CORRESPONDENCE

Michael Pentony
GARFO Regional Administrator
Heather Nelson
Fishery Management Specialist,
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

March 16, 2026

Submitted via regulations.gov

Re: Comments on Amendment 25 (Revised) to the Northeast Multispecies Fisheries Management Plan (Groundfish Plan) (NOAA-NMFS-2022-1230)

Dear Mr. Pentony,

We, the undersigned organizations, write to express our strong support for NOAA's expeditious approval and implementation of the **Revised Amendment 25**. [1] Following extensive work by the New England Fishery Management Council (Council), the revised amendment resolves all deficiencies identified in NOAA's May 19, 2025 disapproval letter, and it is necessary to put Atlantic cod on a successful rebuilding path.

Massive shoals of Atlantic cod once inhabited coastal waters off the northeastern US. Their abundance was legendary and the species was a major driver of the regional economy in New England. Atlantic cod was also a foundational species in North Atlantic coastal ecosystems, constituting a substantial portion of the total biomass and playing a primary role in transferring energy up the food chain. Today the species is severely overfished and at a fraction of its former size. New management – that transitions cod from the current failing two-stock approach to a four-stock approach consistent with the best available science – is required.

There are no remaining barriers to action. After NOAAs disapproval of the first iteration of Amendment 25 on process grounds, the Council delayed its other groundfish priorities to address all stated reasons for disapproval. The Revised Amendment 25 meets legal requirements and should be approved because it:

- **Ensures Full Compliance with the Magnuson-Stevens Act**: By including, among other things, status determination criteria, annual catch limits, acceptable biological catch distributions, and accountability measures for Atlantic cod.
- **Enhances Transparency**: By providing additional, rigorous analysis of apportionment impacts under the four-stock cod structure that goes beyond what NOAA recommended in its disapproval letter.
- **Prioritizes Science**: By aligning Atlantic cod management with the most current scientific data to facilitate critical rebuilding plans.

[1] Notification of Availability of Fishery Management Plan Amendment 25, 91 Fed. Reg. 1,257 (Jan. 13, 2026).

Swift action is essential to put these severely overfished stocks on a path to recovery. We urge NOAA to expeditiously publish the proposed and final rule for the Revised Amendment 25, as well as its associated implementing regulations, before the start of the next fishing year on May 1, 2026. This is necessary for the enduring health of the fishery and the marine ecosystem, as well as the well-being of generations of fishermen and coastal communities that rely on the recovery of Atlantic cod.

Sincerely,

Erica Fuller, Senior Counsel
Conservation Law Foundation

Molly Masterton, Senior Attorney, Fisheries
Natural Resources Defense Council

Callan Yanoff, Program Director
Ocean Defense Initiative

CC: New England Fishery Management Council

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492
Daniel Salerno, *Chair* | Cate O'Keefe, PhD, *Executive Director*

February 2, 2026

Mr. Michael Pentony
GARFO Regional Administrator
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

Dear Mike:

Consistent with the consultation requirements of 50 CFR 648.89(f)(3), the Council developed recommendations for proactive accountability measures (AMs) for Western Gulf of Maine (WGOM) cod and Gulf of Maine (GOM) haddock for fishing year (FY) 2026. These AMs require development by the Regional Administrator (RA) in consultation with the Council because the appropriate suite of measures (e.g., bag limit, minimum fish size, season) depends on the annual catch limits (ACLs) specified for the upcoming fishing year. The RA may adjust measures to ensure the recreational fishery will achieve, but not exceed, its sub-ACLs. Amendment 25 Revised (A25) to the Northeast Multispecies (Groundfish) Fishery Management Plan (preliminary submission on November 14, 2025) proposes a recreational fishery sub-ACL of 99 mt for WGOM cod and Framework Adjustment (FW) 69 proposes a recreational fishery sub-ACL of 1,146 mt for GOM haddock for FY2026.

At its January 2026 meeting, the Council passed the following motions:

The Council recommends to GARFO for recreational measures for Western Gulf of Maine Cod:

- *Open season: October 1 - October 31,*
- *Minimum size: 23 inches, and*
- *Possession limit: 1 fish per day*

The motion *carried* on a show of hands with 1 abstention (Mr. Pentony).

The Council recommends to GARFO for recreational measures for Gulf of Maine Haddock:

- *Open season: May 1 - February 28/29 and April 1 – 30,*
- *Minimum size: 17 inches, and*
- *Possession limit: 15 fish per day*

The motion *carried* on a show of hands with 1 abstention (Mr. Pentony).

Using the cloud-based Decision Support Tool (DST) that was developed by the Northeast Fisheries Science Center (NEFSC) and introduced last year to support developing recreational measures for WGOM cod and GOM haddock, Recreational Advisory Panel (RAP) and Groundfish Committee (Committee) members had the opportunity to directly run the recreational demand model and explore possible measures. The RAP met in the morning on January 20, 2026, to discuss potential measures. The Committee discussed the RAP's recommendations in the afternoon on January 20, 2026.

The RAP put forward recommendations for the Committee to consider the status quo measures proposed in FY2025 that include: for WGOM cod, an open season during the month of May (May 1 – May 31) in addition to the current season (September 1 – October 31), maintaining the minimum fish size at 23 inches and 1-fish per angler limit; and for GOM haddock, a decrease in the minimum fish size to 17 inches, maintaining the current season and 15-fish bag limit. The Committee reviewed the RAP's recommendations and recommended the RAP's preferred measures for both WGOM cod and GOM haddock.

Model predictions are based on the most recent six waves of Marine Recreational Information Program (MRIP) data available, which typically include the most recent year through Wave 5. Due to delays stemming from the federal government shutdown that occurred in October-November 2025, Wave 5 data for FY2025 were not available for use in the model and DST at the time of the RAP and Committee meetings. FY2024 Wave 5 data were used as a proxy, with the intent for NEFSC staff to re-run models of the RAP's/Committee's recommended measures with the updated Wave 5 data once available to confirm mortality estimates are in line and measures still meet the criteria (remaining below both cod and haddock sub-ACLs with at least a 50% probability), prior to the Council meeting if possible.

Preliminary FY2025 Wave 5 MRIP data were made available January 21, 2026, after the RAP and Committee meetings and prior to the Council meeting. These updated data show a substantial difference from FY2024, with a large increase in angler trips (roughly 2 times as many in 2025 as 2024) and cod catch. The result is an increase of cod mortality of 3.65 times and a decrease in haddock mortality by roughly half (0.45x) for Wave 5 estimates. NEFSC staff used these multipliers to adjust the mortality estimates for the model runs previously made in the DST. With this adjustment for FY2025 Wave 5 data, the Committee's recommended measures no longer met the criteria of having 50% of model runs remaining below both cod and haddock sub-ACLs. The Council was alerted of the need to develop a different set of measures to recommend to GARFO prior to and at its January 2026 meeting. Given the substantially higher cod mortality, significant reductions in the Committee's recommended cod measures were necessary, including reducing the cod open seasons.

Council staff worked with the Groundfish Committee Chair to bring forward two options for possible measures for the Council to discuss and consider during the Groundfish Committee Report on January 28, 2026. Both options maintained the status quo proposed measures for FY2025 for GOM haddock and removed the status quo proposed May cod opening. Option 1 maintained the current cod open season from Sept. 1 – Oct. 31 for the for-hire (party/charter) mode while closing cod to the private angler mode. Option 2 reduced the cod open season to Oct. 1 – Oct. 31 for both modes.

The Council reviewed the recreational catch and effort information provided by the NEFSC and Council staff on the WGOM cod and GOM haddock stocks, including the updated FY2025 Wave 5 information. An updated run of the model incorporating the updated Wave 5 mortality estimates indicates that reducing the open season for WGOM cod to only the month of October and maintaining the GOM haddock minimum fish size reduction proposed for FY2025 would be unlikely to lead to overages of the sub-ACLs in FY2026. The model indicates that under the Council's proposal, the sub-ACLs for WGOM cod and GOM haddock would not be exceeded in 55 out of 100 simulation runs and 100 out of 100 simulation runs, respectively.

As part of its discussion, the Council considered a possible recommendation for a 20-fish bag limit for GOM haddock to try to increase access to haddock in response to the reduction in WGOM cod measures. Ultimately, the Council did not recommend increasing the haddock bag limit from the current 15 fish per day, in part because model predictions of that option were not available at the time of its decision and also based on information that suggests the current bag limit is not constraining.

The Council expresses its appreciation to the National Marine Fisheries Service (NMFS) staff for addressing information needs in advance of the RAP, Committee, and Council meetings. Additionally, the Council offers its continued support for the DST developed by NMFS staff for use in recommending recreational measures for WGOM cod and GOM haddock. The continued availability of the DST has helped to streamline the decision-making process and increase recreational stakeholder buy-in to the science and management process. The improvements made to the DST this year in processing speed were appreciated by RAP and Committee members. The Council looks forward to continued use of the DST in development of recreational measures.

Thank you for considering these recommendations. Please contact me if you have questions.

Sincerely,

Cate O'Keefe
Executive Director

CC: Dr. Jon Hare, Director NEFSC

From: Tracy Pearce <btgpearce@gmail.com>
Sent: Monday, February 2, 2026 7:36 AM
To: comments <comments@nefmc.org>
Subject: request: go back to assumed discards, end 100% observers coverage

NEFMC,

We respectfully request that the Council immediately reconsider its position requiring 100% observer coverage for New England groundfish vessels and return to the assumed discard methodology. The assumed discard approach is a practical, implementable tool that has been used effectively.

Captains have long expressed discomfort with carrying an additional person at sea solely to count fish that are already being self-reported. This requirement raises serious safety, logistical, and economic concerns. It also fosters a troubling perception of distrust toward fishermen who are actively working to comply with regulations and preserve their livelihoods.

New England groundfishermen want workable solutions that support sustainable fisheries without imposing unmanageable burdens. We urge the Council to reco

Sincerely,
Brian & Tracy Pearce, F/V Gracelyn Jane

From: Elizabeth Etrie <eetrie@clf.org>
Sent: Tuesday, February 17, 2026 5:43 PM
To: Cate O'Keefe <cokeefe@nefmc.org>; Daniel Salerno <daniel.j.salerno@gmail.com>; Melanie Griffin <melanie.griffin@mass.gov>; Megan Ware <Megan.Ware@maine.gov>; John Pappalardo <john@capecodfishermen.org>; Michael Pierdinock <cpfcharters@yahoo.com>
Cc: Erica Fuller <efuller@clf.org>
Subject: CLF Submission of Petition for Rulemaking on Atlantic Cod

Dear Cate, Dan, Melanie, Megan, John and Mike;

I'm writing to let you know that today Conservation Law Foundation submitted a Petition for Rulemaking (attached) to the Department of Commerce and NOAA requesting urgent action to end overfishing and rebuild Atlantic cod.

As outlined in the petition, we are asking NOAA to expeditiously approve the Revised Amendment 25 and either:

- immediately notify the Council that it must take action to end overfishing on the WGOM and SNE cod stocks, and prepare rebuilding plans within two years for all four cod stocks, consistent with 16 U.S.C. § 1854(e)(3)(A), (4); or
- prepare a Secretarial Amendment (and any accompanying regulations) within 9 months that stops overfishing on the WGOM and SNE cod stocks and rebuilds all four cod stocks, consistent with § 1854(c), (e)(4), (5).

We are available at any time to answer questions, and/or provide additional background. We request that this petition be included in upcoming Council correspondence.

Thanks,

Libby

Elizabeth "Libby" Etrie
Director, Ocean Policy

Conservation Law Foundation

62 Summer Street
Boston, MA 02110

Conservation
Law Foundation

NOTICE OF PETITION FOR RULEMAKING

BEFORE THE U.S. DEPARTMENT OF COMMERCE AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

PURSUANT TO THE ADMINISTRATIVE PROCEDURE ACT 5 U.S.C. § 553(e)

FOR PROMULGATION OF RULEMAKINGS THAT END OVERFISHING AND REBUILD ATLANTIC COD

February 17, 2026

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Via Electronic Mail and Certified Mail/Return Receipt Requested

I. EXECUTIVE SUMMARY

Conservation Law Foundation (CLF) submits this petition for rulemaking under 5 U.S.C. § 553(e) of the Administrative Procedure Act (APA) seeking to compel the U.S. Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA) to take immediate and decisive action to end overfishing and rebuild Atlantic cod populations in U.S. waters.[1]

Atlantic cod shaped New England's cultural heritage and economic development for centuries. Once the backbone of the region's fishing industry, the fishery ultimately collapsed. It has been more than 30 years since a federal court first ordered NOAA to prevent overfishing of Atlantic cod.[2] Further, despite strengthened mandates under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and 24 amendments plus 67 framework adjustments to the Northeast Multispecies Fishery Management Plan (NE Multispecies FMP), NOAA has not yet ended overfishing or rebuilt Atlantic cod.

Fundamental principles of U.S. fishery management include mandatory statutory duties to prevent overfishing while achieving optimum yield on a continuing basis and to expeditiously rebuild overfished fisheries.[3] Once a fishery[4] is identified as overfished, actions must be taken to end overfishing immediately and prepare plans that rebuild the fishery in a time period that is "as short as possible," taking into account various factors, "not to exceed 10 years" unless the biology of the stock, environmental conditions, or management measures under an international agreement dictate otherwise.[5] Effective measures based on these rebuilding have successfully rebuilt 50 fish stocks from previously overfished levels across the nation.[6] Unfortunately, Atlantic cod (among other chronically overfished New England stocks) is a glaring exception, having been declared overfished more than 20 years ago and still hovering at historic low population levels.

The scientific understanding of cod stock structure has changed.

Since 1977, Atlantic cod has been managed as two stocks in the US—one in the Gulf of Maine (GOM) and the other in Georges Bank (GB) (this management area under the two-stock approach includes both Georges Bank proper and adjacent waters off Southern New England). As early as 2012, the Council's Science and Statistic Committee (SSC) identified Atlantic cod

[1] The information cited should properly be considered part of the basis for a final agency action on the Petition.
[2] *See Conservation Law Found. et al. v. Mosbacher*, 1991 WL 501640 (D. Mass., Aug. 28, 1991), *aff'd sub nom. Conservation Law Found. v. Franklin*, 989 F.2d 54 (1st Cir. 1993).
[3] 16 U.S.C. §§ 1851(a)(1), 1854(e).
[4] The MSA defines a "fishery" as "one or more stocks of fish which can be treated as a unit for purposes of conservation and management, and which are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics." *Id.* § 1802(13).
[5] *Id.* § 1854(e)(4)(A)(ii).
[6] NOAA, *Status of the Stocks 2023 Annual Rep. to Congress on the Status of U.S. Fisheries*, 3 (May 2024), https://www.fisheries.noaa.gov/s3/2024-04/2023SOS-final.pdf.

population stock structure as an area of uncertainty. Recent scientific advancements involving a wide variety of data types (including tagging, genetics, and fishermen's ecological knowledge), led the Atlantic Cod Stock Structure Working Group to conclude that the two-stock approach was not valid. Their findings supported the recognition of five distinct biological populations in U.S. waters: Eastern Gulf of Maine (EGOM), Western Gulf of Maine (WGOM) spring spawners, WGOM winter spawners, GB (now including just the bank proper), and Southern New England (SNE). These results were confirmed by rigorous peer review in 2020.

A multi-year research track assessment (2021-2023) found that for assessment purposes, these five biological populations should be grouped into four stock units by combining the WGOM spring and winter spawners into a single stock (collectively, WGOM). This four-stock structure approach passed peer review in 2023 and has subsequently been affirmed by NOAA as the best scientific information. Based on new reference points, the research track assessment determined that all four newly identified stocks are overfished and that the WGOM and SNE cod stocks are experiencing overfishing.[7]

Management track assessments completed in 2024 reconfirmed that all four stocks are overfished, with WGOM and SNE cod at only 3% of their biomass targets, EGOM at 12%, and GB at 32%. These assessments also confirmed that WGOM and SNE cod are experiencing overfishing with SNE cod subject to fishing pressure more than 700% above the overfishing threshold. This underscores the urgent need for NOAA to initiate rebuilding plans because continuing to manage as two stocks increases the risk of overfishing the weakest components and delays rebuilding.

Stock	Stock Status	Overfishing Occurring?
WGOM	Overfished	Yes
SNE	Overfished	Yes
GB	Overfished	No
EGOM	Overfished	No

The Council took action to meet statutory obligations (and the urgency of the situation) to stop overfishing and rebuild the fishery.

To prevent any further delay, the New England Fishery Management Council (Council) undertook a multi-year, phased approach to transition from two-stocks to four based on this new understanding. Phase I involved formal adoption of the four new stock boundaries and implementation of short-term management measures. As planned, Phase II will be a broader, long-term approach to implementing new management units, with potential allocation revisions and conservation and management measures to protect spawning cod populations. Initially, the Council (with NOAA's input) intended Phase I to adopt the new stock structure in an

[7] Atl. Cod Rsch. Track Working Grp., *Rsch. Track Assessment of Atl. Cod*, NEFSC, 12–13 (July 14, 2023), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=-1&map_type_id=&filename=Atlantic%20cod%20WG%20FULL%20REPORT%20format%20w.%20exec%20summ%20(1).pdf.

amendment (Amendment 25) and to utilize a framework (Framework 69) to establish associated status determination criteria, 2025-2027 catch limits, and management measures. Both Amendment 25 and Framework 69 were developed with significant stakeholder engagement and were evidence of the Council's commitment to improving the long-term health of this fishery. During the development of both actions, NOAA supported the Council's plan to publish the two actions concurrently, and even encouraged it based on workload concerns.

In developing Amendment 25 and Framework 69, the Council's Phase I approach sought to minimize disruption to the commercial fishery associated with reallocation of quota among sectors. This was accomplished using existing potential sector contributions established under Amendment 16 (for the original GOM and GB stocks) to allocate catch entitlements under the four new stock areas. This represented a bridge approach, deferring broader questions of reallocation to Phase II.

NOAA supported the Council's approach during the development of Amendment 25 and Framework 69, but ultimately disapproved Amendment 25 on process grounds and implemented an emergency action using the two-stock structure.

Despite years of stock-structure debate and alarming assessment results, NOAA disapproved Amendment 25 on May 19, 2025, and failed to publish Framework 69 in a timely fashion.[8] In its disapproval, NOAA confirmed the "biological stock definitions are supported by extensive collaborative research by scientists and fishermen and based on the best scientific information available, consistent with MSA National Standard 2."[9] NOAA specified that the Council could resolve its disapproval in a new or revised amendment with management measures that include "SDCs [status determination criteria], distribution of ABCs [acceptable biological catch], and accountability measures for the four cod stocks as developed and included in Framework 69."[10]

To ensure the fishery could operate on May 1, 2025, the Agency took emergency action —again acknowledging the Council's recommended 2025 catch limits in Framework 69 were "based on the best scientific information available and reflect[ed] the biological conditions of the four stocks and the levels of catch that are expected to prevent overfishing."[11] Yet under the emergency action, NOAA continues to manage Atlantic cod as two stocks, thus increasing the likelihood of overfishing and compromising rebuilding despite mandatory statutory duties.

In June 2025, the Council postponed its work on its previously planned 2025 priorities to focus on revising Amendment 25 and addressing the recommendations identified in NOAA's

[8] The proposed rule for Framework 69 was eventually published on December 8, 2025, 90 Fed. Reg. 56,836 (Dec. 8, 2025), but its fate was uncertain for months despite NOAA's statutory deadline to determine its consistency with the Act and other applicable law within 15 days of transmittal from the Council. 16 U.S.C. § 1854(b)(1).

[9] NOAA, Letter to the NEFMC Regarding Amendment 25 Review (May 19, 2025), https://d23h0vhsm26o6d.cloudfront.net/5a_20250515-A25-Council-Decision-Letter-0648-XE237-v2-Signed.pdf.

[10] *Id*.

[11] Fishing Year 2025 Measures Emergency Action, 90 Fed. Reg. 18,804 (May 2, 2025).

disapproval letter.[12] The Revised Amendment 25 adopted the four updated Atlantic cod stock units, their corresponding status determination criteria, and other specifications (formerly in Framework 69). The Council took final action at its September 2025 meeting and voted to submit the Revised Amendment 25 to the Agency for review and a determination.[13] A preliminary submission of the amendment was transmitted to NOAA on December 12, 2025,[14] and NOAA published its Notice of Availability in the federal register on January 13, 2026.[15] Because the Revised Amendment 25 addresses all the stated reasons for its prior disapproval, aligns with the National Standards, and continues to advance MSA mandates, we urge NOAA to expeditiously approve it and initiate rebuilding plans. Any further delay based on internal agency processes or politics is unreasonable.[16]

While recent stock structure research refined our understanding of the population dynamics and spatial distribution of cod (ultimately forcing NOAA and the Council to operate under the assumption that prior rebuilding plans are no longer in effect), it did not alter the agency's rebuilding obligations under MSA. Atlantic cod has been overfished for decades, with the former GOM and GB stocks failing to meet rebuilding targets at every juncture since the early 2000s. Putting aside past failures under the two-stock approach, NOAA and the Council have known that these four cod stocks are overfished since at least the July-August 2023 peer-review,[17] and this understanding was reconfirmed in June of 2024 by the management track assessment.[18] Yet no rebuilding plans have been initiated.

The MSA was enacted and amended to ensure that once a stock is identified as overfished, actions are taken to end overfishing immediately and plans are prepared within two years (or less) that rebuild the fishery. The plain words of the Act say, "end overfishing immediately" and specify rebuilding in a time period that is "as short as possible."[19]

To protect the long-term viability of the fishery, NOAA must incorporate the four cod stock structure in the NE Multispecies FMP, end overfishing on the WGOM and SNE

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[12] Letter from Michael Pentony, Reg'l Administrator, NOAA Fisheries, to Rick Bellavance, Chairman, NEFMC (May 19, 2025) (on file with NEMFC Library).
[13] NEFMC, *Final Motions to the Council* (Sept. 2025), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-September-2025.pdf.
[14] NEFMC, *Groundfish Revised A25 Preliminary Submission* (Dec. 12, 2025), https://d23h0vhsm26o6d.cloudfront.net/251212_Groundfish_Revised-A25_Preliminary-Submission.pdf.
[15] Amendment 25 (Revised) to the Ne. Multispecies Fishery Mgmt. Plan; Atl. Cod Stocks in Need of Conservation and Mgmt., 91 Fed. Reg. 1257 (Jan. 13, 2026).
[16] The APA does not require any finding of "impropriety lurking behind agency lassitude" to "hold that agency action is 'unreasonably delayed.'" *Telecomm. Rsch. & Action Ctr. v. FCC*, 750 F.2d 70, 80 (D.C. Cir. 1984) (Citing *PCHRG v. FDA*, 740 F.2d 21, 34 (D.C. Cir. 1984)).
[17] *See* Jean-Jacques Maguire et al., Summary Rep. of the Atl. Cod Rsch. Track Assessment Peer Review, (July 31 – Aug. 3, 2023), https://d23h0vhsm26o6d.cloudfront.net/15bPanelSummaryReportoftheAtlanticCodRTPeerReview.8-17-23.pdf.
[18] *See* John Wiedenmann et al., 2024 June Mgmt. Track Peer Review Panel Rep., (June 2024), https://d23h0vhsm26o6d.cloudfront.net/2.a.xi_2024-June-Management-Track-Peer-Review-Panel-Report_508_7_18_24.pdf.
[19] 16 U.S.C. § 1854(e)(3)(A), 4(A)(i).

stocks, and move enforceable rebuilding plans forward for all four stocks.

Specifically, CLF petitions the Department of Commerce and NOAA to expeditiously approve the Revised Amendment 25,[20] *and* e*ither*

1) **immediately notify the Council that it must take action to end overfishing on the WGOM and SNE cod stocks, and prepare rebuilding plans within two years for all four cod stocks, consistent with 16 U.S.C. § 1854(e)(3)(A), (4); *or***
2) **prepare a Secretarial Amendment (and any accompanying regulations) within 9 months that stops overfishing on the WGOM and SNE cod stocks and rebuilds all four cod stocks, consistent with § 1854 (c), (e)(4), (5).**

II. PETITIONER'S INTEREST

Founded in 1966, CLF is a non-profit member-supported organization that works to solve environmental problems threatening the natural environment and communities of New England. In pursuit of that mission, CLF has advocated for NOAA to meet its statutory mandates including to prevent and end overfishing, rebuild overfished stocks, and ensure adequate accountability in fisheries to "protect, restore, and promote the[ir] long-term health and stability." *Id.* § 1853(a)(1)(A).

CLF first challenged NOAA's failure to prevent overfishing and rebuild overfished groundfish stocks, including Atlantic cod, in 1991. *See Conservation Law Found. et al. v. Mosbacher*, 1991 WL 501640 (D. Mass. 1991) (entering settlement agreement order requiring NOAA to develop new groundfish rebuilding plans by a date certain), *aff'd sub nom. Conservation Law Found. v. Franklin*, 989 F.2d 54 (1st Cir. 1993) (rejecting fishing associations' request to vacate the settlement agreement). In finding the settlement agreement just, fair, and equitable, the Court stated the Council would be allowed the "initial opportunity to develop a groundfish rebuilding program that meets the terms and conditions of this Consent Decree." *Id.* at *1. However, the Court made clear that if the program fell "short of successful and timely development and submission to the Secretary," NOAA would "not be excused from complying with the deadlines for development" of the groundfish rebuilding program. *Id.*

A decade later, CLF challenged NOAA's implementation of the 1996 Sustainable Fisheries Act amendments. *Conservation Law Found. v. Evans*, 209 F. Supp. 2d 1, 15 (D.D.C. 2001) (finding Amendment 9 failed to minimize bycatch and bycatch mortality in the groundfish fishery in violation of the SFA.) In 2013, CLF challenged NOAA's catch limits for GOM cod in Framework 50. *See Conservation Law Found. v. Pritzker*, 37 F.Supp.3d 254 (D.D.C. 2014) (finding cod carryover violated MSA because it was not considered when setting the annual catch limit (ACL) for cod and it exceeded the SSC's acceptable biological catch recommendation). Most recently, CLF challenged NOAA's catch limits for Atlantic cod in Framework 59 on grounds that the specifications could not rebuild cod stocks and were based on an arbitrary application of the Council's control rule. *Conservation Law Found. v. Ross*, No. 19-

[20] If NOAA cannot implement the repackaged Amendment 25 by the start of the FY on May 1, 2026, it should issue an interim final rule adopting the four-stock structure, status determination criteria, catch limits, accountability measures, and other provisions in the repackaged amendment.

5365, 2020 WL 2610894, (April 27, 2020). CLF voluntarily dismissed this case when the next specifications package was finalized because NOAA appeared to be moving toward rebuilding Atlantic cod consistent with statutory obligations.

On February 13, 2020, CLF petitioned NOAA for rulemaking (albeit a different suite of rules) to end overfishing and rebuild the cod fishery; and supplemented it with new scientific information on September 16, 2020. NOAA denied that petition on April 7, 2022, but some of the same issues remain at the heart of this petition. A copy of the 2020 petition and its supplement are incorporated by reference and attached as Attachments 1 and 2.

Petitioner's Right to Petition

Under the APA, all citizens have the right to petition federal agencies for the "issuance, amendment, or repeal" of an agency rule. 5 U.S.C. § 553(e). A "rule" is the "whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy…" *Id.* § 551(4). CLF brings this petition for emergency and permanent rulemaking before NOAA under that authority.

The APA further requires that "within a reasonable time, each agency shall proceed to conclude a matter presented to it." *Id.* § 555(b). The Secretary must "fully and promptly consider" all petitions presented to him. *WWHT, Inc. v. F.C.C.*, 656 F.2d 807, 813 (D.C. Cir. 1981). If a petition is denied, the agency must provide "a brief statement of the grounds for denial," 5 U.S.C. § 555(e), and the petitioning party is entitled to a "response on the merits of the petition." *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 115-16 (D.D.C. 1995). Federal courts have authority to compel agency action on petitions that are unlawfully withheld or unreasonably delayed. 5 U.S.C. § 706(1).

The APA also provides for judicial review of NOAA's final agency action on this Petition. *Id.* at §§ 701-706. Under the APA's judicial review provision, agency actions are to be set aside if they are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *See id.* at § 706(2). It is well settled that in any such action an "agency must examine the relevant data and articulate a satisfactory explanation for its action" that does not "run[] counter to the evidence before the agency" and that "include[s] a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotation marks omitted).

NOAA has ample legal authority to take the requested actions under the MSA. 16 U.S.C. §§ 1854(b)(1)(B), (b)(3), (c)(1), (e)(1)-(5); *Id.* §§ 1855(c), (d). NOAA must now notify the Council of its duties or prepare its own Secretarial Amendment with conservation and management measures that seek to end overfishing immediately and rebuild the four cod stocks in a timeframe consistent with rebuilding requirements of the Act.

