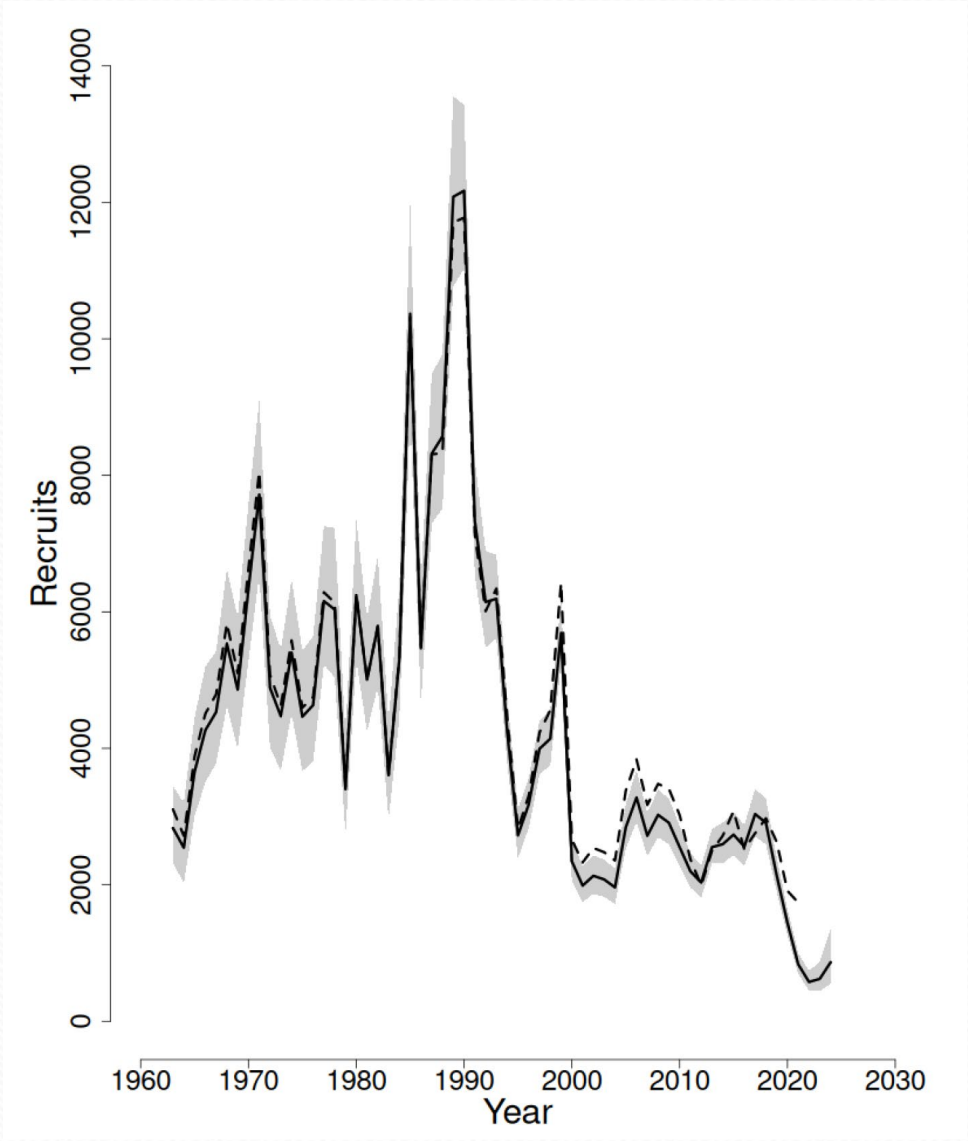

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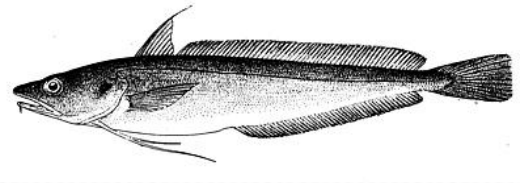

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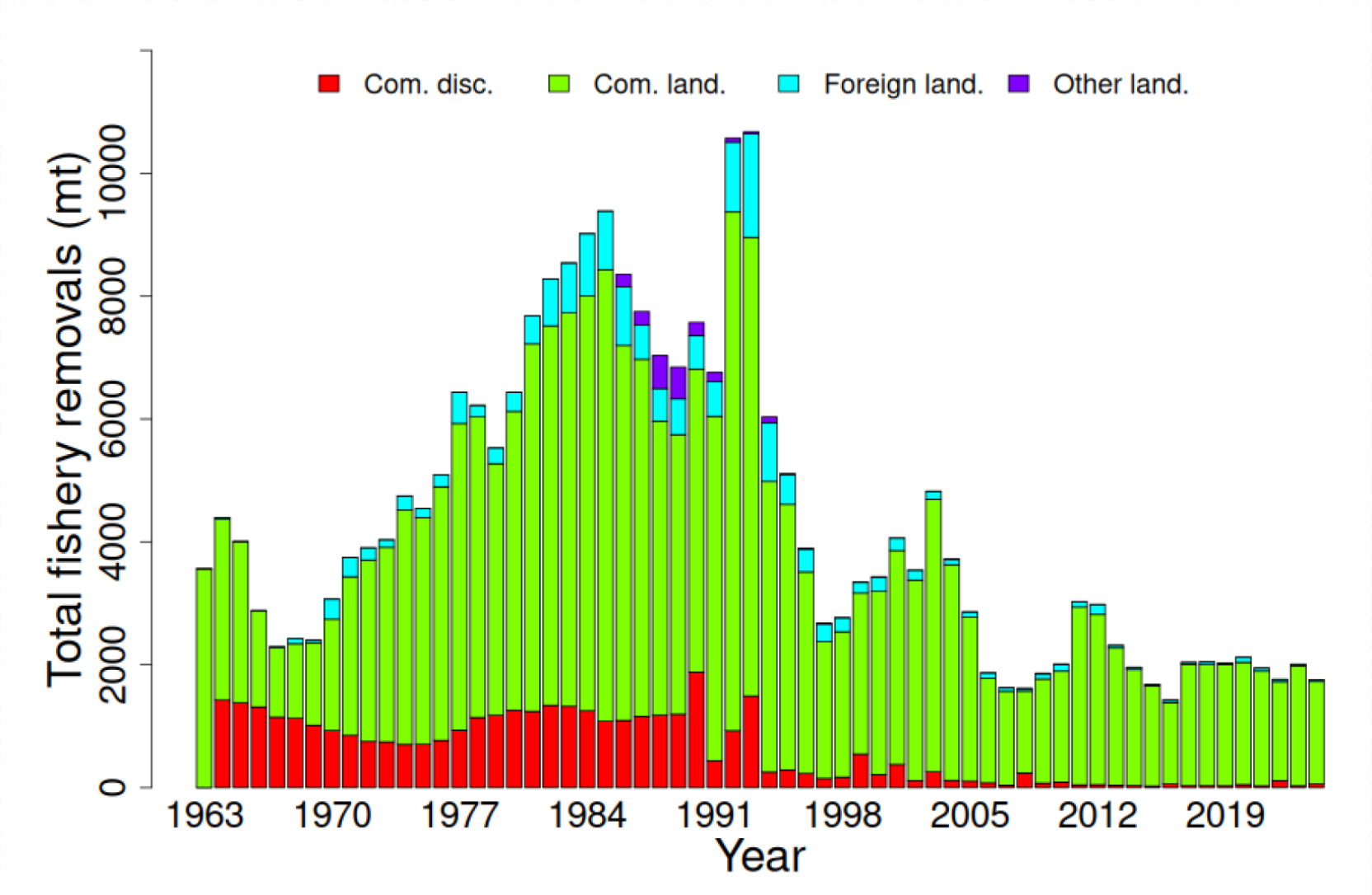

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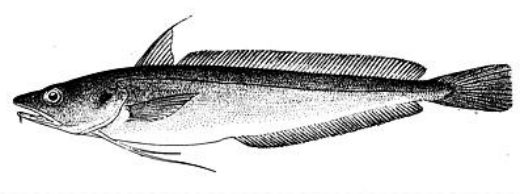
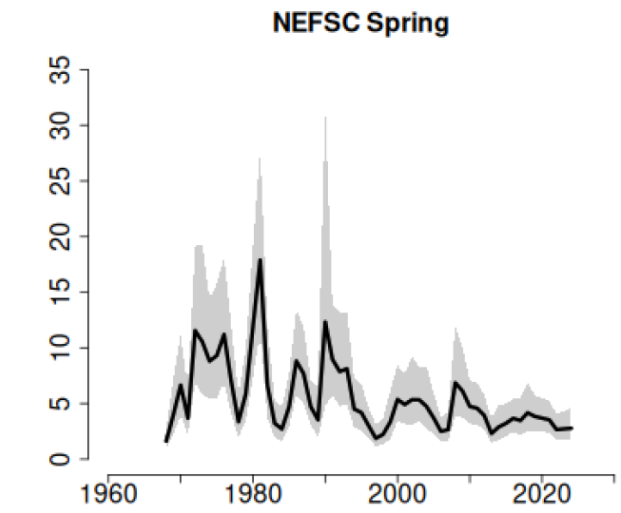
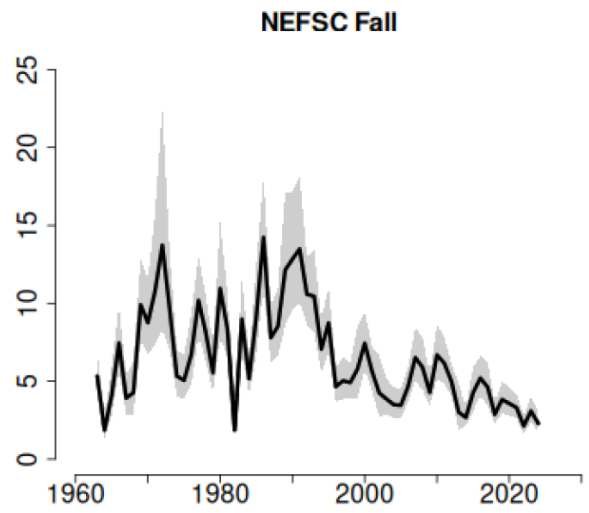
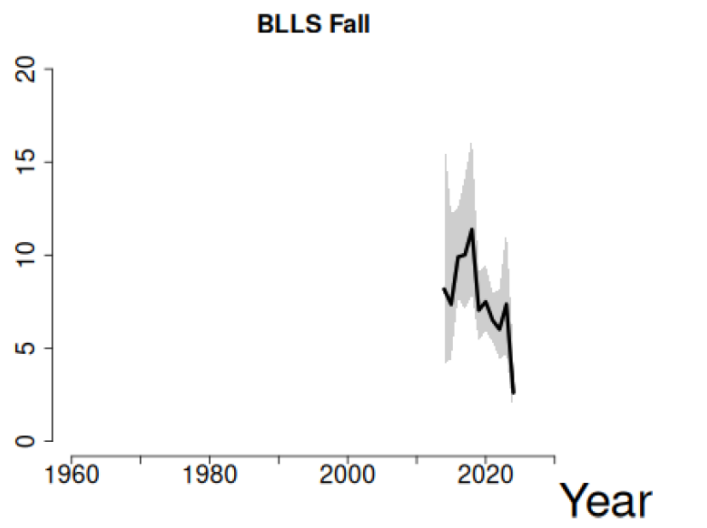
Fishery Management Council

