

Groundfish PDT Report

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Scientific and Statistical Committee

Webinar

January 21, 2026



New England
Fishery Management Council

TERMS OF REFERENCE

A. Consider the results of the most recent stock assessment for white hake and information provided by the Council's Groundfish Plan Development Team. Reconsider prior SSC recommendations for FY 2026-2030 OFL and ABC for white hake based on 75% F_{MSY} , considering the Council's groundfish ABC control rule, Risk Policy, and white hake rebuilding plan.

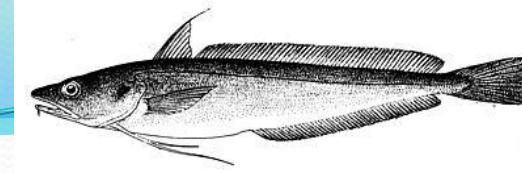
Council's Groundfish Control Rule

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.

White Hake 2025 Management Track Assessment

White Hake



MODEL	ASAP, Level 3
STOCK STATUS	Not Overfished, Overfishing is not occurring
REBUILDING	2031 (70% F_{MSY} Frebuild)
RETROSPECTIVE ADJUSTMENT	No
UNCERTAINTIES	<ul style="list-style-type: none">- 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	<ul style="list-style-type: none">- Added bottom longline survey (BLSS) spring and fall indices- Re-aged catch using a combined NEFSC bottom trawl survey (BTS) and BLSS ALK for 2014–2024

White Hake OFLs & ABCs for FY2026 - FY2030

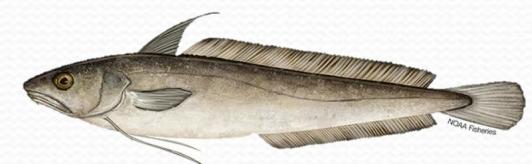
Background: SSC Recommendations in Oct

- Recommended that the catch advice for FY 2026-2030 be based on model projections approved during the SAW56 benchmark assessment.
- Used control rule option B (70% FMSY) because still in a rebuilding plan.
- Rebuilding seems to have stalled in recent years.
- Utilization by the fishery is high, and it can be a constraining stock.
- Assessed stock status and condition do not well match industry perceptions.
- Moderate uncertainty in the projections, but not sufficient biological nor socioeconomic justification to hold any out-years constant.
- Continued concern about the lack of recent white hake recruitment.

Background: SSC Recommendations in Oct

- White hake life history and fishing practices predisposes them to less severe “paper fish” issues, but by 2028, 25% of projected white hake SSB is from projected recruits.
- Not obvious that holding out-years constant would have increased biological risk or alleviated socioeconomic hardship

Fishing Year	OFL (mt)	ABC (mt)
2026	1,943	1,393
2027	1,760	1,261
2028	1,640	1,174
2029	1,618	1,157
2030	1,698	1,215



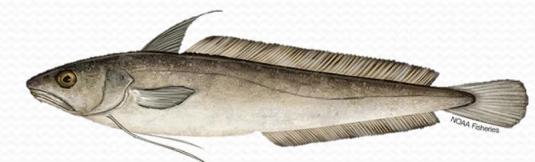
Groundfish Committee – 11/18/2025

GF Committee tasked the PDT to produce the following information in time for the December Council meeting:

1. Provide OFL/ABC projections associated with F(MSY)75% for FY2026-2030, and provide updated rebuilding projections comparing 70% F(MSY) and 75% F(MSY) under both the long-term (1963-2022) and more-recent recruitment timeframes (1995-2022).
2. Include draft specifications based on projections at 75% F(MSY) for FY2026-2030.

Stock Status and Rebuilding Plan

- Not overfished and overfishing is not occurring, based on the 2025 assessment
- In a rebuilding plan: Frebuild of 70% F_{MSY} , end date of 2031
 - Developed in Framework 61
 - At that time, indicated to have an 87.4% probability of achieving B_{MSY} by rebuilding end date
- In 2023, the SSC concurred using 75% F_{MSY} for FYs 2024 and 2025 would not significantly increase the risk of meeting the rebuilding timeline relative to 70% F_{MSY} ; and
- Would slightly increase the economic and social benefits to the fishery in the short term with a low likelihood of negative consequences in the long term.



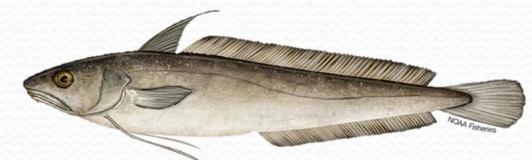
Need for a new Rebuilding Plan

- At its December 2025 meeting, the Council added a review of the white hake rebuilding plan and biological reference points (BRP) as a multiyear priority beginning in 2026 through the following motion:

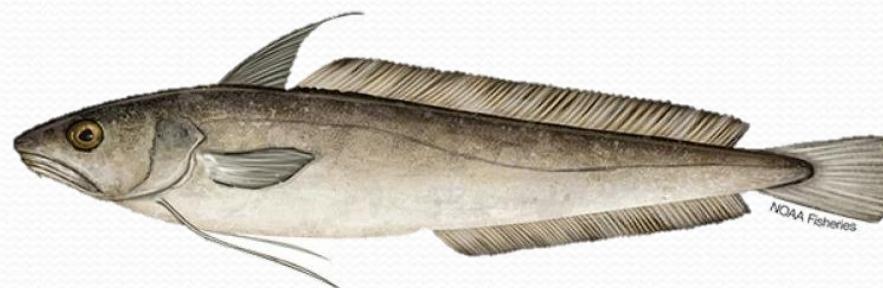
to amend the Council's 2026 priority work items for Groundfish by adding a review of white hake rebuilding plan and reference points as a multiyear priority.

Risk Policy

- In September 2024, the Council adopted a new Risk Policy Statement and Concept that became effective on January 1, 2025.
- The PDT has provided a Risk Policy Matrix for white hake.
 - The Council has several strategic initiatives underway to further support the application of the Risk Policy.
- The ABC Control Rules for the Northeast Multispecies Fishery Management Plan remain unchanged.
 - Council added a 2026 priority to resume work to revise the ABC control rules for northeast multispecies stocks.



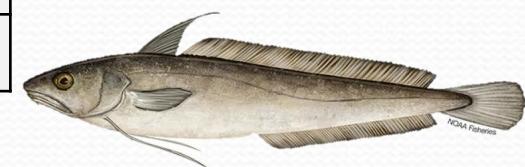
White Hake Projections



OFLs and ABCs Based on 75% F_{MSY}

- The PDT developed additional OFLs and ABCs associated with catch projections at 75% F_{MSY} for FY 2026-2030.
- Also projected spawning stock biomass (SSB) and fishing mortality (F) .
- Compared to 70% F_{MSY} , this results in an increase in ABC of 95 mt from 1,393 mt to 1,488 mt for FY 2026.

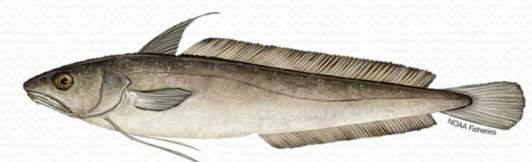
Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	*SSB (mt)
2026	1,943	1,488	0.132	12,267
2027	1,748	1,337	0.132	11,382
2028	1,617	1,236	0.132	11,026
2029	1,588	1,213	0.132	11,030
2030	1,662	1,270	0.132	11,412



OFLs and ABCs Based on 70% F_{MSY}

- Previously recommended by the SSC.