III. THERE HAS BEEN A HISTORICAL FAILURE TO END OVERFISHING & REBUILD THE COD FISHERY.

Atlantic cod has been managed as two stocks, one in the GOM and the other in GB (Figure 1) since 1977.[21] Under the two-stock approach, NOAA has been unable to end overfishing for decades. The first assessment of Atlantic cod after the MSA was implemented was conducted in 1977 and it determined that both stocks were subject to overfishing based on the definition of the day.[22] Following the adoption of the current reference point definition of the fishing mortality rate (F_{MSY}) that would produce maximum sustainable yield (MSY), the GOM and GB cod were subject to overfishing[23] as far back as the 2002 stock assessments. Every assessment since then led to the same overfishing status designation through to the last assessments conducted under the two-stock approach in 2021.[24]

Likewise, NOAA has been unable to rebuild Atlantic cod. As far back as the 2002 stock assessments,[25] GOM and GB cod have been overfished.[26] In 2004, NOAA implemented the first rebuilding plans for GOM cod and GB cod in Amendment 13.[27] GOM cod failed to rebuild under its first ten-year plan and again under its second ten-year plan. At the time of the last GOM cod assessment, and shortly before implementing a third ten-year rebuilding plan in 2023,[28] scientists estimated spawning stock biomass (SSB) was only 5% of its biomass target.[29] GB cod has remained in its original 2004 rebuilding plan with a terminal date of 2026. The rejection of the GB analytical assessment in 2015 made it impossible to quantitatively assess rebuilding progress thereafter, but as of the 2021 assessment, survey indices continued to trend downwards with no indication of stock recovery.[30]

The two-stock approach under which these historical assessments were conducted, and rebuilding plans developed, is no longer the best available science and the mismatch between this approach and the true biological stock structure of Atlantic cod likely contributed to its

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[21] F.M. Serchuk and S.E. Wigley, *Assessment and Mgmt. of the Georges Bank cod fishery: a historical review and evaluation.*, 13 J. Northw. Atl. Fish. Sci (1992).
[22] F.M. Serchuk et al, *Analysis of the Georges Bank and Gulf of Maine Cod Stocks,* NEFC Ref. Doc. 77-24, (1977), https://www.nefscnoaa.gov/publications/series/whlrd/whlrd7724.pdf.
[23] NEFSC, *55th Ne. Reg'l Stock Assessment Workshop Assessment Summary Rep.*, NEFSC 13-01, (2013).
[24] *See* Table 1, Attachment 1; NEFSC 2021a. Gulf of Maine Cod. Management Track Assessment Report. Available: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php; NEFSC 2021b. Georges Bank Cod. Management Track Assessment Report. Available: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php.
[25] NEFSC, *55th Ne. Reg'l Stock Assessment Workshop Assessment Summary Rep.*, NEFSC 13-01, (2013).
[26] Based on the threshold definition of spawning stock biomass at maximum sustainable yield (SSB_{MSY}). Note that multiple assessments prior to 2002 also showed low biomass under earlier reference points and definitions, see Table 1 in Appendix 1.
[27] Amendment 13 Final Rule, 69 Fed. Reg. 22,906 (Apr. 27, 2004).
[28] Framework Adjustment, 65 Final Rule, 88 Fed. Reg. 56,527 (Aug. 18, 2023).
[29] NOAA, *Gulf of Maine Atl. cod, 2021 Update Assessment Rep.* (Oct. 2021). https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2021&species_id=4&stock_id=2&review_type_id=3&info_type_id=-1&map_type_id=&filename=2021_COD_GOM_ASSESSMENT_v3.pdf.
[30] NOAA, *Georges Bank Atl. cod, 2021 Mgmt. Track Assessment Rep.* (Sept. 2021). https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2021&species_id=4&stock_id=1&review_type_id=2&info_type_id=-1&map_type_id=&filename=2021_COD_GB_REPORT_ver3.pdf.

historical rebuilding failures and persistent overfishing.[31]

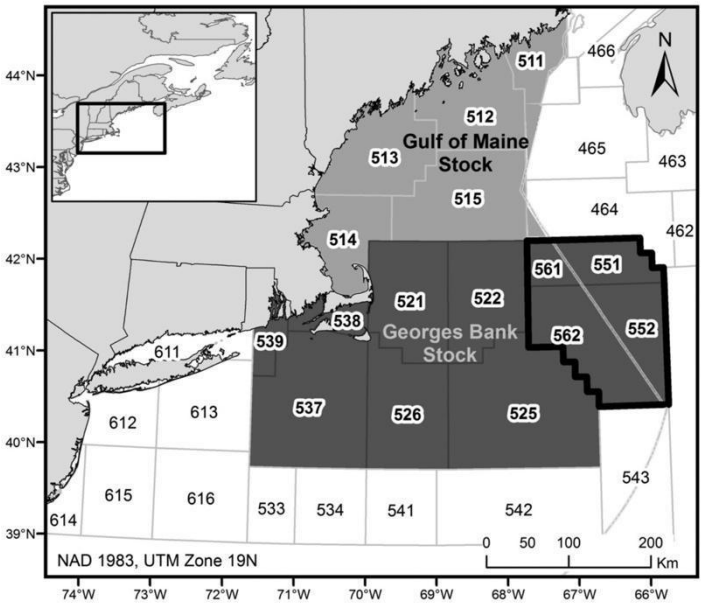

Figure 1: Map showing the GOM and GB stock boundaries used for management of Atlantic cod in the New England region. The area bounded by the thick black line indicates the eastern population of GB cod, which is managed as a transboundary resource jointly by the U.S. and Canada.[32]

IV. THE BEST AVAILABLE SCIENCE DEMANDS ACTION.

A. <u>The Current Understanding of Cod Stock Structure is Not New.</u>

The issue of cod stock structure is not a new one: in 2012 the Council's SSC identified population structure as an area of uncertainty and recommended a "comprehensive evaluation of scientific information on cod population structure and its management implications, including the possibility of revising management units."[33] A subsequent 2012 workshop on stock structure of Atlantic cod in the Gulf of Maine region found general agreement about the inaccuracy of the two stock management boundaries but failed to reach consensus about revised biological stock boundaries.[34]

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[31] *See generally* Lisa Kerr, Steven Cardin & Adrienne Kovach, *Consequences of a Mismatch Between Biological and Mgmt. Units on our Perception of Atl. Cod off New England*, 71 ICES J. of Marine Sci., (Sep. 2014); Douglas Zemeckis et al., *Spawning Site Fidelity by Atl. Cod (Gadus morhua) in the Gulf of Maine: Implications for Population Structure and Rebuilding*, 71 ICES J. of Marine Sci., (Sep. 2014).
[32] Douglas Zemeckis et al., *Stock Identification of Atlantic Cod (Gadus morhua) in US Waters: An Interdisc. Approach,* 71 ICES J. of Marine Sci., 1490, 1490 (Sep. 2014).
[33] Memorandum from Sci. and Stat. Comm. to Paul Howard, Exec. Dir. 3 (Jan. 30, 2012) (on file with NEFMC Library).
[34] John Annala, *Rep. of the Workshop on Stock Structure of Atl. Cod in the Gulf of Maine Region* 1–2 (July 24, 2012), https://gmri-org-production.s3.amazonaws.com/documents/Microsoft_Word_-_Cod_workshop_final_report_25_July_2012_1.pdf.

The Atlantic Cod Stock Structure Working Group ("Working Group") was formed in 2018. It had a broad range of expertise and a two-year working timeline that allowed for thorough scrutiny and consideration of a wide variety of data types including genetics, spawning information, egg and larval distributions, life history characteristics, migratory patterns based on natural markers (e.g., otolith and body shape, parasites) and tagging, as well as fishermen's ecological knowledge. The Working Group found compelling evidence for a lack of congruence between true population structure and the two-stock approach, whereas it found strong scientific support and consensus across data types that cod found off New England is comprised of five biological stocks:[35] EGOM, WGOM spring spawners, WGOM winter spawners, GB, and SNE. These findings were accepted by rigorous peer review in May of 2020.[36]

The onset of the Working Group was marked by a Cod Stock Structure Symposium at the University of New Hampshire in June of 2018 that was well attended by a wide range of stakeholders including active commercial and recreational groundfishermen. The efforts of the Working Group were met with support and enthusiasm for updating cod stock structure and aligning it with fishing industry perspectives. Following publication of the Working Group's report, additional public workshops supported by New Hampshire Sea Grant, the Council, and NOAA were held in 2021 to present the findings on each of the new stocks followed by an open public discussion to ensure comprehensive information sharing.[37] These meetings created a transparent, inclusive process that allowed stakeholders to fully engage with the emerging science and its management implications.

B. <u>The Research Track Assessment (2021-2023) Identified all Four Cod Stocks as Overfished.</u>

In late 2021, following these workshops, the Atlantic Cod Research Track Assessment Working Group (Research Track) was formed. In addition to the standard research track terms of reference, an additional ninth term of reference was added to:

> Apply the findings of the Atlantic Cod Stock Structure Working Group and identify what assessment approaches the available data can support in defining the appropriate scale of Atlantic cod stock assessment. Consider implications for management processes and other practical limitations in the final units and boundaries used for stock assessments."[38]

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[35] Richard McBride & Kent Smedbol, NMFS-NE-273, *An Interdisc. Review of Atl. Cod (Gadus morhua) Stock Structure in the Western N. Atl. Ocean*, (Dec. 2022), https://doi.org/10.25923/sk1x-z919.

[36] Memorandum from Jake Kritzer et al. to Thomas A. Nies, Exec. Dir. (May 29, 2020) (on file with NEFMC Library).

[37] NH Sea Grant, *2021 Atl. Cod Stock Structure Workshops,* U. NH, https://seagrant.unh.edu/2021-atlantic-cod-stock-structure-workshops (last visited May 5, 2025).

[38] Atl. Cod Rsch. Track Working Grp., *Rsch. Track Assessment of Atl. Cod*, NEFSC., 12–13 (July 14, 2023), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=-1&map_type_id=&filename=Atlantic%20cod%20WG%20FULL%20REPORT%20format%20w.%20exec%20summ%20(1).pdf.

In response, the Research Track combined the WGOM spring and winter spawners, which could not be separated for data purposes due to their spatial overlap, into a single WGOM unit and developed robust analytical models for the resulting four stock units (Figure 2). Their work passed peer review during the summer of 2023.[39] Notably, the peer review panel found that the ninth term of reference had been met and commented that "[t]here were clearly some signs of mis-specification in the cod assessments in the past and the Panel agrees that aligning the stocks with the assessment units is a significant step towards improving the assessments."[40]

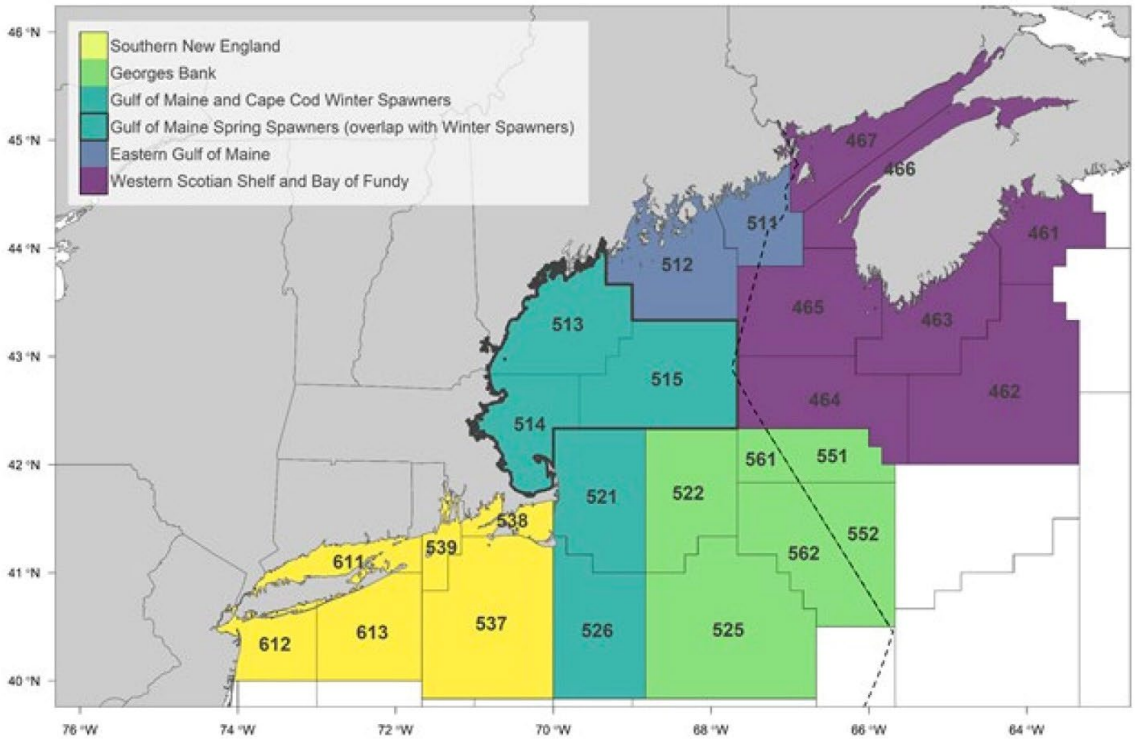

Figure 2: Map showing the new EGOM, WGOM (comprised of separate winter and spring spawners), GB, and SNE cod stock structure proposed by the Working Group and adopted by the Research Track Assessment.[41]

The analytical assessments developed by the research track reflected the new stock structure and led to clear conclusions about the poor status of all four new stocks: relative to

[39] NOAA, *Atl. Cod: 2023 Rsch. Track Peer Review,* https://www.fisheries.noaa.gov/event/atlantic-cod-2023-research-track-peer-review (last updated May 21, 2024).
[40] Jean-Jacques Maguire et al., *Summary Rep. of the Atl. Cod Rsch. Track Stock Assessment Peer Review,* 24, (Aug. 3, 2023), https://www.fisheries.noaa.gov/s3//2023-08/PanelSummaryReportoftheAtlanticCodRTPeerReviewAugust172023-mlt-508-8-23-23ajd-508gw.pdf.
[41] Atl. Cod Rsch. Track Working Grp., *Rsch. Track Assessment of Atl. Cod*, NEFSC, 419 (July 14, 2023), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=-1&map_type_id=&filename=Atlantic%20cod%20WG%20FULL%20REPORT%20format%20w.%20exec%20summ%20(1).pdf.

newly developed biological reference points, all four stocks were overfished and three were severely so.[42] In addition, WGOM and SNE cod were also subject to overfishing.[43]

C. <u>The Management Track Assessments (2024) Confirmed All Four Cod Stocks are Overfished</u>.

Management track assessments with updated data were conducted in 2024 based on the research track assessment and associated peer review panel recommendations. All four management track assessments passed peer review in June of 2024, and their results were deemed acceptable for management advice.[44] The results confirmed the research track assessment findings—all four cod stocks are overfished and two are subject to overfishing.

1. WGOM cod is overfished with overfishing occurring.

As of 2023 (the terminal year of the assessment), WGOM cod SSB was **only 3% of its target biomass** while **fishing mortality was 63% above the overfishing threshold.**[45] Furthermore, relative to the new biological reference points, the stock has been **subject to overfishing for the entire 1981-2023 time period** covered by the assessment and has been in an **overfished state for all but a very brief period in the early 2000s**.[46] It is also important to note that an initial version of the assessment included the extremely low spring 2023 bottom long-line survey data,[47] but the peer review panel recommended excluding it due to the strong influence on assessment results for recent years.[48] There is thus substantial uncertainty around the assessment results. If the spring 2023 datapoint is in fact valid, stock status would be even worse and, as noted in the assessment report, projected catch at F_{MSY} should have been 3-6 times lower than what was ultimately recommended.

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[42] *Id*. at 353–355.
[43] *Id.*
[44] John Wiedenmann et al., *2024 June Mgmt. Track Peer Review Panel Rep.*, 4–5, (June 2024), https://www.fisheries.noaa.gov/s3//2024-07/2024-June-Management-Track-Peer-Review-Panel-Report-508-7-18-24.pdf.
[45] NOAA, *Western Gulf of Maine Cod, 2024 Mgmt. Track Assessment Rep.* 1 (July 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=12&review_type_id=3&info_type_id=-1&map_type_id=&filename=Western_Gulf_of_Maine_cod_Update_4.pdf.
[46] *Id.* at 4.
[47] *Id.* at 2.
[48] John Wiedenmann et al., *2024 June Mgmt. Track Peer Review Panel Rep.* 31 (June 2024), https://www.fisheries.noaa.gov/s3//2024-07/2024-June-Management-Track-Peer-Review-Panel-Report-508-7-18-24.pdf.

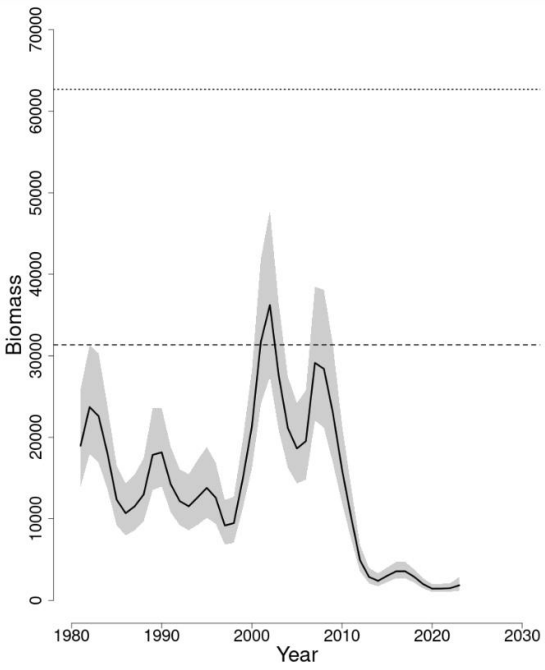

Figure 1: Trends in spawning stock biomass of Western Gulf of Maine cod between 1981 and 2023 from the current assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the 2024 assessment. SSB was not adjusted for a retrospective pattern because the retrospective pattern was minor. The approximate 90% lognormal confidence interval is shown.

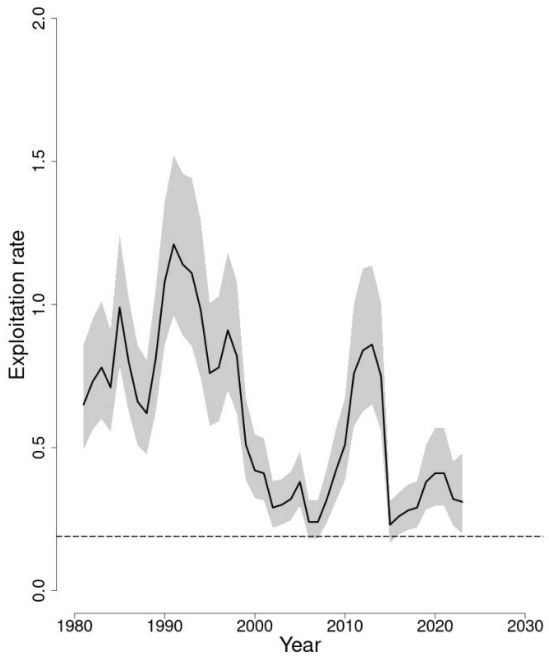

Figure 2: Trends in the fully selected fishing mortality (F_{Full}) of Western Gulf of Maine cod between 1981 and 2023 from the current assessment and the corresponding $F_{Threshold}$ (F_{MSY} *proxy*=0.19; horizontal dashed line). F_{Full} was not adjusted for a retrospective pattern because the retrospective pattern was minor. The approximate 90% lognormal confidence interval is shown.

Figure 3: Left: WGOM cod SSB between 1981 and 2023 relative to the target SSB (horizontal dotted line) and overfished threshold (horizontal dashed line). Right: Fishing Mortality relative to the overfishing threshold (horizontal dashed line). Grey shading indicates 90% confidence intervals. Reproduced from the 2024 management track assessment.[49]

2. SNE cod is overfished with overfishing occurring.

As of 2023, SNE cod SSB was **only 3% of the target biomass** while **fishing mortality was 706% above the overfishing threshold**.[50] Relative to the new reference points, the stock has been **overfished since 1983** and **subject to strong overfishing for the entirety of the 1981-2023 time period** covered by the assessment.[51]

[49] NOAA, *Western Gulf of Maine Cod, 2024 Mgmt. Track Assessment Rep.* 4 (July 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=12&review_type_id=3&info_type_id=-1&map_type_id=&filename=Western_Gulf_of_Maine_cod_Update_4.pdf.
[50] NOAA, *Southern New England Cod, Mgmt. Track Assessment Rep.* 1 (July 15, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=14&review_type_id=3&info_type_id=-1&map_type_id=&filename=Southern_New_England_Cod_2024_report_revised_projections.pdf.
[51] *Id.* at 4–5.

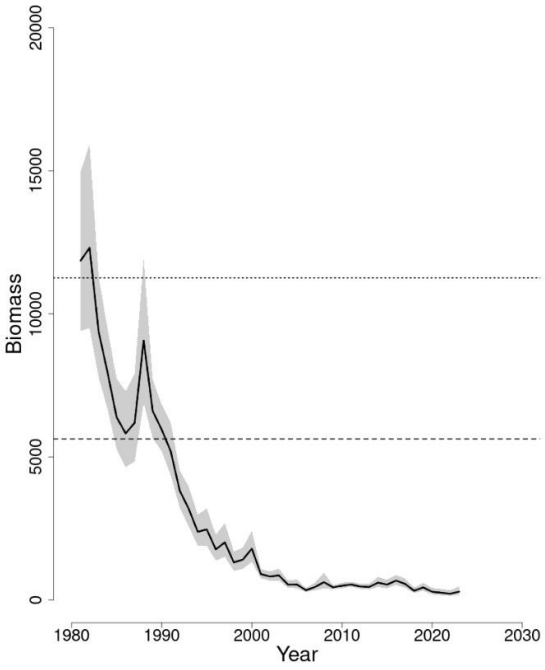

Figure 1: Trends in spawning stock biomass of Southern New England Cod between 1981 and 2023 from the current (solid line) assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the 2024 assessment. The approximate 90% lognormal confidence intervals are shown.

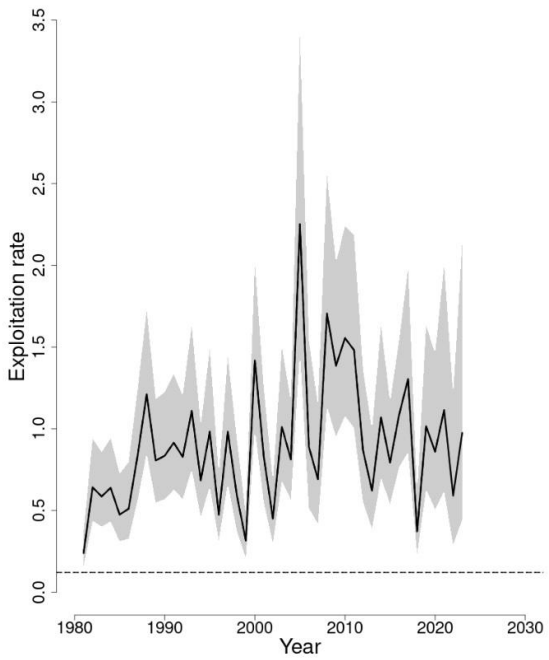

Figure 2: Trends in the fully selected fishing mortality (F_{Full}) of Southern New England Cod between 1981 and 2023 from the current (solid line) assessment and the corresponding $F_{Threshold}$ (F_{MSY} *proxy*=0.121; horizontal dashed line) based on the 2024 assessment. The approximate 90% lognormal confidence intervals are shown.

Figure 4: Left: SNE cod SSB between 1981 and 2023 relative to the target SSB (horizontal dotted line) and overfished threshold (horizontal dashed line). Right: Fishing Mortality relative to the overfishing threshold (horizontal dashed line). Grey shading indicates 90% confidence intervals. Reproduced from the 2024 management track assessment.[52]

3. GB cod is overfished.

SSB for GB cod has declined precipitously since the 1980s. As of 2023, SSB was **32% of the biomass target**, representing an all-time low for the time period covered by the assessment (1978-2023).[53] Projections through 2027 furthermore showed that fishing at F_{MSY} would lead to further declines in SSB.[54]

4. EGOM cod is overfished.

Following a steep decrease prior to 2000, EGOM cod SSB remains low and as of 2023 was **12% of the biomass target**.[55]

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[52] *Id.*

[53] NOAA, *Georges Bank Cod, Mgmt. Track Assessment Rep.*, 8 (June 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=1&review_type_id=3&info_type_id=-1&map_type_id=&filename=2024_COD_GB_Report.pdf.

[54] *Id.* at 2.

[55] NOAA, *Eastern Gulf of Maine Cod, Mgmt. Track Assessment Rep.,* 8 (July 1, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=13&review_type_id=3&info_type_id=-1&map_type_id=&filename=Eastern_Gulf_of_Maine_Atlantic_Cod_Update_2024_Post_Review.pdf.

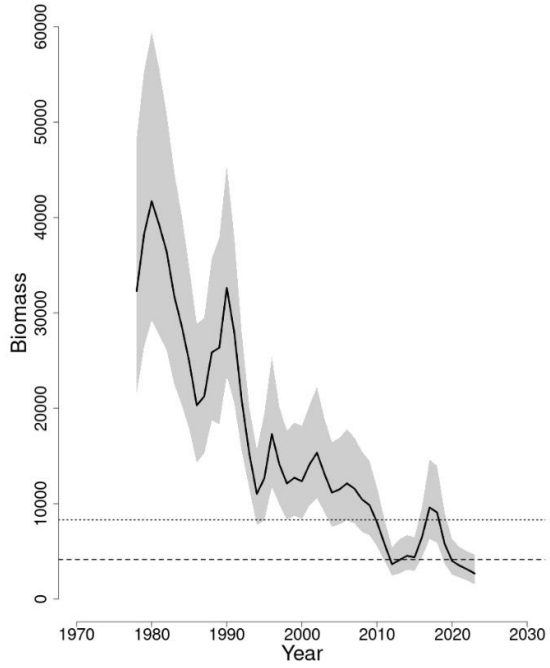

Figure 1: Trends in spawning stock biomass of Georges Bank Atlantic cod between 1978 and 2023 from the current Management Track (solid line). The corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) are based on the 2024 assessment. The approximate 90% lognormal confidence intervals are shown.

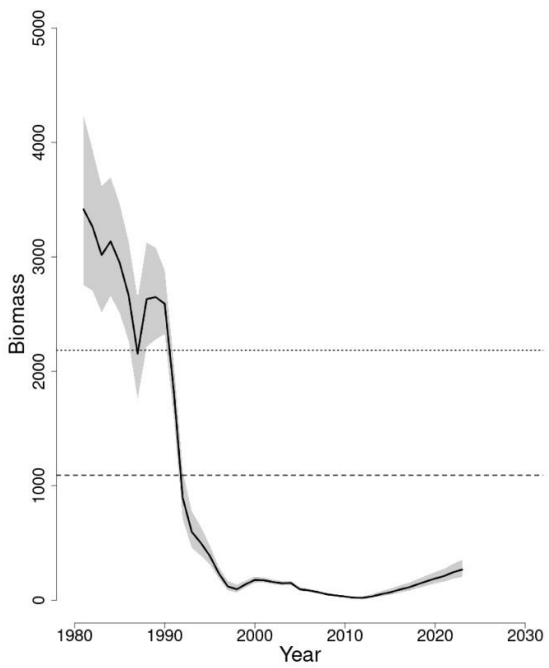

Figure 1: Trends in spawning stock biomass of Eastern Gulf of Maine Atlantic Cod between 1981 and 2023 from the current assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the current assessment. The approximate 95% lognormal confidence intervals are shown.

Figure 5: GB cod SSB between 1978 and 2023 (left) and EGOM cod SSB between 1981 and 2023 (right) relative to the target SSBs (horizontal dotted lines) and overfished thresholds (horizontal dashed lines). Grey shading indicates 90% confidence intervals. Reproduced from the 2024 management track assessments.[56]

V. NOAA'S DELAY IN APPROVING AMENDMENT 25 HAS IMPEDED INCORPORATION OF ALL FOUR STOCKS INTO THE NE MULTISPECIES FMP.

Transitioning from managing as two stocks to managing as four was widely understood to be a challenge.[57] Since 2020, however, the Council has actively engaged in educating the public and stakeholders about this new cod stock structure and its implications.[58] These efforts included numerous meetings, workshops, and consultations to ensure that all parties were informed about the issues prior to initiating management actions. In 2023 the Council adopted a multi-year priority to "develop a transition plan for Atlantic cod management."[59]

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[56] *Id.* at 4; NOAA, *Georges Bank Cod, Mgmt. Track Assessment Rep.,* 8 (June 10, 2024) at 4.
[57] Mark Grant (GARFO), *Draft for Committee Discussion*, NEFMC (Mar. 24, 2024), (on file with NEFMC Library).
[58] NEFMC, *Atl. Cod Mgmt. Transition Plan,* https://www.nefmc.org/library/atlantic-cod-management-transition-plan, (last visited Nov. 13, 2025).
[59] NEFMC, *2023 New England Fishery Mgmt. Council Priorities,* (Jan. 13, 2023) https://d23h0vhsm26o6d.cloudfront.net/230113_Approved-_2023_Priorities_2023-07-14-200243_fvab.pdf.