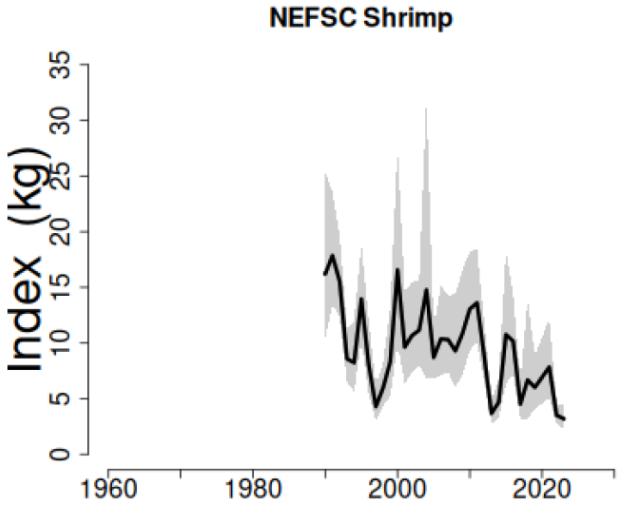


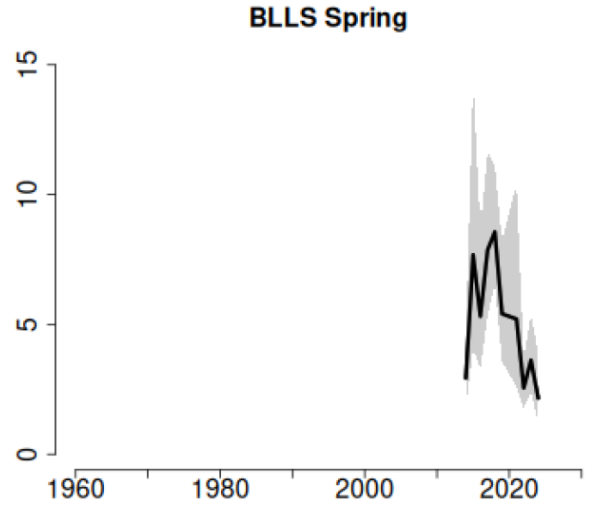
White Hake







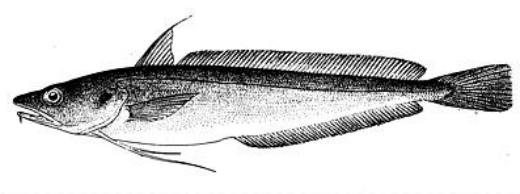




Missing 2020 spring and fall and 2023 spring BTS

Missing 2020 ASMFC shrimp

Missing 2020 BLSS spring



White Hake

Recruitment and projection methodology

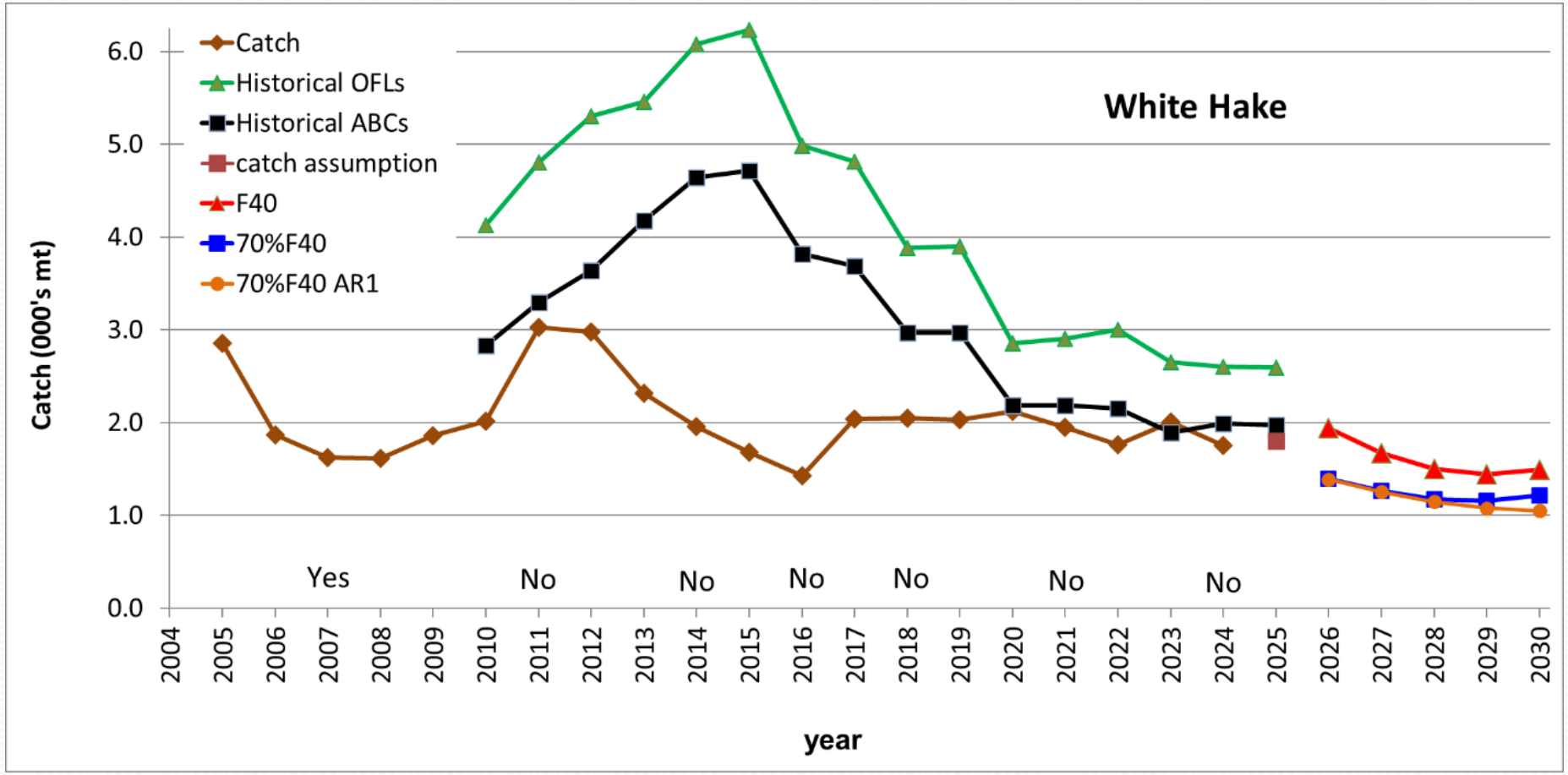
Current Approach:

- SSBMSY estimated using the SAW56 approved method of long-term projections at an F40%proxy for FMSY using a 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

Alternative Approach:

- Cadrin 2023 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 BRP estimates and short-term projections for catch advice

Catch Performance



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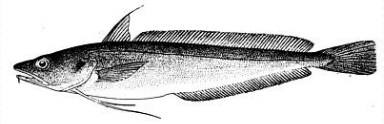

New England Fishery Management Council

Catch Performance

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

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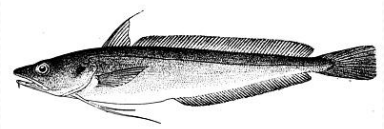
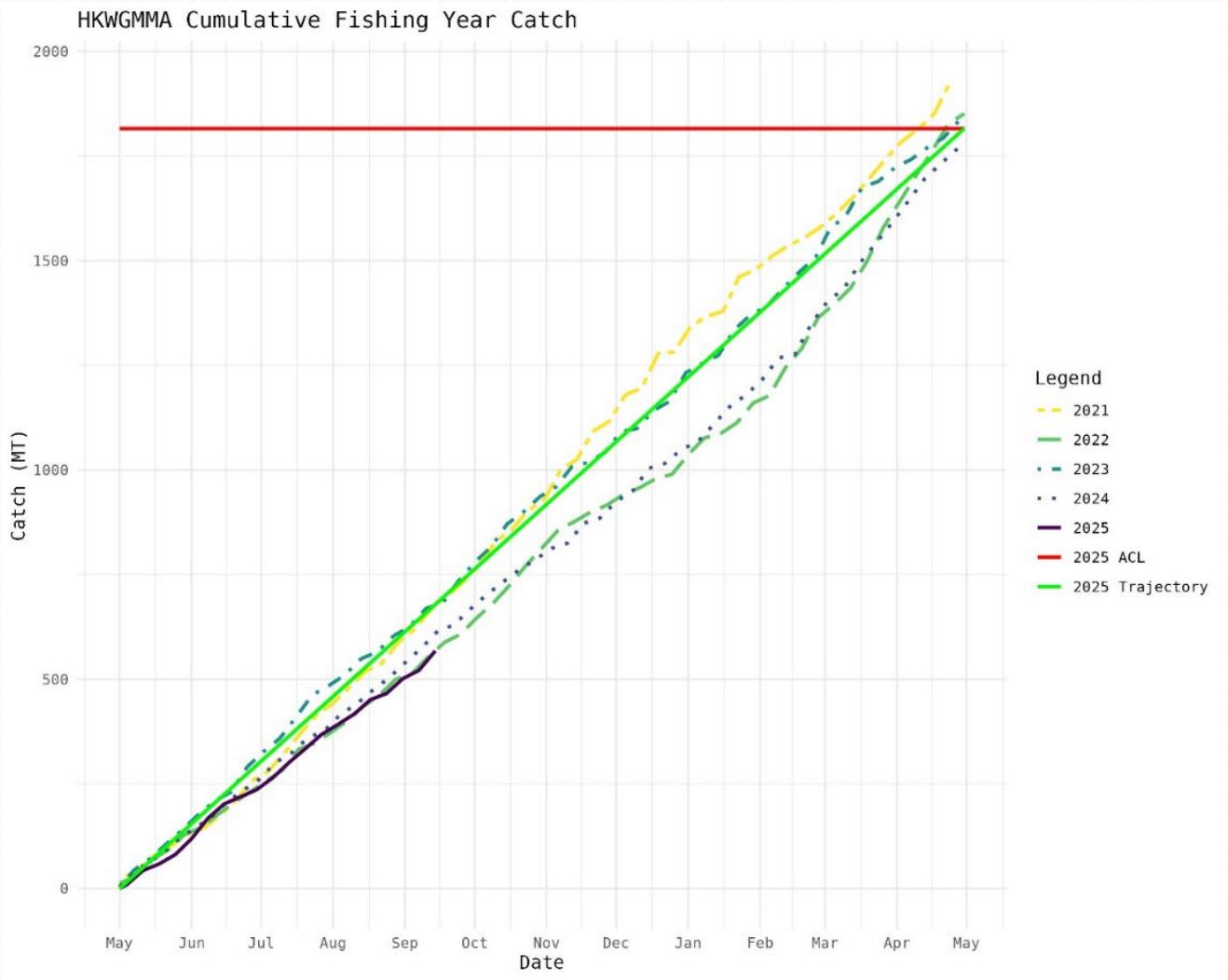


Commercial Groundfish Fishery In-Season Catch



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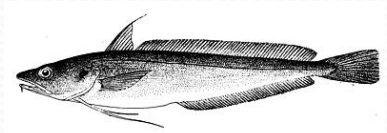
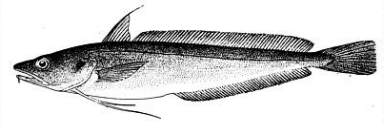


Quota Change Model Results - Sectors

	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

White hake has been a highly constraining stock for the last five years



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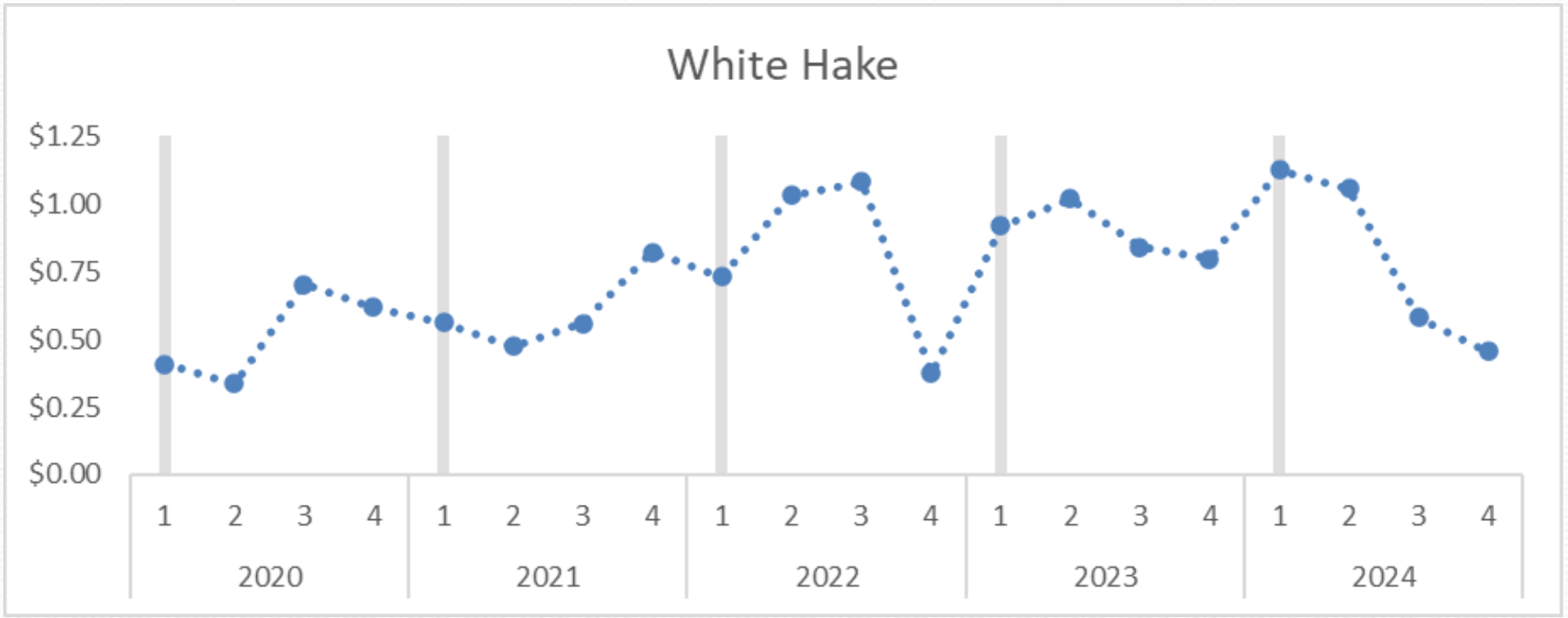
Inter-Sector ACE Lease Prices - Sectors