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	*SSB (mt)
2026	1,943	1,488	0.132	12,267
2027	1,748	1,337	0.132	11,382
2028	1,617	1,236	0.132	11,026
2029	1,588	1,213	0.132	11,030
2030	1,662	1,270	0.132	11,412

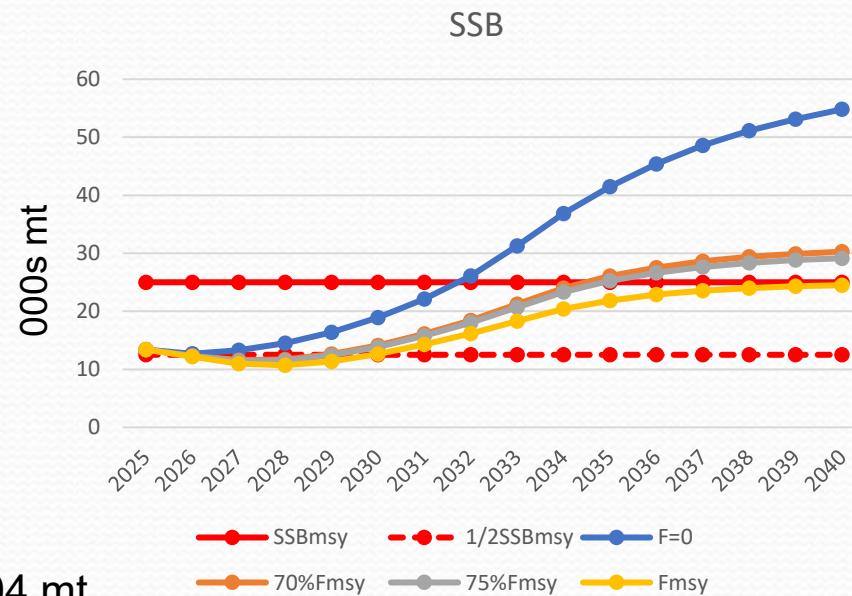


Updated Rebuilding Projections



- Projections at: $F=0$, $70\%F_{MSY}$, $75\%F_{MSY}$, F_{MSY}
- Long-term recruitment (1963-2022) BRP projections
 - Stock does not rebuild by 2031 under any option
 - Rebuilds by 2032 under $F=0$
 - $70\%F_{MSY}$ and $75\%F_{MSY}$ both rebuild by 2035

Long-term recruitment
used for biological
reference points (BRP)
rebuilding projections

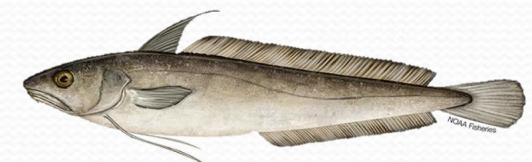


SSB values highlighted in yellow show the stock has rebuilt above B_{MSY} and SSB values highlighted blue show the stock is below $\frac{1}{2}B_{MSY}$ and in an overfished status.

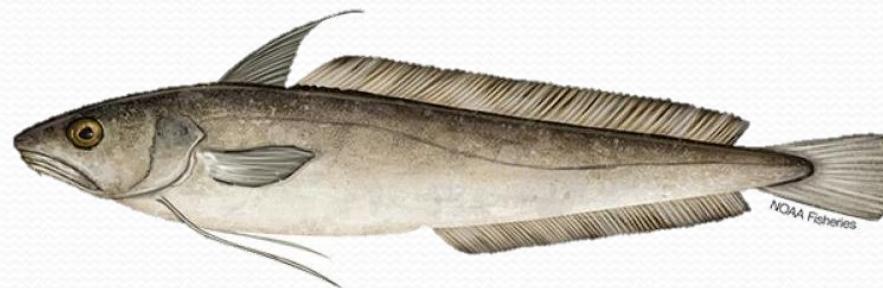
	SSB	$F=0$	$70\%F_{msy}$	$75\%F_{msy}$	F_{msy}
2025		13.385	13.385	13.385	13.385
2026		12.680	12.314	12.288	12.16
2027		13.298	11.602	11.488	10.947
2028		14.516	11.701	11.526	10.696
2029		16.396	12.632	12.402	11.364
2030		18.905	14.134	13.856	12.625
2031		22.085	16.101	15.769	14.284
2032	26.064	26.064	18.426	18.007	16.157
2033		31.251	21.234	20.693	18.324
2034		36.855	24.008	23.322	20.402
2035		41.473	26.063	25.264	21.835
2036		45.375	27.517	26.631	22.864
2037		48.563	28.621	27.654	23.561
2038		51.123	29.383	28.355	23.982
2039		53.096	29.909	28.831	24.315
2040		54.803	30.269	29.140	24.498

Precision of Rebuilding Projection

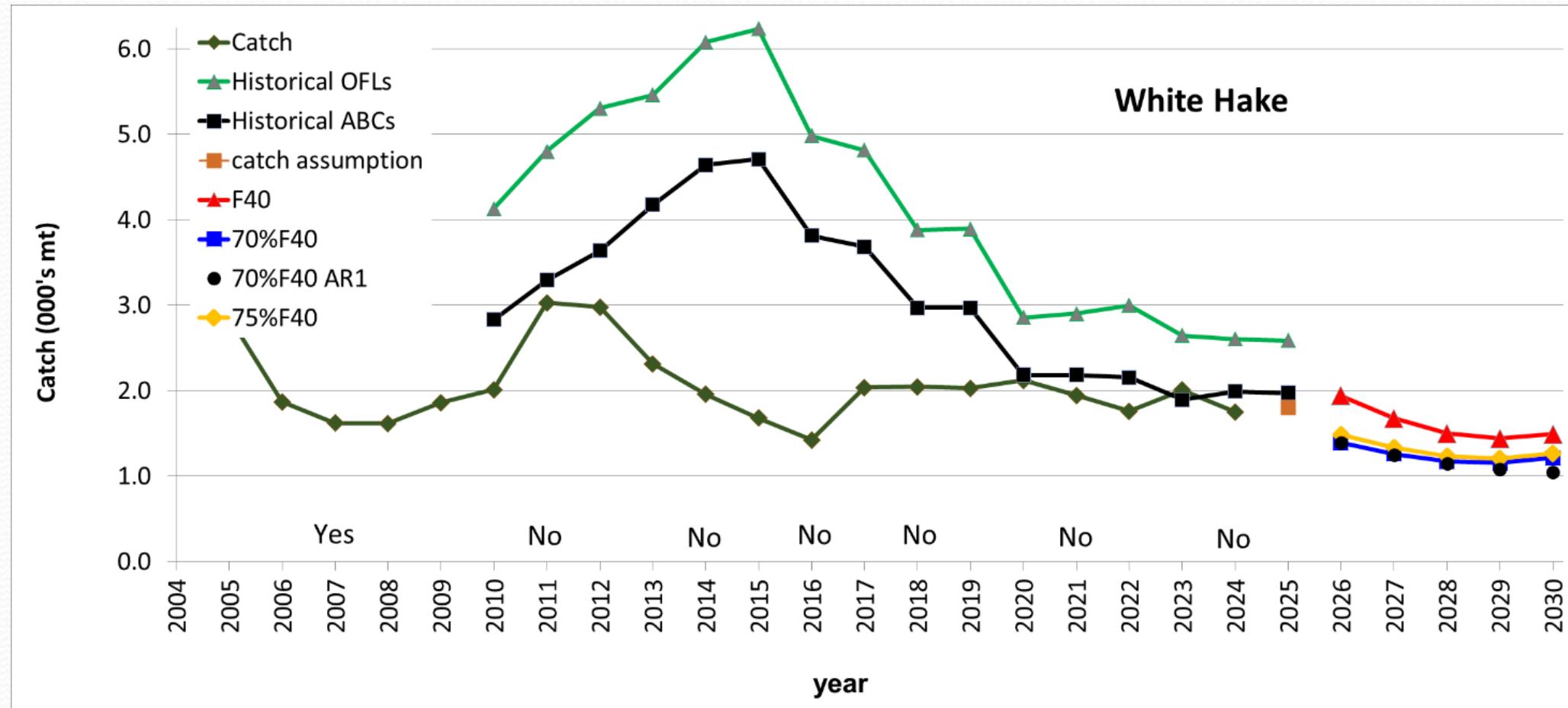
- The difference between setting the catch advice for white hake based on $75\%F_{MSY}$ or $70\%F_{MSY}$ is minimal, with negligible practical impact on predicted rebuilding outcomes.
- Current stock assessments lack the precision to reliably measure a difference in predicted outcomes from a 5% difference in fishing mortality.
- Such a minor difference in fishing mortality is unlikely to determine whether a stock successfully rebuilds.
- The projected effects on rebuilding are likely within the error of the assessment and therefore are not a reliable measure of biological effects.