The Council unanimously adopted a phased approach to this transition plan at its April 2024 Council meeting. Phase I would define the stocks in an amendment (Amendment 25) and use the next annual specifications framework (Framework 69) to establish status determination criteria and develop options for apportioning commercial and recreational catch limits for the four new stocks. Phase II was envisioned to implement a broader, long-term approach to adopt new management units, potentially adjust allocations, and include measures to protect spawning cod populations.[60] It was expected that once the new cod stocks were added to the Northeast Multispecies FMP, that NOAA would promptly notify the Council that rebuilding plans were required. The initiation and development of Amendment 25 and Framework 69 were also guided heavily by NOAA General Counsel's process recommendations.

In developing Amendment 25 and Framework 69, the Council sought explicitly to minimize disruption to the groundfish Sectors by avoiding any immediate reallocation of Potential Sector Contribution (PSC). To accomplish this, the Council retained individual permit PSCs established under Amendment 16 for the original GOM and GB stocks, applying these two-stock historical PSCs to allocate sector annual catch entitlements (ACE) under the four new stock areas.[61] The Council treated this as a bridge approach, intentionally deferring any broader reallocation questions to Phase II.[62] Because the new WGOM stock area spans portions of both former stock areas, the bridge approach required an apportioning of WGOM commercial catch between its northern portion (former GOM) and southern portion (former GB) using a method based on catch history from a subset of years.[63] Development of the bridge approach and apportionment method included substantial industry and public input.

Amendment 25 would incorporate the new Atlantic cod stock structure into the NE Multispecies FMP, based on the latest research, had it been approved. The Council noted in Amendment 25 that failure to revise the stock structure and maintain the two-stock approach was inconsistent with peer-reviewed science and untenable because stock assessments are no longer conducted for prior GOM and GB cod.[64] By adopting the new structure, the Council aimed to improve assessment accuracy and management effectiveness. It expected that this would provide long-term conservation benefits by preventing the loss of spawning populations and distributing fishing pressure across biological populations. Recognizing the new stock structure would also enable the development of stock specific management measures that recover depleted stocks and strengthen overall resilience.[65]

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[60] NEFMC, *Final Motions* (Apr. 16-18, 2024), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-April-2024.pdf.

[61] NEFMC, *Amendment 25 (Revised) Appendix III Development of Phase 1 Measures for Atl. Cod Mgmt. Transition Plan: Bridge Approach for Sector Allocation*, at 1, (Dec. 12, 2025) https://d23h0vhsm26o6d.cloudfront.net/A3_250911_Amendment-25-Revised_Appendix-III_Development-of-Phase-1-Cod-Transition_Sector-Allocation-Bridge-Approach.pdf.

[62] *Id*. at 2.

[63] *Id.* at 3.

[64] NEFMC, *Northeast Multispecies Fishery Mgmt. Plan Amendment 25 Final Submission,* (Mar. 2025), at 9, https://d23h0vhsm26o6d.cloudfront.net/250305_Groundfish_Amendment-25_final_submission.pdf.

[65] *Id.* at 14–15 (citing R.S. McBride & R.K. Smedbol, An Interdisc. Review of Atl. Cod Stock Structure in the Western N. Atl. Ocean, NOAA, (2022), https://repository.library.noaa.gov/view/noaa/48082.

On September 25, 2024, the Council took final action on Amendment 25. A preliminary submission was provided to NOAA on November 14, 2024, and a final submission was transmitted on March 5, 2025.[66] On the same day, NOAA published a notice of availability and request for comment on Amendment 25.[67] The proposed rule made no mention of NOAA's concerns about the parallel approach it had supported throughout development of the action. It was not until NOAA notified the Council on May 19, 2025 that it was disapproving Amendment 25 that it mentioned "that the procedural approach to using Framework 69 as a companion trailing action to Amendment 25 did not fully address the requirements of the Magnuson-Stevens Fishery Conservation and Management Act."[68] This disapproval unreasonably ignored the facts and reversed course on prior agency advice to the Council.

NOAA's disapproval letter made the following recommendations consistent with requirements in 16 U.S.C. §1854(a)(3)(C), stating:

> the Council must include in a revised amendment the elements necessary for the action to be consistent with the National Standards and required provisions of the Magnuson-Stevens Act. These management measures must include the SDCs, distribution of ABCs, and accountability measures for the four cod stocks, as developed and included in Framework 69.[69]

Although the Council transmitted Framework 69 to the agency on March 11, 2025, just six days after receipt of Amendment 25, it took NOAA 272 days to publish a proposed rule implementing Framework 69. This is inconsistent with 16 U.S.C. § 1854(b)(1)(A),(B), which sets a firm 15-day deadline for NOAA's determination and, if that determination is affirmative, publish such regulations in the federal register. Alternatively, if that determination is negative, notify the council of its disapproval, any inconsistencies, and provide recommendations on revisions. *Id.* NOAA has never adequately explained why two rule packages submitted within days of each other took such divergent rulemaking paths.

VI. THE REVISED AMENDMENT 25 MUST BE APPROVED.

Faced with Amendment 25's disapproval, the Council had to decide whether to repackage its work and resubmit the action or step aside and allow NOAA to proceed through Secretarial action. It went with the former and, in mid-2025, the Council shifted its attention from previously planned priorities to concentrate on developing a Revised Amendment 25[70] that

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[66] *Id*. at 2.
[67] Amendment 25 Notice of Availability, 90 Fed. Reg. 11,246 (Mar. 5, 2025).
[68] Letter from Michael Pentony, Reg'l Admin'r, to Rick Bellavance, NEFMC Chairman, (May 19, 2025) (on file with NEFMC Library).
[69] *Id*. at 2.
[70] NEFMC, *Final Motions to the Council* (June 2025), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-June-2025.pdf.

would fully address the deficiencies identified in NOAA's disapproval letter.[71] It adopted the four new Atlantic cod stock units and carried forward their associated status determination criteria and ABC specifications (among other things) originally housed in Framework 69. The Council took final action on the Revised Amendment 25[72] at its September 2025 meeting and voted to forward it to NOAA for review. A preliminary version was transmitted on December 12, 2025, followed by NOAA's publication of the Notice of Availability in the Federal Register on January 13, 2026.[73]

In revising Amendment 25, the Council addressed all concerns identified by NOAA in its disapproval letter. NOAA did not identify allocation concerns as a reason for disapproving Amendment 25. Nevertheless, in its revision the Council acknowledged concerns raised earlier regarding potential allocation impacts and provided additional analysis[74] clarifying how the bridge approach would function and explaining why it would not change individual permit PSC and sector ACE calculations. While the original Amendment 25 was deemed administrative in nature (because it only changed the management units) and thus merited a categorical exclusion from environmental review requirements under NEPA, the Revised Amendment 25 benefits from a full environmental assessment including the impacts on human communities.

VII. ANY FURTHER RELIANCE ON THE TWO-STOCK APPROACH COMPROMISES REBUILDING AND EXACERBATES OVERFISHING.

Instead of approving Amendment 25 and Framework 69 in advance of the start of FY 2025 as intended, NOAA issued an emergency action rule for FY 2025.[75] Rather than adopt the scientifically supported four stock approach in its emergency action, NOAA continued the outdated two stock management approach but set catch limits for these two stocks by aggregating ACLs calculated for the four distinct stocks in Framework 69. By focusing its regulatory efforts on emergency action rather than the timely publication of Amendment 25 and Framework 69, NOAA unreasonably delayed the formal adoption of the scientifically supported four-stock approach, undermined efforts to implement more accurate and effective conservation measures and perpetuated a management framework that has repeatedly failed to end overfishing and rebuild cod.

National Standard 1 requires conservation and management measures that "prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the

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[71] NOAA Fisheries, Letter to the New England Fishery Mgmt. Council Regarding Amendment 25 Review (May 19, 2025), https://d23h0vhsm26o6d.cloudfront.net/5a_20250515-A25-Council-Decision-Letter-0648-XE237-v2-Signed.pdf.

[72] NEFMC, *Final Motions to the Council* (Sept. 2025), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-September-2025.pdf.

[73] Amendment 25 (Revised) to the Northeast Multispecies Fishery Mgmt. Plan; Atl. Cod Stocks in Need of Conservation and Mgmt., 91 Fed. Reg. 1257 (Jan. 13, 2026).

[74] Appendix III to Revised Amendment 25, https://d23h0vhsm26o6d.cloudfront.net/A3_250911_Amendment-25-Revised_Appendix-III_Development-of-Phase-1-Cod-Transition_Sector-Allocation-Bridge-Approach.pdf.

[75] Fishing Year 2025 Measures Emergency Action, 90 Fed. Reg. 18,804 (May 2, 2025).

United States fishing industry,"[76] and National Standard 2 requires measures be "based upon the best scientific information available."[77] By aggregating catch limits for four biologically distinct stocks into two management units, the emergency action contradicts the best available science and increases the likelihood of continued statutory non-compliance under MSA by failing to end overfishing on WGOM and SNE cod and compromising the rebuilding of all four stocks.

The mismatch between the two-stock approach and true population structure has been repeatedly linked to persistent overfishing and failures to rebuild.[78] A Council-contracted simulation analysis comparing the approaches confirmed overfishing would likely continue on WGOM and SNE cod, particularly in the short term, and rebuilding would be delayed.[79] These findings are alarming for SNE cod, where the management track assessment documented overfishing at 8 times the sustainable level,[80] and the simulation concluded rebuilding is not possible under the two-stock approach.[81] It is also crucial to recognize the numerous uncertainties[82] in Framework 69's four-stock catch limits themselves. This is particularly true for WGOM cod where exclusion of the bottom long-line survey datapoint and overly optimistic projections heighten the risk of overfishing.[83] Combining these already uncertain limits derived for four stocks into the outdated two stocks only increases the risk of overfishing. By continuing to manage under this outdated and inaccurate approach, NOAA's emergency action ignores the best scientific information available, and fails to prevent overfishing and rebuild the fishery.

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[76] 16 U.S.C. §1851(a)(1).
[77] *Id.* §1851(a)(2).
[78] Lisa A. Kerr, Steven X. Cadrin & Adrienne I. Kovach, *Consequences of a Mismatch Between Biological and Mgmt. Units on our Perception of Atl. Cod off New England*, 71 ICES J. of Marine Sci. 1366–1381 (July 6, 2014), https://doi.org/10.1093/icesjms/fsu113; Douglas R. Zemeckis et al., *Spawning Site Fidelity by Atl. Cod (Gadus morhua) in the Gulf of Maine: Implications for Population Structure and Rebuilding*, 71 ICES J. of Marine Sci. 1356–1365 (July 22, 2014), https://doi.org/10.1093/icesjms/fsu117.
[79] J. Roger Brothers et al., *Comparing Candidate Spatial Mgmt. Unit Structures for U.S. Atl. Cod: Preliminary Demonstrations*, (Mar. 20, 2024), https://d23h0vhsm26o6d.cloudfront.net/3_REVISED_CodStockStructureMSE_TechReport_March2024_SSCreview.pdf.
[80] NOAA, *Southern New England Cod 2024 Mgmt. Track Assessment Rep,* (2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=14&review_type_id=3&info_type_id=-1&map_type_id=&filename=Southern_New_England_Cod_2024_report_revised_projections.pdf.
[81] J. Roger Brothers et al., *Comparing Candidate Spatial Mgmt. Unit Structures for U.S. Atlantic Cod: Preliminary Demonstrations*; (Mar. 20, 2024), https://d23h0vhsm26o6d.cloudfront.net/3_REVISED_CodStockStructureMSE_TechReport_March2024_SSCreview.pdf.
[82] Memorandum from Sci. and Stat. Comm. to Cate O'Keefe, Exec. Dir., (July 31, 2024) (on file with NEFSC Library); Memorandum from Sci. and Stat. Comm. to Cate O'Keefe, Exec. Dir., (September 4, 2024) (on file with NEFSC Library).
[83] NOAA, *Western Gulf of Maine Cod, 2024 Mgmt. Track Assessment Rep.,* NEFSC, 2 (July 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=12&review_type_id=3&info_type_id=-1&map_type_id=&filename=.

VIII. NOAA IS LONG OVERDUE TO END OVERFISHING AND INITIATE REBUILDING PLANS FOR ATLANTIC COD.

The new understanding of cod stock structure improves our ability to effectively manage the species, but it does not alter NOAA's statutory obligation to rebuild. Given that the four-stock structure is the best available science and that no valid assessments exist for the former two stocks, NOAA and the Council have had to operate under the assumption that prior rebuilding plans are no longer in effect. This has created a void in rebuilding progress that must be remedied. Setting aside past failures, NOAA has known that these four stocks have been overfished since the research track assessment peer review was completed three years ago, and this status was confirmed by accepted management track assessments completed two years ago.

The APA authorizes courts to "compel agency action unlawfully withheld or unreasonably delayed." 5 U.S.C. § 706(1). Actions are "unlawfully withheld" when they fail to meet a statutory deadline. *Norton v. S. Utah Wilderness All. et al.*, 542 U.S. 55, 64 (2004); *Leigh et al., v. U.S. Dep't of Interior*, No. 2:22-cv-01200-MMD-BNW, 2024 WL 4279156 (D. Nev., Sep. 23, 2024). Even if nothing in the MSA explicitly contemplates this situation – changed understanding of stock structure - the Act's plain language compels actions to end overfishing immediately once identified as overfished and to initiate plans that rebuild in a timely manner. Either the Council or the Secretary must promptly prepare rebuilding plans that set a time period for rebuilding that is "as short as possible," taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations, and interactions of the overfished stock within the marine ecosystem.[84] Any continued failure to act by NOAA is wholly unreasonable; *see Telecomm. Rsch. & Action Ctr. v. FCC*, 750 F.2d 70 (D.C. Cir. 1984) (finding unreasonable delay can be determined in part by considering whether "Congress has provided a timetable or other indication of speed…").

We urge NOAA to approve and implement the Revised Amendment 25 as expeditiously as possible, and definitely before the start of the fishing year on May 1, 2026. If it cannot complete APA rulemaking by publishing a proposed rule in the federal register and finalizing after public comment, then it should issue an interim final rule and allow public comment on that rule prior to publishing a final rule. NOAA must immediately thereafter ensure that rebuilding plans are initiated consistent with the MSA and other applicable laws.

[84] 16 U.S.C. § 1854(e)(3)(A), (4)(A)(i).

IX. CONCLUSION

Atlantic cod presents a unique and urgent case in U.S. fisheries management. Atlantic cod has been subject to nearly three decades of unsuccessful rebuilding efforts. The updated understanding of stock structure and the peer reviewed adoption of four stock assessment models for the region do not lessen the imperative to rebuild. Rather, they enhance the scientific precision of management actions for this imperiled specie**s.** We are not asking the Secretary of Commerce or NOAA to go beyond what the APA and MSA already demand. We are simply asking it to recognize the extensive work completed by the Council, implement the Revised Amendment 25 before May 1, 2026, and begin the urgent, overdue actions required to set Atlantic cod on a genuine course to recovery. Continued delay in approving actions necessary to end overfishing and initiate new rebuilding plans for Atlantic cod, or in developing the plans through a Secretarial Amendment, is unacceptable.

To protect the long-term viability of the fishery, NOAA must incorporate the four cod stock structure in the NE Multispecies FMP, end overfishing on the WGOM and SNE stocks, and move enforceable rebuilding plans forward for all four stocks.

Specifically, CLF petitions the Department of Commerce and NOAA to expeditiously approve the Revised Amendment 25,[85] *and* e*ither*

1) **immediately notify the Council that it must take action to end overfishing on the WGOM and SNE cod stocks, and prepare rebuilding plans within two years for all four cod stocks, consistent with 16 U.S.C. § 1854(e)(3)(A), (4); *or***
2) **prepare a Secretarial Amendment (and any accompanying regulations) within 9 months that stops overfishing on the WGOM and SNE cod stocks and rebuilds all four cod stocks, consistent with § 1854 (c), (e)(4), (5).**

Thank you for your consideration and please do not hesitate to contact us if you have any questions.

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[85] If NOAA cannot implement the Revised Amendment 25 by May 1, 2026, it should issue an interim final rule adopting the four-stock structure, status determination criteria, catch limits, accountability measures, and other provisions in the revised amendment.

Attachment 1

PETITION FOR RULEMAKING TO END OVERFISHING AND REBUILD ATLANTIC COD

BEFORE THE
NATIONAL MARINE FISHERIES SERVICE

February 13, 2020

clf
conservation law foundation

Acknowledgments

CLF would like to thank all the anonymous reviewers who spent significant time reviewing the content of this Petition. Their scientific and management expertise was invaluable to the process.

Image via Unsplash (Ricardo Resende)

A DVD of the publicly available scientific information cited in this Petition was provided to the agency upon its submission and is also available upon request. If there are difficulties obtaining the scientific journal articles not on the DVD, CLF will facilitate the purchase of those articles. The information cited should properly be considered as part of the basis for a final agency action on the Petition.

NOTICE OF PETITION

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I. Executive Summary

Conservation Law Foundation ("CLF") submits this petition for rulemaking under 5 U.S.C. § 553(e) of the Administrative Procedure Act seeking to compel the National Marine Fisheries Service ("NMFS") to end overfishing of Atlantic cod immediately and rebuild the two stocks in this fishery in as short a time as possible as required by the Magnuson-Stevens Fishery Conservation and Management Act ("MSA"). *See* 16 U.S.C. §§ 1853(a)(1)(A) and 1854(e)(3) & (4). NMFS is the agency designated by the Secretary of Commerce to carry out the MSA mandates that CLF asserts are being violated in New England with respect to the Atlantic cod fishery.

One of the most fundamental principles of fishery management in the United States is the requirement that federal managers take affirmative action to end overfishing and expeditiously rebuild a fishery when it declines to a biomass level that threatens its ability to produce optimum yield ("OY").[1] Rebuilding must be accomplished in as short a time as possible, not to exceed 10

[1] "Overfishing" means "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis." 16 U.S.C. § 1802(34); *see also* 50 C.F.R § 600.310(e)(2)(i)(B). Maximum sustainable yield ("MSY") is the "largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological, environmental conditions and fishery technological characteristics." 50 C.F.R. § 600.310(e)(1)(i)(A). When prolonged overfishing occurs, a population may reach an "overfished" state.

years, based primarily on the biological characteristics of the stock.[2] Effective measures based on this rebuilding requirement, together with the hard work and diligence of managers and fishermen, have successfully rebuilt more than 45 fish stocks from previously overfished levels across the nation.[3]

Atlantic cod has been central to New England's social, cultural, and economic development since the 1600s and constitutes the oldest commercial fishery in the country. Fishermen, fishing operations, and coastal communities, however, can no longer count on this once thriving fishery for their livelihood or for the long-term prosperity of their communities. This iconic fishery is now commercially collapsed due to persistent mismanagement.

Deference to short-term economic interests has dominated decisions by the New England Fishery Management Council ("Council" or "NEFMC"), which has long ignored scientific concerns and sets catch limits for Atlantic cod using: (1) inaccurate catch data; (2) an arbitrary control rule process that does not reliably end overfishing; and (3) repeatedly overly optimistic interpretations of stock assessment models that routinely underestimate fishing mortality and overestimate stock biomass and produce growth projections that have not materialized. As the legally responsible party, NMFS has repeatedly approved the Council's risk-prone recommendations, notwithstanding the failure of these conservation and management measures to achieve core statutory objectives. Making matters worse, NMFS has neither adequately monitored the fishery (leading to unlawful discarding and unreliable catch data), protected necessary habitat (diminishing the species' ability to rebuild), nor accounted for the impacts of climate change.

In the nearly 30 years since NMFS was first ordered by a federal court to prevent overfishing of Atlantic cod,[4] NMFS has approved 16 amendments to the Northeast Multispecies Fishery Management Plan ("NE Multispecies FMP") and 53 framework adjustments,[5] none of which has actually prevented overfishing. In the 14 years since Congress directed NMFS to *immediately end* overfishing of overfished stocks, such as Atlantic cod, in order to rebuild all overfished fisheries,[6] NMFS has not ended overfishing in the cod fishery.

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50 C.F.R. § 600.310(e)(2)(i)(E) ("biomass has declined below MSST [i.e., minimum stock size threshold]"). "Optimum yield is defined as the amount of fish that will provide the "greatest overall benefit to the Nation" and is determined on the basis of "maximum sustainable yield as reduced by any relevant economic, social, or ecological factors." 16 U.S.C. § 1802(33).

[2] *Id.* § 1854(e).

[3] NOAA Fisheries. 2019. *Status of the Stocks 2018 Annual Report to Congress on the Status of U.S. Fisheries*, at 4. Available at: https://www.fisheries noaa.gov/national/2018-report-congress-status-us-fisheries.

[4] *See Conservation Law Found. et al. v. Mosbacher*, 1991 WL 501640 (D. Mass. 1991), *aff'd sub nom. Conservation Law Found. v. Franklin*, 989 F.2d 54 (1st Cir. 1993).

[5] *See* NEFMC. "Northeast Multispecies Plan Overview." Available at: https://www.nefmc.org/management-plans/northeast-multispecies.

[6] *See* Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, PL 109–479, January 12, 2007, 120 Stat. 3575, 3584.

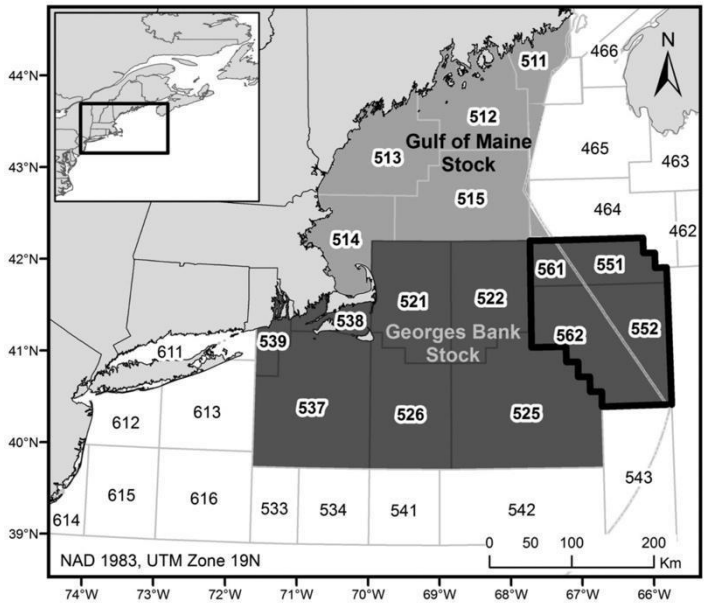

Figure 1: Map showing the Gulf of Maine (GOM) and Georges Bank (GB) stock boundaries used for management of Atlantic cod in the New England region. Area bounded by thick black line indicates the eastern population of Georges Bank cod, which is managed as a transboundary resource jointly by the U.S. and Canada.[7]

According to the most recent stock assessment, not only are both Atlantic cod stocks – Gulf of Maine ("GOM") cod and Georges Bank ("GB") cod (Figure 1) – overfished with overfishing still occurring,[8,9] but the current scientific understanding reveals that they have been subject to overfishing for decades and all attempts to rebuild the stocks as required by law have failed. The best scientific information available shows that GOM cod has been subject to overfishing since 1982 and overfished in all but two years (Figure 2). GB cod fares no better. While no accepted assessment model currently exists for the GB cod stock, undermining the ability to set catch limits and quantitatively assess rebuilding, the most recently accepted assessment concludes that GB cod has been subject to overfishing for the entirety of the time series for which this determination could be made and overfished in all but two years (Figure 3).

[7] Reproduced from Zemeckis DR, Martins D, Kerr LA, and Cadrin SX. 2014. "Stock identification of Atlantic cod (*Gadus morhua*) in US waters: an interdisciplinary approach." *ICES Journal of Marine Science* 71:1490-1506.

[8] The assessment model for Georges Bank cod was deemed not acceptable for management advice during peer review of the 2015 operational assessment. The magnitude of the retrospective pattern increased in the 2015 assessment. Efforts to adjust for the retrospective pattern yielded implausible estimates of stock size, and therefore the model was rejected.

[9] *See* NEFSC. *Operational Assessment of 14 Northeast Groundfish Stocks, Updated Through 2018*. Pre-publication copy dated October 3, 2019, at 26 and 38. Available at: https://s3.amazonaws.com/nefmc.org/Prepublication-NE-Grndfsh-10-3-2019.pdf (hereafter, "2019 Groundfish Operational Assessments"). Although the status of GB cod was designated as unknown, NMFS policy properly holds that "where a known determination had previously been provided and a new assessment is rejected or the results are inconclusive, the [last] known status will continue to be the official stock status." *See also* Letter from NMFS Regional Administrator John K. Bullard to Council Chairman John F. Quinn dated August 31, 2017, at 2. Available at: https://s3.amazonaws.com/nefmc.org/A8_170831_Bullard-to-Quinn_Groundfish-Inadequate-Rebuilding-Progress.pdf.

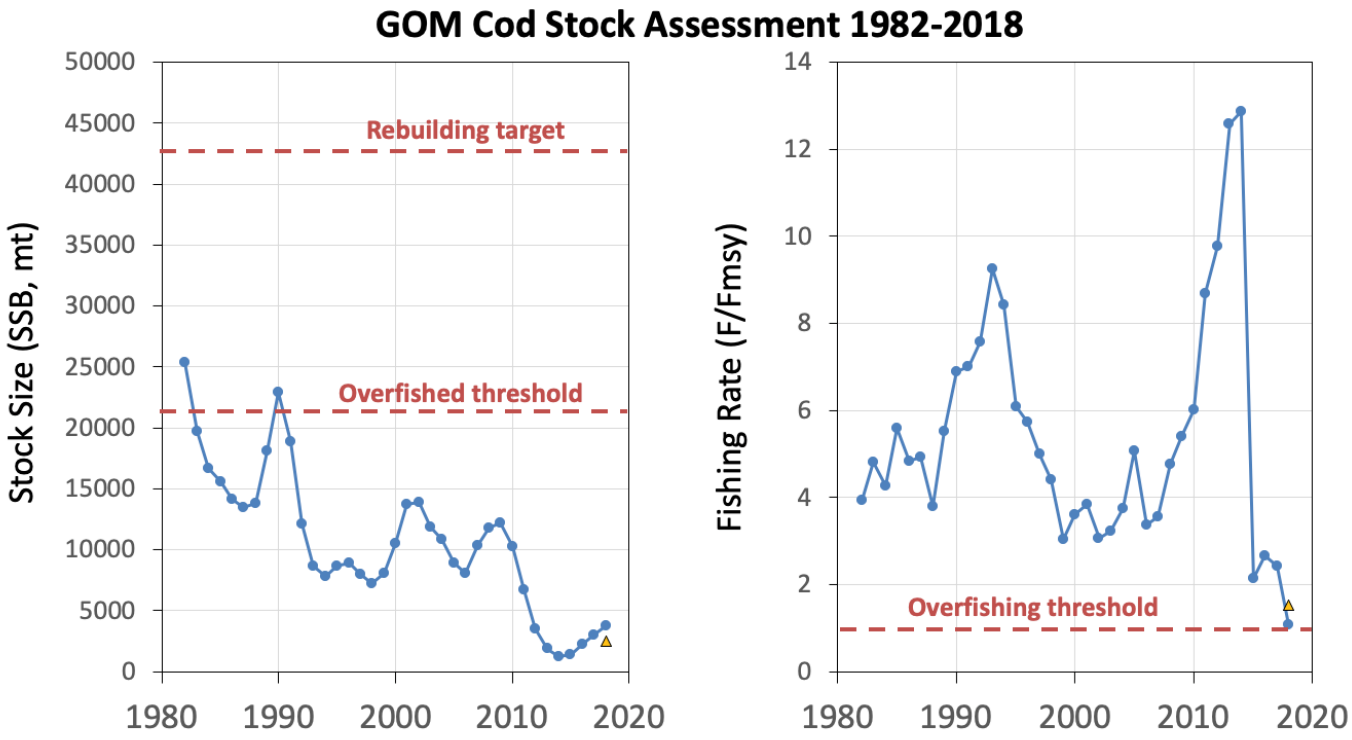

Figure 2: GOM cod stock size and fishing rates (1982-2018). Based on current definitions and reference points, together with the latest approved models, the stock was subject to overfishing for the entirety of the assessment's time period and overfished in all but two years. Stock size is shown as spawning stock biomass ("SSB") (SSB, mt). The upper red line shows the rebuilding target (current estimated SSB of maximum sustainable yield, SSB_{MSY}). The lower red line shows the threshold for designating the stock overfished (half of SSB_{MSY}). Fishing rate is shown as estimated fishing mortality rate (F) relative to the current estimate of the overfishing threshold F_{MSY} (the fishing mortality rate associated with the maximum sustainable yield); overfishing is occurring when this ratio exceeds 1. Data plotted are estimates from the M=0.2 model (the other accepted model for this stock, M-ramp, is not graphed here but shows a similar pattern). This M=0.2 model suffers from a significant retrospective pattern, which acts to decrease estimated fishing mortality and inflate SSB for years towards the end of the time series. The yellow triangles show corrected values for 2018 (the last year included in the assessment) as adjusted for the retrospective pattern.[10]

[10] Data Source: NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 32, 33, 39 and 40.

