

Framework Adjustment 72
to the
Northeast Multispecies Fishery Management Plan

Appendix III
Risk Policy Matrices for Northeast Multispecies Stocks

Fisheries of the Northeast Multispecies Fishery Management Plan

Created: November 20, 2025

EXECUTIVE SUMMARY

Commercial and recreational fisheries are experiencing a declining trend across performance and participation metrics.

COMMERCIAL FISHERY CHARACTERIZATION

Fishery trends Overall declining trend

Management uncertainty in the fishery

The default management uncertainty buffer of 5% is applied to allocated stocks in the commercial groundfish fishery, unless otherwise stated in the following risk policy matrices.

Commercial fishing communities

The top 5 ports based on the Groundfish-Specific Commercial Engagement Indicator (2004-2023) are Gloucester, MA; New Bedford, MA; Boston, MA; Narragansett, RI; and Portland, ME.

Dealer Activity between 2019-2023

The number of registered dealers buying allocated groundfish: Decreased to 46 dealers

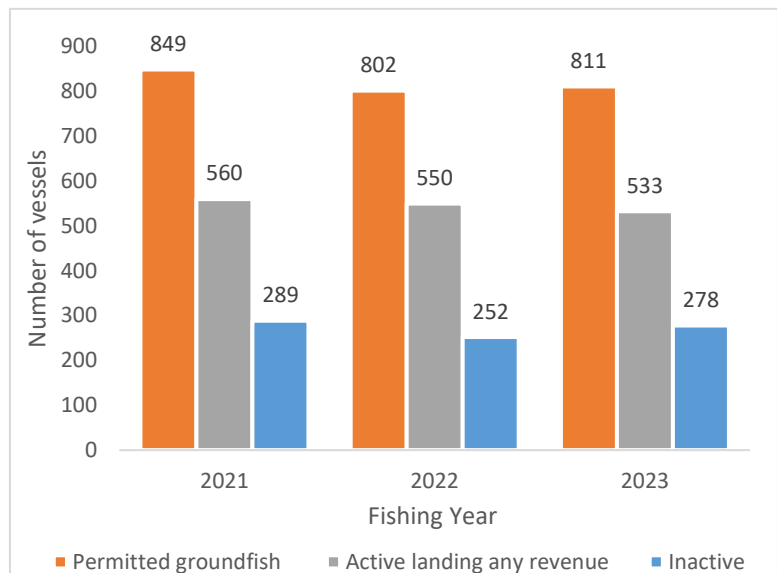
The number of dealers buying any species on groundfish trips: Decreased to 79 dealers

Reliance on other species quota

The groundfish fishery on a whole relies on quota within the multispecies complex.

Fishing Year	Total groundfish landings (mil lbs.)	Groundfish revenue (\$ mil)	Average groundfish ex-vessel prices (\$/lb)
2021	36.88	\$ 56.13	\$ 1.38
2022	33.26	\$ 46.14	\$ 1.34
2023	32.53	\$ 41.60	\$ 1.28

Pounds and revenue reflect total landings (landed lbs.) on groundfish trips in millions of pounds and dollars, respectively.
Ex-vessel prices are averaged across all observations of landed fish (dressed and whole).
Source: Human Communities section in Groundfish Framework 69.



Source: Human Communities section in Groundfish Framework 69.

RECREATIONAL FISHERY CHARACTERIZATION

Fishery trends Overall declining trend

Management uncertainty in the fishery

The default management uncertainty buffer of 7% is applied to stocks with a recreational component in the groundfish fishery, unless otherwise stated in the following risk policy matrices.

Recreational fishing communities

Most of the top communities are in the Mid-Atlantic region, except for Narragansett/Point Judith, RI. Recreational fishermen in these communities are unlikely to rely on Northeast Multispecies.



SPECIES IN THIS PACKET

Acadian redfish 3
Atlantic Wolffish 5
Ocean Pout 8
White hake 10
GB winter flounder 12
GOM winter flounder 14
SNE winter flounder 16
CC/GOM yellowtail flounder 18
SNE/MA yellowtail flounder 20