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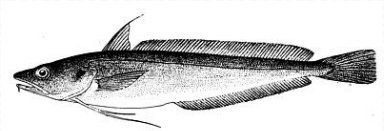

Catch Projections

70% F_{MSY}

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

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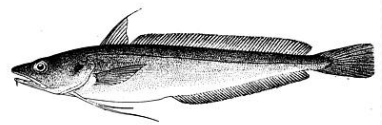
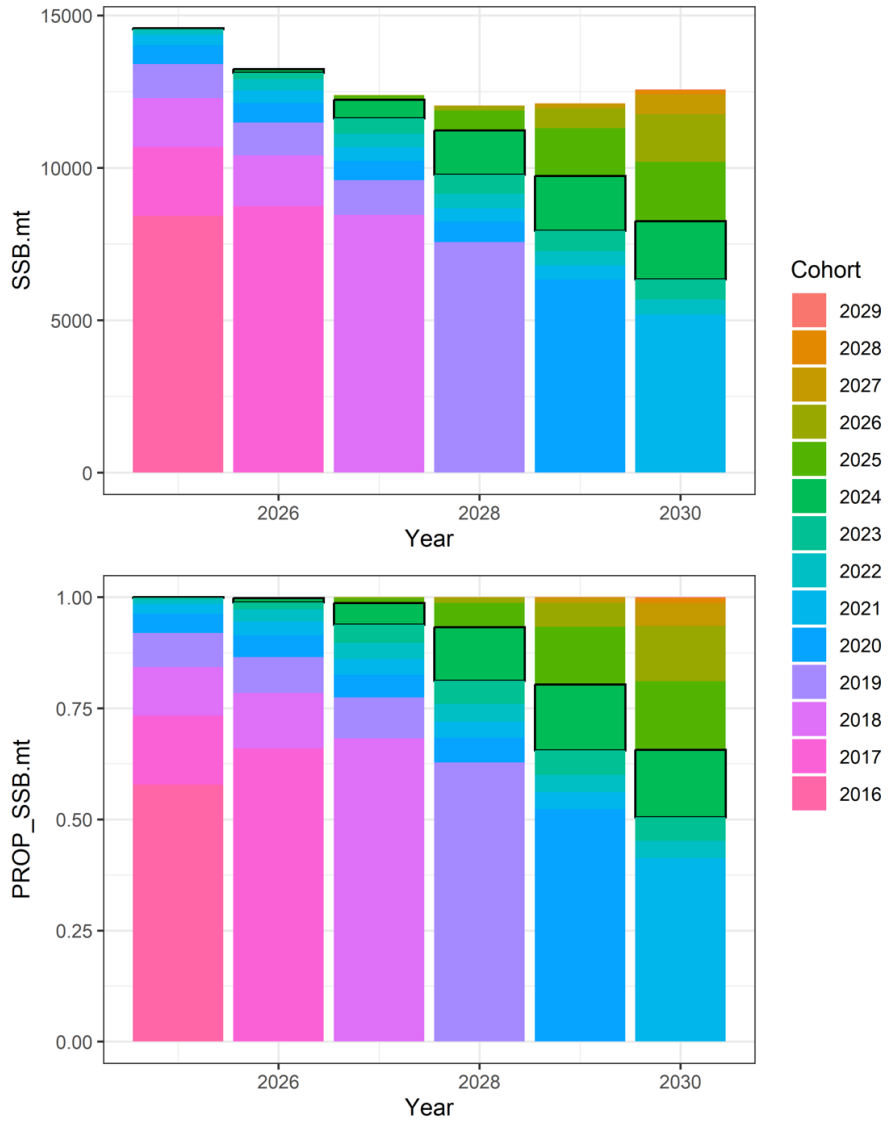
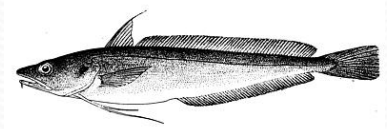


Projected Cohorts



- Note: with ASAP and AGEPRO unable to produce this for catch (uses SSB instead)
- By 2028 25% of projected SSB is from projected recruits (50% by 2030)

Source: NEFSC



Catch Projections

FY2028 constant 70% F_{MSY} sensitivity

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

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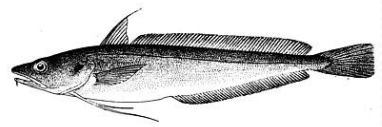


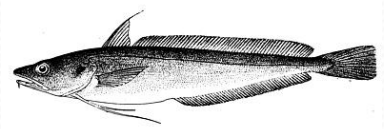
Catch Projections

70% F_{MSY} AR1 sensitivity

- 2025 Peer Review Panel discussed tradeoffs between the two projection approaches, recommended continued use of the projection methodology from the SAW56 benchmark, with the autocorrelated recruitment (AR1) projections to be provided as a sensitivity.

- Panel provided several research recommendations regarding continued exploration of alternative projection approaches.

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

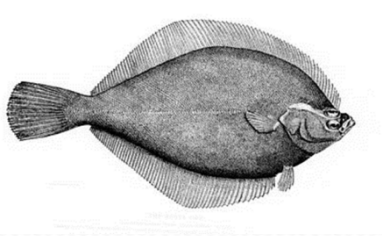


New England Fishery Management Council

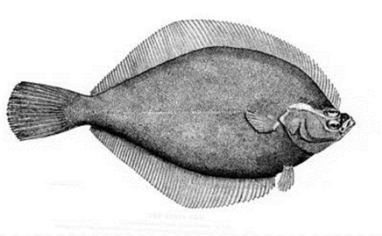
Cape Cod/Gulf of Maine Yellowtail Flounder OFLs & ABCs for FY2026 - FY2030

New England Fishery Management Council

Cape Cod/Gulf of Maine Yellowtail Flounder



MODEL	WHAM, Level 2
STOCK STATUS	Overfished, Overfishing is not occurring
REBUILDING	Rebuilt as of 2022.
RETROSPECTIVE ADJUSTMENT	No
UNCERTAINTIES	- 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.
CHANGES	- Use of age-specific fleet selectivity with random effects - Decoupling the yearly random effects in recruitment from the yearly random effects in ages 2+ - Revised maturity - Revised MADMF fall survey Age-Length Keys (ALKs)



Cape Cod/Gulf of Maine Yellowtail Flounder

	2022	2025
F_{MSY} *proxy*	0.3201	0.497
SSB_{MSY} (mt)	3,068	10,907 (6,496 - 19,050)
MSY (mt)	1,008	3,165 (1,845 - 5,427)
Median recruits (age 1) (000s)	6,417	35,898
Overfishing	No	No
Overfished	No	Yes

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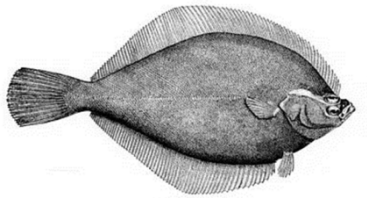
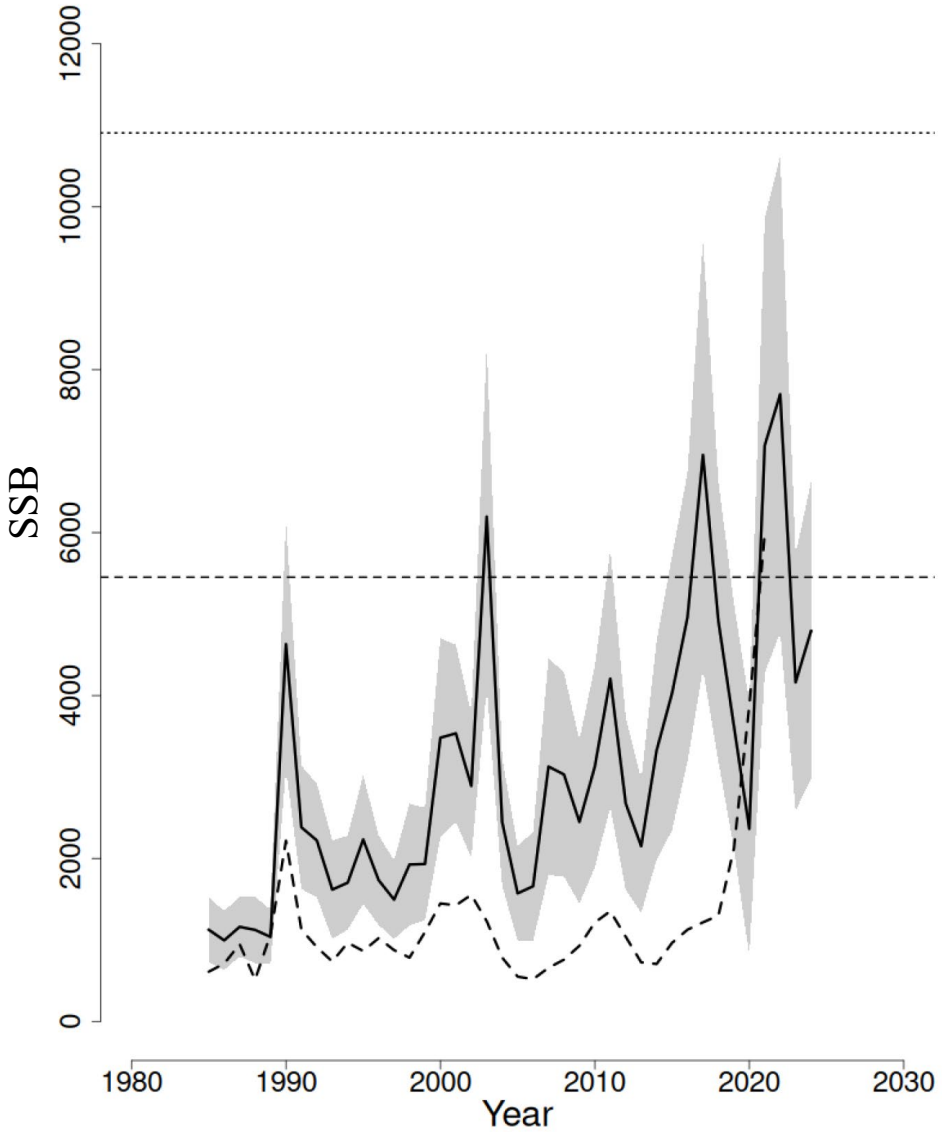
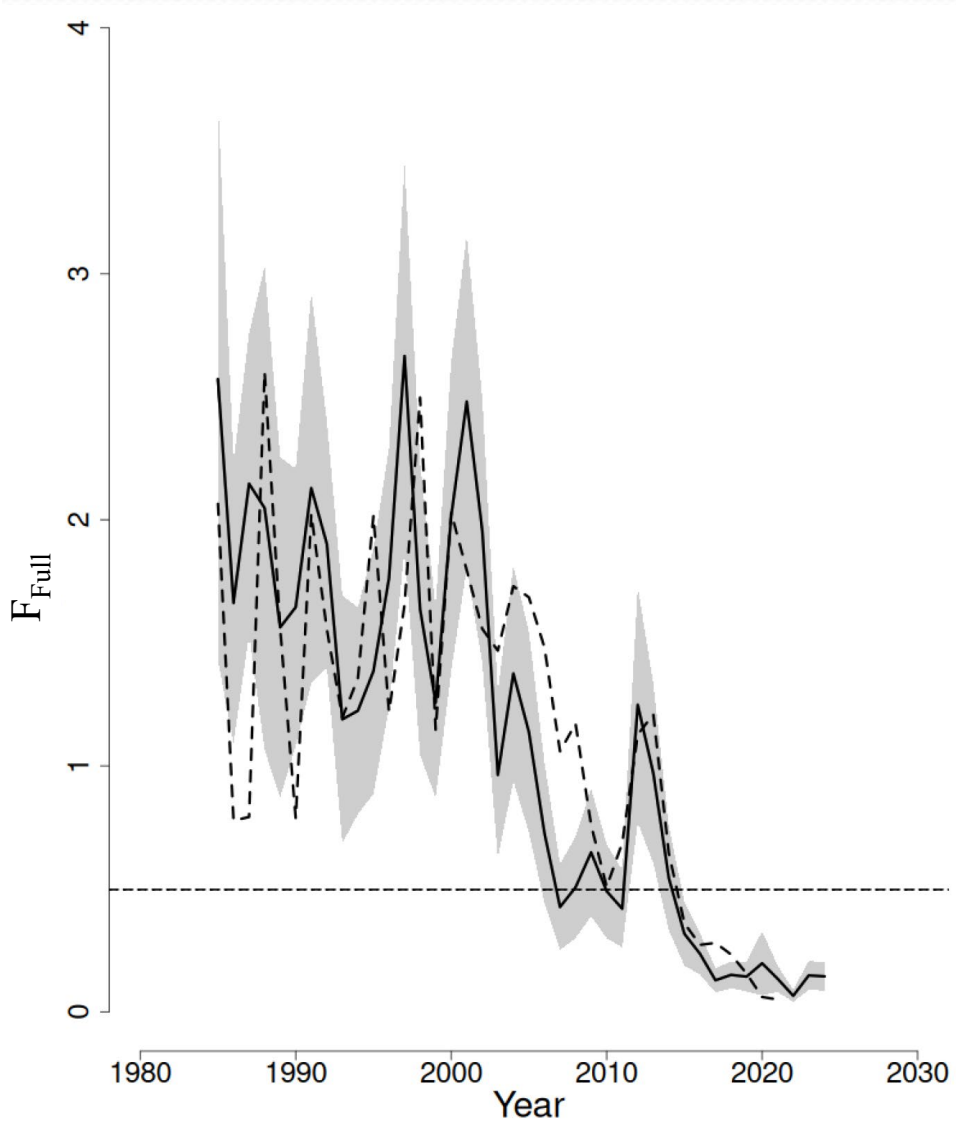
Cape Cod/Gulf of Maine Yellowtail Flounder