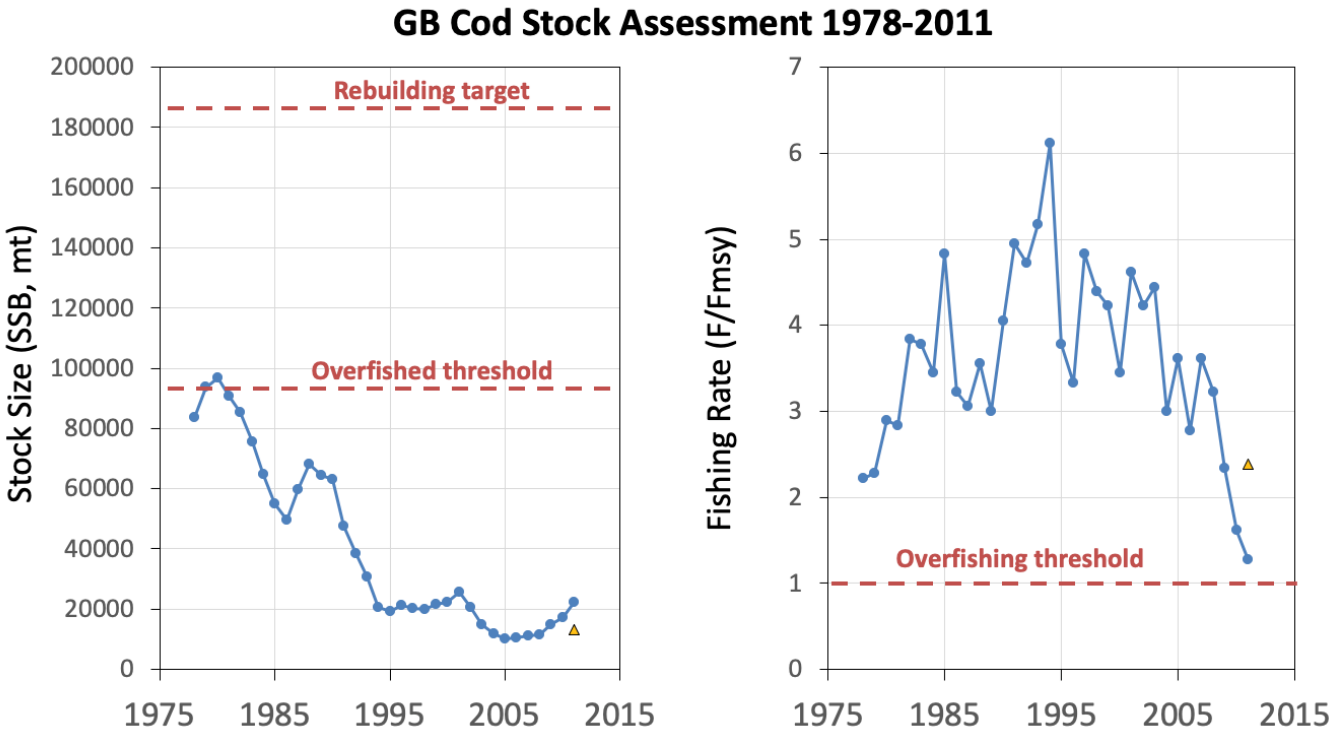

Figure 3: GB cod stock size and fishing rates (1978-2011). Based on current definitions and reference points, together with the latest approved models, the stock was subject to overfishing for the entirety of the time period and overfished in all but two years. This model suffers from a significant retrospective pattern, which acts to decrease estimated fishing mortality and inflate SSB for years towards the end of the time series. The yellow triangles show corrected values for 2011 (the last year included in the assessment) as adjusted for the retrospective pattern. This pattern became so strong by the 2015 operational assessment that the model was rejected as a basis for management advice, and 2011 is the last year that quantitative information is available for the stock.[11]

[11] Data Sources: NEFSC. 2013. *55th Northeast Regional Stock Assessment Workshop Assessment Report*. NEFSC Ref. Doc. 13-11, at 742. Available at: https://www.nefsc noaa.gov/publications/crd/crd1311/partb.pdf (hereafter, "55th SAW Assessment Report"); NEFSC. 2013. *55th Northeast Regional Stock Assessment Workshop Assessment Summary Report.* NEFSC Ref. Doc. 13-01, at 26. Available at: https://www.nefsc noaa.gov/publications/crd/crd1301/crd1301.pdf (hereafter, "55th SAW Summary Report").

In addition to the persistent overfished stock status, neither stock is on track to rebuild consistent with the legal requirements of the MSA. Alarmingly, the probability that GOM cod will rebuild within its scheduled 2024 timeline—the second ten-year rebuilding period allowed for this stock—has plummeted in the two years between the 2017 and 2019 assessments from a zero to 26 percent chance of rebuilding on schedule to a zero to one percent chance of rebuilding on schedule, even in the absence of fishing.[12] While rebuilding progress cannot currently be quantitatively assessed for GB cod, there is no evidence to suggest that this stock can rebuild within its scheduled 2026 timeline. It appears, however, that no recent assessments of adequate rebuilding progress for either stock have been conducted—at least there are no review documents or no findings of inadequate progress in documents available to CLF or the public—despite the statutory requirement of conducting such an assessment and making such a determination at least biannually. 16 U.S.C. § 1854(e)(7).

It is well past time for NMFS to take this situation in hand and require adequate and necessary conservation and management measures. The Administrative Procedure Act's ("APA") arbitrary-and-capricious standard requires the agency to "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made."[13] Yet the Council has repeatedly recommended catch limits for Atlantic cod based on overly optimistic interpretations of stock assessments, and NMFS has repeatedly approved those recommendations and associated management actions that neither end overfishing nor rebuild the stocks.[14]

* * *

CLF petitions the Department of Commerce and NMFS to initiate a Secretarial Amendment and implement all necessary and appropriate conservation and management measures to end overfishing of Atlantic cod immediately and rebuild the fishery. The Council has failed for decades to prepare and submit a plan or amendment for Atlantic cod that achieves the goals of the MSA and is consistent with its National Standards,[15] the National Standard 1 guidelines,[16] and other applicable law. Now, given chronic overfishing, historic low biomass survey results, and lack of rebuilding progress, NMFS must prepare an amendment that

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[12] Memorandum from Groundfish Plan Development Team to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2018 to 2020" dated Oct. 13, 2017, at 6. Available at: https://s3.amazonaws.com/nefmc.org/3d_171013-GF-PDT-memo-to-SSC-re-FY2018-FY2020-Groundfish-OFLs-ABCs.pdf; Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019, at 7. Available at: https://s3.amazonaws.com/nefmc.org/A.8-GF-PDT-memo-to-SSC-re-FY2020-FY2022-Groundfish-OFLs-ABCs_20191001-REVISED.pdf.

[13] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.,* 463 U.S. 29, 43 (1983).

[14] A committee of the best experts in the fisheries science community concluded effective management actions allow virtually all fish populations to rebuild. *See* National Research Council. 2014. *Evaluating the Effectiveness of Stock Rebuilding Plans of the 2008 Fishery Conservation and Management Reauthorization Act*. Washington, DC: The National Academies Press, at 180 (hereafter, "NRC Report"). Available at: https://www.nap.edu/catalog/18488/evaluating-the-effectiveness-of-fish-stock-rebuilding-plans-in-the-united-states.

[15] 16 U.S.C. § 1851(a)(1)-(10).

[16] *See* NOAA Fisheries. "National Standard Guidelines." Available at: https://www.fisheries noaa.gov/national/laws-and-policies/national-standard-guidelines.

requires meaningful and effective conservation and management measures that immediately end overfishing of GOM cod and GB cod and rebuild the stocks in as short a time as possible.

Essential to fulfilling NMFS's legal obligations here, new conservation and management measures must address the inadequate monitoring in the fishery and the spreading failure to report and account for all cod catch.[17] Full monitoring in this fishery is necessary to ensure that assessments are based on accurate and precise catch data and that management decisions are therefore based on the best scientific information available. Full monitoring will help ensure that management actions have an appropriately high probability of success in meeting NMFS's statutory obligations. And, perhaps most importantly, full monitoring will ensure that all groundfish fishing operations are playing by the same rules, eliminating the current incentives to misreport and under-report cod catch.

Specifically, CLF petitions NMFS to require the following conservation and management measures in a Secretarial Amendment to the NE Multispecies FMP and other relevant fisheries that use gear capable of catching any more than *de minimis* amount of Atlantic cod:

1) 100 percent at-sea monitoring on all commercial groundfish trips
2) A prohibition on directed commercial and recreational fishing for Atlantic cod that:
    a. Implements large area closures once a stock's incidental catch limit[18] is caught
    b. Reduces the incidental catch rate annually consistent with the current acceptable biological catch ("ABC") control rule until overfishing at sea is ended
    c. Prioritizes the allocation of incidental catch to groundfish vessels consistent with the current methodology
    d. Ensures that any incidental catch history during the closure of the directed fishery will not count towards future potential sector contributions[19]
3) Area closures to protect all identified Atlantic cod spawning locations and favorable habitat for juvenile and adult cod
4) A requirement to use modified groundfish gear, such as a haddock separator trawl or other selective fishing technology, throughout the U.S. range of Atlantic cod to reduce incidental cod catch
5) Additional measures in the recreational fisheries to reduce the mortality of incidental catch of Atlantic cod

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[17] *See* Groundfish Plan Development Team. *Groundfish Plan Development Team Conclusions Based on Monitoring Analyses Conducted* dated April 15, 2019. Available at: https://s3.amazonaws.com/nefmc.org/1e_190415_Groundfish-PDT_Conclusions-for-SSC-Review.pdf.

[18] Under this scenario, CLF envisions ABC to be equal to incidental catch and ACL to be equal to incidental catch as reduced by management uncertainty. The ACL should be interpreted as the incidental catch limit at which closures would be triggered. Further, the ACL should be allocated to sectors in proportion to the sum of the potential sector contribution per standard operating procedure. CLF also envisions, however, that limited fishing could continue through exempted fishing permits ("EFP") or an equivalent opportunity on the basis of collecting necessary data for stock assessments. Any fishing under an EFP or equivalent must require an observer on board and prohibit groundfish fishing in groundfish closures, spawning closures, or habitat management areas ("HMA").

[19] The Council defines potential sector contribution ("PSC") as: "The percentage of the available catch a limited access permit is entitled to after joining a sector. Based on landings history as defined in Amendment 16. The sum of the PSC's in a sector is multiplied by the groundfish sub-ACL to get the ACE for the sector." Available at: https://www.nefmc.org/files/Glossary.pdf.

These measures are intended to reduce catch of Atlantic cod, improve productivity, and increase recruitment by restoring a normalized age-structure to the population, increasing spawning success of adult cod, and increasing the survival and growth of juvenile cod.

Further, NMFS and the Northeast Fisheries Science Center ("Science Center" or "NEFSC") should address longstanding sources of uncertainty in the models associated with retrospective patterns and natural mortality estimates, account for the true stock structure of Atlantic cod in the region, and adequately recognize and adjust for potential reduced productivity, including accounting for the impacts of climate change. These actions are critical to rebuild cod spawning stock biomass as well as to restore public confidence in the science undertaken by the NEFSC.

Until these measures are fully implemented, CLF petitions NMFS to exercise its authority under the APA, 5 U.S.C. § 553(e), and the MSA, 16 U.S.C. § 1855(c) to promulgate emergency regulations and interim measures necessary to reduce overfishing of GOM cod, including a prohibition on further directed commercial or recreational fishing and a requirement to use modified fishing gear in the GOM cod stock area.

II. Petitioner's Interest

Founded in 1966, CLF is a non-profit member-supported organization that works to solve environmental problems threatening the people, natural environment, and communities of New England. Throughout the last 30 years, CLF, on its own behalf and in the interests of its diverse membership, has advocated for sustainable fisheries management, including the need to prevent overfishing, rebuild overfished stocks, and ensure adequate accountability to "protect, restore, and promote the long-term health and stability" of fisheries consistent with the requirements of the MSA.

CLF first challenged NMFS's failure to prevent overfishing and rebuild several overfished groundfish stocks—including Atlantic cod—in 1991. *See Conservation Law Found. et al. v. Mosbacher*, 1991 WL 501640 (D. Mass. 1991), *aff'd sub nom. Conservation Law Found. v. Franklin*, 989 F.2d 54 (1st Cir. 1993). In finding that the resulting settlement agreement was just, fair and equitable, the Court allowed the Council the "initial opportunity to develop a groundfish rebuilding program that meets the terms and conditions of this Consent Decree; provided, however, that if Council efforts to develop a program fall short of successful and timely development and submission to the Secretary, the Federal Defendants shall not be excused from complying with the deadlines for development of a groundfish rebuilding program . . . " *Id.* at *1. CLF also challenged NMFS's implementation of the 1996 Sustainable Fisheries Act amendments to the MSA in *Conservation Law Found. v. Evans*, 209 F. Supp. 2d 1 (D.D.C. 2001). More recently, CLF challenged NMFS's unlawful catch limits for GOM cod. *See Conservation Law Found. v. Pritzker*, 37 F.Supp.3d 254 (D.D.C. 2014) (holding NMFS's Atlantic cod carryover adjustments violated the MSA).

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TABLE OF CONTENTS

III. Statutory and Regulatory Framework

The Secretarial Amendment sought here, as with all FMPs, must contain those measures that are "necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery," consistent with the national standards. 16 U.S.C. § 1853(a)(1). The term "conservation and management" is expansive and encompasses "all of the rules, regulations, conditions, methods, and other measures (A) which are required to rebuild, restore, or maintain, and which are useful in rebuilding, restoring, or maintaining, any fishery resource…." 16 U.S.C. § 1802(5). Additionally, because Gulf of Maine ("GOM") cod and Georges Bank ("GB) cod are overfished, the conservation and management measures must be sufficient to end overfishing immediately in order to rebuild in a manner consistent with the Magnuson-Stevens Act's ("MSA") statutory mandate. 16 U.S.C. § 1854(e)(2).

A. Fishery Management Plans Must Comply with the National Standards

The MSA "is designed in large part to prevent overfishing in U.S. coastal waters and mitigate and reverse its effects where it has already begun. To that end, the MSA empowers federal agencies to 'provide for the preparation and implementation, in accordance with national standards, of fishery management plans which will achieve and maintain, on a continuing basis, the optimum yield from each fishery.' *Id.* § 1801(b)(4)." *Oceana, Inc. v. Ross*, 363 F. Supp. 3d 67, 71 (D.D.C. 2019).

Pursuant to 16 U.S.C. § 1851(b) of the MSA, the National Marine Fisheries Service ("NMFS") provides its interpretation of the statute's mandatory national standards through a set of guidelines, codified at 50 C.F.R. §§ 600.305-600.355. Although the guidelines do not have the force and effect of law, the councils and NMFS staff are instructed to use them "to assist in the development of fishery management plans." 16 U.S.C. § 1851(b). The guidelines clarify how to develop and implement annual catch limits ("ACLs") and accountability measures ("AMs"). *See, e.g., id.* § 600.310(g)(3).

1. National Standard 1 – FMPs Shall Prevent Overfishing

Since the MSA was originally enacted in 1976, one of its prime management directives has been to prevent overfishing. Pub. L. 94-265, 90 Stat. 331 (1976). As set forth in National Standard 1: "Conservation and management measures *shall prevent overfishing while achieving, on a continuing basis, the optimum yield* from each fishery for the United States fishing industry." 16 U.S.C. § 1851(a)(1) (emphasis added).

Congress reauthorized the MSA most recently in 2007 in response to continued overfishing in the nation's fisheries despite 30 years of federal management. Pub. L. No. 109–479, 120 Stat. 3575, (2007). This most recent reauthorization added new mandates to prevent overfishing including the establishment of annual catch limits and accountability measures for all stocks in need of conservation and management. The law required NMFS to implement these new science-based ACLs and accountability measures for overfished stocks such as Atlantic cod by 2010 and for all other stocks by 2011. It bears noting in this context that Congress also

directed NMFS in this reauthorization to end fishing immediately in all situations involving an overfished stock. 16 U.S.C. § 1854(e)(3)(A).

The National Standard 1 guidelines link the requirement to prevent overfishing with achieving optimum yield ("OY") of the nation's fisheries, stating: "The most important limitation on the specification of OY is that the choice of OY and the conservation and management measures proposed to achieve it *must* prevent overfishing." 50 C.F.R. § 600.310(b)(2)(ii) (emphasis added).

Courts have repeatedly held that the unequivocal language of National Standard 1's mandate to prevent overfishing elevates conservation considerations over competing economic considerations. *See Nat. Res. Def. Council v. Daley Inc. v. Daley*, 209 F.3d 747, 753 (D.C. Cir. 2000) ("[U]nder the Fishery Act, the Service must give priority to conservation measures" and "[i]t is only when two different plans achieve similar conservation measures that the Service takes into consideration adverse economic consequences."). As the court noted in *Nat. Res. Def. Council v. Nat'l Marine Fisheries Serv.*, 421 F.3d 872, 879 (9th Cir. 2005): "The Act sets this priority in part because the longer-term economic interests of fishing communities are aligned with the conservation goals set forth in the Act. Without immediate efforts at rebuilding depleted fisheries, the very long-term survival of those fishing communities is in doubt." Similarly in *Nat. Res. Def. Council v. Locke*, 2010 WL 11545702, at *5 (N.D. Cal. Apr. 23, 2010) the court noted that: "Part of the reason Congress elevated conservation over economic interests is that conserving fish populations yields the double benefit of both improving the environment and providing long-term economic return."

2. National Standard 2 – FMPs Shall Use Best Scientific Information Available

National Standard 2 states: "Conservation and management measures shall be based upon the best scientific information available." 16 U.S.C. § 1851(a)(2); *see also Oceana, Inc. v. Ross*, 363 F. Supp. 3d 67, 71 (D.D.C. 2019). National Standard 2 "requires that rules issued by the NMFS be based on a thorough review of all the relevant information available at the time the decision was made . . . and insures that the NMFS does not 'disregard superior data' in reaching its conclusions." *Flaherty v. Bryson*, 850 F. Supp. 2d 38, 61 (D.D.C. 2012); *see also Guindon v. Pritzker*, 31 F.Supp.3d 169, 195 (D.D.C. 2014).

3. National Standard 9 – FMPs Shall Minimize Bycatch

National Standard 9 requires: "Conservation and management measures [that], to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch." 16 U.S.C. § 1851(a)(9). Consistent with National Standard 9, NMFS must minimize and account for bycatch, even when an ACL is set to an incidental catch limit. As interpreted by the National Standard 1 guidelines (existing and proposed), ACLs and accountability measures must account for "the total quantity of fish . . . taken in commercial, recreational, subsistence, tribal, and other fisheries . . . as well as mortality

of fish that are discarded."[20] And 16 U.S.C. § 1853(a)(11) requires "a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery."

Courts have addressed National Standard 9's bycatch mandate. In *Conservation Law Foundation v. Evans*, the court found that an amendment lacked measures to minimize bycatch and failed to analyze whether pre-existing measures "specifically complied with" the bycatch mandate. 209 F. Supp. 2d 1, 14 (D.D.C. 2001). In *Pacific Marine Conservation Council, Inc. v. Evans* , the court observed that the statute "requires timely action on bycatch reduction and further requires that *all practicable measures* be included in the fishery management plan." 200 F. Supp. 2d 1194, 1201 (N.D. Cal. 2002) (emphasis added). And in *Flaherty v. Bryson*, the court rejected an amendment that lacked bycatch-reduction measures even though several pre-existing measures had an "incidental effect" on bycatch, stating NMFS needed to address "whether the FMP, as amended, actually minimizes bycatch to the extent practicable." 850 F. Supp. 2d 38, 58 (D.D.C. 2012). These cases show that even small amounts of catch and bycatch must be accounted for and minimized in this Secretarial Amendment.

B. Fishery Management Plans Must Establish Annual Catch Limits that Prevent Overfishing Including Measures to Ensure Accountability

The central importance of preventing overfishing to the entire fishery management scheme created by the MSA in order to achieve OY is manifest from the terms of the MSA and NMFS's regulations. To prevent overfishing, FMPs must contain certain provisions. 16 U.S.C. § 1853(a) (1) - (15). Among them, the MSA requires that all FMPs "contain the conservation and management measures, . . . necessary and appropriate for the conservation and management of the fishery to *prevent overfishing and rebuild overfished stocks* . . ." and "establish a mechanism for specifying annual catch limits in the plan ..., implementing regulations, or annual specifications, at a level *such that overfishing does not occur* in the fishery, including measures to ensure accountability." *Id.* § 1853(a)(1), (15) (emphasis added). In addition, NMFS has ample authority to take action in an FMP under the non-discretionary provisions of the MSA. *Id.* § 1853(b)(1) - (14). For example, it may "include management measures in the plan to conserve target and non-target species and habitats, considering the variety of ecological factors affecting fishery populations." *Id.* § 1853(b)(12).[21]

1. Annual Catch Limits Must Prevent Overfishing

Each stock must have an acceptable biological catch ("ABC") control rule that accounts for the scientific uncertainty in the overfishing limit ("OFL") and that is based on an analysis that shows how it will prevent overfishing. 50 C.F.R. § 600.310(f)(2). An ABC control rule is the specified approach approved by NMFS for setting the ABC for a stock or stock complex as a

[20] *See* 50 C.F.R. § 600.310(f)(2)(i) (proposed rule at 600.310(f)(1)(i) (defining "catch"); *see also Oceana*, 831 F. Supp. 2d at 115-16 ("Since the 'catch' limited by ACLs includes both fish that are retained (landed) and bycatch that are discarded at sea, *see* 50 C.F.R. § 600.310(f)(2)(i), the [annual catch limits for the stocks at issue] may be exceeded by accumulation of bycatch alone.").

[21] NMFS has used its authority under 16 U.S.C. § 1853(b)(12) to create incidental catch caps for river herring and shad that close the Atlantic herring and Atlantic mackerel fisheries when a hard limit on catch of these species hit. Most recently, NMFS used this authority to implement regulations that would close the California/Oregon drift gillnet fishery if a hard limit on mortality/injury of high priority protected species is met or exceeded.

function of the scientific uncertainty in the estimate of the OFL and any other scientific uncertainty. *Id.* at § 600.310(b)(3), (f)(2)(iii). Because of their essential purpose, control rules should become more conservative as biomass estimates, or other proxies, for a stock or stock complex decline and as science and management uncertainty increases. 50 C.F.R. § 600.310(f)(1); *see also Oceana v. Locke*, 831 F. Supp. 2d 95, 128 (D.D.C. 2011) (discussing ABC control rules and stating, "the MSA [] requires NEFMC to set each stock's 'acceptable biological catch' (ABC) at a level sufficiently below the predicted overfishing level." *See* 16 U.S.C. § 852(g)(1)(B); 50 C.F.R. § 600.310(f)(2) (ii)-(4). Moreover, for an overfished stock like Atlantic cod, "a rebuilding ABC must be set to reflect the annual catch that is consistent with the schedule of fishing mortality rates (i.e., $F_{REBUILD}$) in the rebuilding plan." *Id.* at § 600.310(f)(3)(ii). It must also be set at a level that ends overfishing immediately. 16 U.S.C. § 1854(e)(3)(A).

Each council must establish a scientific and statistical committee ("SSC") whose members must include federal and state employees, academicians, or independent experts with "strong scientific or technical credentials and experience." 16 U.S.C. §1852(g)(1)(A), (C). The SSC provides "ongoing scientific advice for fishery management decisions," including the setting of OFL and ABC. *Id.* § 1852(g)(1)(B). The mandatory ABC control rule required for all FMPs must be based on scientific advice from the SSC. 50 C.F.R. § 600.310(f)(4). Additionally, ACLs "may not exceed the fishing level recommendations" (i.e., ABCs) of the Council's SSC. 16 U.S.C. § 1852(h)(6).

2. Accountability Measures Must Prevent Overfishing

Although the MSA is not prescriptive, the guidelines provide clarification on accountability measures that will ensure overfishing does not occur. *See* 50 C.F.R. § 600.310(g). Accountability measures are defined as "management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur." *Id*. § 600.310(g)(1). "AMs should address and minimize both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible." *Id.* Even if an ACL is set to zero and an AM closes the fishery, additional AMs are required if catch or bycatch is likely to result in overfishing. *Id.* § 600.310(g)(3) ("If an ACL is set equal to zero and the AM for the fishery is a closure that prohibits fishing for a stock, additional AMs are not required if only small amounts of catch (including bycatch) occur, and the catch is unlikely to result in overfishing.").[22]

Courts have concluded that *specific* accountability measures are not necessarily required so long as NMFS implements sufficient overall accountability measures to prevent overfishing, citing 50 C.F.R. § 600.310(f)(5)(ii)). In *Oceana v. Locke*, the court ordered NMFS to prepare accountability measures for five species where a prohibition on retention was not enough to prevent overfishing. Otherwise, the court reasoned, they could be caught as bycatch "with

[22] Similarly, whereas here the evidence suggests that the reported catch and bycatch of Atlantic cod vastly underreports true mortality, i.e., it is not a "small" number nor is it unlikely to result in overfishing, the ACLs sought for GOM and GB cod, set at incidental catch, should not be the only measure to assure the ACL is not exceeded and must be accompanied by additional AMs to account for catch and bycatch in the NE Multispecies fishery as well as other fisheries using gears capable of catching cod.

impunity, and in doing so, cause their continued overfishing." 831 F. Supp. 2d 95, 116, 120 (D.D.C. 2011). In *Guindon v. Pritzker,* the court similarly concluded that though the MSA is not prescriptive as to what the accountability measures must be, they must prevent overfishing:

> NMFS need not implement so many accountability measures that overharvesting and overfishing become utterly beyond possibility. That reads too much into the MSA. However, Section 303(a)(15) would lose all teeth and coherence if NMFS, faced with persistent overages and high management uncertainty, could claim compliance by simply identifying any control that technically qualifies as an "accountability measure." In this case, it is apparent from the record that the existing scheme does not "ensure accountability" within the meaning of Section 303(a)(15).

31 F. Supp. 3d 169, 200 (D.D.C. 2014). Along the same lines, the court in *Oceana, Inc. v. Ross,* noted that "[t]he primary evil the MSA guards against is overfishing; the law's various proscriptions and prescriptions exist to protect fish populations. . . [s]o while ACLs and AMs should—and in some cases, must—be used by the Fisheries Service, they are not *ends* in themselves, but rather *means* to end overfishing and rebuild populations." 363 F. Supp. 3d 67, 86 (D.D.C. 2019).

C. Secretarial Duty to Rebuild Overfished Fisheries

In 1996, the MSA was amended by the Sustainable Fisheries Act ("SFA") to provide stringent protections for overfished species. Pub. L. No. 104–297, 110 Stat. 3559 (1996); *see also Nat. Res. Def. Council v. Evans*, 168 F. Supp. 2d 1149, 1152 (N.D. Cal. 2001), *order aff'd in part, vacated in part*, 316 F.3d 904 (9th Cir. 2003) ("NMFS is responsible under the MSA for ensuring the protection and repopulation of these species through the implementation of rebuilding plans and its annual fishing specifications and limits."). As part of these amendments, a specific definition of the term "overfished" was included as well as an explicit mandate to rebuild overfished fisheries. 16 U.S.C. § 1802(34); *Nat. Res. Def. Council*, 168 F. Supp. 2d at 1158.

To address persistent overfished fisheries and further strengthen rebuilding requirements, the MSA was reauthorized in its current form in 2007. Pub. L. No. 109–479, January 12, 2007, 120 Stat. 3575, 3584. Under the reauthorized MSA, once NMFS determines an affected stock is overfished, Congress directed that it must immediately notify the appropriate council and request action "to end overfishing immediately in the fishery" and prepare and implement additional conservation and management measures "to rebuild affected stocks of fish." 16 U.S.C. § 1854(e)(2); *see also* S. Rep. 109-229 at *6 ("The SFA attempted to address overfishing by capping fish harvests at maximum sustainable yield (MSY) and requiring FMPs to include measures to rebuild overfished stocks. However, recent evaluations of stock status have shown that ten years after enactment of the SFA, overfishing is still occurring in a number of fisheries, even those fisheries under a rebuilding plan established early in the SFA implementation process.").