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **Acadian Redfish**

Factor	Supporting Information	
Stock Status and Uncertainty		
Biomass Stock Status	The stock is not overfished.	
	Overfishing is not occurring.	
	The stock is not in a rebuilding plan.	
	Retrospective adjusted 2024 SSB: 188,005 mt (143% of SSBMSY proxy = 131,411 mt)	
Recruitment	Recruits (000s) in the most recent three years of the 2025 assessment: 7,392 in 2022; 3,175 in 2023; and 23,683 in 2024	
	Beginning of recruitment time series: 1963	
	Recruitment model was changed to a mean recruitment model with autoregressive random effects, which improved model parsimony but did not change the model's estimation results.	
	The initial numbers-at-age model (NAA) included age-specific fixed effects.	
	Assessment start date was changed from 1913 to 1963 to resolve model estimation issues of age-1 recruitment in earlier years.	
	An ASAP-like WHAM state-space model, analytical assessment	
Assessment Type and Uncertainty	Terminal year: 2024	
	Retrospective pattern is considered major and due to tight confidence intervals produced by the model rather than to high Mohn's rho values for SSB and fully selected F. Adjustments were used for stock status determination but not for short term projections due to the inability to make adjustments within WHAM.	
	<u>Data used in the 2025 assessment:</u> - NEFSC spring and fall bottom trawl survey	
	<u>Missing data in the 2025 assessment:</u> - The 2020 spring and fall survey indices - The 2023 spring survey was treated as missing due to lack of sampling in 10 of the 11 survey strata included in the index.	
	<u>Sources of uncertainty in the 2025 assessment:</u> - The fall survey is the only source of age data thereby requiring mean weight-at-age, maturity, and fishery selectivity to be held constant over time, and ignoring potential cohort driven growth variation, and density-dependending shifts in reproduction. - Both previous ASAP models and the new WHAM model have model fitting issues to the declining indices from the fall and spring surveys. - Higher projected SSB from previous assessments compared to estimated SSB for the same years in the 2025 assessment due to the retrospective pattern.	
	Climate and Ecosystem	
	Climate Vulnerability	Moderate climate vulnerability: high climate exposure + moderate biological sensitivity
		Negative directional effect of climate change
Fish Condition	5 prey categories: gadidae which includes cod, haddock, whiting, and pollock; krill; silver hake; and 3 families of shrimp	
Fish Condition	Acadian redfish was reported to have a neutral fish condition in the 2025 SOE report and based on the most frequent condition sampled and reported over the past three years in the Gulf of Maine and Georges Bank.	

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **Acadian Redfish**

Factor	Supporting Information
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for Redfish (2023\$): \$6.2 million in FY2021; \$6.0 million in FY2022; \$5.7 million in FY2023; \$6.8 million 5-year average
	Ex-vessel price/lb of Redfish (2023\$/lb): \$0.65/lb in FY2021; \$0.72/lb in FY2022; \$0.68/lb in FY2023; \$0.66/lb 5-year average
	Total catch of Redfish (GARFO Catch Accounting): 4,356.6 mt in FY2021; 3,858.4 mt in FY2022; 3,942 mt in FY2023
	Commercial groundfish fishery catch of Redfish (GARFO Catch Accounting): 4,353 mt in FY2021; 3,858.1 mt in FY2022; 3,925.3 mt in FY2023
Recreational Fishery Characterization	There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for Redfish.
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for redfish are not associated with prices greater than \$0.00.
	There is a redfish sector exemption program in place that allows use of smaller mesh to target redfish in certain areas.
Additional Information	
Reference Points	FMSY proxy: 0.037 (0.036 - 0.039)
	SSBMSY: 131,411 mt (120,997 mt - 142,722 mt)
	MSY: 4,965 mt (4,569 mt - 5,396 mt)
OFLs	10,982 mt in FY2025
AMs	Inseason closures and lb-lb for commercial groundfish fishery
Harvest Control Rule	75%FMSY in FY2025
	Commercial groundfish fishery FY2023 ACL utilization: 41.5%
ABCs	8,273 mt in FY2025
Significant source of catch outside the directed federal fishery?	<i>No significant catch outside the groundfish fishery.</i>



2025 Risk Policy Matrix for the Groundfish FMP

Stock: **Atlantic Wolffish**

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	Stock is overfished (2022 MTA)
	Overfishing is not occurring (2022 MTA)
Recruitment	Rebuilding target: Undefined
	2021 SSB: 690 mt (46% of SSBMSY proxy = 1,509 mt; 2022 MTA)
Recruitment	Recruits (millions) in the most recent three years of the 2022 assessment: 274 in 2019; 274 in 2020; and 274 in 2022
	Beginning of recruitment time series: 1968
Recruitment	In the 2022 assessment, recruitment showed an increase at the end of the time series towards the initial estimate. Though, there was no information in the model nor indication in the data that recruitment had increased. Additionally, the lack of information to inform recruitment at the end of the times series, makes projections for this stock challenging and uncertain as they tend to revert back to the mean.
	The 2025 data update for Atlantic wolffish does not include updated estimates of recruits.
Assessment Type and Uncertainty	SCALE model, empirical assessment
	Terminal year: 2021
	<u>Data used in the 2022 assessment:</u> - U.S. Commercial landings and discards; - U.S. Recreational landings; - NEFSC fall and spring bottom trawl survey; and - MADMF spring bottom trawl survey. NEFSC bottom long line survey indices from 2014 through 2021 were supplementally included for the 2022 assessment report for information purposes but were not included in the SCALE model.
	<u>Missing data in the 2022 assessment:</u> - NEFSC 2020 fall and spring bottom trawl survey; - NEFSC spring adult index in 2004-2006, 2008, 2011 due to zero catch
	<u>Data updated in the 2025 data update:</u> - U.S. Commercial landings and discards by calendar year through 2024; - NEFSC fall survey indices through 2024 and spring survey indices through 2025 in terms of stratified mean indices at length (cm) and in biomass (kg/tow)
	<u>Additional missing data in the 2025 data update:</u> NEFSC 2023 spring survey treated as missing due to incomplete survey effort
	<u>The 2022 assessment had retrospective patterns:</u> - SSB Mohn's rho: 0.18 - F Mohn's rho: -0.10
	However, confidence intervals were not available with the SCALE model; therefore an adjustment was not made.