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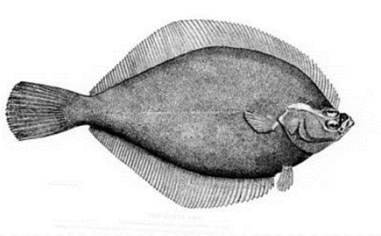
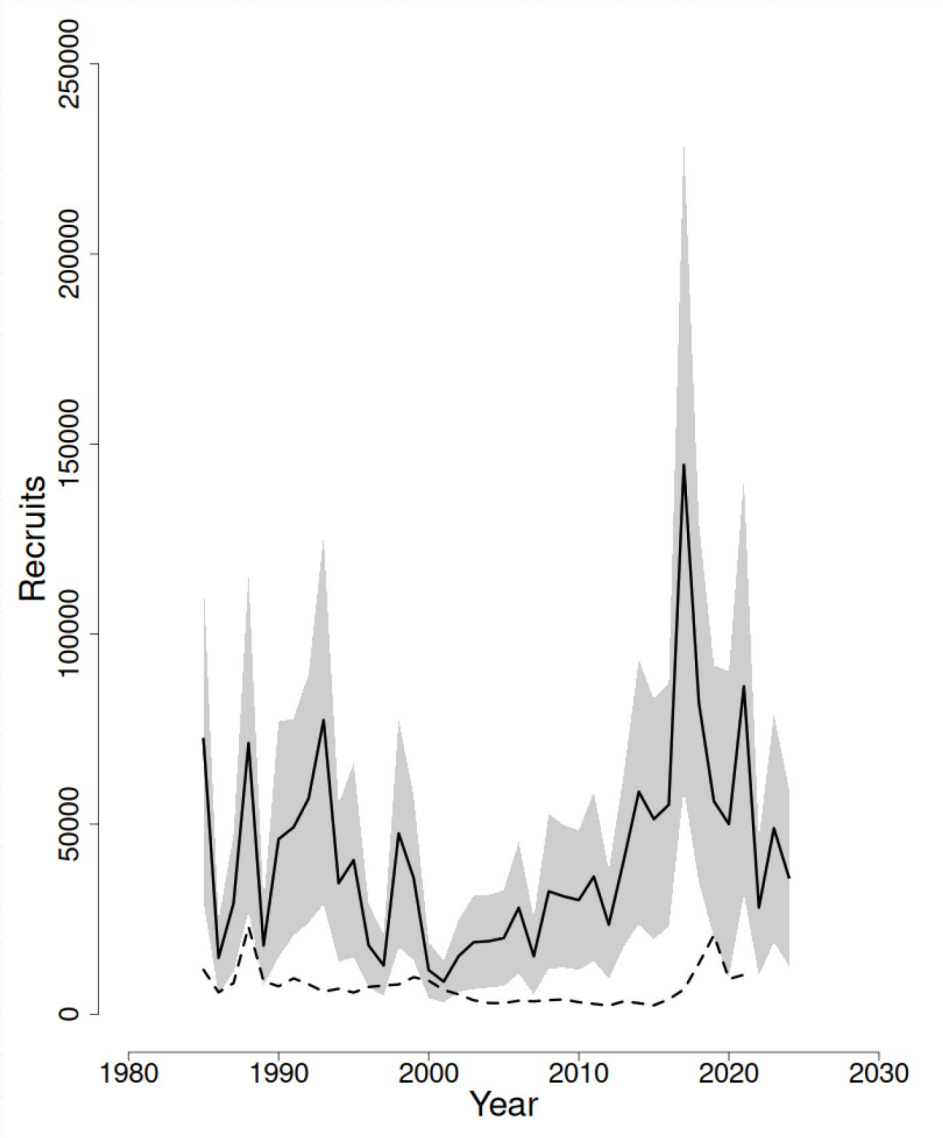
Cape Cod/Gulf of Maine Yellowtail Flounder





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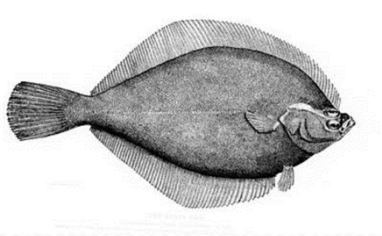
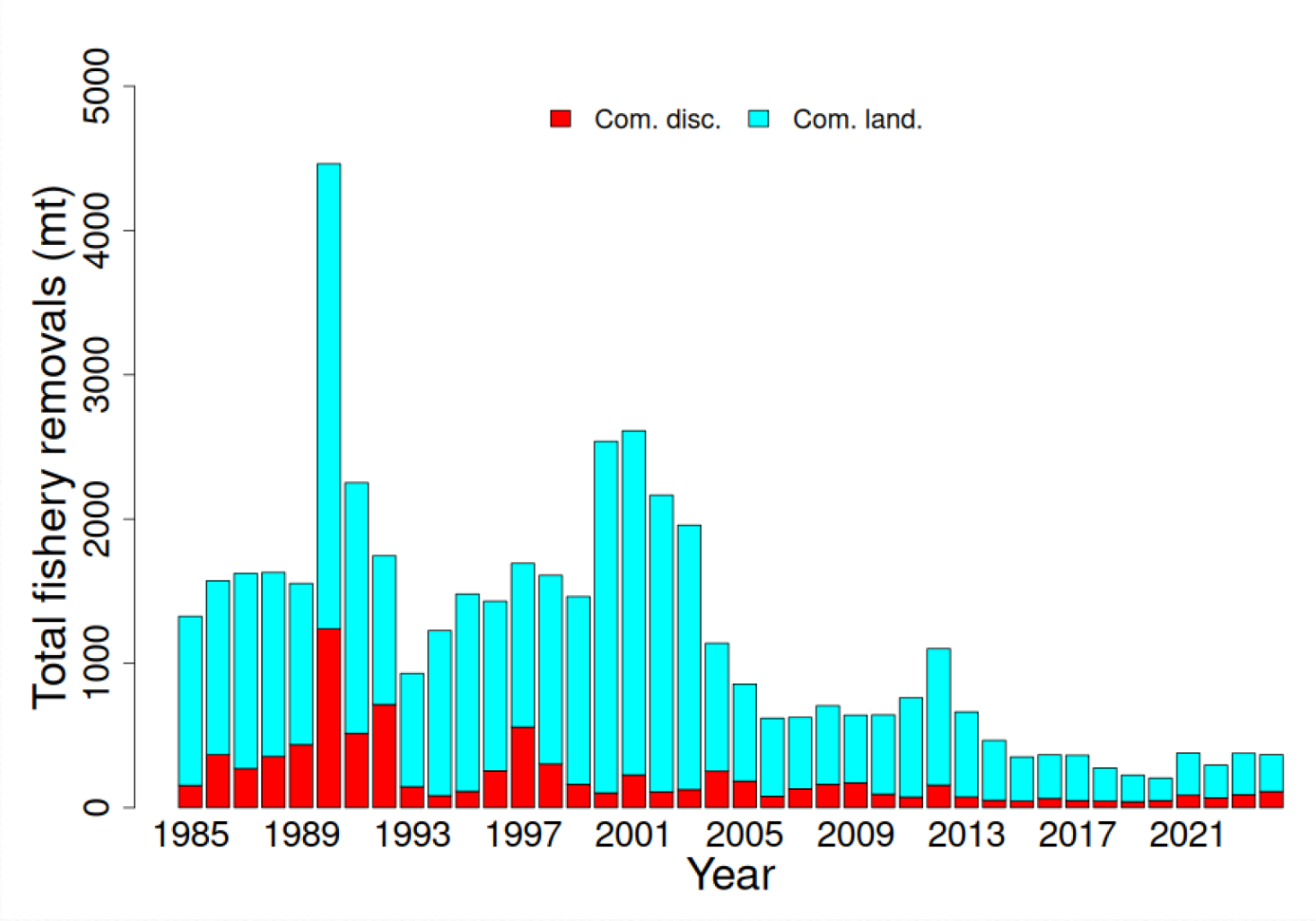
Cape Cod/Gulf of Maine Yellowtail Flounder





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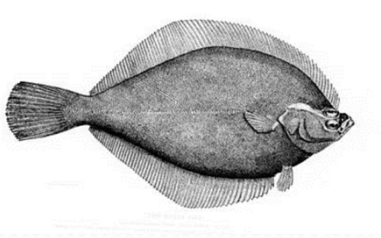
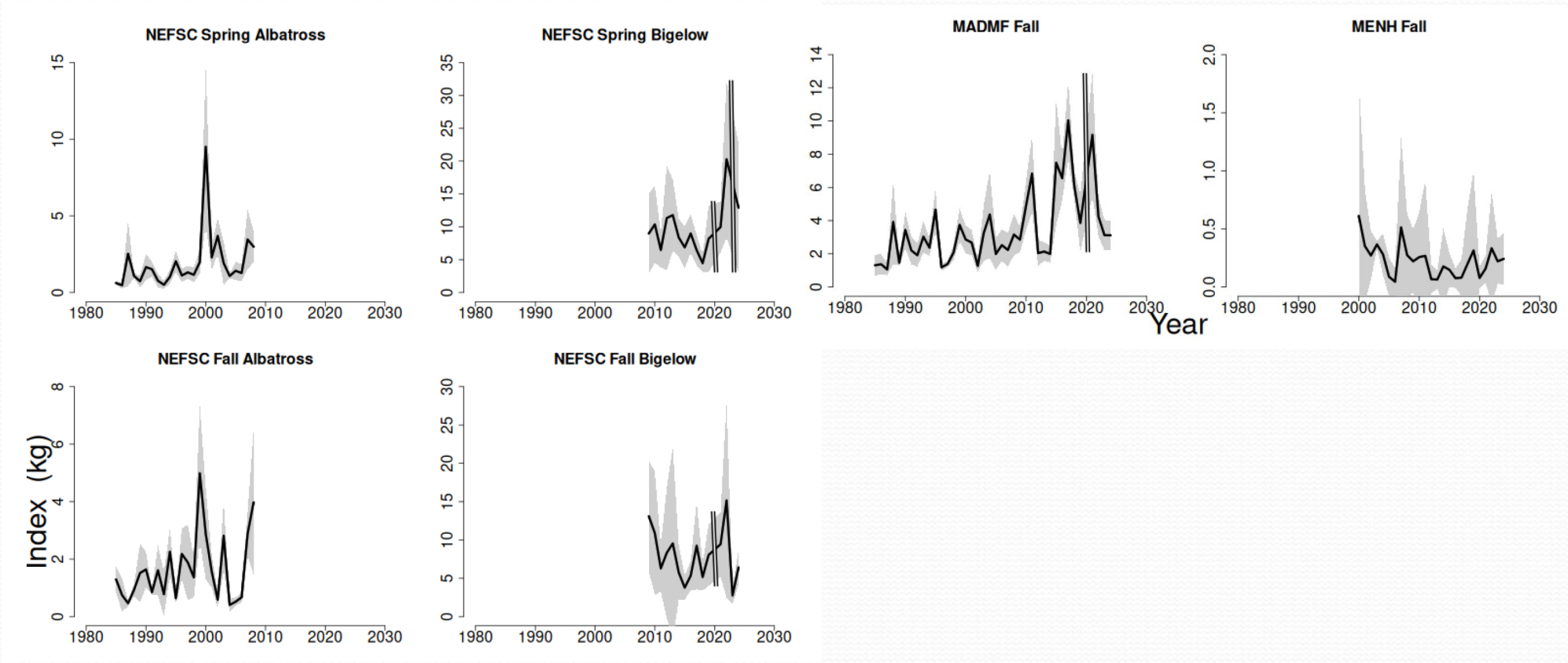
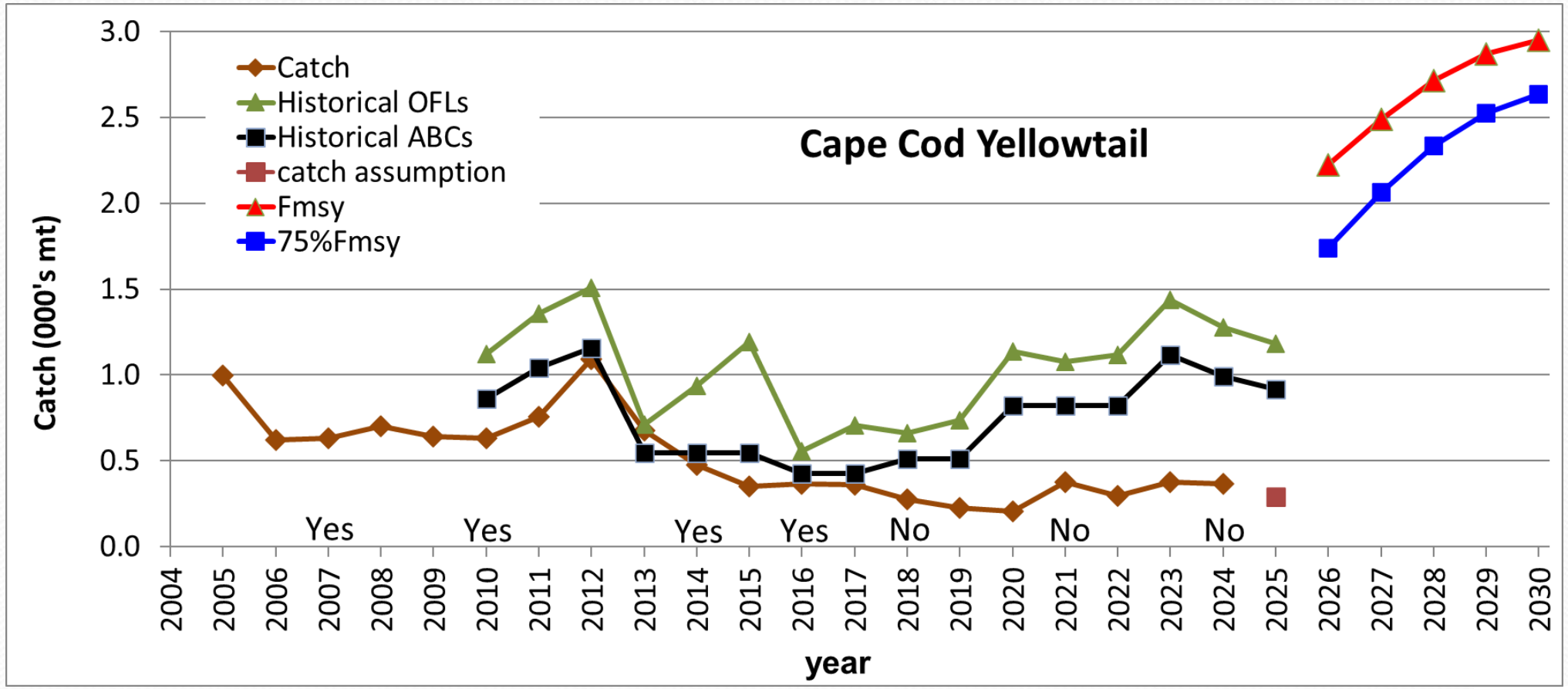
Cape Cod/Gulf of Maine Yellowtail Flounder