Within two years of such request for action on an overfished stock such as Atlantic cod, a council has a mandatory duty to develop and implement an FMP or amendment, or proposed

regulations sufficient "to end overfishing immediately in the fishery and to rebuild affected stocks of fish." *Id.* § 1854(e)(3)(A). The rebuilding plan "shall (A) specify a time period for rebuilding the fishery that shall—(i) be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem; and (ii) not to exceed 10 years." *Id.* § 1854(e)(4)(A). If the council has not submitted an FMP, amendment, or proposed regulations that ends overfishing immediately and rebuilds the affected stock within two years of notice of the overfished status, NMFS has a mandatory duty to prepare a plan that meets the requirements of section 304(e)(3)(A), *i.e.*, ends overfishing immediately and rebuilds the affected stocks, within 9 months. *Id.* § 1854(e)(5).

After a rebuilding plan that meets the requirements of section 304(e)(3)(A) is implemented, NMFS has a further mandatory duty to review any FMP, amendment, or regulations to determine whether adequate progress towards rebuilding is occurring as projected: NMFS "shall review any fishery management plan, plan amendment, or regulations required by this subsection at routine intervals that may not exceed two years." *Id.* § 1854(e)(7). If NMFS finds as a result of such review that the plan, amendment, or regulations have not resulted in adequate progress toward ending overfishing and rebuilding affected fish stocks, NMFS is required to "immediately notify the appropriate Council. Such notification shall recommend further conservation and management measures which the Council should consider ... to achieve adequate progress." *Id.* § 1854(e)(7)(B).

The regulations reiterate NMFS's mandatory duty to biannually monitor and review rebuilding plans to ensure adequate progress:

> (iv) Adequate Progress. The Secretary shall review rebuilding plans at routine intervals that may not exceed two years to determine whether the plans have resulted in adequate progress toward ending overfishing and rebuilding affected fish stocks (MSA section 304(e)(7)). Such reviews could include the review of recent stock assessments, comparisons of catches to the ACL, or other appropriate performance measures. The Secretary may find that adequate progress is not being made if $F_{REBUILD}$ or the ACL associated with $F_{REBUILD}$ is exceeded, and AMs are not correcting the operational issue that caused the overage, nor addressing any biological consequences to the stock or stock complex resulting from the overage when it is known (see paragraph (g)(3) of this section). A lack of adequate progress may also be found when the rebuilding expectations of a stock or stock complex are significantly changed due to new and unexpected information about the status of the stock. If a determination is made under this provision, the Secretary will notify the appropriate Council and recommend further conservation and management measures, and the Council must develop and implement a new or revised rebuilding plan within two years (see MSA sections 304(e)(3) and (e)(7)(B)). For Secretarially-managed fisheries, the Secretary would take immediate action necessary to achieve adequate progress toward rebuilding and ending overfishing. 50 C.F.R. § 600.310(j)(3)(C)(iv).

D. Secretarial Duty to Prepare a Plan or Amendment Where the Council has not Prepared One Consistent with Rebuilding Requirements

Under the MSA, fishery management councils propose fishery management plans and implementing regulations "for each fishery under its authority that requires conservation and management...." 16 U.S.C. § 1852(h)(1). Councils also propose amendments to these plans when "necessary from time to time," *id.*, and suggest regulations to implement these proposed amendments, *id.* § 1853(c). NMFS has limited authority to change a plan submitted by a council—after receiving a plan or amendment it may only approve, disapprove, or partially approve the proposed plan or amendment. *Id.* § 1854(a)(3).

Here, however, NMFS has ample authority to develop a Secretarial Amendment for GOM cod and GB cod: "The Secretary may prepare a fishery management plan, or an amendment to any such plan, in accordance with the national standards, the other provisions of this Act, and any other applicable law, if (A) the appropriate Council fails to develop and submit to the Secretary, after a reasonable period of time, a fishery management plan for such fish, or any necessary amendment to such a plan if such fishery requires conservation and management[.]"). *Id.* § 1854(c)(1)(A). CLF is aware of at least 12 times that NMFS has used this authority.[23]

Further, as noted above, NMFS has a non-discretionary duty to prepare a Secretarial plan or amendment where the Council has failed to submit a plan or amendment that complies with rebuilding requirements. *Id.* § 1854(e)(5): "If . . . the Council does not submit to the Secretary a fishery management plan, plan amendment, or proposed regulations required by paragraph (3)(A)[that ends overfishing immediately and rebuilds affected stocks of fish], the Secretary shall prepare a fishery management plan or plan amendment and any accompanying regulations to stop overfishing and rebuild affected stocks of fish. . . ." *Id.*

[23] Northeast Multispecies Secretarial Amendment, 59 Fed. Reg. 32,134 (June 22, 1994) (implementing disapproved measures in Amendment 5 to ensure emergency rule measures to protect haddock were permanent); Red Grouper Secretarial Amendment, 69 Fed. Reg. 33,315 (June 15, 2004) and Amberjack Secretarial Amendment, 68 Fed. Reg. 39,898 (July 3, 2003) (implementing measures to bring fishery into compliance with rebuilding requirements after council failed to meet the deadline); Pacific Coast Groundfish Fishery Management Plan Secretarial Amendment, 76 Fed. Reg. 77,415 (Dec. 13, 2011) (implementing rebuilding plans for overfished species after NMFS disapproved council's proposed Amendment 16-5 and council decided not to resubmit a revised amendment); New England Small-Mesh Multispecies Fishery Secretarial Amendment, 77 Fed. Reg. 19,138 (Mar. 30, 2012) (implementing ACLs and AMs to bring fishery into compliance with new MSA requirements pending Council development of Amendment 19 to the FMP); Tanner Crab Secretarial Amendment, 52 Fed. Reg. 17,577 (May 11, 1987) (implementing emergency measures until the Council could prepare a new FMP to properly specify MSY and OY); Atlantic Sea Scallop Secretarial Amendment, 52 Fed. Reg. 1,462 (Jan. 14, 1987) (implementing emergency measures to avert severe economic hardship in the fishery and allow experimental fishing exemptions); Red Drum Fishery Secretarial Amendment, 51 Fed. Reg. 46,675 (Dec. 24, 1986) (implementing measures to replace emergency rules establishing quotas and harvest limitations, permitting and reporting requirements, and procedures for annual modification of the quotas to prevent overfishing); Ocean Salmon Secretarial Amendment, 47 Fed. Reg. 38,545 (Sept. 1, 1982) (implementing season and gear restrictions for commercial ocean salmon fisheries to replace disapproved portion of FMP amendment after Council notified NMFS of its intent not to alter its recommendations); Atlantic Mackerel and Butterfish Secretarial Amendment, 47 Fed. Reg. 33,512 (Aug. 3, 1982) (extending effective dates to allow Council sufficient time to prepare Amendment 3 merging the Atlantic Mackerel, Squid, and Butterfish FMPs); and Atlantic Surf Clam and Ocean Quahog Secretarial Amendment, 47 Fed. Reg. 42,68 (Jan. 29, 1982) (extending vessel moratorium until Council could develop a limited entry permit system).

E. Emergency Action Required to End Overfishing

NMFS has established criteria to guide any emergency action decision, a procedure that by-passes notice and comment rulemaking. 16 U.S.C. § 1855(c). First, the need for the action must be driven by recent, unforeseen events. Second, the failure to act through emergency action must present serious conservation and management problems. And third, the criteria require that the immediate benefits of the emergency rulemaking must outweigh those that would otherwise be provided by public notice, comment, and deliberation.[24] The circumstances here underlying CLF's request for emergency action meet those criteria as we will demonstrate below.

F. Petitioner's Right to Petition

Under the APA, all citizens have the right to petition federal agencies for the "issuance, amendment, or repeal" of an agency rule. 5 U.S.C. § 553(e). A "rule" is the "whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy." *Id.* § 551(4). This petition for emergency and permanent rulemaking is brought before NMFS under that authority.

The APA further requires that "within a reasonable time, each agency shall proceed to conclude a matter presented to it." *Id.* § 555(b). Accordingly, the Secretary must "fully and promptly consider" all petitions presented to him. *WWHT, Inc. v. F.C.C.*, 656 F.2d 807, 813 (D.C. Cir. 1981). If a petition is denied, the agency must provide "a brief statement of the grounds for denial," 5 U.S.C. § 553(3), and the petitioning party is entitled to a "response on the merits of the petition." *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 115-116 (D.D.C. 1995). Federal courts have authority to compel agency action on petitions that is unlawfully withheld or unreasonably delayed. 5 U.S.C. § 555(b).

Finally, the APA provides for judicial review of NMFS's final agency action on this Petition. *Id.* §§ 701-706. Under the APA's judicial review provision, agency actions are to be set aside if they are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *See Id.* § 706(2). It is well settled that in any such action an "agency must examine the relevant data and articulate a satisfactory explanation for its action" that does not "run[] counter to the evidence before the agency" and that "include[s] a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotation marks omitted).

As discussed above, because the Council has repeatedly failed to develop and submit the necessary measures to end overfishing and rebuild Atlantic cod, NMFS has both ample legal authority and a statutory mandate to take the requested Secretarial actions under the MSA. 16 U.S.C. § 1854(b)(1)(B), (b)(3), (c)(1)(A), (e); *Id.* § 1855(c), (d). NMFS must now prepare an appropriate suite of conservation and management measures that will end overfishing immediately and rebuild the two cod stocks in a timeframe that does not exceed 10 years.

[24] *See* NMFS Policy Guidelines for the Use of Emergency Rules, 62 Fed. Reg. 44,421 (Aug. 21, 1997).

IV. Historical Background

Atlantic cod has been a dominant predatory fish species in the cold waters off the U.S. northeast coast for millennia. Plentiful populations of cod fed the first humans to inhabit New England's coast over ten thousand years ago and provided a steady source of protein for generations of coast-dwelling indigenous Americans. For the European colonies, Atlantic cod was New England's founding fish, fueling a global trade in the sought-after species that lasted for centuries. A wooden carving of the "Sacred Cod" hangs in the Massachusetts State House in recognition of the fish's historic cultural and economic importance to the state and region.

While the cod fishery has experienced centuries of population fluctuations, the conservation and management measures developed by the New England Fishery Management Council ("Council" or "NEFMC") and approved by NMFS[25] over the last four decades have allowed persistent overfishing and produced overfished cod stocks that hover at historic lows with no meaningful prospects of rebuilding within the statutory timeframe.[26]

Following the passage of the MSA, Atlantic cod faced new pressure from a growing U.S. domestic fleet eager to replace the fishing capacity of the ousted foreign fleets.[27] As a result, cod catch in New England boomed in the late 1970s to 1980s, but then quickly went bust (Figure 4). Rather than learn from the painful lessons of previous decades of foreign overfishing, ineffective limits were placed on the fishing power of this burgeoning offshore fleet despite scientists' warnings of vulnerable stocks.[28] NMFS briefly adopted an Interim Groundfish Management Plan for Atlantic cod stocks and others in 1982,[29] which was soon replaced by the permanent NE Multispecies FMP in 1986.[30] These management efforts were futile in the face of the expanded U.S. fishing fleet as well as new electronic technologies and higher horsepower fishing vessels that allowed them to locate fish and to tow heavy bottom trawling gear through complex habitats that previously had been *de facto* refugia for cod and other species.

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[25] The MSA holds NMFS, not the regional councils, responsible for ensuring that all FMPs are consistent with MSA requirements. 16 U.S.C. § 1854(a); *e.g., North Carolina Fisheries Ass'n*, 518 F. Supp. 2d 62 at 71-72 (Secretarial review of FMP amendment focuses on its consistency with the substantive criteria set forth in, and the overall objectives of the MSA); *see also Guindon v. Pritzker*, 31 F. Supp. 3d 169 at 197, 201 (if the FMP is inadequate the Fisheries Service "is not left helpless," it "cannot excuse its obligation[s]" by arguing that the Councils should have authorized the conservation measure, and it has a "statutory duty" to ensure the Magnuson-Stevens Act's requirements are met); *Flaherty*, 850 F. Supp. 2d at 54 n.6 (explaining that although the council generally develops an FMP in the first instance, "[the Fisheries Service] may develop its own FMP if a council fails to do so within a reasonable time for a fishery in need of conservation and management, or [the Service] may order a council to take action"); *see also* S. Rep. No. 94-711, at *41 (1976) (Conf. Rep.), as reprinted in 1976 U.S.C.C.A.N. 660, 664 ("The general responsibility for the carrying out of fishery management plans rests with the Secretary of Commerce.").

[26] *See* 2019 Groundfish Operational Assessments at 26-46.

[27] *See* Anthony VC. 1990. "The New England Groundfish Fishery after 10 Years under the Magnuson Fishery Conservation and Management Act." *North American Journal of Fisheries Management* 10(2):175-184.

[28] *See* Anthony VC. 1990; *see also* Brown BE. 1980. *The Status of the Fishery Resources on Georges Bank*. Woods Hole Laboratory Ref. Doc. 80-10, at 2. ("Cod on Georges Bank are at a relatively high level, and recent catches exceed 35,000 metric tons per year. The average sustainable long term catch for the Georges Bank area is estimated to be between 30,000-35,000 metric tons.").

[29] *See* NEFMC. "Northeast Multispecies (Groundfish) Fishery Management Plan Overview." Available at: http://s3.amazonaws.com/nefmc.org/GroundfishFMPOverview.pdf.

[30] NE Multispecies FMP, 51 Fed. Reg. 29,642 (Aug. 20, 1986).

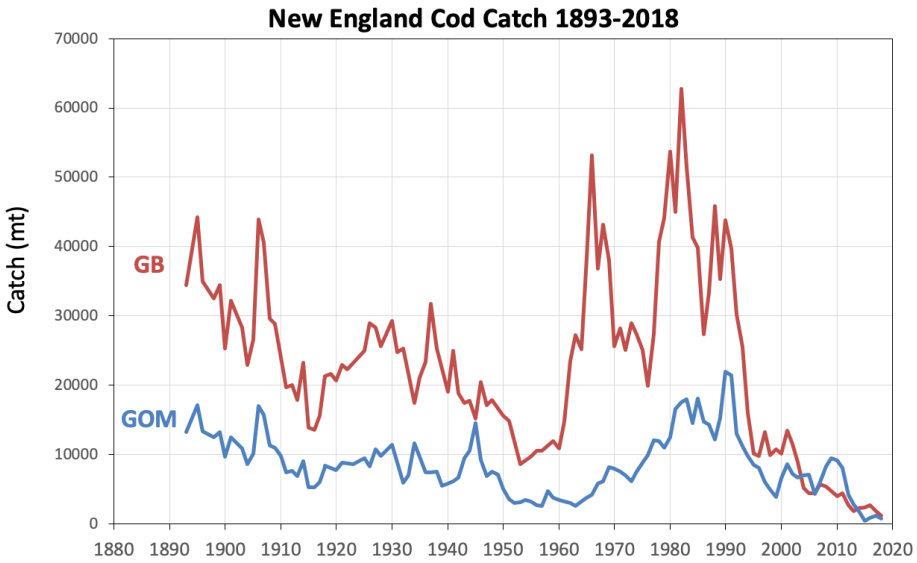

Figure 4: Catch (mt) estimates for GB and GOM cod (1893-2018) showing the increase in catch in the 1960s and 1970s associated with foreign fleets followed by the post-MSA increase in catch by the US fleet in the 1970s and 1980s. Following these periods of heavy overfishing, catches for both stocks declined in the 1990s to current historic lows. Data shown are estimates of total commercial landings until 1981 for GOM cod and until 1977 for GB cod.[31] Thereafter, data points are estimates of total commercial and recreational catch, including landings and discards.[32]

The abundance of the entire groundfish complex declined by *65 percent* in the first ten years of management by NMFS and the Council (1977 to 1987).[33] Catch of Atlantic cod has never again reached the peak that it achieved in the early 1980s nor even the more stable catches of the early 20th century (Figure 4). Today, some forty years later, the situation has grown significantly worse: U.S. cod stocks have plummeted to even lower levels of biomass, overfishing has continued unabated, and there is virtually no prospect of rebuilding within statutory timeframes under the management actions currently approved by NMFS.[34]

V. NMFS Repeatedly Approved Council Actions that Failed to Prevent and End Overfishing to Rebuild Overfished Atlantic Cod Stocks

Rather than create a flagship of U.S. fisheries management, NMFS made Atlantic cod the poster child for fishery management failure and the consequences of adopting short-term economic decisions that jeopardized the long-term future of this once seemingly inexhaustible fishery. With full knowledge of the circumstances and the scientific advice, NMFS has

[31] Data sources: Mayo RK, O'Brien L, and Serchuk FM. 1993. *Assessment of the Gulf of Maine Cod Stock for 1992*. NEFSC Ref. Doc. 93-04, at 1. Available at: https://www.nefsc noaa.gov/publications/crd/pdfs/crd9304.pdf; Serchuk FM, O'Brien L, Mayo RK, and Wigley SE. 1993. *Assessment of the Georges Bank cod stock for 1992*. NEFSC Ref. Doc. 93-05, at 1. Available at: https://www nefsc noaa.gov/publications/crd/pdfs/crd9305.pdf.

[32] Data sources: 55th SAW Assessment Report at 114 and 689; NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 3; NEFSC. 2019. *Georges Bank Atlantic Cod Tables* (Draft; Supplement to 2019 Operational Groundfish Assessments), at 2.

[33] Anthony VC. 1990 at 182.

[34] *See* 2019 Groundfish Operational Assessments at 24-46.

repeatedly approved actions that did not end overfishing or rebuild cod due to the failure to: (1) address low recruitment; (2) address bias and uncertainty in stock assessments; (3) increase uncertainty buffers when setting catch limits; and (4) select appropriate control rule options. NMFS cannot keep falling back on its hollow claim that the approved catch limits for cod technically fell within the maximum bounds authorized by the quantitative results of the stock assessments—that strategy has failed time and again.

A. NMFS's Longstanding Failure to Prevent and End Overfishing

NMFS has failed to prevent and end overfishing of Atlantic cod for decades. In fact, the first assessment of Atlantic cod after implementation of the MSA that was conducted in 1977 determined that both stocks were subject to overfishing.[35, 36] With the advent of the current Northeast Stock Assessment Workshop ("SAW") process, the resulting peer-reviewed, model-based assessments (1986 for GB cod and 1988 for GOM cod) found that the stocks were in poor condition with spawning stock biomass ("SSB") at historic lows and fishing mortality at historic highs with overfishing occurring (Table 1).[37, 38] Under the current definitions based on the fishing mortality rate and spawning stock biomass that would produce the maximum sustainable yield (respectively, "F_{MSY}" and "SSB_{MSY}"),[39] GOM and GB cod were designated as "overfished" and "subject to overfishing" in the 2002 stock assessments.[40] Every assessment since then has reached the same conclusion, with the sole exception being the 2008 assessment, where the GOM cod stock, while still identified as being subject to overfishing, was determined to be not overfished.[41] This determination, however, was based on unusually high uncertainty associated with the 2007 federal survey data,[42] and subsequent assessments soon found that the stock had been in fact overfished at the time of the 2008 assessment.[43]

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[35] *See* Serchuk FM, Wood PW, Clark SH, and Brown BE. 1977. *Analysis of the Georges Bank and Gulf of Maine cod stocks.* NEFC Ref. Doc. 77-24. Available at: https://www.nefsc noaa.gov/publications/series/whlrd/whlrd7724.pdf.

[36] "Growth overfishing" was determined to be occurring: fishing mortality exceeded F_{MAX}, one of the biological reference points of the time, defined as the rate that produces the maximum yield per recruit. F_{MAX} is generally higher than F_{MSY}, the current biological reference point used to define overfishing.

[37] Fishing mortality for both stocks far exceeded F_{MAX}, indicating that the stocks were growth overfished and the reviews expressed concern that the stocks were also in danger of "recruitment overfishing," the point at which the stock is so depleted that the population cannot replenish itself (i.e., recruitment is compromised).

[38] Serchuk FM and Wigley SE. 1986. *Assessment and status of the Georges Bank and Gulf of Maine Atlantic cod stocks - 1986*. NEFC Ref. Doc. 86-12. Available at: https://www.researchgate net/publication/285587022_Assessment_and_status_of_the_Georges_Bank_and_Gulf_of_Maine_Atlantic_cod_stocks_--_1986.

[39] Presently, reported fishing mortality rates and F_{MSY} are based on fully-recruited fishing mortality. F_{MSY} is estimated based on the proxy of $F_{40\%}$, the fishing mortality rate that reduces the SSB per recruit to 40% of that present in the absence of fishing.

[40] 55th SAW Summary Report.

[41] NEFSC. 2008. *Assessment of 19 Northeast Groundfish Stocks through 2007: Report of the 3rd Groundfish Assessment Review Meeting (GARM III)*. NEFSC Ref. Doc. 08-15, at 234. Available at: https://www.nefsc noaa.gov/publications/crd/crd0815/crd0815.pdf.

[42] NEFSC. 2012. *53rd Northeast Regional Stock Assessment Workshop Assessment Summary Report*. NEFSC Ref. Doc. 12-03, at 14. Available at: https://www nefsc.noaa.gov/saw/saw53/crd1203.pdf.

[43] *Id.*

YEAR	MEETING	GOM COD STATUS	GB COD STATUS
1986	SAW 3	Overfishing *	Overfishing
1988	SAW 7	Overfishing	Overfishing
1990	SAW 11	N/A	Over-exploited, not depleted
1991	SAW 12 (GOM) & SAW 13 (GB)	Over-exploited, medium stock level	Over-exploited, medium stock level
1993	SAW 15	Over-exploited, low biomass level	Over-exploited, low biomass level
1994	SAW 18	N/A	Over-exploited, low biomass level
1995	SAW 19	Over-exploited, low biomass level	N/A
1997	SAW 24	Over-exploited, low biomass level	Over-exploited, low biomass level
1998	SAW 27	Over-exploited, low biomass level	Over-exploited, low biomass level
2000	TRAC 3	N/A	Overfishing not occurring, not overfished
2001	SAW 33 (GOM) & TRAC 4 (GB)	Overfishing occurring, not overfished	Overfishing not occurring, not overfished
2002	GARM I	Overfishing occurring, overfished	Overfishing occurring, overfished
2005	GARM II	Overfishing occurring, overfished	Overfishing occurring, overfished
2008	GARM III	Overfishing occurring, not overfished **	Overfishing occurring, overfished
2011	SAW 53	Overfishing occurring, overfished	N/A
2012	Update	N/A	Overfishing occurring, overfished
2012	SAW 55	Overfishing occurring, overfished	Overfishing occurring, overfished
2014	Update	Overfishing occurring, overfished	N/A
2015	Operational Assessment	Overfishing occurring, overfished	Overfishing occurring,*** overfished
2017	Operational Assessment	Overfishing occurring, overfished	Overfishing occurring,*** overfished
2019	Operational Assessment	Overfishing occurring, overfished	Overfishing occurring,*** overfished

Table 1: GOM cod and GB cod status determinations based on stock assessments (1986-2019). *See* Appendix A for full table with citations and relevant quotations regarding management advice and citations. * SAW 3 was based on analysis of empirical data rather than an analytical model. The 1986 GB cod assessment, and most subsequent assessments for both stocks, were model-based. ** GARM III "not overfished" determination for GOM cod was based on unusually high uncertainty associated with the 2007 federal survey data; subsequent assessments found that the stock was in fact overfished at the time of the 2008 assessment (see text and Appendix A). *** Recent GB assessments have recommended that overfishing status was unknown, given the lack of an accepted assessment model. As explained above, however, NMFS policy is to base the determination on the last known status, hence the GB stock status continues to be overfishing occurring.

The best scientific information available, notably including the 2019 operational stock assessment, demonstrates that Atlantic cod has experienced overfishing for 100 percent of the time periods covered by the assessments (GOM cod: 1982-2018; GB cod: 1978-2011), and has been overfished in all but two years of these time frames (Table 1; Figures 2 and 3, respectively). The "historic lows" in biomass of the 1980s identified at the time of the initial SAWs now represent historic highs in the time period covered by the assessment models, and the most recently accepted assessment models estimate SSB in both stocks at less than 10 percent of the target SSB_{MSY}. Given the earlier history of the fisheries (Figure 4), moreover, it is highly likely that both stocks have been subject to overfishing for much longer. In both stocks, fishing mortality has routinely exceeded the overfishing reference points by more than a factor of three, and as recently as 2014, fishing mortality in the GOM was more than ten times higher than F_{MSY}.[44]

Translating the magnitude of these fishing mortality rates into more intuitive quantities, the peaks in fishing mortality for the two stocks during the early 1990s and again in the 2010s (Figure 2) correspond to *60-80 percent of the entire recruited stock being caught each year*.

1. Failure to Prevent and End Overfishing of Gulf of Maine Cod

Stock assessments consider myriad factors to determine stock status including stock size, fishing pressure, stock range and abundance, and age structure, all of which are indicative of management success or failure. GOM cod is presently overfished with overfishing occurring.[45] The most recent assessment for GOM cod estimates that the stock is at only 6 to 9 percent of its spawning stock biomass target (Figure 5).[46] SSB has been gradually inching up from its 2014 nadir, but as developed further below, survey indices continue to decrease, recruitment continues to hover around historic lows, and the assessment model is plagued by uncertainty. While fishing pressure has been reduced in recent years (at least on paper), it still remains at least 9 to 13 percent higher than $F_{MSY.}$[47] Note also that these percent overages are likely under-estimates as they do not account for the retrospective patterns evident in the models, which tend to decrease estimates of fishing mortality. Furthermore, although fishing mortality is increasingly nearing F_{MSY}, it remains far above levels necessary for rebuilding. F_{MSY} is the fishing rate that is only meant to be associated with a healthy stock, not an overfished stock, and even then, the Council's control rule sets the proper fishing mortality for a healthy stock at $75\%F_{MSY.}$

[44] NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 33.
[45] 2019 Groundfish Operational Assessments at 26.
[46] *Id.*
[47] *Id.*

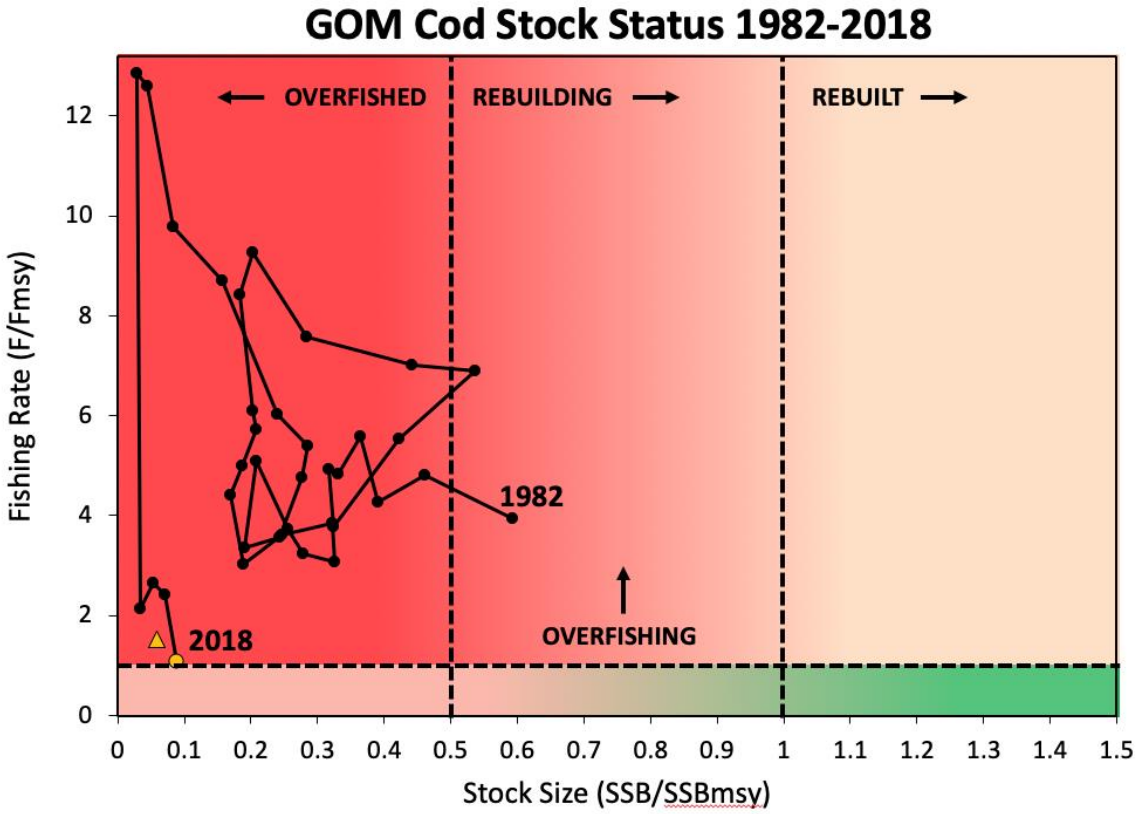

Figure 5: GOM cod stock status (1982-2018). The stock has been subject to overfishing for the entirety of the assessment time period and overfished for all but two years. Each point corresponds to a year and shows the estimated fishing mortality (F) relative to target F_{MSY} as well as the estimated spawning stock biomass relative to target SSB_{MSY}. Under current definitions, a stock is subject to overfishing when the F/F_{MSY} ratio exceeds 1 and overfished when SSB is less than half of SSB_{MSY}. A stock is only rebuilt when SSB exceeds the target SSB_{MSY}. Data plotted are estimates from the M=0.2 model (the other accepted model for this stock, M-ramp, is not graphed here but shows a similar pattern). This M=0.2 model suffers from a significant retrospective pattern, which acts to decrease estimated fishing pressure and inflate SSB for years towards the end of the time series. The yellow dot indicates 2018, the last year included in the assessment. The yellow triangle shows corrected 2018 values as adjusted for the retrospective pattern.[48]

In addition, spring and fall trawl surveys conducted by the Northeast Fisheries Science Center ("Science Center" or "NEFSC") reveal a substantial contraction in spatial distribution relative to the stock's historical range (Figure 6), leaving the remnants of the GOM cod population concentrated in a small area in the western GOM and making them especially vulnerable to continued overfishing.[49] Such concentration potentially leads to the perception

[48] Data Source: NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 32, 33, 39, and 40.