2025 Risk Policy Matrix for the Groundfish FMP

Stock: **Atlantic Wolffish**

Factor	Supporting Information
Stock Status and Uncertainty	
Assessment Type and Uncertainty	<p><u>Sources of uncertainty in the 2022 assessment:</u></p> <ul style="list-style-type: none"> - Assessment uses ocean pout calibration coefficients because coefficients for wolffish are unknown; - The no possession limit places greater importance on discard mortality; - Whether the lack of recruitment index since 2005 is due to a decrease in recruitment or a change in catchability due to a change to the Bigelow gear liner mesh size; and - A data update was provided in lieu of a stock assessment in 2025.
Climate and Ecosystem	
Climate Vulnerability	High climate vulnerability: high climate exposure + high biological sensitivity
	Negative directional effect of climate change
	Atlantic wolffish is not currently included in the Prey Analysis shiny app and thus there is no prey data to present.
Fish Condition	Atlantic wolffish was reported to have neutral fish condition in FY2021 according to the 2025 SOE report. There is missing data in FY2022 and FY2023.
Economic and Community Importance	
Commercial Fishery Characterization	Atlantic wolffish is a non-allocated stock and possession is not permitted. There is not a commercial fishery for this stock, and thus there is no commercial groundfish revenue or ex-vessel price data available.
	Total catch of Atlantic wolffish (GARFO Catch Accounting): 1.8 mt in FY2021; 1.1 mt in FY2022; 1.6 mt in FY2023
	Commercial groundfish fishery catch of Atlantic wolffish (GARFO Catch Accounting): 1.7 mt in FY2021; 1.1 mt in FY2022; 1.5 mt in FY2023
	A management uncertainty buffer of 7% was applied to the commercial groundfish fishery for Atlantic wolffish in FY2025, which is the default buffer for non-allocated stocks.
Recreational Fishery Characterization	Atlantic wolffish is a non-allocated stock and possession is not permitted. There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for this stock.
Other Economic/Social Considerations	<i>No other considerations to present.</i>
Additional Information	
Reference Points	FMSY proxy (2022 MTA): 0.192
	SSBMSY (2022 MTA): 1,509 mt
	MSY (2022 MTA): 211 mt
OFLs	124 mt in FY2025
AMs	If ACL and buffer for an unallocated stock is exceeded, groundfish vessels (common pool & sector) are subject to an area closure/ gear restriction in a future year.
Harvest Control Rule	75%FMSY was held constant for FY2023 - FY2025
	Commercial groundfish fishery FY2023 ACL utilization: 2%
ABCs	93 mt in in FY2025



2025 Risk Policy Matrix for the Groundfish FMP

Stock: Atlantic Wolffish

Factor	Supporting Information
Significant source of catch outside the directed federal fishery?	<i>No significant catch outside the groundfish fishery.</i>

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **Ocean Pout**

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	The stock is overfished (2022 MTA).
	Overfishing is not occurring (2022 MTA).
Recruitment	Rebuilding target: 2029
	2021 Biomass proxy: 0.263 kg/tow (5% of SSBMSY proxy = 4.94 kg/tow)
Assessment Type and Uncertainty	Assessment does not account for recruitment due to its empirical nature
	Exploitation ratio, empirical assessment
	Terminal year: 2021
	Exploitation ratio does not allow estimation of a retrospective pattern (2022 MTA)
	<u>Data used in the 2022 assessment:</u> - U.S. Commercial landings and discards; - Other fleet landings; - NEFSC spring bottom trawl survey
	<u>Missing data in the 2022 assessment:</u> - 2020 NEFSC spring survey year was treated as missing
	<u>Data updated in the 2025 data update:</u> - U.S. Commercial landings and discards through calendar year 2024; - NEFSC spring bottom trawl survey through 2025 in terms of stratified mean indices at length (cm) and in biomass (kg/tow)
	<u>Additional missing data in the 2025 data update:</u> - NEFSC 2023 spring survey treated as missing due to incomplete survey effort
	<u>Sources of uncertainty in the 2022 assessment:</u> - In spite of the no possession limit, stock size has not responded to low levels of catch. - Additional assessment uncertainty will occur as only a data update has been provided for the stock in 2025 in lieu of a formal assessment.
Climate and Ecosystem	
Climate Vulnerability	High climate vulnerability: high climate exposure + high biological sensitivity
	Negative directional effect of climate change 13 prey categories of marine invertebrates such as sea stars, brittle stars, sea urchins, snails, mollusks, crabs, scallops, and marine worms
Fish Condition	Ocean pout on average is in good fish condition according to the 2025 SOE reports and based on the most frequent condition over the past three years of data between the mid-Atlantic, Gulf of Maine, and Georges Bank.
Economic and Community Importance	
Commercial Fishery Characterization	Ocean pout is a non-allocated stock and possession is not permitted. There is not a commercial fishery for this stock, and thus there is no commercial groundfish revenue or ex-vessel price data available.
	Total catch of Ocean Pout (GARFO Catch Accounting): 44.9 mt in FY2021; 55.5 mt in FY2022; 41.9 mt in FY2023
	Commerical groundfish fishery catch of Ocean Pout (GARFO Catch Accounting): 24.6 mt in FY2021; 32.4 mt in FY2022; 33.7 mt in FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **Ocean Pout**