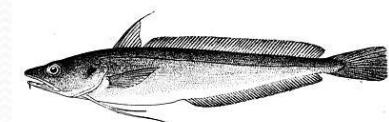
Additional Fishery Information



Catch Performance

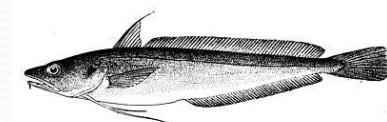


Overfishing status in the terminal year of the assessment indicated on the x-axis ("Yes" = overfishing, "No" = not overfishing).

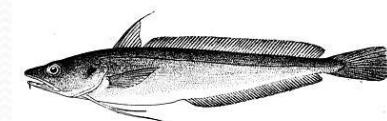
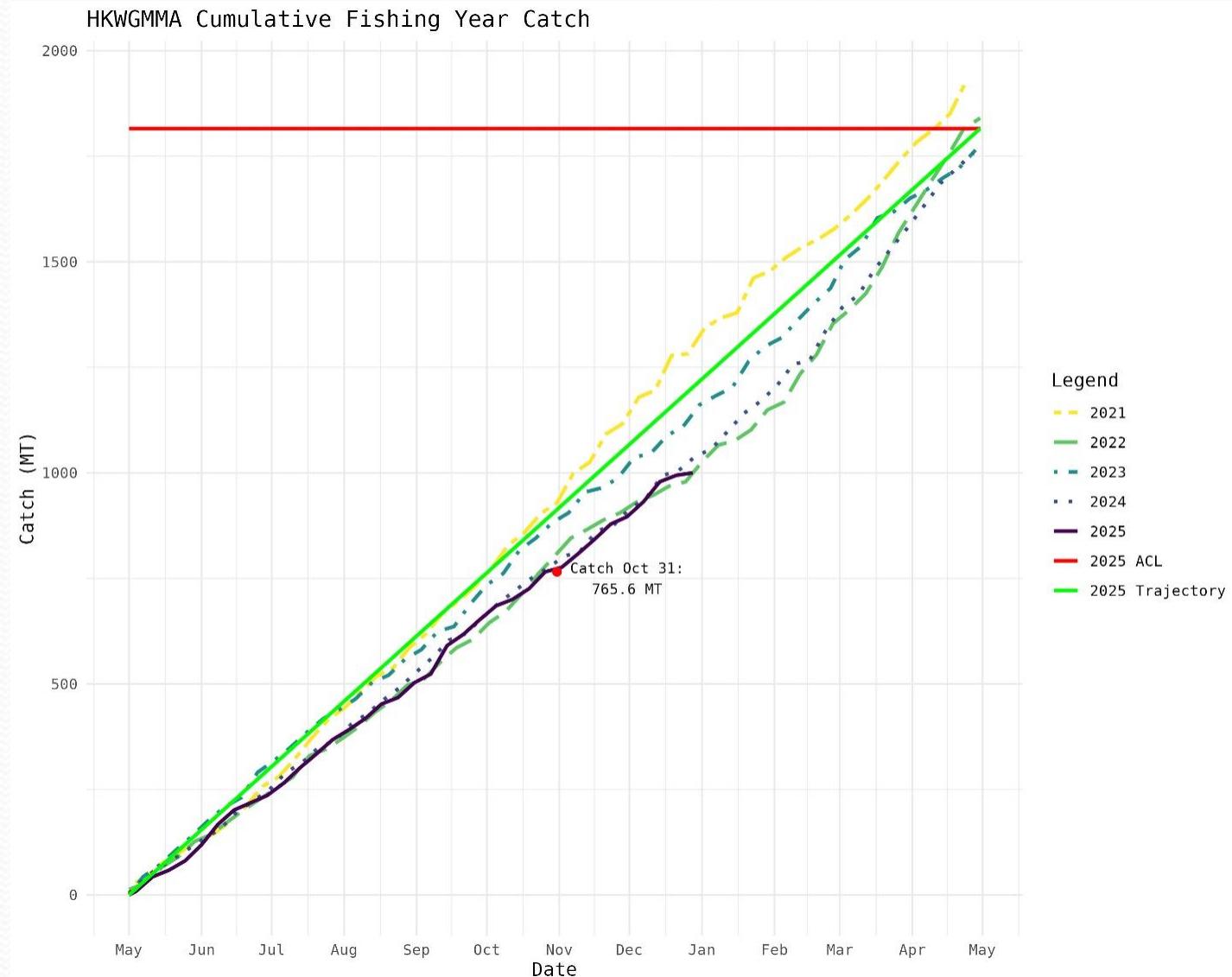


Catch Performance

Year	Catch	Historical OFLs	Historical ABCs	Catch Assumption	F40%	75%F40	F _{Rebuild} 70%F40
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	1,488	1,393
2027					1,677	1,337	1,261
2028					1,502	1,236	1,174
2029					1,443	1,213	1,157
2030					1,493	1,270	1,215



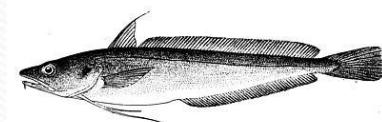
Commercial Groundfish Fishery In-Season Catch