[49] Cardigan N. 2012. *55th Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC): Benchmark stock assessments for Georges Bank cod and Gulf of Maine cod.* Center for Independent Experts (CIE) Independent Peer Review Report, at 27. Available at: https://www.nefsc noaa.gov/saw/saw55/2013_01_02%20Cadigan%20SARC%2055%20review%20report.pdf;

among some fishermen that the stock is in a healthier state than it really is.[50] The federal trawl surveys further reveal that stock size has steadily, albeit variably, declined since the 1960s, with the biomass index reaching its lowest level on record in the fall of 2019 (Figure 7). This decline is mirrored in the annual survey of inshore waters conducted by the Massachusetts Division of Marine Fisheries ("MA DMF"),[51] as well as the MA-sponsored Industry-Based Survey,[52] which uses industry vessels to sample the inshore region where GOM cod are presently concentrated.

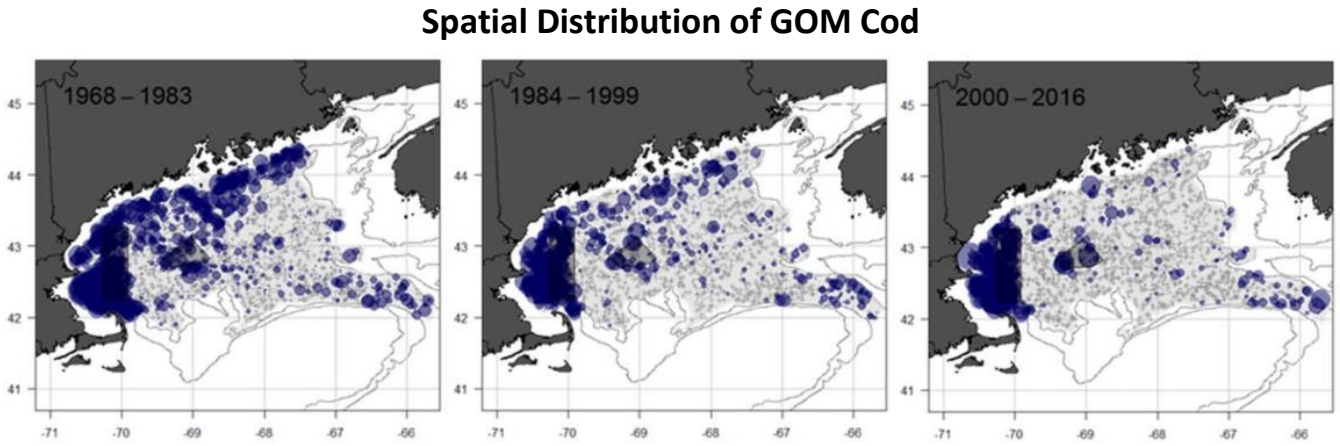

Figure 6: Spatial distribution of NEFSC spring and fall bottom trawl survey cod catches (numbers/tow, larger catch size indicated by larger circles), showing the contraction in distribution in recent years for the GOM stock. Grey shaded areas show Western Gulf of Maine and Cashes Ledge closures.[53]

The Science Center, MA DMF, and Industry-Based surveys also confirm a severely truncated age structure[54] with few older, adult cod (Figure 8), indicative of a population experiencing high mortality.[55] Furthermore, recruitment remains near record lows with few positive signs of incoming recruitment.[56] This low recruitment coupled with continued

[50] Casey J. 2012. *Independent Peer Review Report on the 55th Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC): Benchmark stock assessments for Georges Bank cod and Gulf of Maine cod*, at 24. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.387.6445&rep=rep1&type=pdf. ("A concentration of the fishery on the areas where the remaining population is concentrated may result in the maintenance of fishery catch rates, make the stock more vulnerable to fishing and give the perception that the stock is in a healthier state than it really is.").

[51] NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 24.

[52] MA DMF. "Marine Fisheries' Gulf of Maine Cod Industry-Based Survey (IBS): Spring/Summer 2017 to Begin and 2016/2017 Preliminary Results." Notice dated March 29, 2017. Available at: https://www.mass.gov/files/documents/2017/03/bab/IBS%2520Survey%25202017.pdf.

[53] Reproduced from NEFSC. 2017. *Gulf of Maine Atlantic Cod 2017 Assessment Update Report Supplemental Information* (Draft), at 78.

[54] 2019 Groundfish Operational Assessment at 29; *see also* MA DMF. "Marine Fisheries' Gulf of Maine Cod Industry-Based Survey (IBS): Spring/Summer 2017 to Begin and 2016/2017 Preliminary Results." Notice dated March 29, 2017. Available at: https://www mass.gov/files/2017-08/ibs-survey-2017.pdf.

[55] 2019 Groundfish Operational Assessment at 29.

[56] *Id.*

overfishing eliminates any prospects of the GOM cod stock meeting its 2024 rebuilding date.[57] Scientific concerns regarding low recruitment rates, and the related issue of truncated age structure, have been repeatedly raised in the many stock assessments of the past several decades (Appendix A), but any development or implementation of conservation and management measures that would respond to those concerns has been routinely ignored by managers.

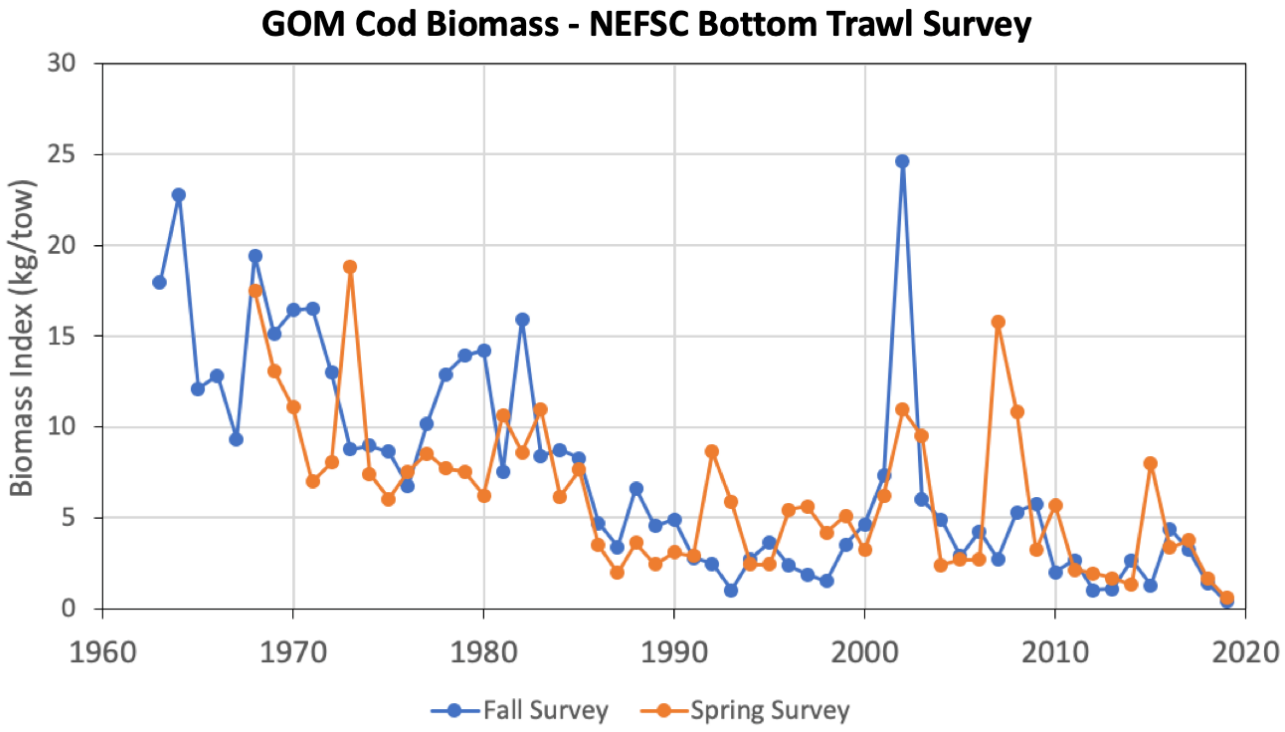

Figure 7: GOM cod biomass index (kg/tow) from NEFSC bottom trawl surveys conducted biannually in spring and fall, 1963-2019. These survey data are independent of fishery catch data and show a strong decline from highs in the 60s-70s to a historical low in the most recent survey (fall 2019).[58]

[57] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019, at 7.

[58] Data Source: NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 24. Updated for fall 2019 survey based on C. Perretti (NEFSC) pers. comm.

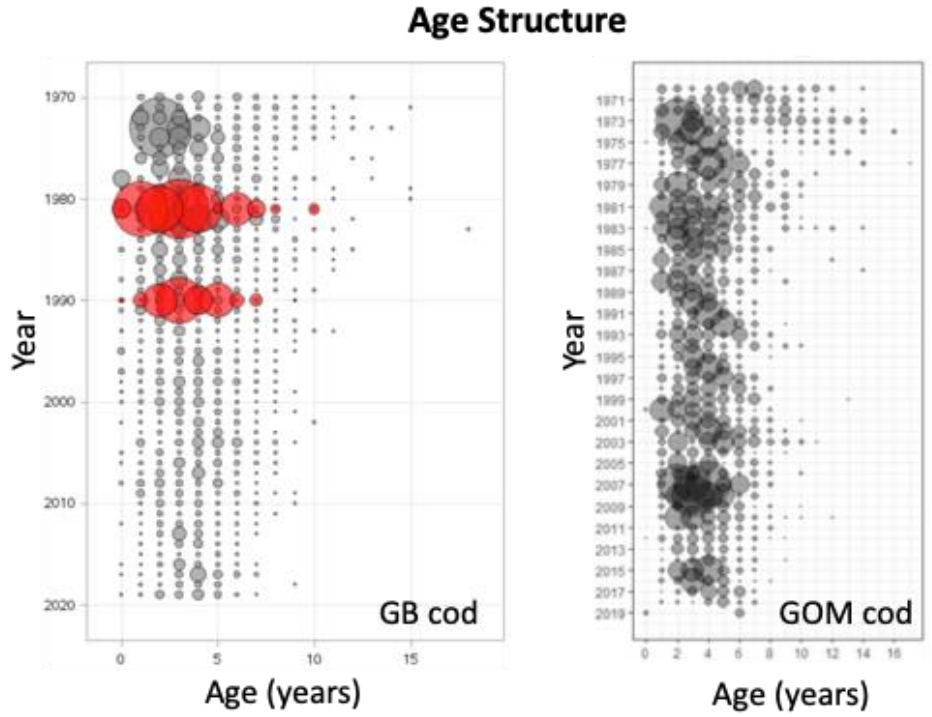

Figure 8: Age frequency distributions of GB and GOM cod from NEFSC spring bottom trawl surveys (1970 through 2019) demonstrate truncated age structure in both stocks in recent years. [59] The red data points represent years with incomplete sampling or age-length information.

2. Failure to Prevent and End Overfishing of Georges Bank Cod

Currently, without an accepted analytical model, stock size and fishing mortality cannot be quantitatively assessed for GB cod. Based on the last accepted assessment model (2012) though, the stock was only at 7 percent of its spawning stock biomass target, and fishing pressure was more than twice as high as F_{MSY} (Figure 9).[60]

[59] Reproduced from NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Figures* (Draft), at 22; NEFSC. 2019. *Georges Bank Atlantic Cod Figures* (Draft; Supplement to 2019 Operational Groundfish Assessments), at 31.
[60] 55th SAW Summary Report.

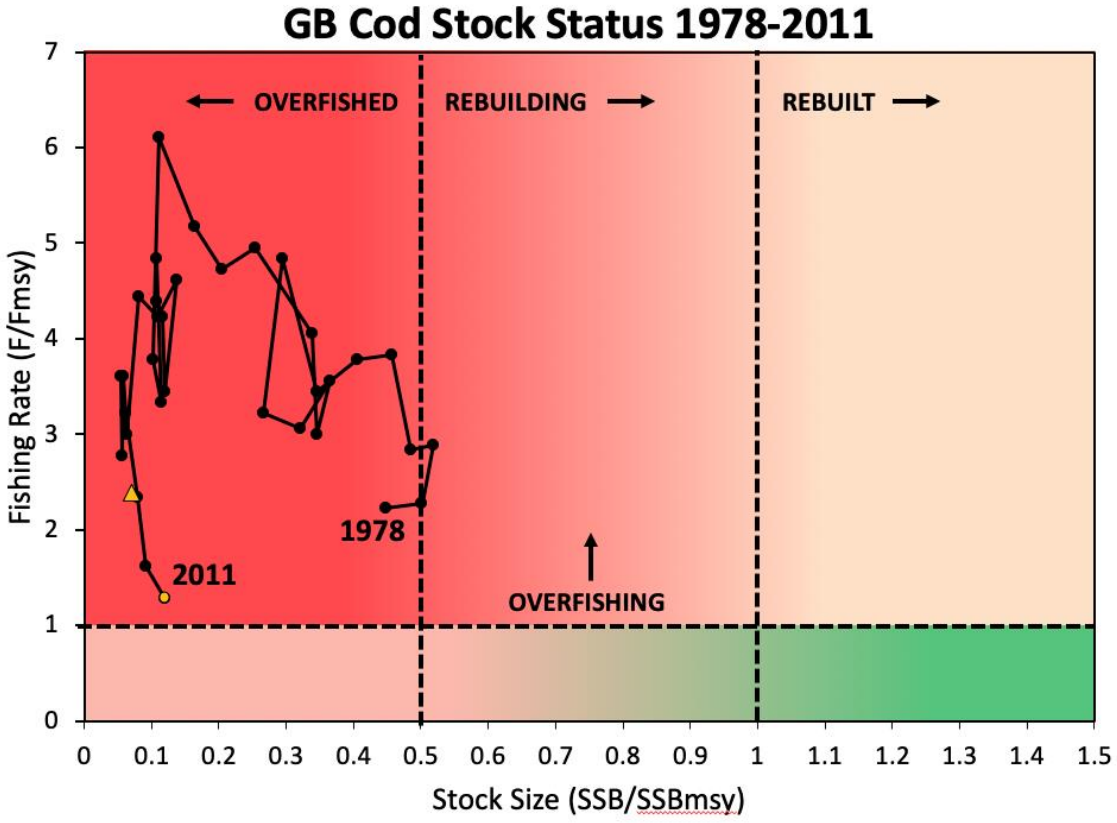

Figure 9: GB cod stock status (1978-2011). The stock has been subject to overfishing for the entirety of the time period and overfished for all but two years. The 2012 benchmark assessment is the last accepted analytical model, so estimates of SSB and fishing mortality are not available for more recent years. This model suffers from a significant retrospective pattern, which acts to understate estimated fishing pressure and overstate SSB for years towards the end of the time series. The yellow dot indicates 2010, the last year included in the assessment. The yellow triangle shows corrected 2010 values as adjusted for the retrospective pattern.[61]

In the absence of an accepted analytical model, survey indices provide the primary basis for assessing the fishery and show no robust evidence of recovery. The Science Center trawl surveys have shown a substantial decrease in the abundance and biomass of GB cod as compared to highs in the 1970s and 1980s. Since the mid-1990s, abundance and biomass have varied but continue to linger at reduced levels (Figure 10). Trawl surveys conducted by the Canadian Department of Fisheries and Oceans on the eastern portion of Georges Bank mirror the U.S. surveys and show similar low abundance and biomass for cod in this area.[62] Also, similar to GOM cod, GB cod exhibits a severely truncated age structure (Figure 8).[63]

[61] Data Sources: 55th SAW Assessment Report at 742; 55th SAW Summary Report at 26.

[62] Barrett M, Legault CM, Irvine F, and Andrushchenko I. 2019. *Data Update for Eastern Georges Bank Cod in 2019*. Transboundary Resources Assessment Committee Ref. Doc. (Draft).

[63] 2019 Operational Groundfish Assessments at 40.

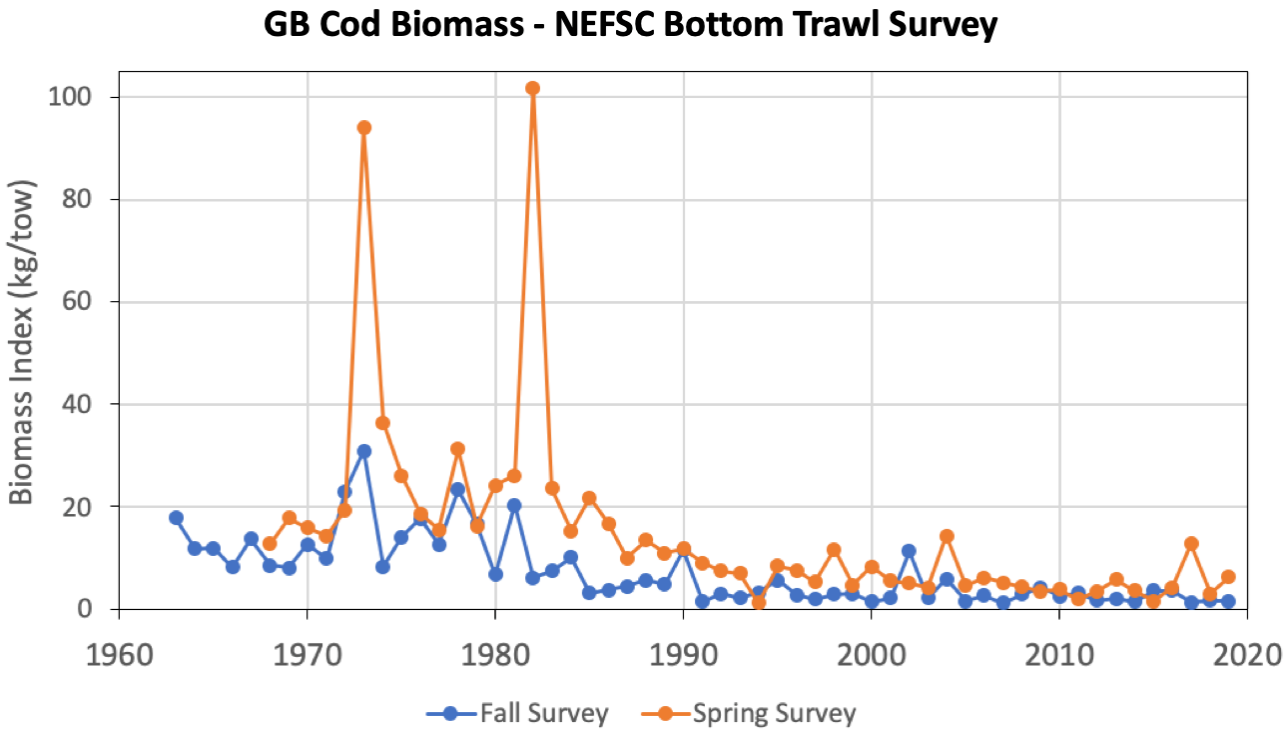

Figure 10: GB cod biomass index (kg/tow) from NEFSC bottom trawl surveys conducted biannually in spring and fall, 1963-2019. These survey data are independent of fishery catch data and show a strong decline from overall highs in the 60s-80s and overall low but variable biomass from the 90s through present.[64]

3. Failure to Account for Low Recruitment Despite Persistent Overfishing

Rebuilding GOM and GB cod populations depends upon improved recruitment into the fishery—that is, on the ability to add new fish to the adult population each year. For both stocks, the number of age-1 fish recruiting to the stocks is at or near record low levels, having dropped significantly from the highs of the 1980s.[65] A high number of age-0 fish caught in the MA DMF spring 2019 survey[66] provides a glimmer of hope for future GOM cod recruitment although in the past, similar age-0 signals have not carried through to recruitment of older, reproductively mature fish.[67] Stock assessment scientists have cautioned: "If recent weak recruitment of Gulf of Maine cod continues, productivity and rebuilding of the stock will be less than projected."[68]

In addition to low stock size due to excessively high fishing rates, low recruitment can be caused by other factors. For example, as discussed further below, a lack of large female cod in

[64] Data Source: NEFSC. 2019. *Georges Bank Atlantic Cod Tables*. (Draft; Supplement to 2019 Operational Groundfish Assessments), at 10.
[65] 2019 Groundfish Operational Assessment at 35; 55th SAW Summary Report.
[66] NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 24.
[67] 2019 Groundfish Operational Assessment at 31.
[68] Palmer MC. 2014. *2014 Assessment update report of the Gulf of Maine Atlantic cod stock*. NEFSC Ref. Doc. 14-14, at 11. Available at: https://www nefsc noaa.gov/publications/crd/crd1414/crd1414.pdf.

both stocks has been repeatedly identified as likely contributing to low recruitment rates.[69] Likewise, warming ocean temperatures, increased mortality, and changing prey availability for developing larvae due to climate change have been implicated in reducing the current recruitment success of GOM cod and potentially GB cod.[70] Impaired population dynamics and reproduction at low spawning stock biomass,[71] depletion of spawning grounds,[72] and disruption of spawning behaviors by fishing activities[73] all likely also play a role.

To date, NMFS has unreasonably approved conservation and management measures that consistently fail to account for and respond to the many factors associated with the low recruitment of Atlantic cod.

4. Failure to Account for Significant Bias and Uncertainty in the Stock Assessments Despite Persistent Overfishing

The assessment models for both stocks are confounded by multiple sources of error. Chief among these is a consistent pattern of bias, referred to as a retrospective pattern, wherein each successive time the stocks are assessed, the stock biomass estimates from the latter years of the previous assessment prove to have been too high and fishing level estimates to have been too low.[74] Specific scientific caveats about retrospective patterns in the assessments should have cautioned managers to be conservative when setting catch limits, but these have been ignored by the Council and NMFS. For example, in the 2017 GOM cod stock assessment, a retrospective pattern adjustment to one of the models would have set the ABC more than 36 percent lower than the uncorrected model.[75] At the time, the assessment "special comments section" cautioned that "[w]hen setting catch advice, careful attention should be given to the retrospective error present in both models, particularly given the poor performance of previous stock projections."[76] Prior to the catch limits currently under consideration in Framework 59,[77] however, the adjustment has not been used for catch advice, and up until the 2019 assessment was only

[69] *See* Appendix A.

[70] Pershing AJ, Alexander MA, Hernandez CM, Kerr LA, Le Bris A, Mills KE, Nye JA, Record NR, Scannell HA, Scott JD, Sherwood GD, and Thomas AC. 2015. "Slow adaptation in the face of rapid warming leads to collapse of the Gulf of Maine cod fishery." *Science* 350(6292): 809-812.; Friedland KD, Kane J, Hare HA, Lough RG, Fratantoni PS, Fogarty MJ, and Nye JA. 2013. "Thermal habitat constraints on zooplankton species associated with Atlantic cod (*Gadus morhua*) on the US Northeast Continental Shelf." *Progress in Oceanography* 116:1-13.

[71] Hutchings JA. 2014. "Renaissance of a caveat: Allee effects in marine fish." *ICES Journal of Marine Science* 71:2152-2157; Rowe S, Hutchings JA, Bekkevold D, and Rakitin A. 2004. "Depensation, probability of fertilization, and the mating system of Atlantic cod (*Gadus morhua* L.)." *ICES Journal of Marine Science* 61:1144-1150.

[72] Ames EP. 2004. "Atlantic cod stock structure in the Gulf of Maine." *Fisheries*. 29(1):10–28.

[73] Dean MJ, Hoffman WS, and Armstrong MP. 2012. "Disruption of an Atlantic Cod Spawning Aggregation Resulting from the Opening of a Directed Gill-Net Fishery." *North American Journal of Fisheries Management* 32:124-134.

[74] 2019 Groundfish Operational Assessments at 28 and 39.

[75] NEFSC 2017. *Gulf of Maine Atlantic Cod 2017 Assessment Update Report Supplemental Information* (Draft), at 42.

[76] NEFSC. 2017. *Operational Assessment of 19 Northeast Groundfish Stocks, Updated Through 2016*. NEFSC Ref. Doc. 17-17, at 30. Available at: https://www nefsc.noaa.gov/publications/crd/crd1717/crd1717.pdf.

[77] *See* NEFMC. *Groundfish: Council Approves Framework 59; Receives Progress Report on Monitoring Amendment 23*. Press release published Dec. 17, 2019. Available at: https://s3.amazonaws.com/nefmc.org/Groundfish-Council-Approves-FW-59-Receives-A23-Update.pdf.

provided as a sensitivity analysis. The result of this risk-prone approach, predictably, has been persistent overfishing even when annual catch limits have technically been set below the modeled overfishing limit.

In the case of the GB stock, the retrospective pattern became so severe by the 2015 assessment that attempted technical model adjustments led to implausible outcomes and the model was rejected for management advice.[78] In its place, as discussed below, an empirical model that combines recent catch levels with survey results has been used to provide catch advice. Significant uncertainty remains in the GB stock assessment because the empirical approach cannot make any quantitative estimates or projections of current or future biomass and fishing levels, and hence quantitative stock status and rebuilding progress.

The specific causes of the retrospective patterns relate to conditions changing over the course of the model time period in ways not captured by the input data and/or model parameterization. Among other reasons, this could relate to: (1) unaccounted-for catch such as illegal discards; (2) changes in natural mortality, including relating to climate change; (3) changes in commercial or recreational catch selectivity; and (4) changes in survey selectivity, or some combination of those reasons. Discerning among these possibilities and solving them is not easy, but 100 percent monitoring—which the agency to date has refused to require[79]—would at a minimum address unaccounted-for catch as a potential factor.

An additional significant source of uncertainty in the GOM cod assessment is the estimate of natural mortality ("M"). Currently, two GOM cod models are accepted for management advice (M=0.2 and M-ramp), each with different assumptions about the level of natural mortality.[80] The M-ramp model was introduced at the 2012 benchmark assessment in an effort to address the significant retrospective pattern in the M=0.2 model and, on the basis of limited evidence, potential changes in natural mortality over time.[81] Although the stock trends evidenced by the two models are relatively similar, they differ in the magnitude of their estimates of stock biomass, recruitment, and fishing mortality[82] and hence lead to different calculations of catch advice. A related issue concerns the assumed level of natural mortality used in making projections with the M-ramp model, which further increases the range of options available in determining catch advice. This increasing range of options has provided the rationale and excuse for setting higher catch limits than a more conservative approach would produce. Further, given

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[78] NEFSC. 2015. *Stock Assessment Update of 20 Northeast Groundfish Stocks Through 2014*. NEFSC Ref. Doc. 15-24, at 39. Available at: https://www nefsc noaa.gov/publications/crd/crd1524/crd1524.pdf.

[79] *See* Amendment 16, 75 Fed. Reg. 18,262, 18,342 (Apr. 9, 2010) ("Beginning in fishing year 2012, coverage levels for an at-sea monitoring program shall be specified by NMFS, but shall be less than 100 percent of all sector trips.").

[80] The M=0.2 model assumes the standard natural mortality level of 0.2. The M-ramp model assumes that over the assessment time period natural mortality has increased from 0.2 to a current level of 0.4. Two variants of the M-ramp model are used for projections, either assuming that natural mortality would decrease back to 0.2 or that it would remain at 0.4. As recently as 2015 both variants were used in setting catch advice, despite assessment scientists agreeing that an immediate return to 0.2 (the variant that leads to higher catch advice) is an unlikely scenario.

[81] 55th SAW Assessment Report. Note also that concerns about a possible increase in natural mortality were raised for GB cod as well, at the time of the last accepted model-based assessment.

[82] 2019 Groundfish Operational Assessment at 28.

that the M-ramp model itself now suffers from a growing retrospective pattern[83] and given the confusion introduced by multiple model options and associated projections, the uncertainties related to the true natural mortality must be reconciled.

As elaborated below, substantial additional error, i.e., beyond just the implications for retrospective patterns, is introduced into the assessments and models by uncertainty with respect to the accuracy of fishery catch data, the true population structure of cod in the New England region relative to the two stock units (i.e., GOM and GB cod) assumed for assessment and management, and possible environmental and climate change-related impacts on stock and ecosystem productivity.