Factor	Supporting Information
Economic and Community Importance	
Commercial Fishery Characterization	A management uncertainty buffer of 7% was applied to the commercial groundfish fishery for ocean pout in FY2025, which is the default for non-allocated stocks.
Recreational Fishery Characterization	Ocean pout is a non-allocated stock and possession is not permitted. There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for this stock.
Other Economic/Social Considerations	<i>No other considerations to present.</i>
Additional Information	
Reference Points	FMSY proxy (2022 MTA): 0.76
	SSBMSY (2022 MTA): 4.94 kg/tow
	MSY (2022 MTA): 3,754 mt
OFLs	125 mt in FY2025
AMs	If ACL and buffer for an unallocated stock is exceeded, groundfish vessels (common pool & sector) are subject to an area closure/ gear restriction in a future year.
Harvest Control Rule	Option 4 of the GF ABC CR was used to set ACLs in FY2025.
	Commercial groundfish fishery FY2023 ACL utilization: 69%
	State fisheries FY2023 subcomponent utilization: 221%
ABCs	Other fisheries FY2023 subcomponent utilization: 21%
Significant source of catch outside the directed federal fishery?	87 mt in FY2025
	Scallop fishery catch of Ocean pout: 3.3 mt in FY2021, 4.1 mt in FY2022; 3.3 mt in FY2023
	Summer flounder fishery catch of Ocean pout: 0.4 mt in FY2021, 3.1 mt in FY2022; 0.5 mt in FY2023
	Squid fishery catch of Ocean pout: 13.6 mt in FY2021, 7.0 mt in FY2022; 1.5 mt in FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **White Hake**

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	The stock is not overfished.
	Overfishing is not occurring.
	Rebuilding target: 2031
	2024 SSB: 14,153 mt (57% of SSBMSY proxy = 25,004 mt)
Recruitment	Recruits (000s) in the most recent three years of the assessment: 577 in 2022; 623 in 2023; and 866 in 2024
	Beginning of recruitment time series: 1963
	Recruitment continues to show weak trends and no strong year classes to drive rebuilding. Thus, there is not a strong stock-recruitment relationship.
	Short term catch projections use a recruitment time series from 1995-2022.
Assessment Type and Uncertainty	ASAP model, analytical assessment
	Terminal year: 2024
	Retrospective pattern in the assessment is minor and no adjustments were made.
	<u>Data used in the 2025 assessment:</u> <ul style="list-style-type: none"> - U.S. Commercial landings and discards - Foreign and other landings - NEFSC spring and fall bottom trawl survey - ASFMC Shrimp survey - NEFSC spring and fall bottom longline survey
	<u>Missing data in the 2025 assessment:</u> <ul style="list-style-type: none"> - NEFSC 2020 fall and spring survey treated as missing; 2023 spring survey treated as missing due to daytime samples only - ASFMC 2020 shrimp survey treated as missing - NEFSC 2020 spring survey treated as missing
	<u>Sources of uncertainty in the 2025 assessment:</u> <ul style="list-style-type: none"> - Catch-at-age (CAA) information is not well characterized due to mis-identification in early years, low sampling of commercial landings, and sparse discard length data. Additionally reliance on age/length keys, requires augmentation for ages 5 and older. Better specification was achieved for 2015-2024 with the inclusion of the bottom longline survey. - Commercial CAA is not available prior to 1989; coupled with low survey catchability at older ages leads to high uncertainty in initial numbers at age. - Potential bias in age composition of landings due to culling of extra-large fish from the large market category. - Reliance on pooled age/length keys may add uncertainty to the representation of temporal and spatial variability in age-length relationships - Observed trends may reflect shifts in distribution due to migration shifts rather than changes in abundance. - Projections are not well determined due to evidence of lack of rebuilding as predicted from previous assessments. - An exploration of internal consistency between biological reference points and projections was conducted and considered in this assessment; however, this issue remains unresolved with further research recommendations.

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **White Hake**

Factor	Supporting Information
Climate and Ecosystem	
Climate Vulnerability	Moderate climate vulnerability: high climate exposure + moderate biological sensitivity
	Negative directional effect of climate change
	22 prey categories: species in the gadidae family which could include pollock; silver hake; Atlantic cod; Atlantic mackerel; haddock; atlantic hagfish; Acadian redfish; species in the hake family; Atlantic herring and other fish in the clupeidae family; four beard rockling fish; squid; and 6 families of marine crustaceans.
Fish Condition	White hake was reported to have poor fish condition in the 2025 SOE report and based on the most frequent condition sampled and reported over the past three years in the Gulf of Maine and Georges Bank.
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for White Hake (2023\$): \$6.2 million in FY2021; \$5.5 million in FY2022; \$4.8 million in FY2023; \$5.3 million 5-year average
	Ex-vessel price/lb for White Hake (2023\$/lb): \$1.98/lb in FY2021; \$1.82/lb in FY2022; \$1.68/lb in FY2023; \$1.72/lb 5-year average
	Total catch of White Hake (GARFO Catch Accounting): 1,941.6 mt in FY2021; 1,850.2 mt in FY2022; 1,765.9 mt in FY2023
	Commercial groundfish fishery catch of White Hake (GARFO Catch Accounting): 1,930.1 mt in FY2021; 1,843.4 mt in FY2022; 1,760.3 mt in FY2023
Recreational Fishery Characterization	There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for white hake.
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for white hake are not associated with prices greater than \$0.80.
	Utilization of white hake is high (over 90% in each of the most recent 3 years) and can be constraining to other groundfish stocks.
Additional Information	
Reference Points	FMSY proxy: 0.176
	SSBMSY: 25,004 mt (19,125 mt - 32,611 mt)
	MSY: 3,818 mt (2,892 mt - 5,021 mt)
OFLs	2,591 in FY2025
AMs	In-season closures and lb-lb for commercial groundfish fishery
Harvest Control Rule	Frebuild of 70% FMSY in FY2025
	Commercial groundfish fishery FY2023 ACL utilization: 96%
ABCs	1,921 mt in FY2025
Significant source of catch outside the directed federal fishery?	<i>No significant catch outside the groundfish fishery.</i>