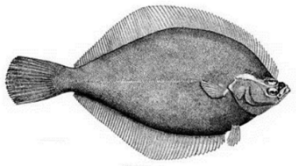




Catch Performance



Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



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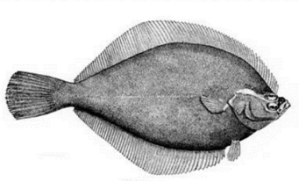
Catch Performance

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



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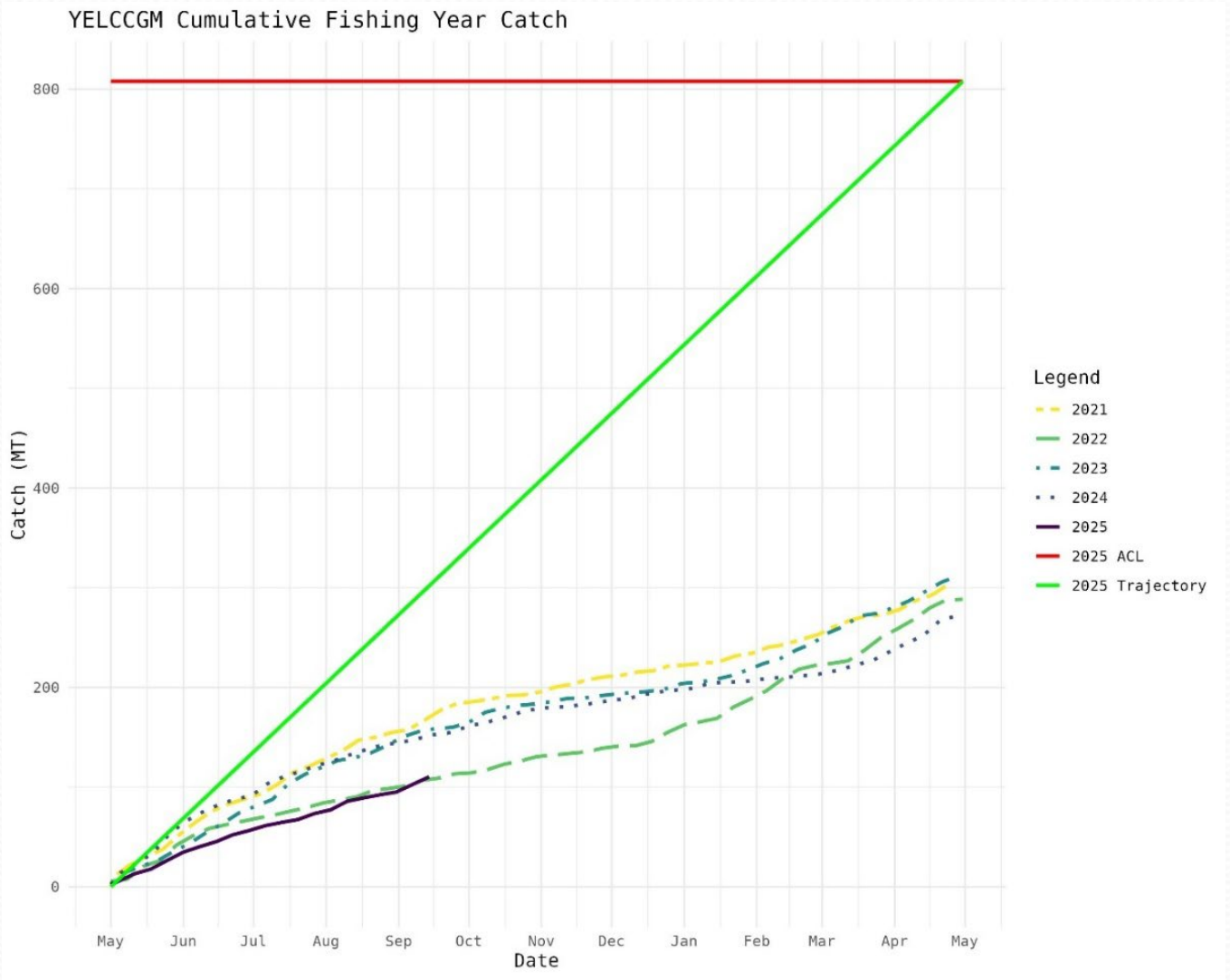
Commercial Groundfish Fishery In-Season Catch



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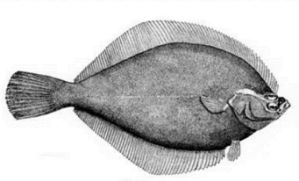
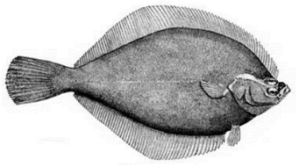


Quota Change Model Results - Sectors

	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



Inter-sector ACE lease prices have been $0 in recent years

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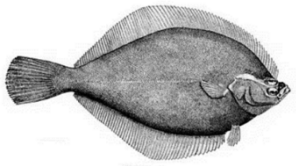
Other Fishery and State Fishery Sub-components Catch

Other significant sources of CC/GOM yellowtail flounder catch include:

- 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.

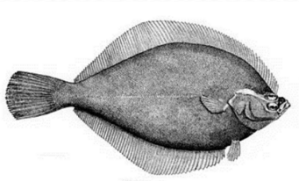


New England Fishery Management Council

Catch Projections

75% F_{MSY}

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



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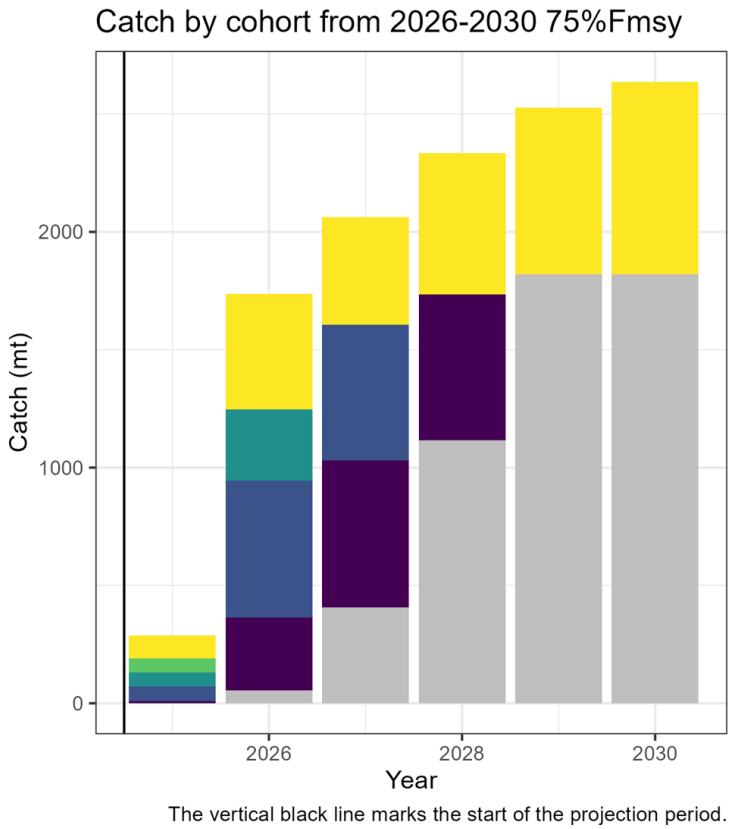
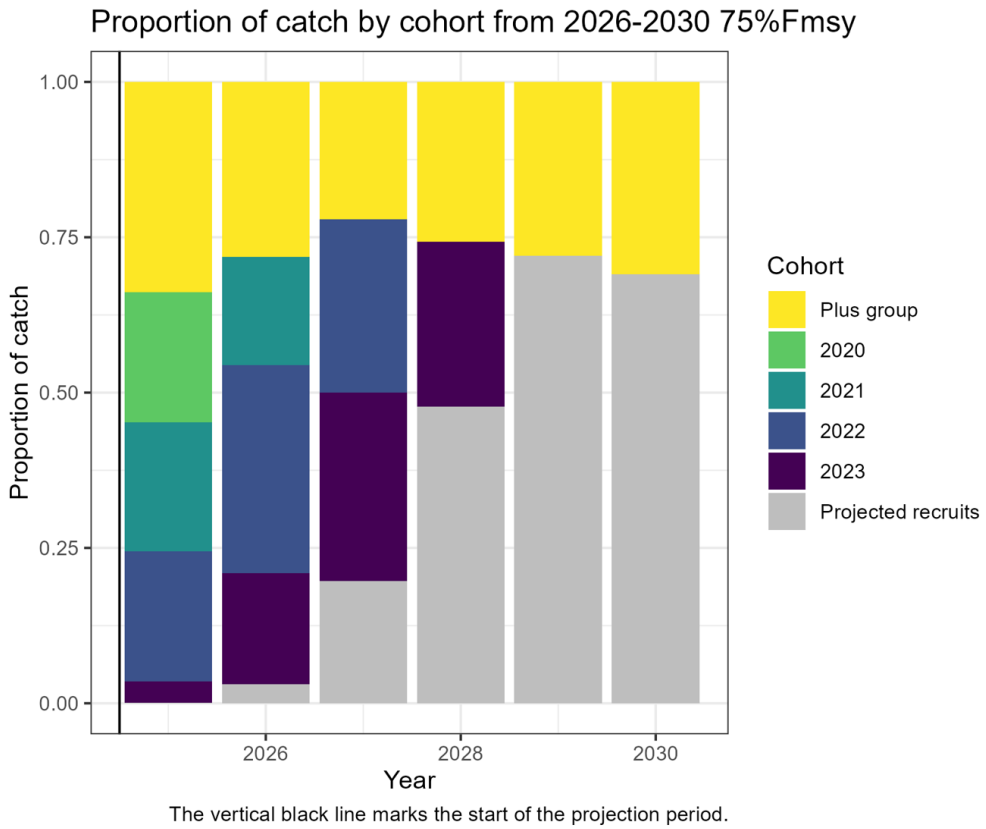
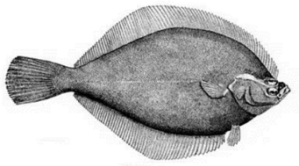
Projected Cohorts