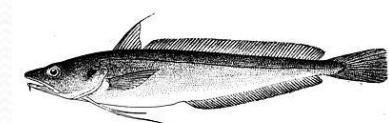
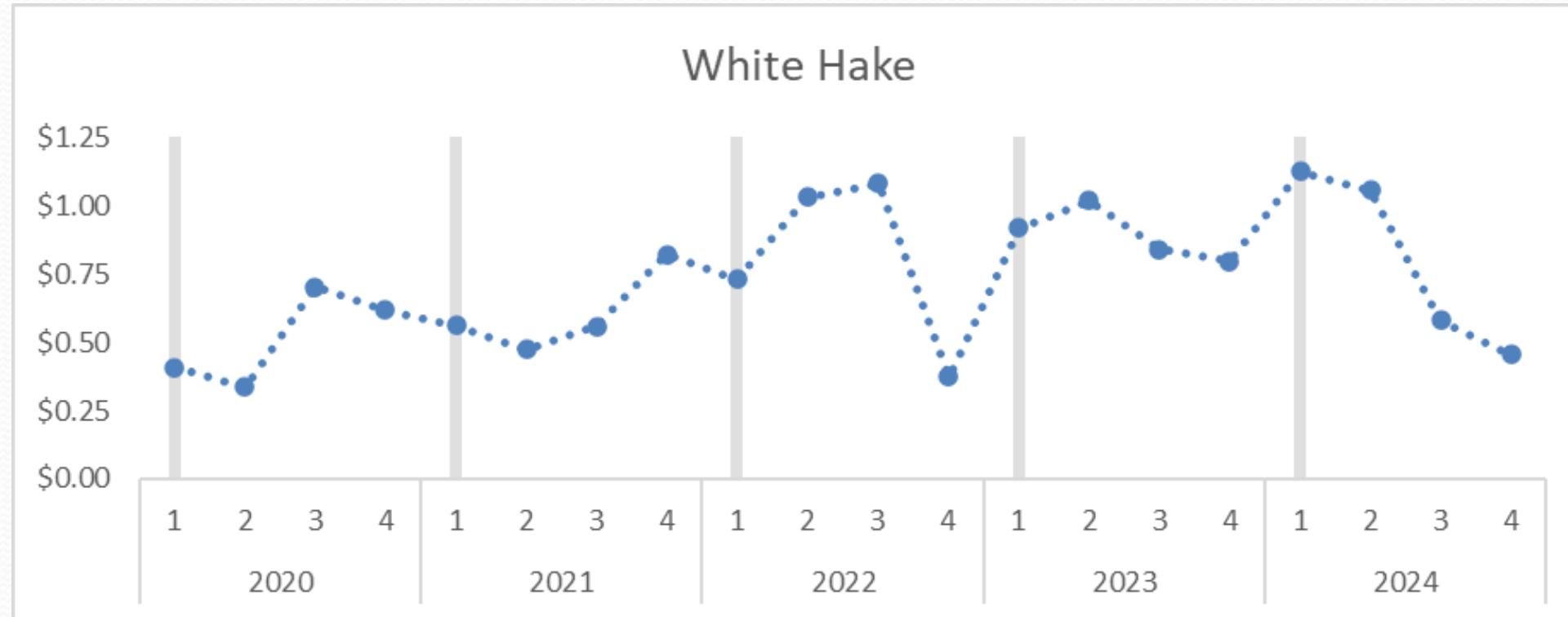
Quota Change Model Results - Sectors

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



Inter-Sector ACE Lease Prices - Sectors



Updated Sector Economic Impacts

Quota Change Model Predictions for FY2026

- When evaluating a higher white hake sector sub-ACL using FY2024 as the reference period, the extra 93.4mt, resulting from using 75% F_{MSY} rather than 70% F_{MSY} , had little impact on fishery predictions.
- However, thus far in FY2025, cod catch rates have been far below recent years.
- QCM was re-run incorporating a more recent reference period of November 1, 2024 – October 31, 2025.
- This change in eligible trips reduced predicted FY2026 catch for cod stocks:
 - Western Gulf of Maine cod utilization falling to 90.8%; and Georges Bank cod utilization falling to 54.4%.
- As a result, increasing the white hake ABC increases fishery-wide revenue 4.9% and catch 4.8%.
- Translates to \$40.5M in groundfish revenues for FY2026.
 - From a variety of groundfish stocks, including white hake (+6.1%), Georges Bank haddock (+5.1%), and pollock (+4.5%).

Catch Projections



75% F_{MSY}

Fishing Year	Possible OFL (mt)	Possible ABC (mt)	F	SSB (mt)
2026	1,943	1,488	0.132	12,267
2027	1,748	1,337	0.132	11,382
2028	1,617	1,236	0.132	11,026
2029	1,588	1,213	0.132	11,030
2030	1,662	1,270	0.132	11,412