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **GB Winter Flounder**

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	The stock is not overfished.
	Overfishing is not occurring.
	Rebuilding target: 2029 2024 SSB: 5,477 mt (106% of SSBMSY proxy = 5,182 mt)
Recruitment	Recruits (000s) in the most recent three years of the assessment: 8,045 in 2022; 7,265 in 2023; and 5,229 in 2024
	Beginning of recruitment time series: 1982
	Decoupled random effects on numbers-at-age: Age-1 NAA RE are correlated by year, and ages 2-7+ NAA RE are correlated by age and year
	Long term mean of recruitment was used in the short-term projections
Assessment Type and Uncertainty	WHAM state-space model, analytical assessment
	Terminal year: 2024
	There was not a major retrospective pattern for this assessment.
	<u>Data used in the 2025 assessment:</u> - U.S landings and discards - Canadian landings and discards - NEFSC fall and spring bottom trawl survey - DFO survey
	Landings at age values prior to 2003 were incorrectly scaled, and thus revised in the 2025 assessment leading to reduced scales in historical removals with minimal impact on stock status.
	<u>Missing data in the 2025 assessment:</u> - NEFSC 2020 fall and spring survey - NEFSC 2023 spring survey treated as missing due to only daylight hour samples - DFO 2022 survey treated as missing while waiting on the calibration study.
	<u>Sources of uncertainty in the 2025 assessment:</u> - Natural mortality, which is based on longevity, assumed constant over time, and is not well studied for the stock. - Canadian data, which does not include discards from the Canadian bottom trawl, size composition information from Canadian landings and discards, or calibration factors for the DFO survey in 2022, and uses uncertain discard estimates of the Canadian scallop dredge. - Inability to estimate catch at age in 2024 due to lack of demographic samples for commercial landings in 2022 and low samples since then.
	- New projection methodology, which makes projection performance uncertain and unable to be compared with past projections
Climate and Ecosystem	
Climate Vulnerability	Very high climate vulnerability: very high climate exposure + high biological sensitivity
	Negative directional effect of climate change
	Around 13 prey categories consisting mainly of marine invertebrates such as tunicates, scallops, cnidarians, sea cucumbers, sea anemone, coral, 3 families of crustaceans, marine worms, and 2 families of bivalves; as well as sand lances

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **GB Winter Flounder**

Factor	Supporting Information
Climate and Ecosystem	
Fish Condition	GB winter flounder was reported to have poor fish condition in 2023 by the 2025 SOE report.
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for GB winter flounder (2023\$): \$1.8 million in FY2021; \$0.8 million in FY2022; \$1.0 million in FY2023; \$1.5 million 5-year average
	Ex-vessel price/lb for GB winter flounder (2023\$/lb): \$3.10/lb in FY2021; \$2.38/lb in FY2022; \$2.13/lb in FY2023; \$2.75/lb 5-year average
	Total catch of GB winter flounder (GARFO Catch Accounting): 264.6 mt in FY2021; 207.8 mt in FY2022; 279.2 mt in FY2023
	Commerical groundfish fishery catch of GB winter flounder (GARFO Catch Accounting): 261 mt in FY2021; 147.7 mt in FY2022; 223.1 mt in FY2023
	A management uncertainty buffer of 3% was applied to the commercial groundfish fishery in FY2025.
Recreational Fishery Characterization	There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for GB Winter flounder.
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for GB Winter flounder are not associated with prices greater than \$0.02.
Additional Information	
Reference Points	FMSY proxy: 0.431
	SSBMSY: 5,182 mt (4,179 mt - 6,426 mt)
	MSY: 1,808 mt (1,455 mt - 2,247 mt)
OFLs	2,100 mt in FY2025
AMs	Inseason closures and lb-lb for commercial groundfish fishery
Harvest Control Rule	Rebuild of 70% FMSY in FY2025
	Commercial groundfish fishery FY2023 ACL utilization: 14%
ABCs	Other fisheries FY2023 subcomponents utilization: 330%
Significant source of catch outside the directed federal fishery?	Scallop fishery catch of GB Winter flounder: 2.0mt in FY2021, 59.7 mt in FY2022; 55.9 mt in FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **GOM Winter Flounder**