Source: NEFSC

By 2028 50% of projected catch is from projected recruits

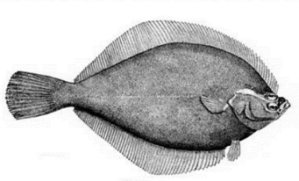


New England Fishery Management Council

Catch Projections

FY2028 constant 75% F_{MSY} sensitivity

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



New England Fishery Management Council

Southern New England/Mid-Atlantic Yellowtail Flounder OFLs & ABCs for FY2026 - FY2030

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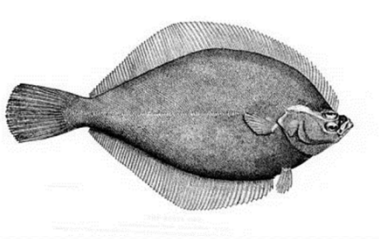
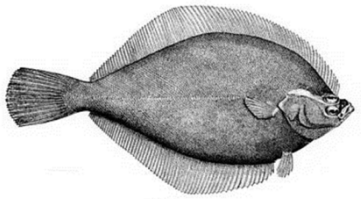
Southern New England/Mid-Atlantic Yellowtail Flounder



MODEL	WHAM, Level 2
STOCK STATUS	Overfished, Overfishing is not occurring
REBUILDING	2029 (70%F_{MSY} Frebuild)
RETROSPECTIVE ADJUSTMENT	No
UNCERTAINTIES	- Lack of biological data (length, age, and maturity) in the terminal years. The terminal five years of the assessment have no age composition data. - The behavior of the Gulf Stream Index (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.
CHANGES	- Lognormal adjustment turned off (best practice guidance is to turn off) - Removal of iid random effects on fleet selectivity, to resolve model convergence issues when additional years of data were added to the model configuration

Southern New England/Mid-Atlantic Yellowtail Flounder



	2022	2025
F_{MSY} *proxy*	0.349	0.374 (0.346-0.404)
SSB_{MSY} (mt)	1715	270 (42-1720)
MSY (mt)	461	94 (15-595)
Mean recruits (age 1) (000s)	22375	25778
Overfishing	No	No
Overfished	Yes	Yes

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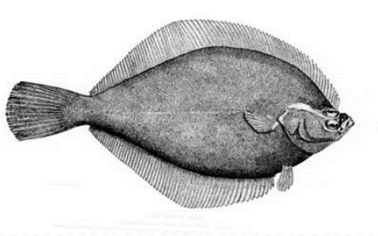
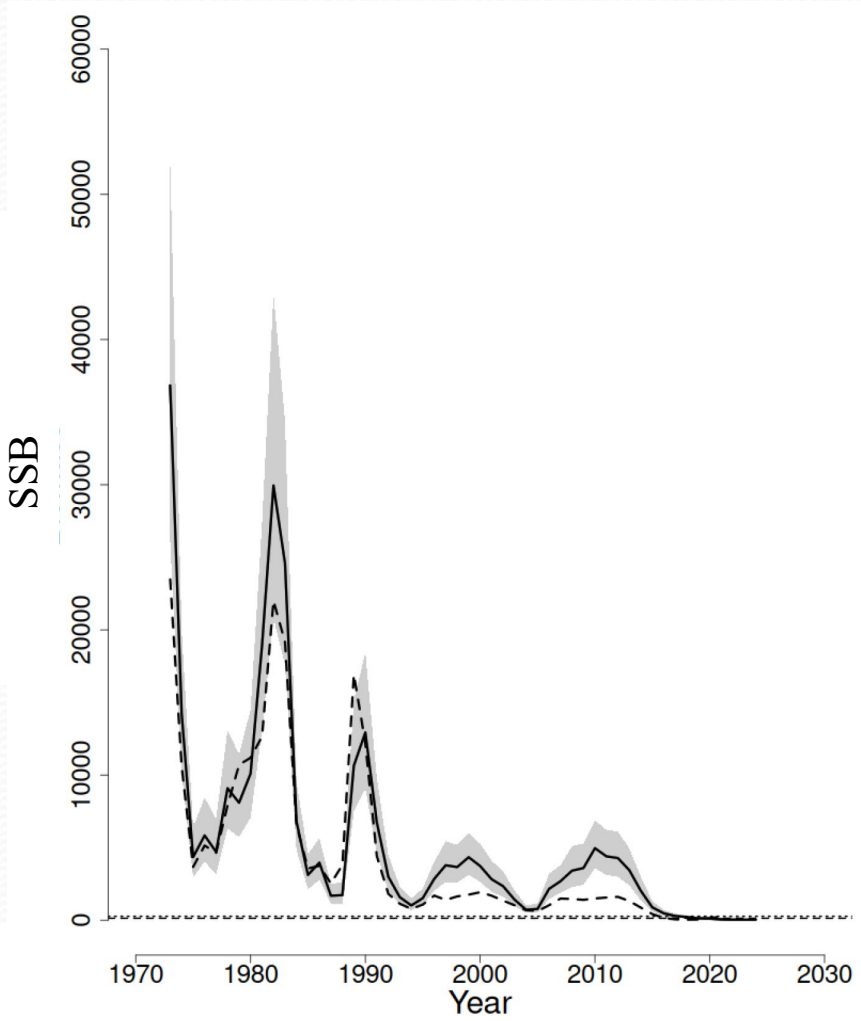
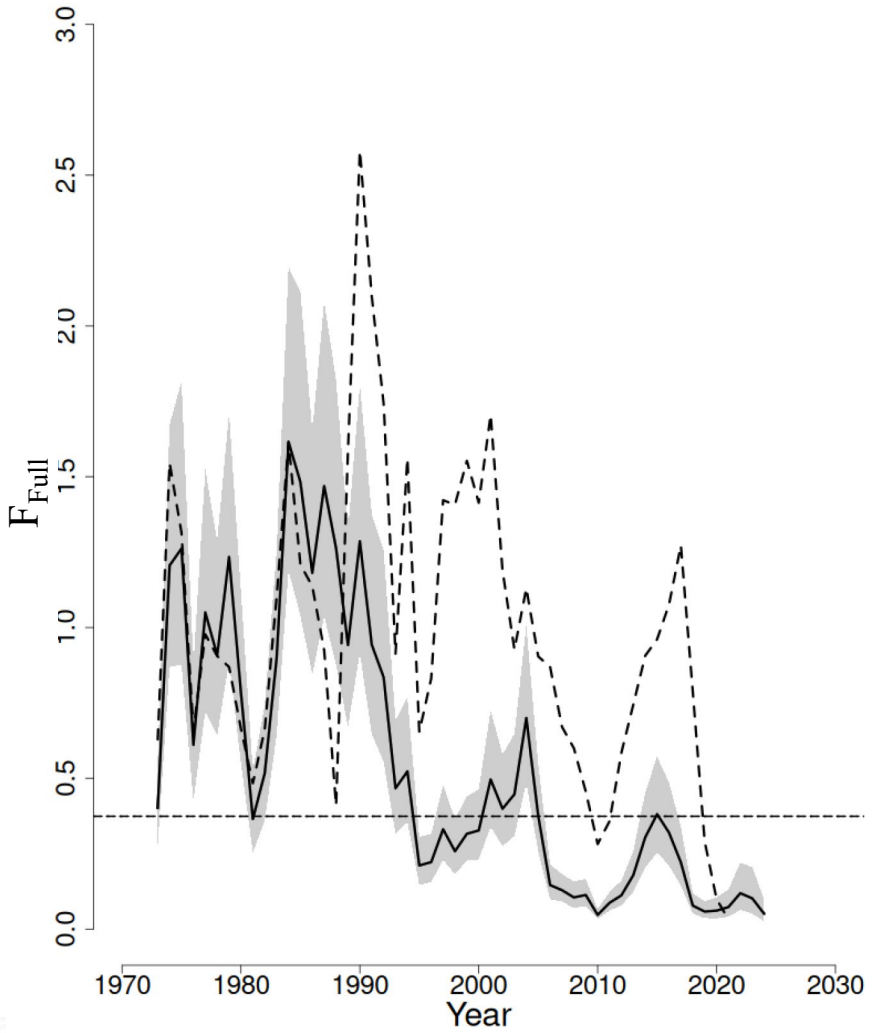
Southern New England/Mid-Atlantic Yellowtail Flounder







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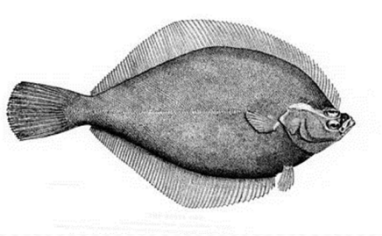
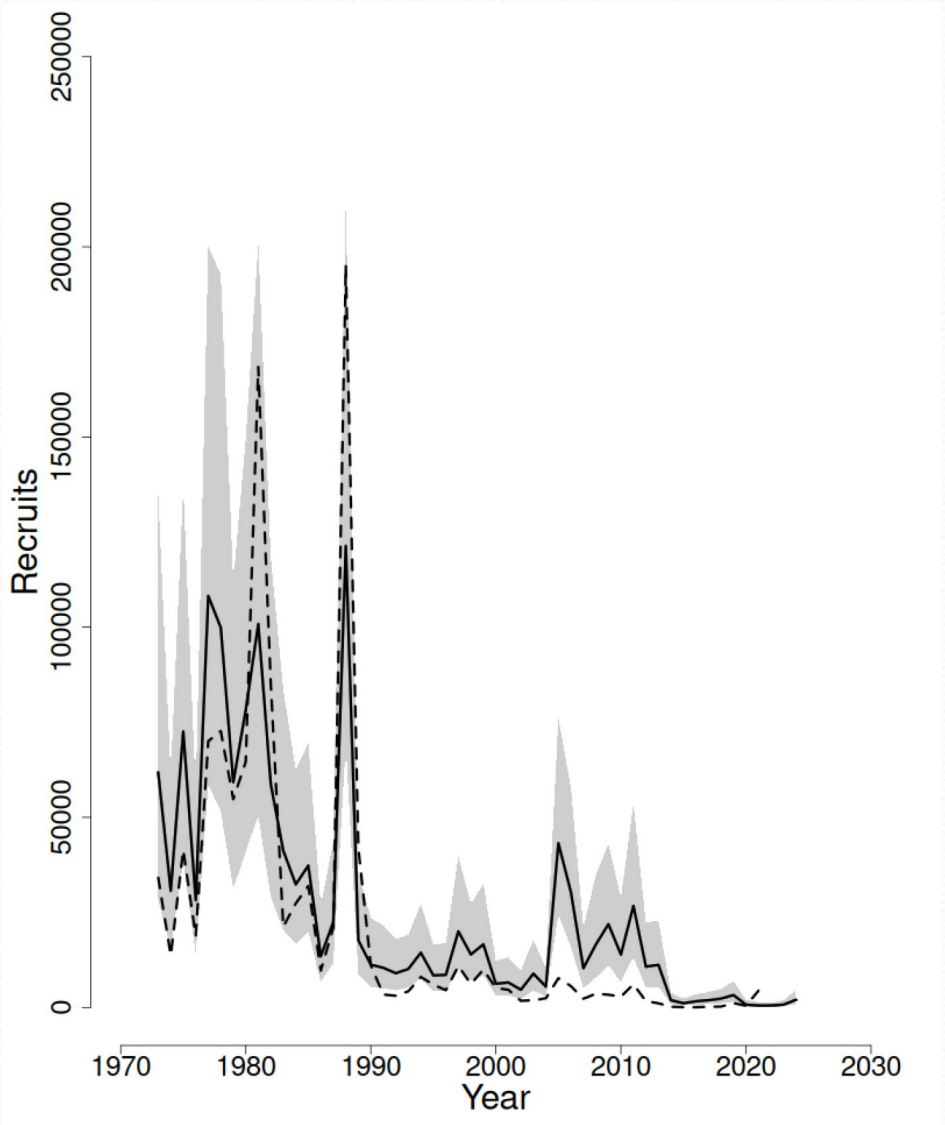
Southern New England/Mid-Atlantic Yellowtail Flounder