95 mt ABC
increase
for FY2026

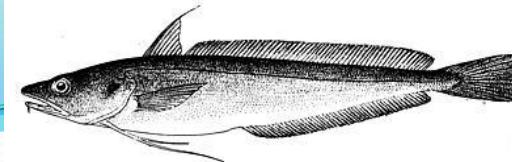
70% F_{MSY}

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

Extra Slides



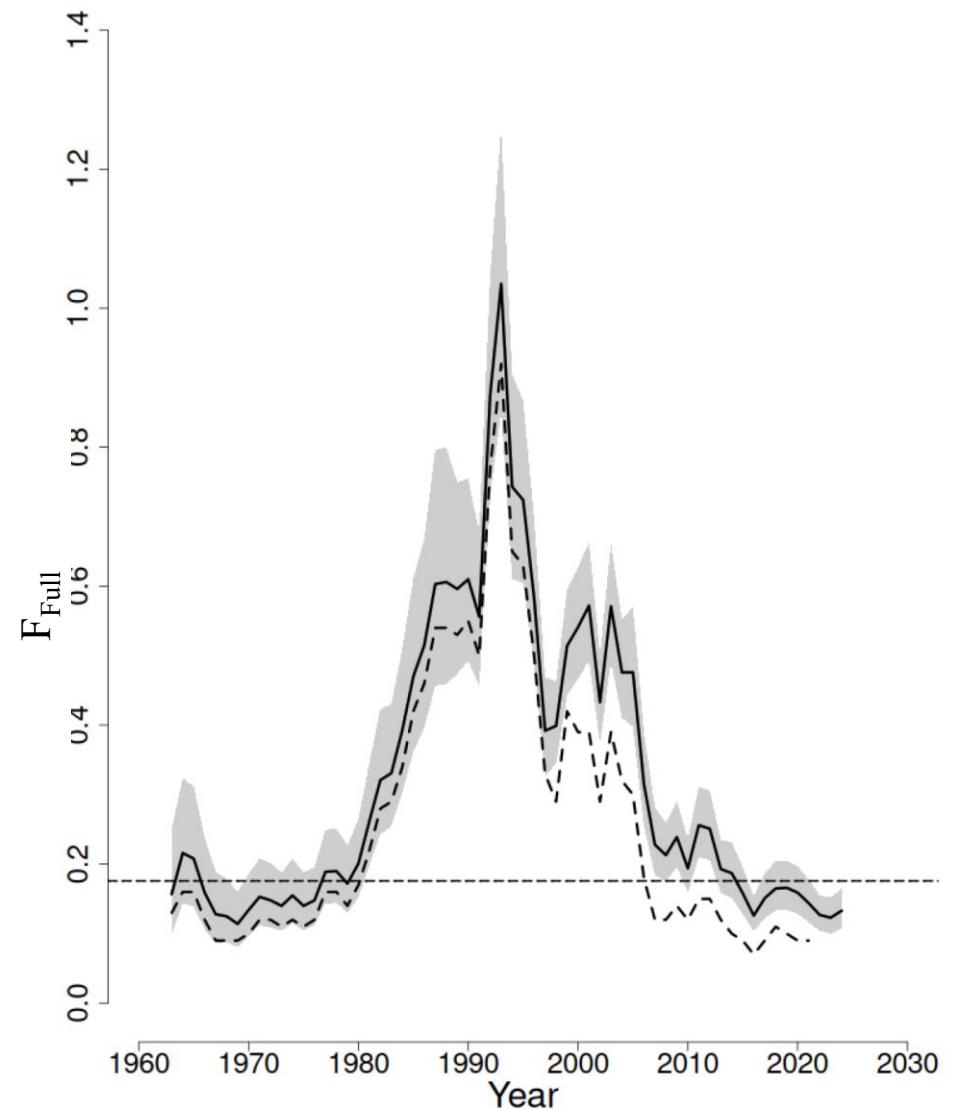
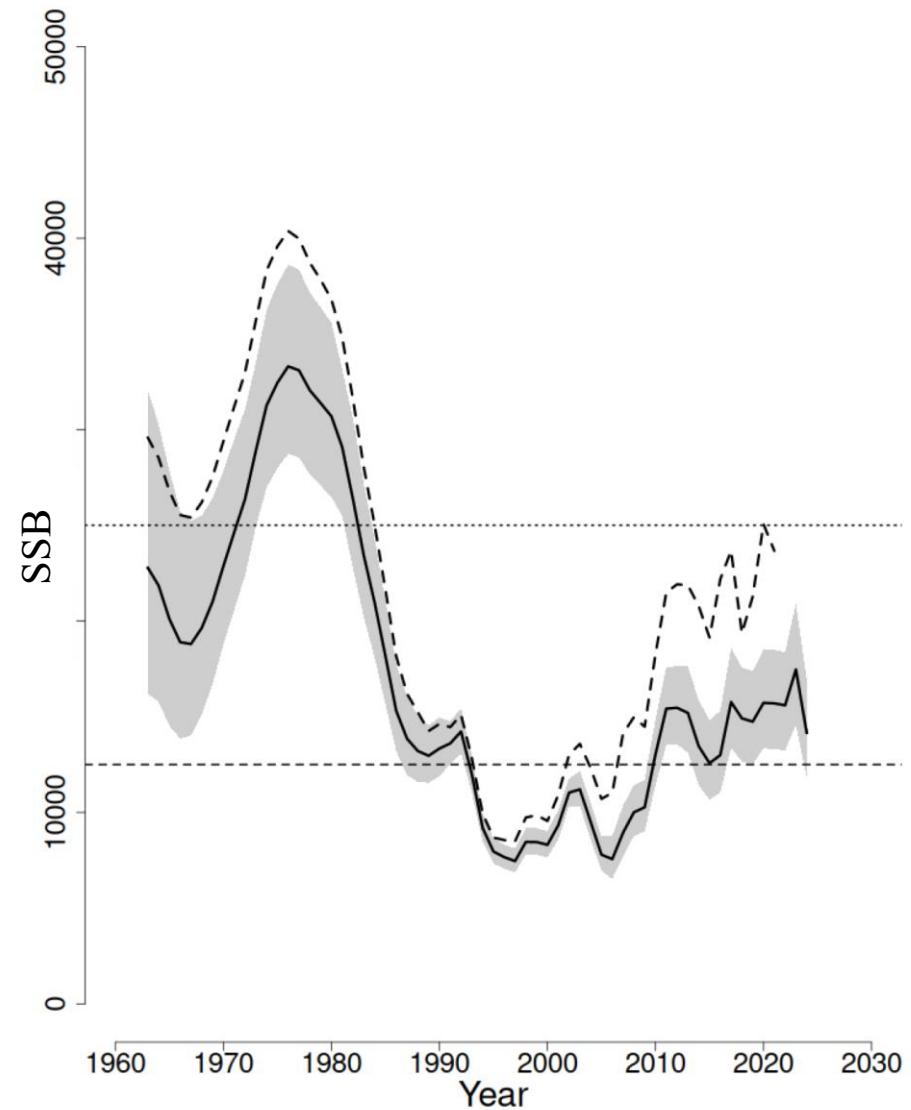
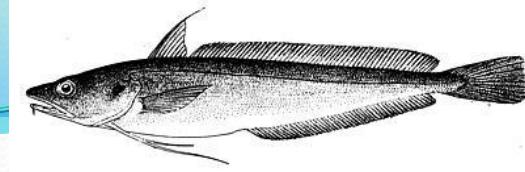
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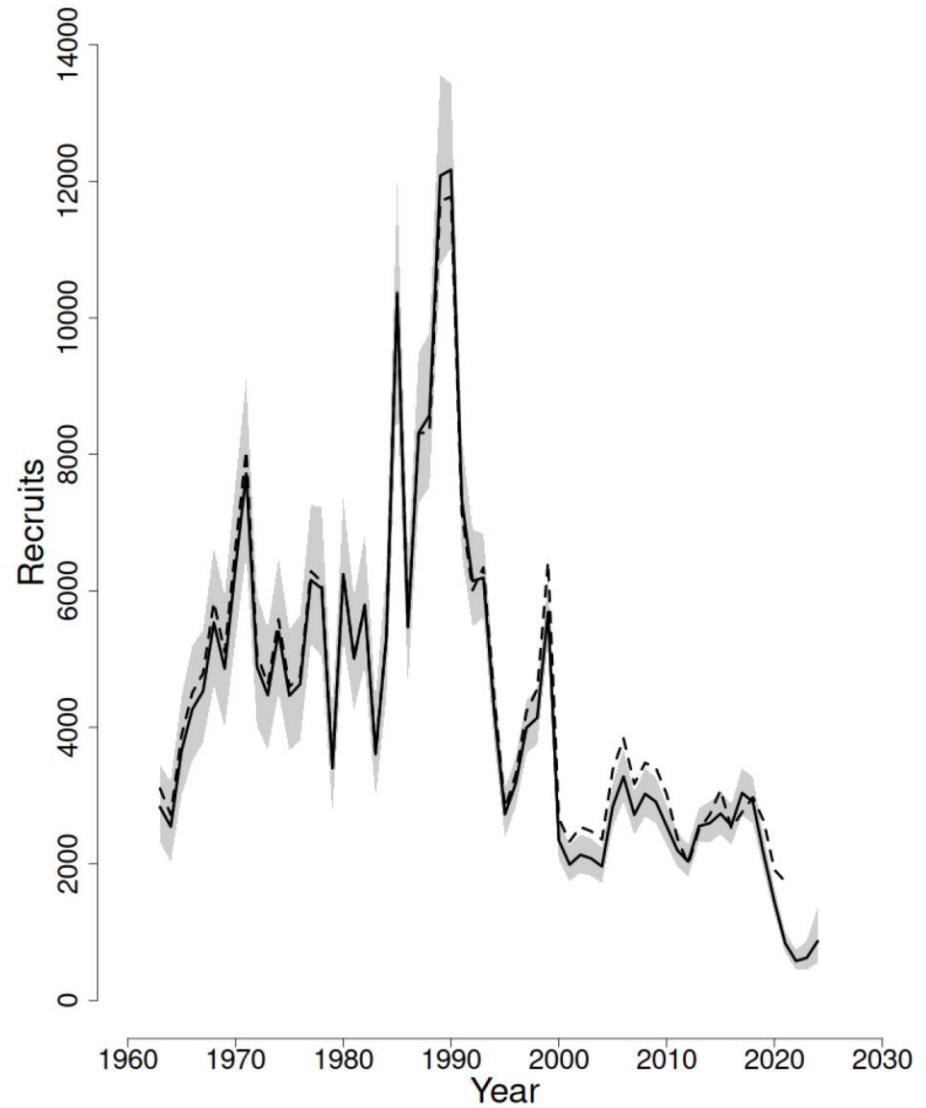
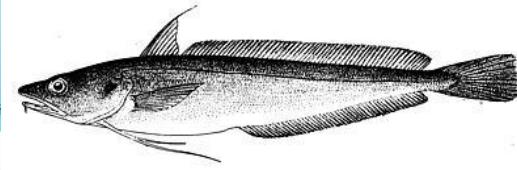
White Hake

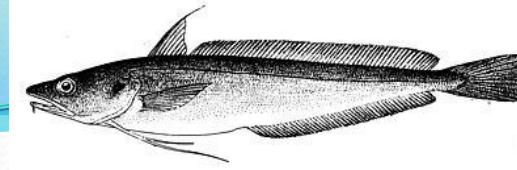
	2022	2025
F_{MSY} proxy	0.161	0.176
SSB_{MSY} (mt)	28,191	25,004 (19,125 - 32,611)
MSY (mt)	4,186	3,818 (2,892 - 5,021)
Median recruits (age 1) (000s)	4,232	3,633
<i>Overfishing</i>	No	No
<i>Overfished</i>	No	No