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	Stock biomass status is unknown.
	Overfishing is not occurring.
	Stock is not in a rebuilding plan.
	2024 biomass (30+ cm mt): 4,537 mt
Recruitment	Recruitment is not included in the empirical assessment.
Assessment Type and Uncertainty	Area-swept, empirical assessment
	Terminal year: 2024
	Retrospective pattern estimation and ultimately adjustments are not possible with the empirical nature of the assessment.
	<u>Data used in the 2025 assessment:</u> <ul style="list-style-type: none"> - U.S. recreational landings and discards - U.S. commercial landings and discards - NEFSC spring and fall bottom trawl survey - MADMF spring and fall survey - MENH spring and fall survey
	<u>Sources of uncertainty in the 2025 assessment:</u> <ul style="list-style-type: none"> - Survey gear catchability (q), to which biomass and exploitation rate estimates are sensitive. The estimate of efficiency for the NEFSC survey was reestimated resulting in slightly higher estimates of 30 + biomass. The state surveys have greater uncertainty due to a lack of sweep studies. - Biomass reference points cannot be determined and overfished status is unknown. - Lack of response in survey indices from low commercial removals.
Climate and Ecosystem	
Climate Vulnerability	Very high climate vulnerability : very high climate exposure + high biological sensitivity
	Negative directional effect of climate change
	Around 10 prey categories of marine invertebrates including marine worms; brittle stars and sea stars; cnidarians; sea anemones and coral; octopuses, squid, and cuttlefish; sea squirts; and 3 families of crustaceans.
Fish Condition	GOM winter flounder was reported to have poor fish condition in 2023 by the 2025 SOE report.
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for GOM winter flounder (2023\$): \$0.4 million in FY2021; \$0.3 million in FY2022; \$0.4 million in FY2023; \$0.3 million 5-year average
	Ex-vessel price/lb for GOM winter flounder (2023\$/lb): \$2.63/lb in FY2021; \$1.71/lb in FY2022; \$1.74/lb in FY2023; \$2.18/lb 5-year average
	Total catch of GOM winter flounder (GARFO Catch Accounting): 169.1 mt in FY2021; 143.5 mt in FY2022; 219.6 mt in FY2023
	Commercial groundfish fishery catch of GOM winter flounder (GARFO Catch Accounting): 78.4 mt in FY2021; 75.8 mt in FY2022; 105.7 mt in FY2023
Recreational Fishery Characterization	Recreational catch of GOM winter flounder (GARFO Catch Accounting): 0.5 mt in FY2021, 0 mt in FY2022 and FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **GOM Winter Flounder**

Factor	Supporting Information
Economic and Community Importance	
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for GOM Winter flounder are not associated with prices greater than \$1.50.
Additional Information	
Reference Points	EMSY proxy: 0.23
	SSBMSY: Unknown
	MSY: Unknown
OFLs	1,072 mt in in FY2025
AMs	Inseason closures and lb-lb for commercial groundfish fishery
Harvest Control Rule	75%FMSY held constant for FY2023 - FY2025
	Commercial groundfish fishery FY2023 ACL utilization: 17%
	State fisheries FY2023 subcomponent utilization: 73%
	Other fisheries FY2023 subcomponent utilization: 23%
ABCs	804 mt in FY2025
Significant source of catch outside the directed federal fishery?	Total State Catch of GOM Winter flounder: 80.5 mt in FY2021, 65 mt in FY2022; 111.2 mt in FY2023
	State Commercial fishery catch of GOM Winter flounder: 37 mt in FY2021, 24.2 mt in FY2022; 43.6 mt in FY2023
	State Recreational fishery catch of GOM Winter flounder: 43.5 mt in FY2021, 40.8 mt in FY2022; 67.6 mt in FY2023
	Scallop fishery catch of GOM Winter flounder: 4.0mt in FY2021, 2.0 mt in FY2022; 2.4 mt in FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **SNE Winter Flounder**

Factor	Supporting Information	
Stock Status and Uncertainty		
Biomass Stock Status	Stock is not overfished.	
	Overfishing is not occurring.	
	The stock was in a rebuilding plan with a rebuild date of 2023. It is considered rebuilt as of the 2022 assessment, which incorporated a truncated recruitment stanza (2002-2021) for projections and reference points that reduced the biomass target and changed the overfished status of the stock.	
	2024 SSB: 2,787 mt (89% of biomass target = 3,114 mt; 179% of SSBthreshold = 1,557 mt)	
Recruitment	Recruits (000s) in the most recent three years of the assessment: 3,394 in 2022; 4,553 in 2023; and 6,211 in 2024	
	Recruitment remains low and steady, but with a slight increase in the terminal year of the assessment.	
	Beginning of recruitment time series: 1982	
Assessment Type and Uncertainty	ASAP model, analytical assessment	
	Terminal year: 2024	
	Retrospective patterns were minor and did not require adjustments in the terminal year.	
	<u>Data used in the 2025 assessment:</u> <ul style="list-style-type: none"> - U.S. Recreational discards and landings - U.S. Commercial discards and landings - NEFSC spring and fall bottom trawl survey - NEAMAP spring trawl survey - MADMF spring bottom trawl survey - MADMF young of year seine survey - RIDFW spring trawl survey - CT Long Island Sound Trawl survey - CT young of year survey 	
	<u>Sources of uncertainty in the 2025 assessment:</u> <ul style="list-style-type: none"> - Natural mortality, which is based on longevity and not well studied for the stock and affects the scale of biomass and fishing mortality estimates. - Length distribution of the recreational discards, due to the lack of information and reduced sampling which leads to uncertain characterizations. - Projections are sensitive to the recruitment model and temporal period - Recruitment and natural mortality may be dependent on environmental conditions which cannot be explored in ASAP. - Projections are uncertain and higher than realized SSB. 	
	Climate and Ecosystem	
	Climate Vulnerability	Very high climate vulnerability: very high climate exposure + high biological sensitivity
Negative directional effect of climate change Around 9 prey categories of marine invertebrates including jellyfish, marine worms, sea cucumbers, crustaceans, sea anemones and corals.		
Fish Condition	SNE winter flounder was reported to have neutral fish condition in 2023 by the 2025 SOE Report.	