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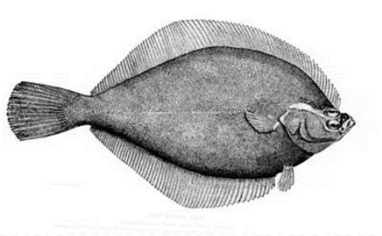
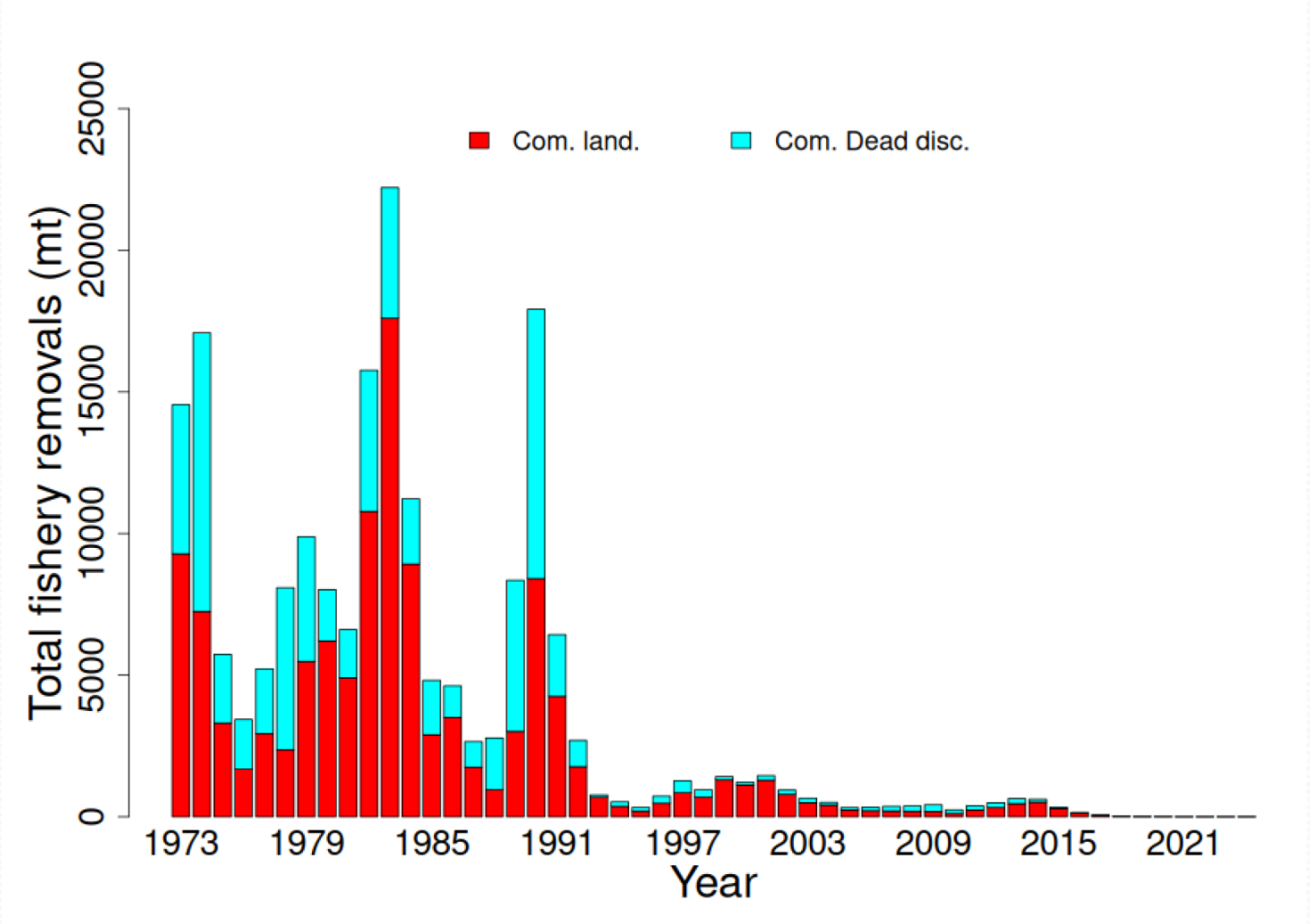
Southern New England/Mid-Atlantic Yellowtail Flounder





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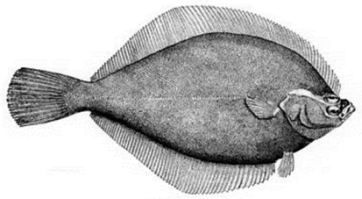
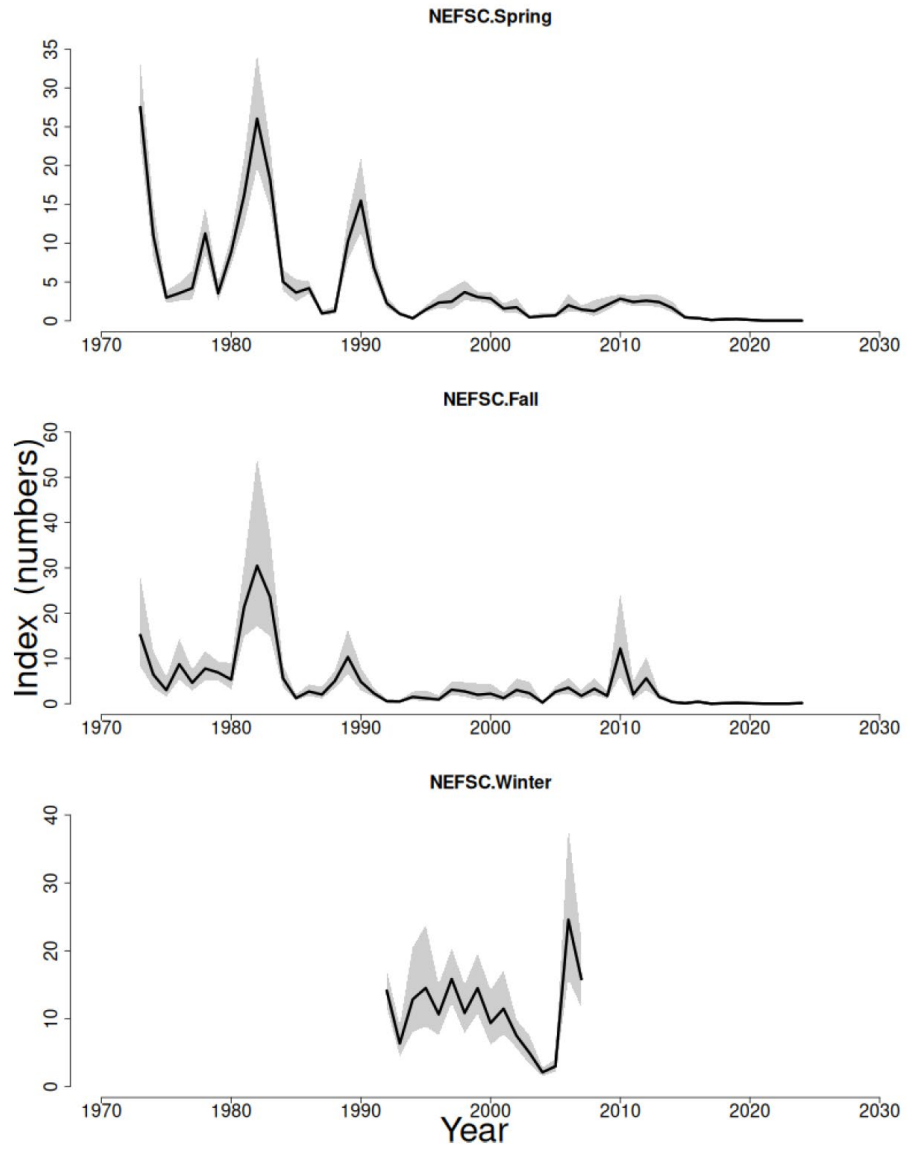
Southern New England/Mid-Atlantic Yellowtail Flounder





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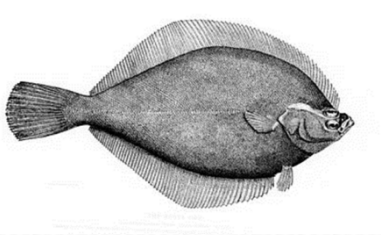
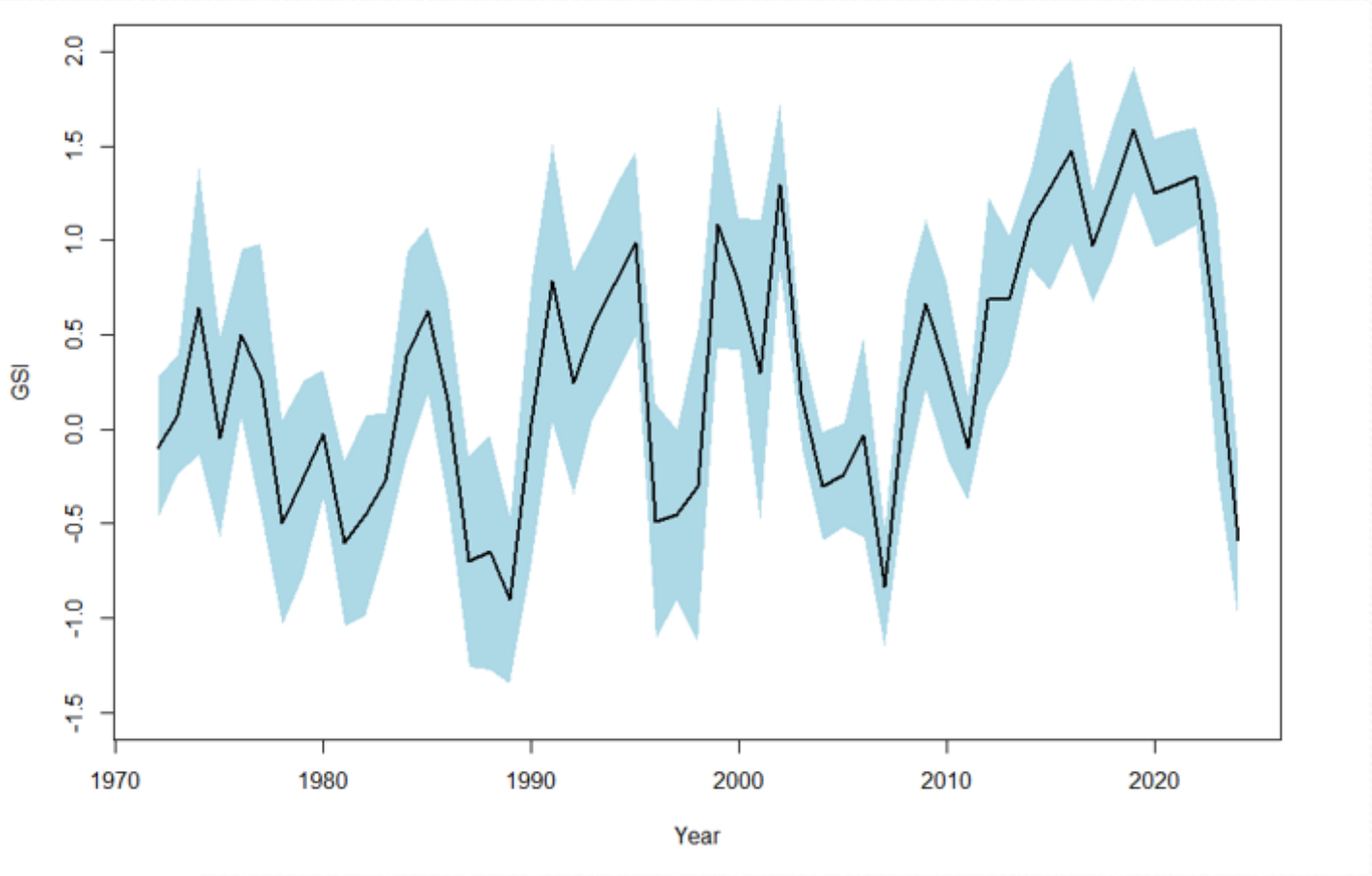
Southern New England/Mid-Atlantic Yellowtail Flounder





- Recruitment informed by Gulf Stream Index (GSI)
- Projections use average GSI 2012-2024