5. Failure to Adjust Uncertainty Buffers Despite Persistent Overfishing

To account for uncertainty in stock assessments, catch data, and catch advice, scientists and managers are required to apply a scientific uncertainty buffer between the OFL and ABC and a management uncertainty buffer between the ABC and ACL.[84] As NMFS has stated, "additional uncertainty buffers are established when setting ACLs to help make up for any lack of absolute precision and accuracy in estimating overall catch[.]"[85] Given the growing uncertainties associated with each cod stock and the persistent pattern of overestimating biomass and underestimating fishing pressure, the Council and NMFS should have been increasing uncertainty buffers routinely to end overfishing on these stocks. Since 2010, however, the uncertainty buffers for GOM and GB cod have remained largely unchanged.

NMFS has unreasonably approved the Council's management measures and catch limits without requiring significantly more conservative and larger scientific and management uncertainty buffers to end overfishing on GOM cod and GB cod in response to the continued decline in the stocks.

6. Failure to Apply the Approved ABC Control Rule

Since the implementation of Amendment 16 (2010), NMFS has repeatedly approved catch limits for the two cod stocks based on the selection of a control rule option that has no rational connection to the facts: GOM cod and GB cod are overfished, subject to unlawful overfishing, and not on track to rebuild in the statutory timeframes. Under the National Standard 1 guidelines, FMPs must include an ABC control rule that produces progressively more conservative management actions as biomass estimates or their proxies decline. 50 C.F.R. § 600.310(f)(1), (2). Specifically, "[f]or stocks and stock complexes required to have an ABC, each Council must establish an ABC control rule that accounts for scientific uncertainty in the

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[83] *Id.*

[84] To ensure that overfishing does not occur, NMFS recommends an OFL that corresponds to MSY, an ABC set at or below the OFL to account for scientific uncertainty, an ACL set at or below the ABC recommended by the SSC, and an annual catch target set at or below the ACL to account for management uncertainty. *See* 50 C.F.R. § 600.310(f).

[85] NOAA Fisheries. *Summary of Analyses Conducted to Determine At-Sea Monitoring for Multispecies Sectors FY2019*, at 2. Available at: https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/Sectors/ASM/FY2019_Multispecies_Sector_ASM_Requirements_Summary.pdf.

OFL and for the Council's risk policy, and that is based on a comprehensive analysis that shows how the control rule prevents overfishing." *Id.* 600.310(f)(2).

To that end, the Council recommended, and NMFS approved, a control rule for all groundfish stocks in Amendment 16 that prescribes a hierarchy of increasingly stringent options:

> 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} [hereafter, "Option A"].
> 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 ($F_{REBUILD}$) [hereafter, "Option B"].
> c. **For stocks that cannot rebuild to B_{MSY}[86] in the specified rebuilding period even in the absence of fishing, the ABC should be based on incidental bycatch, including a reduction in the bycatch rate (i.e., the proportion of the cod stock caught as bycatch) [hereafter, "Option C"].**
> d. Interim ABC's should be determined for stocks with unknown status according to case-by-case recommendations from the SSC [hereafter, "Option D"].[87]

The Council's control rules, like other management actions, must achieve at least a 50 percent probability of preventing overfishing.[88] Fifty percent, however, as the *target* probability of preventing overfishing is not appropriate when a stock is overfished, where the applicable legal standard is to "end overfishing immediately." Stated another way, the Council's groundfish control rule unlawfully sanctions ABCs that allow overfishing up to 50 percent of the time. Such odds—no better than the flip of a coin—are patently inconsistent with the requirement that overfishing be *ended immediately* for any stock in a rebuilding plan. It is illogical and contrary to law for NMFS to approve use of such a control rule for managing overfished cod stocks.

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[86] The Council defines B_{MSY} as "The stock biomass that would produce MSY when fished at a fishing mortality rate equal to F_{MSY}. For most stocks, B_{MSY} is about ½ of the carrying capacity. The proposed overfishing definition control rules call for action when biomass is below ¼ or ½ B_{MSY}, depending on the species." Available at: https://www.nefmc.org/files/Glossary.pdf.

[87] NEFMC. *Final Amendment 16 to the NE Multispecies FMP including its Environmental Impact Statement and Initial Regulatory Flexibility Analysis*. Submitted October 16, 2009, at 78-79. Available at: https://s3.amazonaws.com/nefmc.org/091016_Final_Amendment_16.pdf (hereafter, "Amendment 16 FEIS") (emphasis added).

[88] 50 C.F.R. 600.310 (f)(2)(i).

a. Application of the ABC Control Rule to GOM Cod

Putting aside the legal question of whether the existing control rule is appropriate, which it is not, managers have not even applied it according to its own terms nor has NMFS articulated a satisfactory explanation for its approvals of the resulting catch limits that do not end overfishing.

In Framework 51, NMFS approved a rebuilding plan that was designed such that $F_{REBUILD}$ was not limiting. That is, at least initially, $F_{REBUILD}$ was greater than $75\%F_{MSY}$, such that under the control rule's Option A, catch limits were to be set based on $75\%F_{MSY}$.[89] NMFS stated there, however, that "In the future, if information shows that GOM cod … stock sizes have not increased as projected, it is possible that $F_{REBUILD}$ could become less than $75\%F_{MSY}$. Under this scenario, catches would then be set based on the lower rate, or $F_{REBUILD}$, consistent with the Council's control rule."[90]

That decision was almost immediately abandoned. Initial analyses in the 2014 stock assessment update for GOM cod—barely into the new (and second) rebuilding plan—indicated that setting fishing mortality at $75\%F_{MSY}$ under Option A of the control rule could not achieve rebuilding requirements.[91] Consequently, during development of Framework 53 (2015), the Groundfish Plan Development Team ("PDT") and the SSC recommended an ABC of 200 mt based on the lower $F_{REBUILD}$ rate,[92] consistent with the progressively more stringent Option B of the control rule. However, the SSC subsequently revised its advice to recommend a 386 mt constant catch ABC—essentially based on Option A[93] and representing a 93 percent *increase* above the PDT's initial $F_{REBUILD}$ calculation—and claimed without specific scientific justification that rebuilding was still possible within the rebuilding timeframe under the higher limit.[94]

In rationalizing its approval of Framework 53,[95] NMFS noted that an ABC of 386 mt was "expected to have little functional difference"[96] in comparison to the 200 mt recommendation, in part because future catches in the out years under a 386 mt ABC would need to be lower. Abandoning its responsibilities in this decision—there is no variance to the mandate to

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[89] Framework Adjustment 51 Final Rule, 79 Fed. Reg. 22,421, 22,424 (April 22, 2014).

[90] *Id*.

[91] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Gulf of Maine (GOM) cod ABCs and OFLs" dated Sept. 11, 2014, at 2. Available at: https://s3.amazonaws.com/nefmc.org/11_140911-GF-PDT-memo-to-SSC-re-GOM-Cod-FINAL_2.pdf.

[92] *See* NEFMC. *Framework Adjustment 53 to the NE Multispecies FMP, Appendix I: SSC Recommendations for NE Multispecies ABCs, FY2015-FY2017*, at 6-9. Available at: https://s3.amazonaws.com/nefmc.org/141204_FW53_Appendix_I_SSC_Recommendations_ABCs.pdf.

[93] The 386 mt ABC was calculated as 75% of the OFL, which itself was an ensemble average of model outputs based on a fishing mortality rate of F_{MSY}. This results in a slightly lower ABC than would have been the case if the calculations were based on fishing at $75\%F_{MSY}$ (as is indicated by the control rules), but still much higher than the 200 mt recommended under $F_{REBUILD}$. The approach of taking 75% of the OFL based on F_{MSY} rather than on a fishing mortality of $75\%F_{MSY}$ has continued in all later assessments to date.

[94] *See id.* at 10-15.

[95] Framework Adjustment 53 Final Rule, 80 Fed. Reg. 25,110 (May 1, 2015).

[96] 80 Fed. Reg. at 25,113.

immediately end overfishing—NMFS did not determine or require that the ACLs end overfishing immediately as the statute requires. Rather, it based its approval decision on the economic and social needs of fishing communities[97] and justified its decision stating it would "continue to carefully monitor stock indicators leading into the 2015 assessment to fully inform our re-evaluation of the GOM cod catch limit, and the need to balance of conservation and management objectives."[98] The agency did not follow through.

Based on all information available to CLF, neither the Council nor NMFS calculated a new $F_{REBUILD}$ for GOM cod or assessed the probability of rebuilding on time, in order to identify the appropriate control rule option for use in setting GOM cod catch limits in Framework 55 (2016). Instead, NMFS approved a new ABC of 500 mt[99]—a nearly 30 percent increase over the previous year—again, essentially based on Option A without justification. NMFS's approval was particularly unreasonable here since the 2015 stock assessment found that the prior approved Framework 51 ABCs and ACLs (under the rebuilding plan based on $75\%F_{MSY}$, i.e., Option A) in fact produced a 2014 fishing mortality rate roughly five times higher than F_{MSY}.[100] Further, the SSC expressed concerns and "questioned whether a 30% increase is warranted in the absence of a comparable increase in the survey trend, biomass estimate from the model, or other indicator."[101] NMFS provided no reasoned basis for its continued approval of the use of Option A of the control rule despite the fact that this same approach had previously led to significant overfishing.

In Framework 57 (2018), NMFS once again approved an ABC for GOM cod essentially based on Option A.[102] This time the ABC—703 mt—was set 40 percent higher than the 500 mt ABC approved in Framework 55. Reprising its Framework 55 approach, NMFS approved the higher ABC in Framework 57 despite the fact that the 2017 operational assessment demonstrated there was significant overfishing under the prior and lower Option A-based Framework 55 ABC.[103] Again, there was no analysis or determination that the new higher ABC for GOM cod would end overfishing in the next fishing year any more than it had failed to do so in the previous year with a lower and more conservative ABC. To the contrary, the PDT estimated that even with no fishing, there was a zero to 26 percent chance of rebuilding on schedule.[104] Under the circumstances, NMFS should have disapproved any action that that did not end overfishing

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[97] *Id.*

[98] Denial of Petition for Rulemaking on Gulf of Maine Cod, 80 Fed. Reg. 39,731, 39,734 (July 10, 2015) ("Petition Denial").

[99] Framework Adjustment 55 Final Rule, 81 Fed. Reg. 26,412, 26,415 (May 2, 2016).

[100] NEFSC. 2015. *Operational Assessment of 20 Northeast Groundfish Stocks Updated Through 2014*. NEFSC Ref. Doc. 15-24, at 25.

[101] NEFMC. *Framework Adjustment 55 to the NE Multispecies FMP Appendix I: SSC Recommendations for NE Multispecies ABCs, FY 2016-FY 2018*, at 9. Available at: https://s3.amazonaws.com/nefmc.org/160210_FW55_Appendix_I_SSC_Recommendations.pdf.

[102] Framework Adjustment 57 Final Rule, 83 Fed. Reg. 18,985, 18,987 (May 1, 2018).

[103] Fishing mortality in 2016 was estimated to be 31-34 percent higher than F_{MSY} (and as much as 90 percent higher if correcting for the retrospective pattern); NEFSC. 2017. *Operational Assessment of 19 Northeast Groundfish Stocks, Updated Through 2016*. NEFSC Ref. Doc. 17-17, at 26; NEFSC 2017. *Gulf of Maine Atlantic Cod 2017 Assessment Update Report Supplemental Information* (Draft), at 42.

[104] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2018 to 2020" dated Oct. 13, 2017, at 6.

immediately, and per the control rule hierarchy it should have insisted that the Council apply Option C with a closure of the directed fishery and a scheduled reduction in bycatch. Instead, once again, NMFS allowed the Council to abandon the control rule hierarchy protocols without a reasoned basis for doing so.

NMFS rubberstamping the Council's recommendations that would predictably result in overfishing have led to the stock status and the lack of rebuilding potential identified in the 2019 operational groundfish stock assessment for GOM cod. The probability of rebuilding by 2024 as required has now plummeted to between zero and 1 percent, even under a no fishing scenario.[105] **Notably, based on the 2019 operational assessment, the SSC and Council again recommended an ABC (presently awaiting approval[106]) essentially based on Option A, despite circumstances that would require them, unequivocally, to use Option C and set an ABC based on "incidental bycatch, including a reduction in bycatch rate."**[107] This pattern of approving measures for GOM cod that continually fail to end overfishing is inconsistent with NMFS's own National Standard 1 guidelines, the control rule protocols adopted in Amendment 16, and the Magnuson-Stevens Act. NMFS's actions have not been based on any rational connection between the facts found and the choices made.

b. Application of the ABC Control Rule to GB Cod

Without a GB cod stock assessment model approved for management advice, the SSC adopted an empirical approach that combines recent catch levels with survey results to provide ABC recommendations during development of Framework 55 (2016), presumably following Option D of the control rule. The SSC since has subsequently relied on and applied this empirical approach to recommend ABCs, even though at the time it was adopted it was noted that it would produce a fishing mortality rate similar to one "that so far has not led to rebuilding."[108] The empirical approach does not specify how it is preventing or ending overfishing or addressing rebuilding requirements even though GB cod remains an overfished stock subject to overfishing with biomass indices at persistent historic low levels. The only apparent rationale for the empirical approach is to allow continued fishing in the absence of an accepted model, including increases in ABCs for this depleted stock.

In Framework 57 (2018), relying again on this *ad hoc* empirical approach and despite no known change in stock status, NMFS approved an ABC that represented an 83 percent increase in the overall ABC (1,249 mt to 2,285 mt) and a 139 percent increase in U.S. ABC (665 mt to

[105] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019, at 7.

[106] *See* NEFMC. *Groundfish: Council Approves Framework 59; Receives Progress Report on Monitoring Amendment 23*. Press release published Dec. 17, 2019.

[107] Amendment 16 FEIS at 78-79.

[108] NEFMC. *Framework Adjustment 55 to the NE Multispecies FMP Appendix I: SSC Recommendations for NE Multispecies ABCs, FY 2016-FY 2018*, at 9.

1,591mt) for GB cod[109] without any determination that adequate progress is being made toward reaching the 2026 rebuilding deadline.

Most recently, in developing Framework 59, the SSC and the Council randomly deviated from their prior protocols for the empirical approach. The OFL was previously set as a proportion of the most recent 3-year average catch based on survey trends, and the ABC was the OFL reduced by 25 percent to account for scientific uncertainty. In Framework 59, however, the SSC and Council recommended that the OFL for GB cod be designated as "unknown," and the ABC be based on a proportion of the most recent 3-year average catch (i.e., the quantity previously identified as the OFL).[110] This recommendation removed the "crucial buffer"[111] for scientific uncertainty that was previously included even though there was no demonstration that prior ABCs with the buffer had ended overfishing or allowed any rebuilding. Justification for this decision was based on the SSC wanting to reconcile the application of GB cod stock empirical approach with that of other stocks with empirical approaches in the NE Multispecies fishery, coupled with stated concern that quotas could ratchet downwards under the prior buffered approach. The implicit goal apparent in this decision was to set a higher ACL than would otherwise apply had the uncertainty buffer been used. Given the uncertainty surrounding GB cod, NMFS should not approve an ABC for the stock without a scientific uncertainty buffer.[112]

NMFS has unreasonably approved ABCs for GB cod that consistently fail to prevent overfishing without a rational justification as well as the Council-recommended conservation and management measures that do not end overfishing immediately and or rebuild this overfished stock as required by statute. NMFS must now initiate a Secretarial Amendment to meet its statutory obligations.

B. Failure to Rebuild Atlantic Cod Consistent with MSA

Despite notifying the Council that Atlantic cod was overfished multiple times, NMFS has repeatedly approved Council FMP management actions that are not rationally related to redressing the longstanding failure to rebuild Atlantic cod consistent with its legal obligations. A legally compliant FMP was required by law to have been submitted and implemented within two years of the first NMFS "overfished" notification.

NMFS first implemented formal rebuilding plans for GOM cod and GB cod under 16 U.S.C. § 1854(e) in Amendment 13 (2004).[113] GOM cod failed to rebuild under this plan, and

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[109] Framework Adjustment 57 Final Rule, 83 Fed. Reg. 18,985, 18,987 (May 1, 2018); GB cod is a jointly managed stock with Canada, so a shared/overall ABCs is set for the entire stock. A portion of the overall ABC is allocated to Canada, and the remainder is the U.S. ABC.

[110] SSC Report to Council Executive Director Tom Nies regarding "Terms of Reference – Overfishing Levels (OFLs) and acceptable biological catch (ABC) recommendations for groundfish stocks for fishing years 2020 to 2022" dated Nov. 22, 2019, at 4. Available at: https://s3.amazonaws.com/nefmc.org/3g_SSC_response_GFSpecies_Oct17_FINAL.pdf.

[111] *Id.* at 12-13.

[112] The Council took final action on Framework 59 in December 2019. A proposed rule has not yet been published in the federal register.

[113] Amendment 13 Final Rule, 69 Fed. Reg. 22,906 (April 27, 2004).

now, halfway through its second 10-year rebuilding plan, GOM cod has *at best* a 1 percent chance of rebuilding on schedule, even in the absence of fishing. GB cod fares no better. Although still in its original 2004 rebuilding plan with a terminal date of 2026, the lack of an accepted model makes it impossible to quantitatively assess the stock's rebuilding progress. At the time of the most recent rebuilding analysis, however, the then-current (2010) fishing mortality rate was at least *3.75 times higher*, and at least *7 times higher* if correcting for the retrospective pattern, than the estimated $F_{REBUILD}$, the fishing mortality necessary to rebuild on schedule, and even then with only a 50-percent probability of success.[114, 115] Given recent biomass indices from federal and Canadian trawl surveys, there can be no reasonable expectation based on science that GB cod will rebuild by 2026.

Since NMFS approved Amendment 13, the Council has submitted, and the agency has approved, another seven amendments and 21 framework adjustments to the NE Multispecies FMP. Not a single action included conservation and management measures sufficient to immediately end overfishing or to realize meaningful progress with respect to successfully rebuilding the GOM or GB cod stocks as the MSA requires. *See* 16 U.S.C. § 1854(e)(3)(A).

1. Inadequate Progress Toward Ending Overfishing and Rebuilding Atlantic Cod

Under the statute, NMFS is required to conduct "adequate rebuilding progress" reviews at intervals not greater than two years, 16 U.S.C. § 1854(e)(7), and notify the appropriate council if there is a finding of inadequate progress with specific recommendations for additional conservation and management measures. 16 U.S.C. § 1854(e)(7)(B). The importance that Congress attached to these reviews and rebuilding is clearly revealed by the mandatory nature of the directive to NMFS.

For GOM cod, whose second ten-year rebuilding plan started on May 1, 2014, NMFS was required to undertake this review not later than April 2016 and another by at least April 2018. Based on documents provided to CLF, these reviews were either never done or they were done and concluded that adequate progress was being made. There is no basis for any review, however, to conclude that there is adequate rebuilding progress for GOM cod. The published 2015 stock assessment did not contain any rebuilding analyses.[116] The 2017 stock assessment concluded the stock was not rebuilding on schedule,[117] and the PDT estimated that there was a zero to 26 percent probability of rebuilding on schedule even in the absence of fishing.[118] The 2019 stock assessment also concluded the stock was not rebuilding on schedule, and the PDT

[114] NEFSC. 2012. *Assessment or Data Updates of 13 Northeast Groundfish Stocks Through 2010*. NEFSC Ref. Doc. 12-06. Available at: https://www.nefsc noaa.gov/publications/crd/crd1206/.

[115] No rebuilding analyses were conducted at the SAW 55 benchmark assessment in 2012 and at the next assessment update in 2015 the model was rejected for management advice so rebuilding analyses based on models are currently not possible.

[116] NEFSC. 2015. *Stock Assessment Update of 20 Northeast Groundfish Stocks Through 2014*. NEFSC Ref. Doc. 15-24.

[117] NEFSC. 2017. *Operational Assessment of 19 Northeast Groundfish Stocks, Updated Through 2016*. NEFSC Ref. Doc. 17-17, at 29. Available at: https://www.nefsc.noaa.gov/publications/crd/crd1717/crd1717.pdf.

[118] Memorandum from Groundfish Plan Development Team to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2018 to 2020" dated Oct. 13, 2017, at 6.

estimated that **the probability of rebuilding on schedule has plummeted to zero to one percent even in the absence of fishing**.[119]

NMFS also approved a rebuilding program review mechanism applicable to the Council in Framework 51. That program, which was identified as being *in addition to* NMFS's statutory required rebuilding plan review, indicated that the Council would initiate a rebuilding plan review if three conditions were met:

- the total catch limit has not been exceeded during the rebuilding program;
- new scientific information indicates that the stock is below its rebuilding trajectory (i.e. rebuilding has not progressed as expected); and
- $F_{REBUILD}$ becomes less than $75\%F_{MSY}$.[120]

NMFS endorsed this activity, despite concerns that it would duplicate to some degree what the agency was already obligated to do "because it commits the Council to a thorough evaluation of rebuilding progress, should a stock drop below its rebuilding trajectory."[121] NFMS also approved the review because it expected that the Council review would "provide the Council with the necessary information to adjust management measures and ensure that the stocks still rebuild by the rebuilding end date."[122] As far as CLF knows, all three conditions have been met in recent years for GOM cod, and yet the Council has not undertaken the required rebuilding review process nor has NMFS directed the Council to do so.

For GB cod, which is almost 16 years into its 22-year rebuilding plan, NMFS was required to undertake similar reviews of adequate progress. Unlike GOM cod, NMFS here took the position that the agency would not conduct an adequate progress review for GB cod in absence of quantitative estimates and projections about the stock.[123] This is no basis, however, for not undertaking a review. The National Standard 1 Guidelines are not prescriptive with respect to the means by which the review is done. For example, the guidelines state that "[l]ack of progress may also be found when the rebuilding expectations of the stock are significantly changed due to new or unexpected information about the status of the stock." 50 C.F.R. § 600.310(j)(3)(C)9iv). Recent U.S. and Canadian trawl survey results for GB cod clearly show there has not been any meaningful response to rebuilding management measures for the stock. Certainly, the survey results should have triggered some thoughts about the expectations assumed around rebuilding the stock by 2026.

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[119] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019, at 7.

[120] 79 Fed. Reg. 22,425 (April 22, 2014).

[121] *Id.*

[122] *Id.*

[123] Framework 55, Final Rule. 84 Fed. Reg. at 26,413. ("Although numerical estimates of status determination criteria are currently not available, to ensure that rebuilding progress is made, catch limits will continue to be set at levels that the Council's Scientific and Statistical Committee (SSC) determines will prevent overfishing. Additionally, at whatever point the stock assessment for GB cod . . . can provide biomass estimates, these estimates will be used to evaluate progress towards the rebuilding targets."); *see also* Email from NMFS Fishery Policy Analyst Mark Grant to Karen Green regarding "Determinations of adequate rebuilding progress NE multispecies 2017 operational assessment" dated Oct. 3, 2018. (Email attachments not provided to CLF.).

In the absence of NMFS's required progress review, CLF will review that record of progress here. The following chronology summarizes the numerous NMFS notifications of stock status determination regarding the GOM and GB cod stocks between 2002 and the date of filing this Petition:

- In 2002, stock assessments determined that GOM cod and GB cod were overfished, subject to overfishing, and required formal rebuilding plans.[124]

- In 2004, NMFS implemented Amendment 13 to the NE Multispecies FMP (April 27, 2004) to comply with its rebuilding requirements.[125]

- In January 2012, NMFS notified the Council that the NE Multispecies FMP "has not resulted in adequate progress toward ending overfishing and rebuilding of GOM cod." NMFS directed the Council to implement "measures that would end overfishing on the GOM stock . . . [,] effective May 1, 2013[,]" following a year of NMFS-developed interim measures. NMFS noted at the time that "any temporary reprieve from addressing overfishing requirements immediately while the council revises its rebuilding program can only be justified for fishing year 2012."[126]

- In May 2012, NMFS notified the Council that GB cod was still overfished and subject to overfishing.[127]

- In 2013, NMFS notified the Council that GOM cod and GB cod were overfished and subject to overfishing.[128]

- In 2014, NMFS "urge[d] the Council to take meaningful and timely actions for Gulf of Maine (GOM) cod)"[129] following the 2014 stock assessment update, which found "that the GOM cod stock is overfished, subject to overfishing, and in very poor overall condition."[130] NMFS later took emergency action, at the request of the Council, to implement measures to reduce overfishing of GOM cod.[131]

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[124] 55th SAW Summary Report.

[125] Amendment 13 Final Rule, 69 Fed. Reg. 22,906 (April 27, 2004).

[126] Letter from NMFS Acting Assistant Administrator for Fisheries Samuel Rauch to Council Chairman C.M. "Rip" Cunningham dated January 26, 2012. Available at: https://s3.amazonaws.com/nefmc.org/11_NOAA_reSAW53.pdf.

[127] Letter from NMFS Acting Regional Administrator Daniel S. Morris to Council Chairman C.M. "Rip" Cunningham dated May 30, 2012. Available at: https://s3.amazonaws.com/nefmc.org/8_NMFS-STOCK-STATUS.pdf.

[128] 78 Fed. Reg. 64,480 (Oct. 29, 2013).

[129] Letter from NMFS Regional Administrator John K. Bullard to Council Chairman Terry Stockwell dated Sept. 25, 2014. Available at: https://s3.amazonaws.com/nefmc.org/18a-Additional-Correspondence.pdf.

[130] *Id.*

[131] 79 Fed. Reg. 67,362 (Nov. 13, 2014).

- In 2015, NMFS notified the Council that GOM cod was overfished and subject to overfishing and that the Council "must end overfishing and rebuild this stock."[132]

- In 2016, in approving Framework 55, NMFS confirmed that GB cod was overfished and subject to overfishing.[133]

- In 2017, NMFS notified the Council that GOM cod and GB cod were overfished and subject to overfishing.[134]

- In 2018, NMFS notified the Council that GOM cod and GB cod were overfished and subject to overfishing.[135]

The NE Multispecies FMP has been adjusted several times after notifications that the stock is overfished with some measurable improvements in slowing overfishing, but neither the Council nor NMFS has complied with the requirement to prepare a plan or amendment that actually ends overfishing immediately or that rebuilds the fishery consistent with 16 U.S.C. § 1854 (e)(3)(A).

At the time of original 2004 rebuilding plan for GOM cod, it was acknowledged that GOM cod was among those stocks "needing the largest reduction in fishing mortality."[136] Based on the most recent assessment (2019), by 2014, that is after the first full 10-year rebuilding period, GOM cod was subject to overfishing rates that were more than *12 times* greater than the overfishing threshold (Figure 2). Rather than rebuilding, spawning stock biomass *fell 8-fold* between 2004 and 2014 (Figure 11).[137]

It appears that no lessons from the first failed GOM cod rebuilding plan were applied to the second attempt in 2014. As detailed above in the chronology of recent decisions concerning the failure to adhere to the hierarchy of control rule options, there has been a failure to restrict fishing mortality rates to those necessary for rebuilding. Although spawning stock biomass has inched up slightly from its 2014 nadir, it is estimated at only 6 to 9 percent of its rebuilding target.[138] Also, as discussed above there is only a zero to one percent chance at best of rebuilding by the target year of 2024 even without fishing.[139] Ultimately, the projections underlying both

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[132] 80 Fed. Reg. 12,621 (March 10, 2015).

[133] Framework 55 Final Rule, 81 Fed. Reg. at 23,413, 25,414.

[134] Letter from NMFS Regional Administrator John K. Bullard to Council Chairman Dr. John Quinn dated August 31, 2017.

[135] 83 Fed. Reg. 9,298 (March 5, 2018).

[136] NEFMC. *Amendment 13 to the NE Multispecies FMP including its Final Supplemental Environmental Impact Statement and an Initial Regulatory Flexibility Analysis, Volume 1 Management Alternatives and Impacts.* Final Revised Dec. 18, 2003, at I-v. Available at: https://s3.amazonaws.com/nefmc.org/Final-Amendment-13-SEISVol.-I-II.pdf.

[137] Based on the M=0.2 model; NEFSC 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 32.

[138] *Id.*

[139] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019, at 7.

rebuilding plans never materialized due to the combination of continued overfishing, low recruitment, and over-estimated initial biomass starting points (Figure 11). Both rebuilding plans have failed.