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **SNE Winter Flounder**

Factor	Supporting Information
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for SNE/MA winter flounder (2023\$): \$0.4 million in FY2021; \$0.3 million in FY2022; \$0.1 million in FY2023; \$0.5 million 5-year average
	Ex-vessel price/lb for SNE/MA winter flounder (2023\$/lb): \$2.96/lb in FY2021; \$1.98/lb in FY2022; \$1.90/lb in FY2023; \$2.64/lb 5-year average
	Total catch of SNE/MA winter flounder (GARFO Catch Accounting): 237.8 mt in FY2021; 223.0 mt in FY2022; 103.2 mt in FY2023
	Commercial groundfish fishery catch of SNE/MA winter flounder (GARFO Catch Accounting): 69.1 mt in FY2021; 83.2 mt in FY2022; 16.6 mt in FY2023
Recreational Fishery Characterization	Recreational catch of SNE/MA winter flounder (GARFO Catch Accounting): 0.2 mt in FY2021, 0.1 mt in FY2022; 0.9 mt in FY2023
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for SNE Winter flounder are not associated with prices greater than \$0.01.
Additional Information	
Reference Points	FMSY proxy: 0.233
	SSBMSY: 3,114 mt (2,180 mt - 4,515 mt)
	MSY: 910 mt (642 mt - 1,317 mt)
OFLs	1,536 mt in FY2025
AMs	Inseason closures and lb-lb for commercial groundfish fishery
Harvest Control Rule	50%FMSY held constant for FY2023 - FY2025
	Commercial groundfish fishery FY2023 ACL utilization: 4%
	State fisheries FY2023 subcomponent utilization: 134.3%
ABCs	627 mt in FY2025
Significant source of catch outside the directed federal fishery?	Scallop fishery catch of SNE Winter flounder: 70.8 mt in FY2021, 35.1 mt in FY2022; 17.4 mt in FY2023
	Squid fishery catch of SNE Winter flounder: 71.7 mt in FY2021, 32.7 mt in FY2022; 19.4 mt in FY2023
	State Recreational fishery catch of SNE Winter flounder: 1.9 mt in FY2021; 36.9 mt in FY2022; 20.8 mt in FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **CC GOM Yellowtail Flounder**

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	The stock is overfished.
	Overfishing is not occurring.
	Stock is not in a rebuilding plan. Stock was declared rebuilt as of 2022.
	2024 SSB: 4,795 mt (44% of SSBMSY proxy = 10,907 mt)
Recruitment	Recruits (000s) in the most recent three years of the assessment: 28,083 in 2022; 48,923 in 2023; and 35,976 in 2024
	Beginning of recruitment time series: 1985
	Recruitment has been weak to moderate over the past decade with no large year classes.
	The model decoupled age-1 recruitment from ages 2+ and includes random effects about a constant mean
Assessment Type and Uncertainty	WHAM state-space model, analytical assessment
	Terminal year: 2024
	Retrospective pattern in the model was minor and no adjustments were required.
	<u>Data used in the 2025 assessment:</u> - U.S. Commercial landings and discards - NEFSC fall and spring bottom trawl survey (separate Albatross and Bigelow time series) - MADMF fall inshore bottom trawl survey - MENH fall inshore survey
	<u>Sources of uncertainty in the 2025 assessment:</u> - Self-test simulation diagnostics, which shows moderate systematic bias: fishing mortality is overestimated, SSB and recruitment are underestimated. - Treatment of plus age group, which may not be capturing survival dynamics at the upper tail of the age distribution.
	- Wide SSB confidence intervals suggest sensitivity to recruitment variability and associated uncertainty
Climate and Ecosystem	
Climate Vulnerability	Low climate vulnerability: high climate exposure + low biological sensitivity
	Negative directional effect of climate change
	Around 6 prey categories of mainly marine invertebrates including marine worms, crustaceans, bivalves, and brittle stars; and sand lances
Fish Condition	CC/GOM yellowtail flounder was reported to have poor fish condition in 2023 in the 2025 SOE Report.
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for CC/GOM Yellowtail flounder (2023\$): \$0.6 million in FY2021; \$0.4 million in FY2022; \$0.4 million in FY2023; \$0.4 million 5-year average
	Ex-vessel price/lb for CC/GOM Yellowtail flounder (2023\$/lb): \$0.96/lb in FY2021; \$0.79/lb in FY2022; \$0.77/lb in FY2023; \$0.94/lb 5-year average
	Total catch of CC/GOM Yellowtail flounder (GARFO Catch Accounting): 383.6 mt in FY2021; 344.0 mt in FY2022; 356.1 mt in FY2023
	Commerical groundfish fishery catch of CC/GOM Yellowtail flounder (GARFO Catch Accounting): 303.4 mt in FY2021; 293.6 mt in FY2022; 304.6 mt in FY2023