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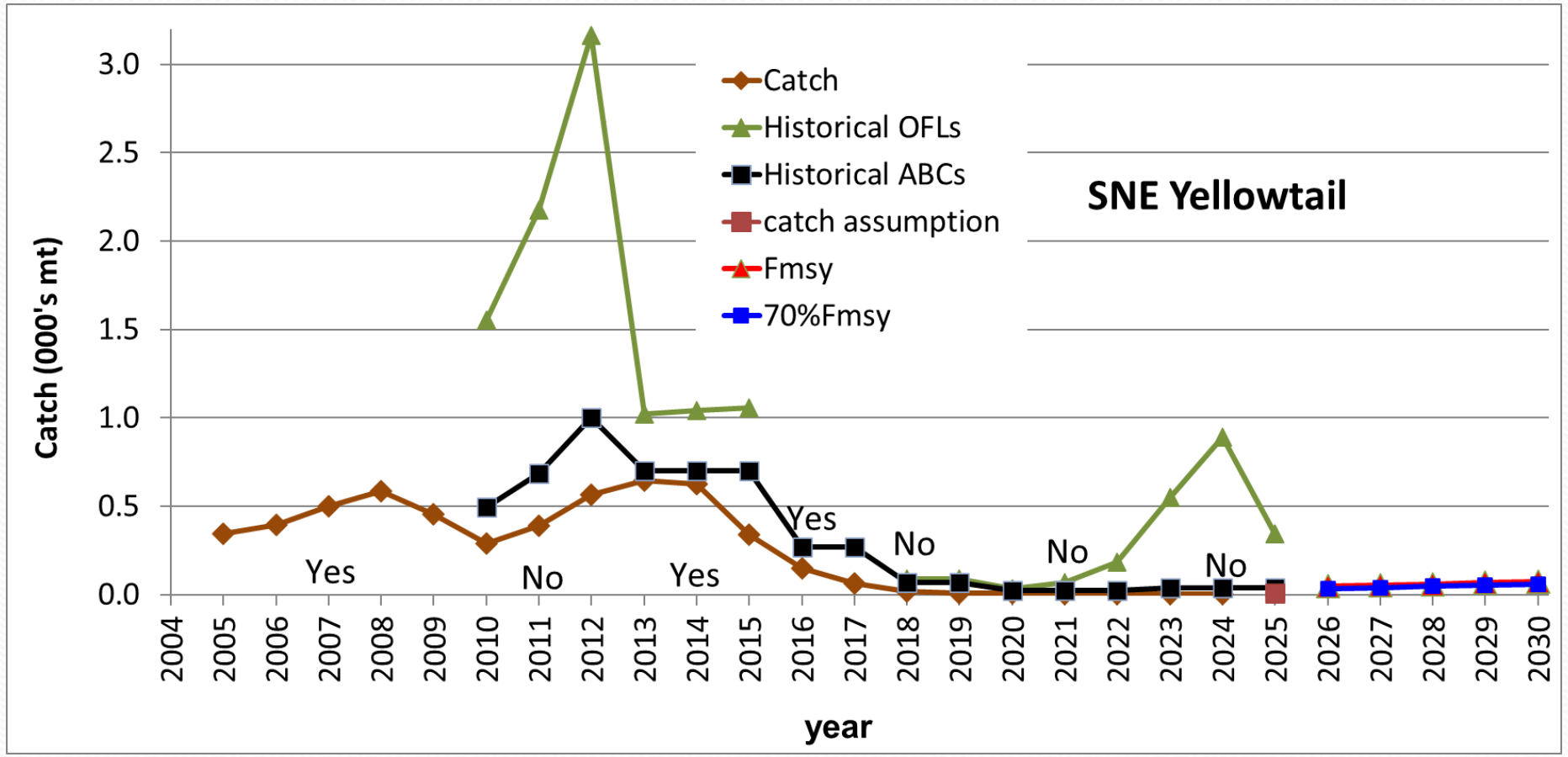
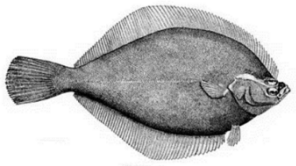
Catch Performance



Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).



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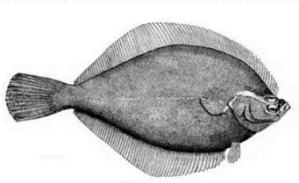
Catch Performance

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



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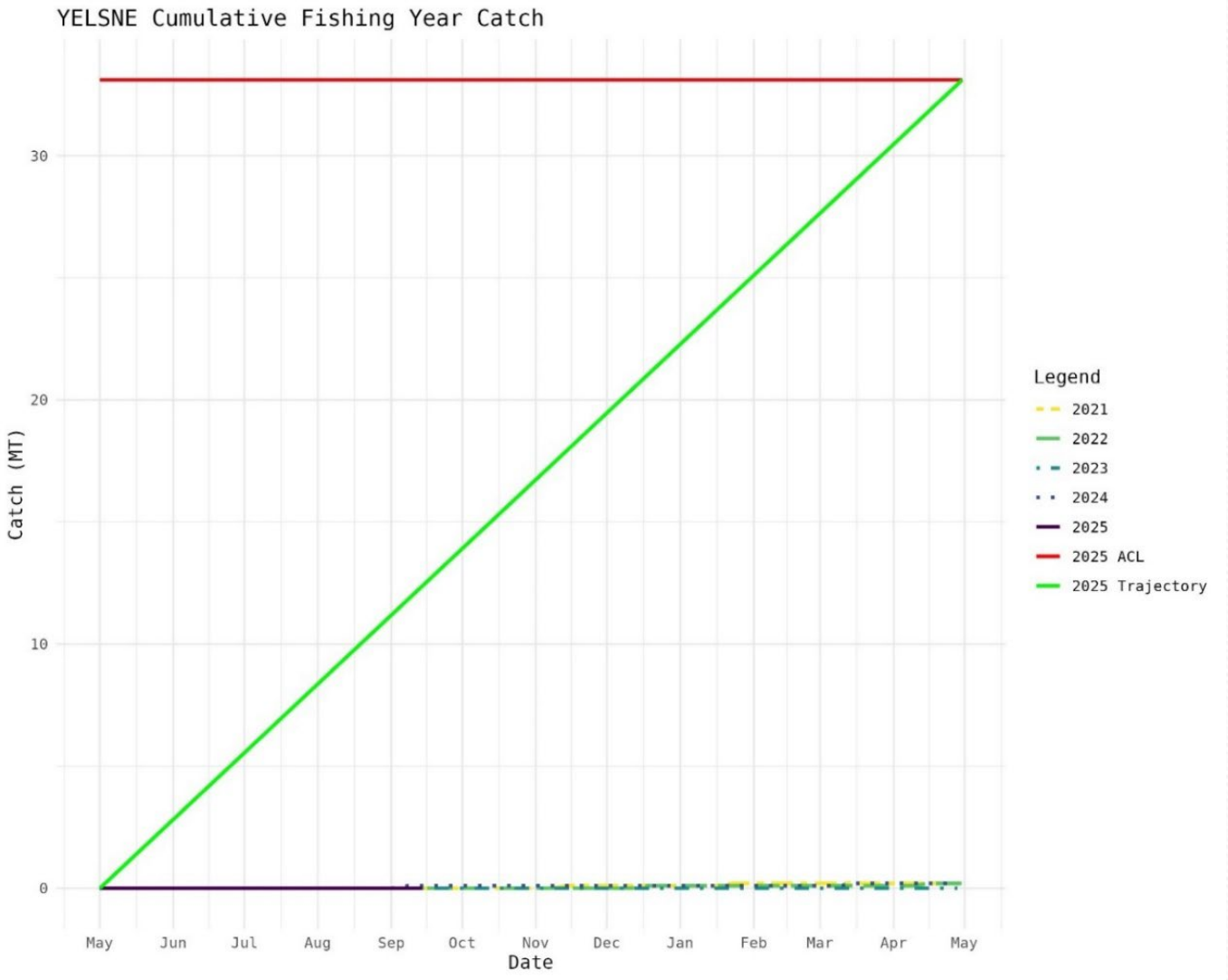
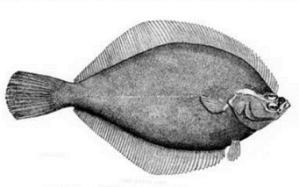
Commercial Groundfish Fishery In-Season Catch





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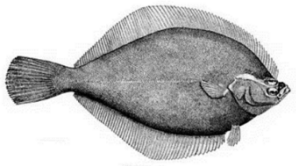
Quota Change Model Results - Sectors

	FY	Sector sub-ACL	Catch (mt)		*Utilization (%)*		Gross Rev ($mil, 2024)	
			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

Inter-sector ACE lease prices have been $0



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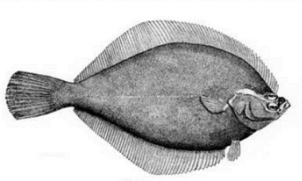
Scallop Fishery Sub-ACL

- 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-FY2025.
- In FY2023, the scallop fishery caught 79% of its sub-ACL (2.1 mt out of 2.7 mt).
- 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.



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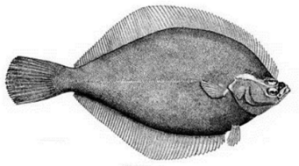
Catch Projections

70% F_{MSY}

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



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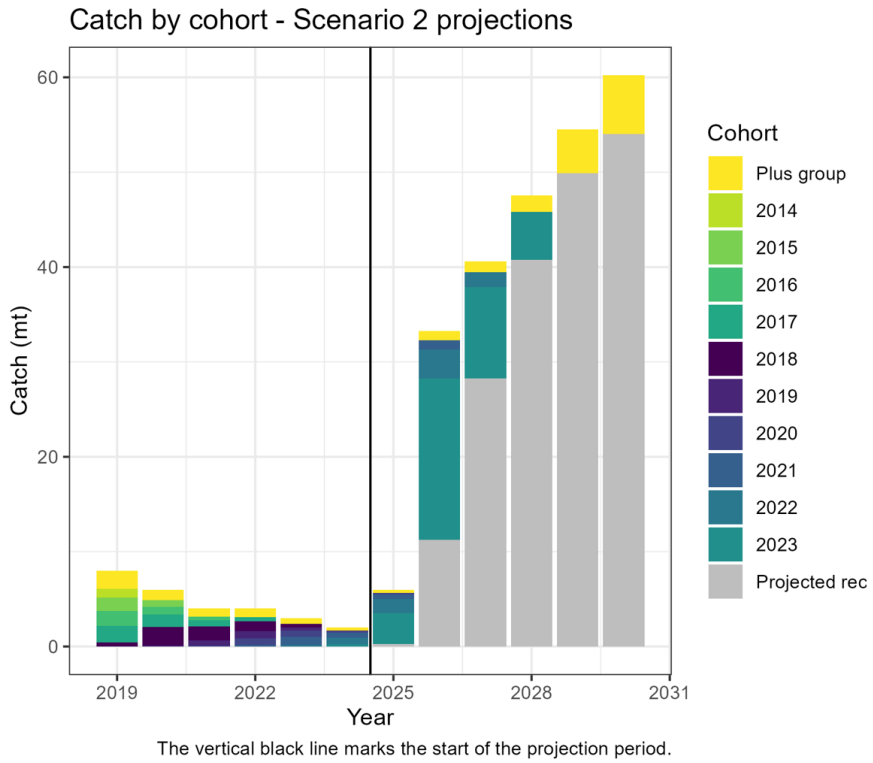
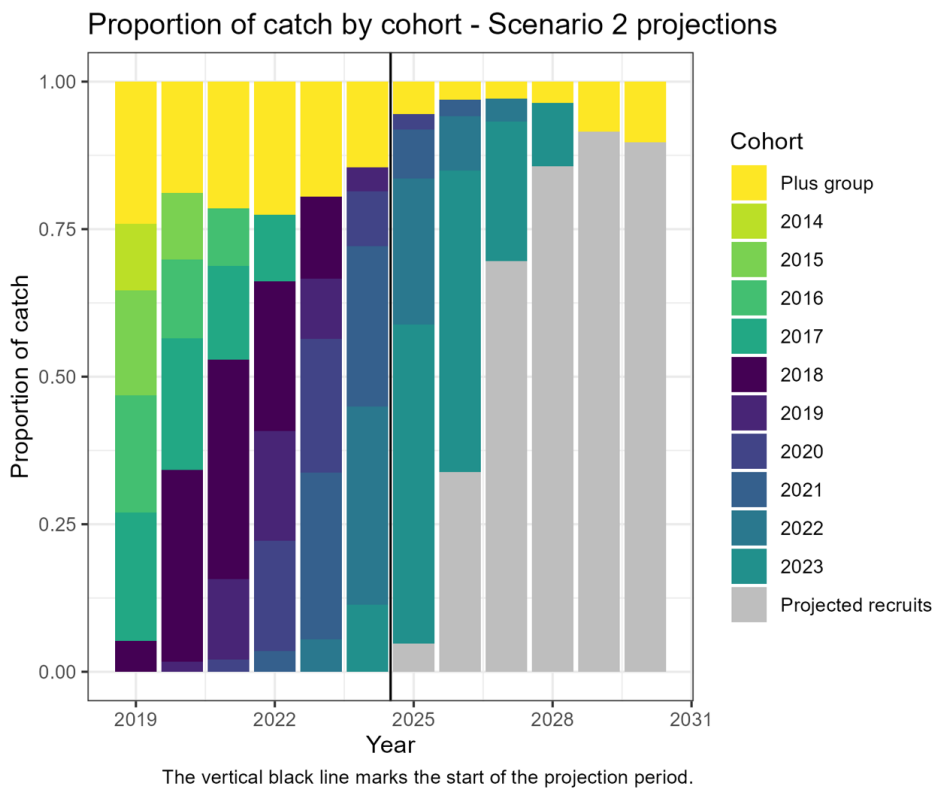
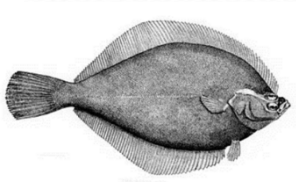
Projected Cohorts





Source: NEFSC

By 2027-2028 greater than 50% of projected catch is from projected recruits

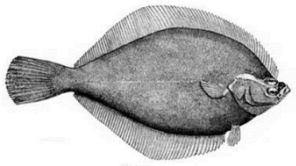


New England Fishery Management Council

Catch Projections

FY2028 constant 70% F_{MSY} sensitivity

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



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