White Hake

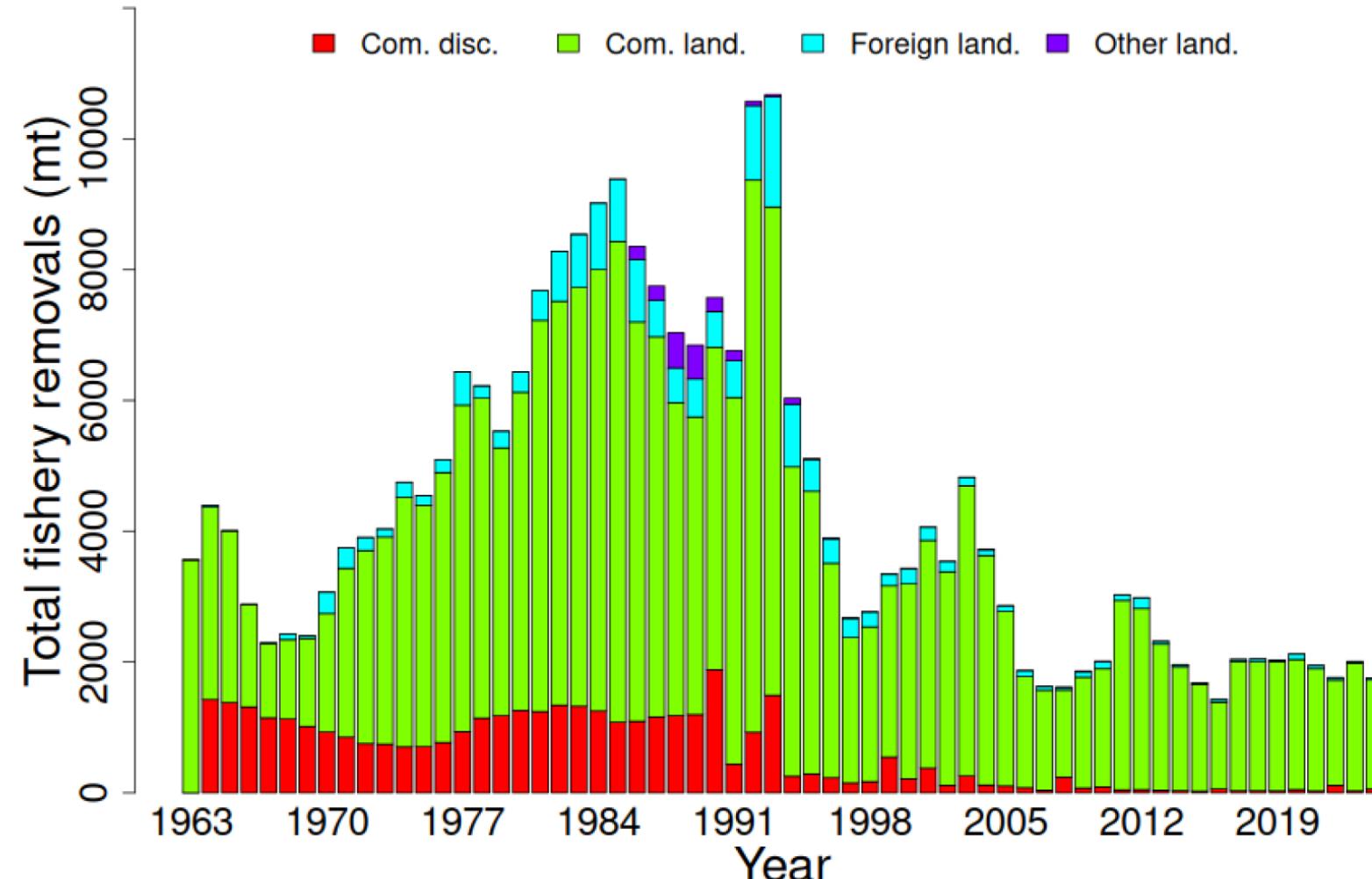


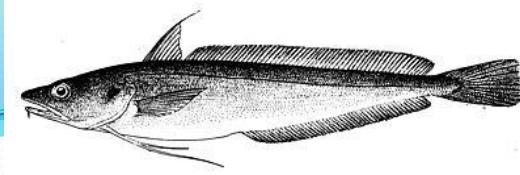
White Hake



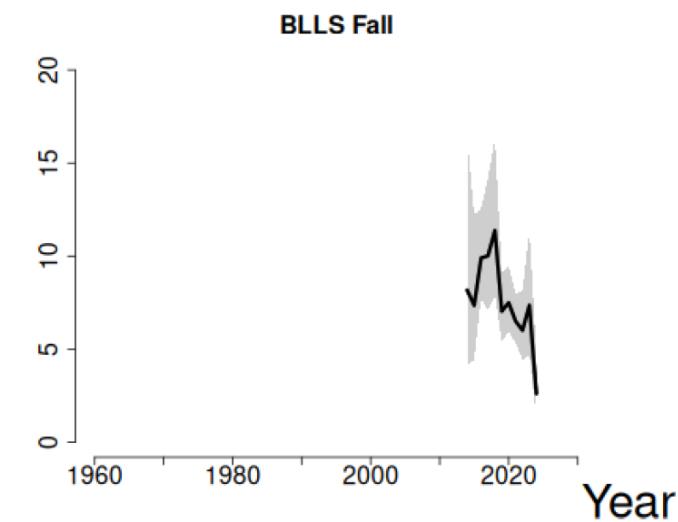
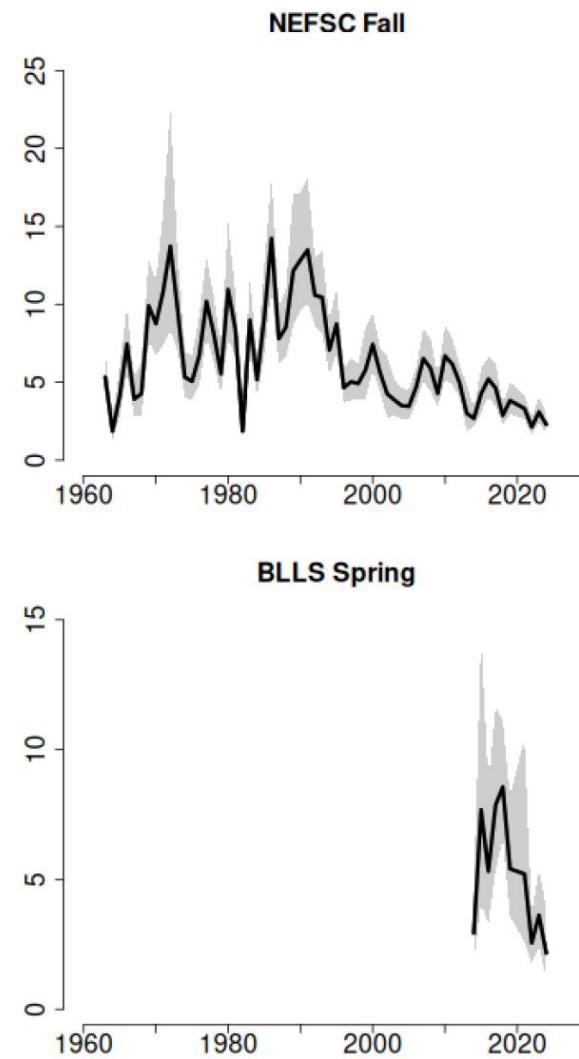
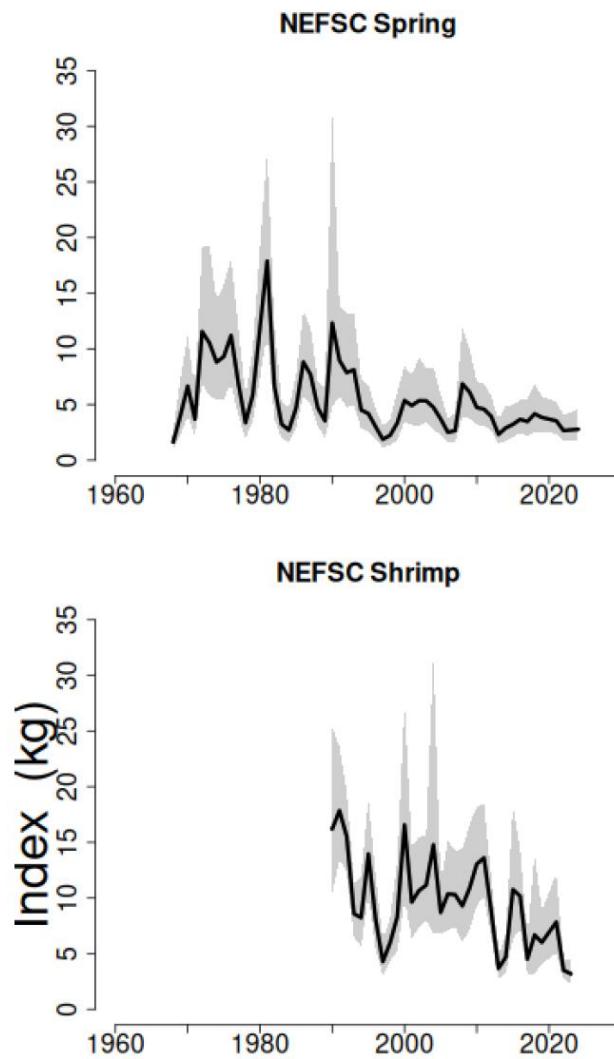