2025 Risk Policy Matrix for the Groundfish FMP

Stock: **CC GOM Yellowtail Flounder**

Factor	Supporting Information
Economic and Community Importance	
Recreational Fishery Characterization	There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for CC/GOM Yellowtail flounder.
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for CC/GOM Yellowtail flounder are not associated with prices greater than \$0.01.
Additional Information	
Reference Points	FMSY proxy: 0.497
	SSBMSY: 10,907 mt (6,496 mt - 19,050 mt)
	MSY: 3,165 mt (1,845 mt - 5,427 mt)
OFLs	1,184 mt in FY2025
AMs	Inseason closures for commercial groundfish fishery; reactive lb-lb payback
Harvest Control Rule	75%FMSY in FY2025
	Commercial groundfish fishery FY 2023 ACL utilization: 31%
	State fisheries FY2023 subcomponent utilization: 25%
ABCs	Other fisheries FY2023 suncomponent utilization: 96%
ABCs	915 mt in FY2025
Significant source of catch outside the directed federal fishery?	Scallop fishery catch of CC/GOM Yellowtail flounder: 22.8 mt in FY2021, 16.7 mt in FY2022; 27.8 mt in FY2023
	State Commercial fishery catch of CC/GOM Yellowtail flounder: 26.3 mt in FY2021; 19 mt in FY2022; 8.5 mt in FY2023



2025 Risk Policy Matrix for the Groundfish FMP

Stock: SNE MA Yellowtail Flounder

Factor	Supporting Information
Stock Status and Uncertainty	
Biomass Stock Status	Stock is overfished.
	Overfishing is not occurring.
	Rebuilding target: 2029
	2024 SSB: 38 mt (14% of SSBMSY = 270 mt)
Recruitment	Recruits (000s) in the most recent three years of the assessment: 537 in 2022; 739 in 2023; and 2,022 in 2024
	Beginning of recruitment time series: 1973
	Recruitment is informed by the Gulf Stream Index and random effects are random about a constant mean
	Recruits remain at historical lows.
Assessment Type and Uncertainty	WHAM state-space model, analytical assessment
	Terminal year: 2024
	The retrospective pattern was considered minor and no adjustments were required.
	<u>Data used in the 2025 assessment:</u> - U.S. Commercial landings and discards - NEFSC spring, winter, and fall bottom trawl survey
	<u>Sources of uncertainty in the 2025 assessment:</u> - Lack of biological data in the terminal five years of the assessment, which has caused convergence issues, the need to remove model complexity, and uncertainty in model estimates. - Unpredictability of the Gulf Stream Index behavior which drives recruitment and ultimately population projections.
Climate and Ecosystem	
Climate Vulnerability	Low climate vulnerability: high climate exposure + low biological sensitivity
	Negative directional effect of climate change
	Around 7 prey categories of marine invertebrates such as marine worms, crustaceans, snails, sea urchins, sea cucumbers, and brittlestars.
Fish Condition	SNE/MA Yellowtail flounder was reported to have good fish condition in 2023 by the 2025 SOE report, though there is missing data for 2021 and 2022.
Economic and Community Importance	
Commercial Fishery Characterization	Commercial Groundfish Revenue for SNE/MA yellowtail flounder (2023\$): < \$0.1 million in FY2021; < \$0.1 million in FY2022; < \$0.1 million in FY2023; \$0.1 million 5-year average
	Ex-vessel price/lb for SNE/MA yellowtail flounder (2023\$/lb): \$1.82/lb in FY2021; \$1.25/lb in FY2022; \$1.18/lb in FY2023; \$1.06/lb 5-year average
	Total catch of SNE/MA yellowtail flounder (GARFO Catch Accounting): 3.8 mt in FY2021; 1.6 mt in FY2022; 2.2 mt in FY2023
	Commercial groundfish fishery catch of SNE/MA yellowtail flounder (GARFO Catch Accounting): 0.2 mt in FY2021; 0.2 mt in FY2022; 0.1 mt in FY2023
Recreational Fishery Characterization	There is not a recreational fishery for this stock, and thus there is no recreational fishery trend data available for SNE/MA Yellowtail flounder



2025 Risk Policy Matrix for the Groundfish FMP

Stock: **SNE MA Yellowtail Flounder**

Factor	Supporting Information
Economic and Community Importance	
Other Economic/Social Considerations	ACE lease prices modeled using a hedonic price model from inter-sector leases for FY2018-2023: In recent years, inter-sector ACE lease trades for SNE/MA Yellowtail flounder are not associated with prices greater than \$0.00.
Additional Information	
Reference Points	FMSY proxy: 0.374 (0.346 - 0.404)
	SSBMSY: 270 mt (42 mt - 1,720 mt)
	MSY: 94 mt (15 mt - 595 mt)
OFLs	345 mt in FY2025
AMs	Inseason closures and lb-lb for commercial groundfish fishery; reactive area closures for scallop fishery
Harvest Control Rule	Frebuild set at 70% FMSY held constant for FY2023 - FY2025.
	Commercial groundfish fishery FY2023 ACL utilization: 0.2%
	Scallop fishery FY2023 ACL utilization: 79%
ABCs	40 mt in FY2025
Significant source of catch outside the directed federal fishery?	Scallop fishery catch of SNE/MA yellowtail flounder: 1.2 mt in FY2021, 0.2 mt in FY2022; 2.1 mt in FY2023