White Hake





White Hake



Missing 2020 spring and fall
and 2023 spring BTS

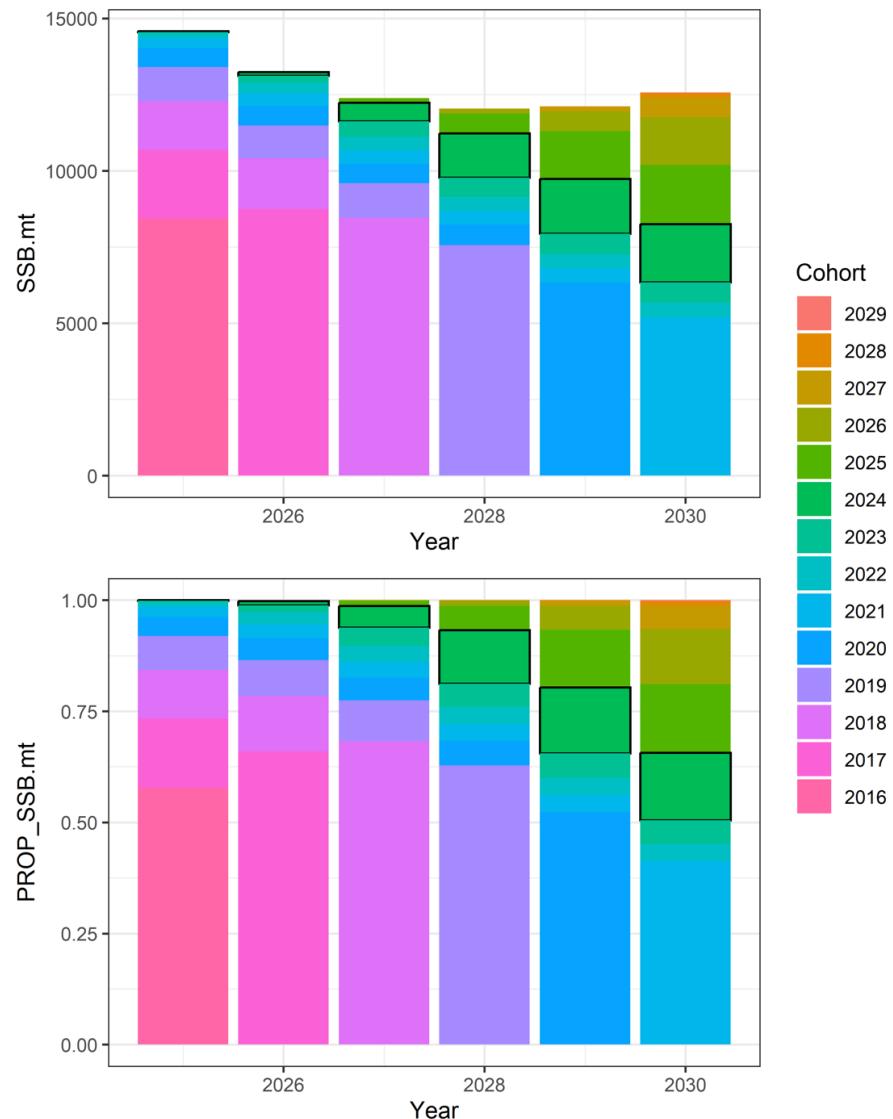
Missing 2020 ASMFC shrimp

Missing 2020 BLSS spring

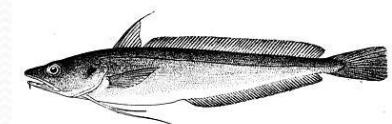
Projection Uncertainty

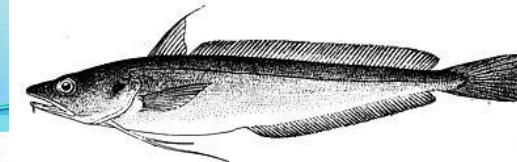
- The PDT provides OFLs and ABCs resulting from following the control rule for the five years in the projections (FY2026-2030).
- The PDT notes past work which demonstrated projections beyond two to three years are not reliable (Brooks and Legault 2016, Wiedenmann and Jensen 2017) and refers to supplemental 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.

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)





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

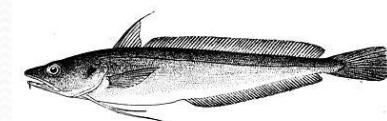
Alternative Approach:

- 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 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

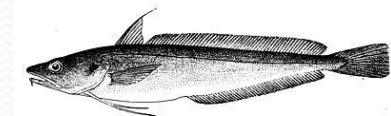


Catch Projections

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



75%F_{MSY} Draft Specifications



Stock	FY	OFL	US ABC	State-Waters Sub-Component	Other sub-component	Scallops	Groundfish Sub-ACL	Comm. Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Groundfish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
White Hake 75%F_{MSY}	2026	1,943	1,457	0	7.3		1,377	1,377.3		1,361.4	15.9		1,385
	2027	1,748	1,306	0	6.5		1,234	1,234.5		1,220.3	14.2		1,241
	2028	1,617	1,205	0	6.0		1,139	1,139		1,125.9	13.1		1,145
	2029	1,588	1,182	0	5.9		1,117	1,117.3		1,104.4	12.9		1,123
	2030	1,662	1,239	0	6.2		1,171	1,171.2		1,157.7	13.5		1,177
White Hake 70%F_{MSY}	2026	1,943	1,362	0	6.8		1,287	1,287.4		1,272.6	14.8		1,294
	2027	1,760	1,230	0	6.2		1,163	1,162.7		1,149.3	13.4		1,169
	2028	1,640	1,143	0	5.7		1,081	1,080.5		1,068	12.5		1,086
	2029	1,618	1,126	0	5.6		1,064	1,064.4		1,052.1	12.3		1,070
	2030	1,698	1,184	0	5.9		1,119	1,119.2		1,106.3	12.9		1,125

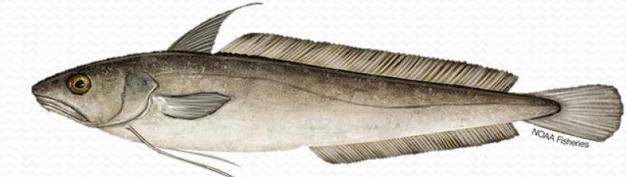
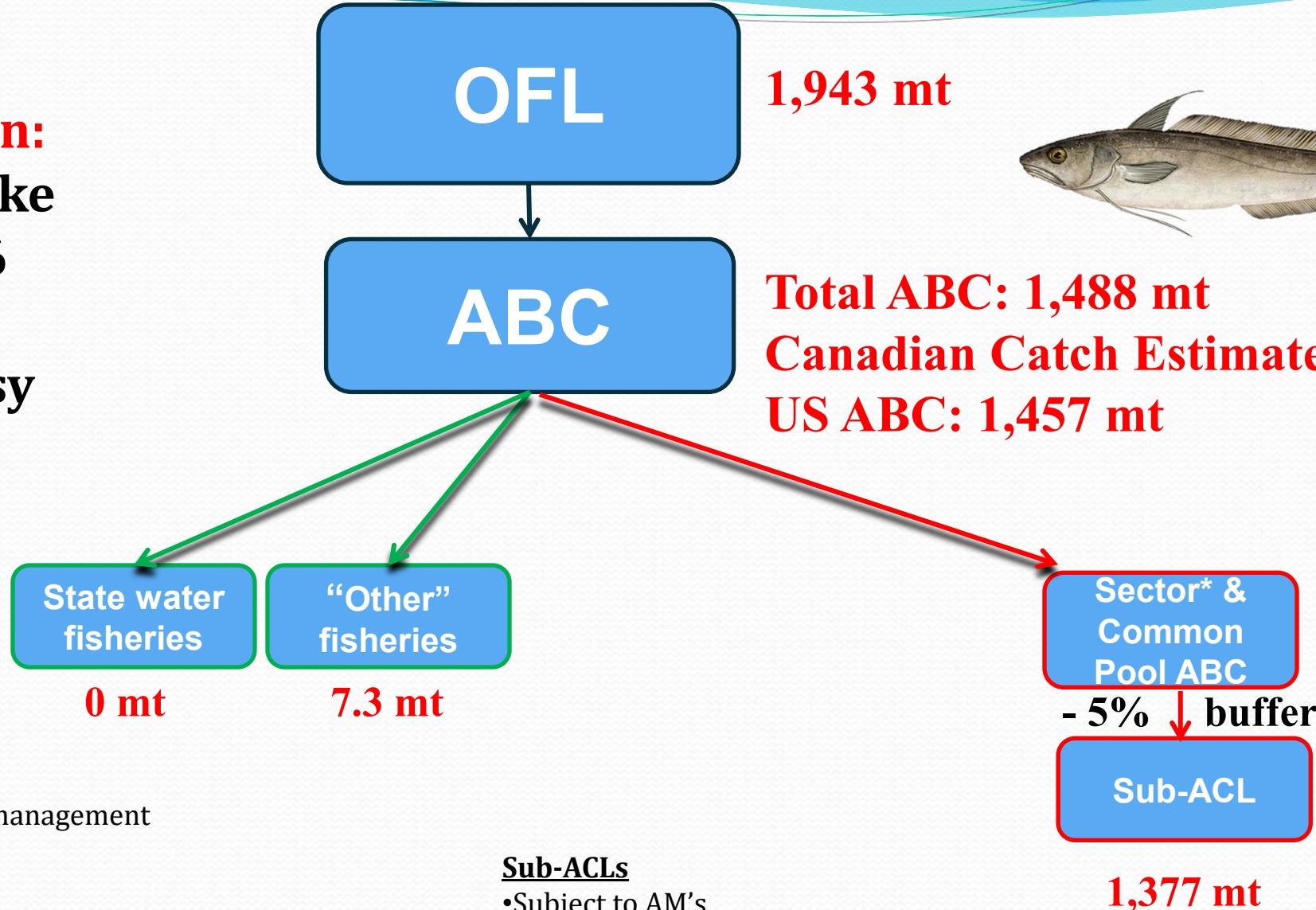
75%F_{MSY}
90 mt increase
in commercial
groundfish sub-
ACL for FY2026

**DRAFT
Allocation:
White Hake
FY2026**

75%Fmsy

Subcomponents

- Expected catches
- No AM's
- No adjustment for management uncertainty

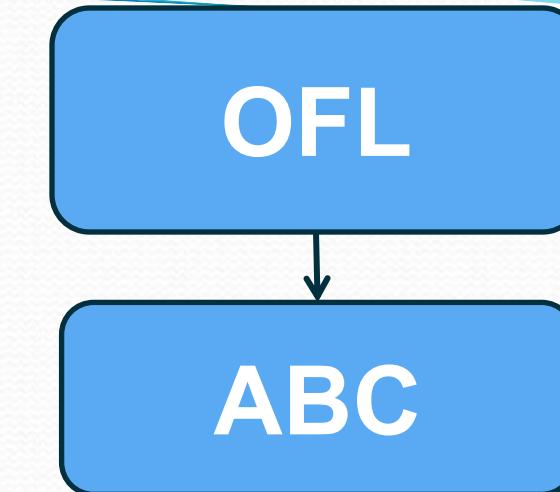


**DRAFT
Allocation:
White Hake
FY2026**

70%Fmsy

Subcomponents

- Expected catches
- No AM's
- No adjustment for management uncertainty



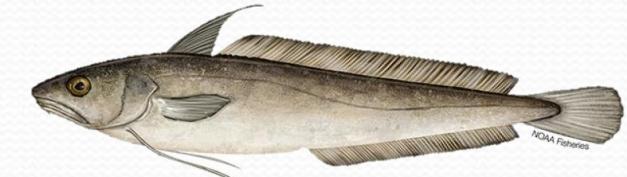
State water fisheries

0 mt

“Other” fisheries

6.8 mt

1,943 mt



Total ABC: 1,393 mt
Canadian Catch Estimate: 31 mt
US ABC: 1,362 mt

“Sector* & Common Pool ABC”
- 5% ↓ buffer

Sub-ACL

1,287 mt

Sub-ACLs

- Subject to AM's
- Management uncertainty adjustment

*Sector buffer set to 0 if ASM target coverage 90% or more

Draft economic impacts – Quota Change Model Results – Sectors

Reference period:
FY2024

Stock	Sub-ACL (mt)	Predicted Catch (mt)	Predicted Utilization
White Hake (70%Fmsy)	1,340	1,330	99.3%
Redfish	5,567	5,380	96.6%
WGOM Cod	294	283	96.3%
GB Cod	134	121	90.3%

**Most constraining stocks predicted in FY2026
(sector sub-ACL percent utilization)**

Draft economic impacts – Quota Change Model Results – Sectors

Reference period:
FY2024

Option	Groundfish Gross Revenues	Total Gross Revenues	Operating Cost	Sector Cost	Quota Cost	Operating Profit	Days Absent
FY2026 (Alt. 2 w/o MUBs*; white hake 70% Fmsy	38.6	55.1	12.6	1.1	6.9	34.6	7,869

*Sector management uncertainty buffer (MUB) would be removed for all groundfish stocks other than SNE cod, assuming an ASM target rate of 100% for FY2026