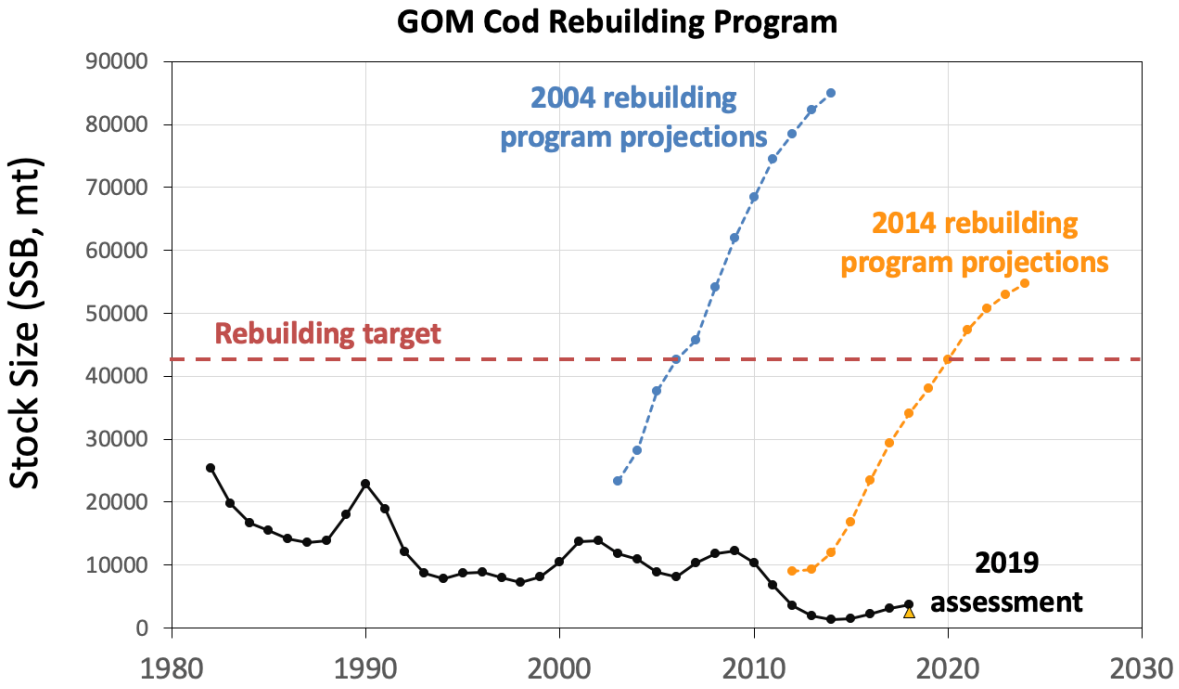

Figure 11: GOM cod stock size projections underlying the 2004 (blue) and 2014 (orange) rebuilding plan relative to stock size estimates from the 2019 operational assessment (black). Rather than rebuilding as projected, biomass declined under both programs. The red line shows the current rebuilding target (estimated SSB_{MSY}), which is lower than the estimates that the rebuilding plans were based on. Stock size is shown as spawning stock biomass (SSB, mt). 2014 projections and 2019 assessment data plotted are estimates from the M=0.2 model; the other accepted model for this stock, M-ramp, is not graphed here but shows a similar pattern. This M=0.2 model suffers from a significant retrospective pattern, which acts to decrease estimated fishing pressure and inflate SSB for years towards the end of the time series. Yellow triangle shows corrected values for 2018 (the last year included in the assessment), adjusted for the retrospective pattern.[140]

[140] Data Sources: NEFSC 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 32, 33, 39, and 40; NEFMC. *Amendment 13 to the Northeast Multispecies Fishery Management Plan Final Supplemental Environmental Impact Statement and an Initial Regulatory Flexibility Analysis, Volume 1 Management Alternatives and Impacts.* Final Revised Dec. 18, 2003, at I-229; NEFMC. *Framework Adjustment 51 to the NE Multispecies FMP, Appendix II Analytic Techniques: Rebuilding Plan Analysis*, at 7. Available at: http://s3.amazonaws.com/nefmc.org/FW_51_Appendices.pdf.

GB cod was also one of the stocks "needing the largest reduction in fishing mortality"[141] in 2004, when its original and current rebuilding plan was implemented. Based on the last accepted assessment, however, fishing mortality during the 2004 rebuilding plan has ranged from 1.3 to as much as 3.6 times greater than the overfishing threshold (Figure 3).[142] Like GOM cod, the stock rebuilding projections underlying the GB cod plan have consistently failed to materialize (Figure 12). Although current stock size is unknown, survey biomass indices continue to hover around historic lows and GB cod shows little progress toward any sustained semblance of rebuilding.[143] This plan too has failed. It is irresponsible to wait until 2026 to acknowledge that reality.

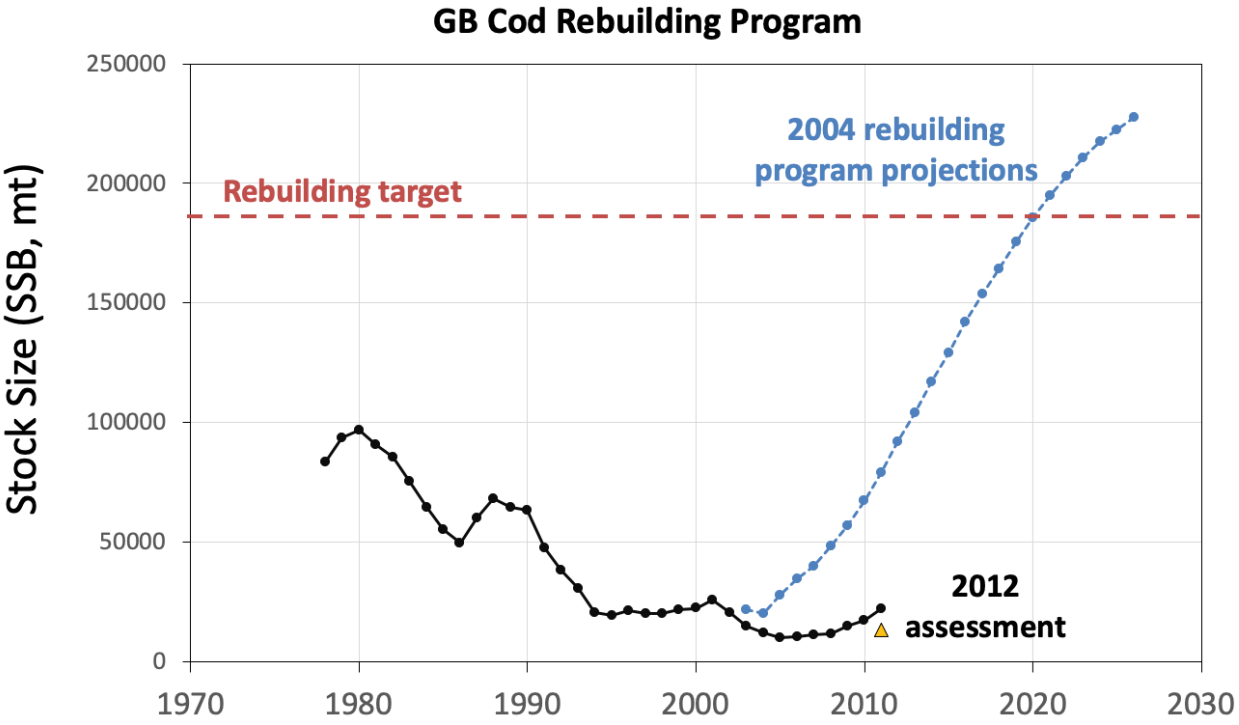

Figure 12: GB cod stock size projections underlying the 2004 (blue) rebuilding plan relative to stock size estimates from the most recent accepted assessment (2012; black). Rather than rebuilding as projected, biomass declined under the program. Although the current stock size is not known due to the lack of an accepted model, it is undoubtedly far from rebuilt. The red line shows the most recent rebuilding target (estimated SSB_{MSY}), which is lower than the estimate the rebuilding plan was based on. The 2012 model suffers from a significant retrospective pattern, which acts to inflate SSB for years towards the end of the time series. The yellow triangle shows the corrected value for 2011 (the last year included in the assessment), adjusted for the retrospective pattern.[144]

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[141] NEFMC. *Amendment 13 to the NE Multispecies FMP including its Final Supplemental Environmental Impact Statement and an Initial Regulatory Flexibility Analysis, Volume 1 Management Alternatives and Impacts.* Final Revised Dec. 18, 2003, at I-v.

[142] 55th SAW Assessment Report at 742; 55th SAW Summary Report at 26.

[143] NEFSC. 2019. *Georges Bank Atlantic Cod Tables* (Draft; Supplement to 2019 Operational Groundfish Assessments), at 10.

[144] Data Sources: 55th SAW Assessment Report at 742; 55th SAW Summary Report at 26; NEFMC. *Amendment 13 to the Northeast Multispecies Fishery Management Plan Final Supplemental Environmental Impact Statement and an Initial Regulatory Flexibility Analysis*. Final Revised Dec. 18, 2003, at I-229.

NMFS notified the Council at least six times between 2013 and 2018 about the continued overfished status of Atlantic cod, the latest following the 2017 operational assessments.[145] Yet not even two months after its notification in 2018, NMFS approved an action that *increased* ACLs by 41 percent for GOM cod and 139 percent for GB cod.[146] A year later, NMFS also approved new recreational measures that reopened a directed recreational GOM cod fishery and created more opportunity to catch GB cod.[147] These changes were made despite the fact that the GOM cod ACL was exceeded by 30 percent in the 2017 fishing year.[148]

Based on the best available science, GOM cod will not rebuild by 2024, and GB cod, despite the lack of an accepted assessment model, is highly unlikely to rebuild by 2026 as required under the current rebuilding plans. Unless overfishing of cod is ended immediately and other conservation and management measures are put in place that reduce bycatch of cod and increase the productivity potential for these fish, rebuilding of either stock is essentially impossible.

NMFS not only continues to delay taking appropriate and necessary action, it sanctions conservation measures and management approaches that have repeatedly produced continued overfishing. Rather than disapprove Council recommendations that do not end overfishing and are unlikely to make adequate progress toward rebuilding, NMFS has repeatedly approved them, contributing to further population declines. NMFS's actions are without rationale given the historical context, the persistent patterns of overfishing, and the rebuilding plan failures present here.

2. National Research Council Rebuilding Guidance

A committee of expert scientists convened by the National Research Council ("NRC") evaluated numerous rebuilding plans and requirements in U.S. and international fisheries (hereafter, "NRC Rebuilding Committee").[149] The NRC Rebuilding Committee pointed to three principal reasons why stocks usually did not rebuild as expected even after a rebuilding plan was developed, two of which apply to U.S. Atlantic cod stocks. First, as described above, the target exploitation rates and resulting ACLs are too high because of analytical problems and inappropriate risk approaches, such as the failure to account for retrospective patterns, insufficient control rules, and rebuilding probabilities that are often no greater than a coin toss.[150] Second, rebuilding plans failed because the realized fishing mortality rates continued to be too high during the rebuilding period, a reflection of implementation problems including ineffective accountability measures.[151] It is axiomatic that an overfished stock cannot rebuild to its potential

[145] *See* 78 Fed. Reg. 64,480 (Oct. 29, 2013); 80 Fed. Reg. 12,621 (Mar. 10, 2015); Letter from NMFS Regional Administrator John K. Bullard to Council Chairman Dr. John Quinn dated August 31, 2017; 83 Fed. Reg. 9,298 (Mar. 5, 2018).

[146] Framework Adjustment 57 Final Rule, 83 Fed. Reg. 18,985, 18,987 (May 1, 2018).

[147] Fishing Year 2019 Recreational Management Measures Final Rule, 84 Fed. Reg. 32,649 (July 9, 2019).

[148] Framework Adjustment 58 Final Rule, 84 Fed. Reg. 34,799, 34,807 (July 19, 2019).

[149] NRC Report at 180.

[150] NRC Report at 56 (emphasis added). ("Under such a criterion, *even if everything went according to plan,* only half of the stocks would be expected to recover within the selected time period.")

[151] *Id.* at 56-57 (emphasis added).

unless overfishing is ended. The two Atlantic cod stocks are prime examples of the rebuilding failures that the NRC Rebuilding Committee analyzed; yet NMFS refuses to acknowledge, let alone address these core deficiencies.

3. NMFS's Denial of the 2015 Cod Petition was Based on a Promise of New Management Measures that Never Materialized

Alarm over NMFS's approvals of ever-increasing ABCs and failure to rebuild in light of the persistent ongoing overfishing of GOM cod was the focus of a petition filed in 2015 by the Center for Biological Diversity and others ("Conservation Groups"), which sought rulemaking to prohibit directed fishing for GOM cod until the incidental mortality was less than an ABC based on $F_{REBUILD}$.[152] In its denial of the Conservation Groups' 2015 petition, NMFS stated, "We remain concerned about the status of GOM cod"[153] but asserted that existing conservation and management measures in Framework 53 combined with other measures implemented in the recreational fishery would "prevent catch from exceeding the ABC, prevent overfishing, and rebuild the GOM cod stock within the rebuilding period. **Further we intend to carefully monitor updated stock assessment information [coming later in 2015] … and will adjust measures, if necessary, to address any changes to stock condition."[154]**

However, the conservation and management measures implemented for the commercial fishery in Framework 53 and later actions, as well as those implemented in the recreational fishery, have not ended overfishing. Further, and contrary to its commitments in the 2015 petition denial, NMFS did not make the necessary adjustments for the 2016 fishing year in response to the 2015 stock assessment.[155] In fact, the 2015 assessment did not even calculate $F_{REBUILD}$ or the likelihood of rebuilding for NMFS to be able to make proper adjustments in 2016. Moreover, as reviewed above, NMFS has done nothing since that time to effectively adjust its approaches to reviewing Council-proposed conservation and management measures to respond to the continuing management failures and collapsed stock condition.

Finally, in its denial of the Conservation Groups' petition, NMFS rationalized its actions by stating that it was applying a balancing standard that offset the value of adequate conservation measures against the socioeconomic impacts of those measures on the fishing industry. This balancing approach is patently inconsistent with NMFS's obligations under the MSA when dealing with an overfished stock—the FMP must end overfishing immediately and the timeline cannot exceed 10 years except under three circumstances (biology of the stock, environmental conditions, or an international agreement). *See* 16 U.S.C.§ 1854(e)(3)(A), (4)(A)(1). The statutory requirement to balance the needs of fishing communities in the rebuilding section applies only to the establishment of a timeline that is "as short as possible," so long as it does not

[152] Center for Biological Diversity, Greenpeace, SandyHook SeaLife Foundation, and Turtle Island Restoration Network. *Petition for Immediate and Permanent Rulemaking to Prohibit Fishing for Gulf of Maine Cod until Incidental Mortality Does Not Exceed the Acceptable Biological Catch Limit*. Submitted before the National Marine Fisheries Service March 3, 2015. Available at: https://www.biologicaldiversity.org/species/fish/pdfs/Gulf_of_Maine_cod_petition_3_3_15.pdf.

[153] Petition Denial, 80 Fed. Reg. at 39,734.

[154] 80 Fed. Reg. at 39,731. (emphasis added).

[155] 80 Fed. Reg. at 39,731, 39,733; *see also* Framework 55, 81 Fed. Reg. at 26,415.

to exceed 10 years, *Id.* at § 1854(e)(4)(A), not to ending overfishing. *Id.* at § 1854(e)(3)(A). There is no exemption from the statutory requirement to end overfishing immediately, and NMFS may only balance socioeconomic considerations in developing a rebuilding plan where overfishing has already ended.

C. A Catch Monitoring Program that Provides Accurate and Precise Catch Data is Necessary to End Overfishing and Ensure Accountability

For years, NMFS has defended woefully inadequate at-sea monitoring ("ASM") in the groundfish fishery, though recent developments regarding Amendment 23 to the Northeast Multispecies FMP[156] and new monitoring coverage targets reflect the agency's awareness of this issue.[157] Overall, low monitoring coverage targets—between 14 and 38 percent (Table 2) [158]—combined with hard catch limits and discard incentives associated with low quotas[159] have created the opportunity for illegal discarding, high grading, and misreporting of cod catch.[160] There is also a significant "observer effect"[161] in New England's groundfish fishery. As a result, scientists and managers lack accurate catch data that they need to inform decisions to prevent and end overfishing and rebuild Atlantic cod.

Significant unreported discarding has been documented in the groundfish fishery since at least the 1990s.[162] More recently, in Spring 2018, there were reports of illegal discards of up to 2,000-3,000 pounds per trip and observers not recording discards of legally-sized cod.[163] That

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[156] *See* NEFMC. *Groundfish Monitoring Amendment 23: Council Votes to Send Draft Document out for Comment with Preferred Alternatives.* Press release dated February 5,2020. Available at: https://s3.amazonaws.com/nefmc.org/NEFMC-Votes-to-Send-Draft-Groundfish-Amendment-23-out-for-Comment-with-Preferred-Alternatives.pdf.

[157] *See* Letter from NMFS Regional Administrator Michael Pentony to Council Chairman John Quinn dated Jan. 28, 2020. Available at: https://content.govdelivery.com/accounts/USNOAAFISHERIES/bulletins/2789b07.

[158] This range refers to previous and ongoing fishing years 2010-2019. NMFS recently announced a monitoring coverage target of 40 percent for the upcoming 2020 fishing year.

[159] *See* Henry A, Demarest C, and Errend M. *Modelling Discard Incentives for Northeast Multispecies (Groundfish) Stocks*. Groundfish PDT Document dated April 12, 2019. Available at: https://s3.amazonaws.com/nefmc.org/Amendment-23_Appendix-V_Groundfish-PDT-Monitoring-Analyses-and-SSC-Panel-Peer-Review-Report.pdf.

[160] *See* Palmer MC. 2017. *Vessel Trip Reports Catch-area Reporting Errors: Potential Impacts on the Monitoring and Management of the Northeast United States Groundfish Resource*. NEFSC Ref. Doc. 17-02. Available at: https://www.nefsc noaa.gov/publications/crd/crd1702/crd1702.pdf.

[161] Demarest C. *Evaluating the Observer Effect for the Northeast U.S. Groundfish Fishery* (*DRAFT).* Updated April 18, 2019. Available at: https://s3.amazonaws.com/nefmc.org/Amendment-23_Appendix-V_Groundfish-PDT-Monitoring-Analyses-and-SSC-Panel-Peer-Review-Report.pdf. ("The analyses point toward a consistent pattern of different fishing behaviors when an observer is on board [a vessel]" compared to when a trip is unobserved." Specifically, "vessels appear to retain less fish, fish for less time, and obtain lower revenues when an observer is on board.")

[162] *See* 64 Fed. Reg. 42,042, 42,042 (Aug. 3, 1999) ("These interim measures will provide intermediate relief from overfishing due to excessive discards while permanent measures to remedy the problem are developed…").

[163] *See* Recording of the April 2018 Council Meeting, Introductions, Announcements, and Reports on Recent Activities at around 21:00. Available at: https://s3.amazonaws.com/nefmc.org/180417_1_Intros-and-Reports.mp3. ("This Spring, the number of individuals coming to us with reports about cod discarding is unusually high...Reports we are receiving this spring are that there are discards up to 2000-3000 pounds per trip happening in this area. We

same spring, other reports showed that vessels targeting haddock in the inshore Gulf of Maine were discarding large quantities of cod.[164] Further, a 2019 Coast Guard report revealed broader misreporting issues not limited to cod stocks.[165] The report identified that over 350 trips between 2011 and 2015 had evidence of misreporting and that as much as 2.5 million pounds of regulated species could have been misreported.[166] Regarding cod, the report "suspected that up to 400,000 pounds of cod were potentially harvested in the GOM stock area and misreported as coming from GB West, primarily in [fishing years 2011 and 2012]. In addition, it is suspected that up to 800,000 pounds of cod were potentially harvested from GB East [but] were misreported as coming from GB West."[167] These instances, and the flawed assessment science and accountability that flow from them, are a direct result of inadequate at-sea monitoring.

An ASM program was first implemented in the NE Multispecies fishery through Amendment 16 (2010) during the transition to the sector system and hard catch limits. At the time, NMFS approved an ASM program that specifically set target monitoring coverage substantially less than 100 percent, [168] despite its acknowledgement that "higher levels of observer coverage are more effective at collecting the data necessary to monitor groundfish landings and discards . . . and reducing the potential of an observer effect that could potentially compromise data collected with less than 100 percent coverage."[169] NMFS justified its action on the basis of available funding, rather than the scientific needs of the fishery for accurate and precise data.[170] By way of a stark management contrast, NMFS, also in 2010, approved the Pacific Fishery Management Council's requirement for 100 percent industry-funded coverage in its multispecies groundfish fishery, a comparable fishery that also included several overfished stocks. The implementing amendment stated:

> . . . with 100 percent observer coverage, the Council would be able to better monitor total mortality of all groundfish species. Better mortality estimates would improve both stock assessments and the Council's ability to keep catch below the harvest limits developed based on those assessments, substantially contributing to conservation goals.[171]

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are hearing reports from not just groundfish vessels but other non-groundfish vessels that they are catching dead cod in many of their tows. We are also hearing reports about observers not recording these discards.")

[164] *Id.*

[165] USCG First District Enforcement Staff. *Summary of Stock Area Analysis and Investigation of Misreporting in the Northeast Multispecies Fishery.* Available at: https://s3.amazonaws.com/nefmc.org/USCG-Groundfish-Misreporting-Investigation-and-Analysis.pdf.

[166] *Id.* at 2 and 21.

[167] *Id.* at 20.

[168] Amendment 16 Final Rule, 75 Fed. Reg. at 18,342.

[169] Amendment 16 Final Rule, 75 Fed. Reg. at 18,297.

[170] Amendment 16 Final, Rule, 75 Fed. Reg. at 18,278. ("Based upon available funding, NMFS intends to increase the NMFS-funded observer and at-sea monitor coverage to include approximately 38 percent of sector trips and 30 percent of common pool trips during FY 2010, and possibly future FYs.").

[171] Pacific Fishery Management Council. *Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery, Final Environmental Impact Statement including Regulatory Impact Review and Initial Regulatory Flexibility Analysis.* Dated June 2010, at 52. Available at: https://www.pcouncil.org/wp-content/uploads/1_Pacific-Coast-Grounddfish-Limited-Entry-Trawl-Fishery-FEIS.pdf.

In New England, however, NMFS presided over the development of an inferior ASM program that sets coverage based on just an estimate of precision, not accuracy.[172] Such an approach can just as easily produce data that are precisely *wrong*. Worse still, NMFS's monitoring coverage targets have steadily declined since 2010,[173] and realized coverage most often does not even meet these targets (Table 2). Further, neither the Council nor NMFS have increased management uncertainty buffers to account for the increasingly known uncertainty associated with declining coverage[174] and the inherent lack of accuracy of catch-at-sea data associated with the approved program.

Fishing Year	NEFOP target coverage	ASM target coverage	Total target coverage	Realized coverage
FY 2010	8%	30%	38%	32%
FY 2011	8%	30%	38%	27%
FY 2012	8%	17%	25%	22%
FY 2013	8%	14%	22%	20%
FY 2014	8%	18%	26%	25.7%
FY 2015	4%	20%	24%	19.8%
FY 2016	4%	10%	14%	14.8%
FY 2017	4%	12%	16%	14.1%
FY 2018	5%	10%	15%	n/a
FY 2019	n/a	n/a	31%	n/a

Table 2: Target and realized monitoring coverage levels for fishing years 2010-2019.[175]

The lack of accurate and precise catch data is a leading candidate among several in explaining the increasing retrospective patterns in the cod assessment models discussed above and the inability to rebuild cod stocks. More than once, the PDT has expressed concern about the current ASM program and the program's inability to provide confidence that overfishing is not

[172] *See* NEFMC. *Draft Amendment 23 to the NE Multispecies FMP including its Draft Environmental Impact Statement and Initial Regulatory Flexibility Analysis, Part 1*. Draft for Committee Review dated Jan. 14, 2020, at 46 and 48. Available at: https://s3.amazonaws.com/nefmc.org/200114_Groundfish_A23_DEIS_Part-1.pdf. (Precision is defined as: "How much estimates of the same quantity differ from each other across multiple samples, due both to sample variation and sample size." Accuracy is defined as: "The closeness of the estimated value of some quantity to the true value.")

[173] Since 2010, ASM coverage levels have been steadily declining until fishing year 2019 during which total target coverage was set at 31%. Total target coverage is 40% for fishing year 2020.

[174] *See, e.g.*, 50 C.F.R. § 600.310(g)(2) ("For fisheries without in season management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL.").

[175] NOAA Fisheries. *Summary of Analyses Conducted to Determine At-Sea Monitoring Requirements for Sectors FY19*, at 7.

occurring, particularly for Atlantic cod. During development of Framework 53, for example, the PDT noted:

> [T]he PDT remains concerned about the ability for the fishery to stay within the very low GOM cod ACL in [fishing year] 2015 and the potential incentive a low ACL creates for misreporting or discarding. The PDT is less concerned with the catch being met on paper but the PDT is concerned with the large incentive for observer effects that a low ABC produces. . . . The PDT recognizes that increasing observer coverage to 100% for the commercial fleet in the GOM would likely be the best way to directly account for all catch in the commercial fishery. Observer coverage at 100% would give the fishery more options with where and how fishing can occur while avoiding GOM cod.[176]

Since then, concerns about inadequate monitoring, evidence of its effects, and the case for 100 percent at-sea monitoring in New England's groundfish fishery have only grown. Among the conclusions from PDT analyses conducted during the development of Amendment 23 are:

- "Fishing vessels in the [NE Multispecies] fishery alter their behavior in response to human observers (distinct from selection bias/observer deployment effects)." Particularly, "data show a trend in three key metrics, in almost all circumstances, such that when an observer is onboard, vessels appear to: (1) retain fewer fish, (2) fish for less time and, (3) obtain lower revenues." [177]

- "[The] composition of catch on observed trips is different than unobserved trips." [178]

- "In general, . . . cod stocks have [one of] the highest modeled discard incentives over time," and "cod stocks had higher discard incentives in recent years (2015-2017)." [179]

- "For the Gulf of Maine broad stock area . . . there were slightly more cod landings seen on observed trips relative to unobserved trips despite incentives to avoid cod on observed trips due to low ACLs from 2015 to 2017." [180]

- For the Georges Bank broad stock area, "more haddock are consistently landed on unobserved trips relative to observed trips. The differences in the haddock ratios may have less to do with the influences of haddock which was not constraining but

[176] Memorandum from Groundfish Plan Development Team Development to Groundfish Committee regarding "Development of Framework Adjustment 53 (FW 53) to the Multispecies (Groundfish) Fishery Management Plan" dated Nov. 5, 2014, at 1-2. Available at: https://s3.amazonaws.com/nefmc.org/8_141105_GF-PDT-memo-to-GF-Committee-re-FW-53-FINAL-2-with-Appendicies.pdf.
[177] Groundfish Plan Development Team. *Groundfish Plan Development Team Conclusions Based on Monitoring Analyses Conducted* dated April 15, 2019, at 1.
[178] *Id.* at 2.
[179] *Id.* at 1.
[180] *Id.* at 2.

perhaps more a function of other potentially constraining stocks [e.g., cod] on these trips targeting haddock." [181]

- "Documented differences in the stock landing to effort relationships reflects differences in discarding of legal-sized fish on unobserved trips relative to observed trips." Further, "the sector system increases the incentive to illegally discard legal-sized fish on unobserved trips." [182]

- "There is some evidence that the magnitude of unreported cod catch (potentially illegal discarding) could have been >60% of reported catch on unobserved trips." [183]

Public testimony from two members of the New England fishing community further point to how broken the current monitoring system is. The first speaker stated: "There's a high grading situation going on in seafood that we aren't looking at." The second speaker elaborated: "As a previous observer in 2016 and 2017, I faced a lot of experiences where I'd show up to a boat and the captain would go, 'OK . . . you got two choices, he'd say, you can either . . . steam out for a couple hours, do one tow, come back in, and there's your day. Or if you, you know, would turn an eye, we can go out and have a full day and come back in.' . . . ."[184] Everyone knows that the current ASM program is inadequate for management and that the agency's failure to address this core issue has produced a situation where there are no incentives to properly record and report cod catches.

Overall, the current ASM program does not use "an appropriate method to set at-sea monitoring coverage levels because the assumption that observed trips are representative of unobserved trips is false. . . . The [PDT] analyses support more comprehensive monitoring in the fishery."[185] This conclusion is further supported by the SSC sub-panel review of the PDT's analyses[186] and the 2019 Coast Guard report, [187] both of which concluded that the current ASM program is having adverse impact on proper management.

Inadequate monitoring and NMFS's failure to end overfishing of Atlantic cod are inextricably linked. Without a robust, accurate and precise ASM program, the NE Multispecies

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[181] *Id.* at 2 and 3.
[182] *Id.* at 2.
[183] *Id.*
[184] *See* Recording of the January 2019 Council Meeting, FDSAWF con'd at 31:19 and 32:49. Available at: https://s3.amazonaws.com/nefmc.org/10_FDSAWG-Contd mp3.
[185] Groundfish Plan Development Team. *Groundfish Plan Development Team Conclusions Based on Monitoring Analyses Conducted* dated April 15, 2019, at 3 and 4.
[186] SSC Sub-Panel. *Peer Review Report for the Groundfish Plan Development Team Analyses of Groundfish Monitoring* conducted April 24-25, 2019. Available at: https://s3.amazonaws.com/nefmc.org/3b_190513_SSC_Sub_Panel_Peer-Review-Report_OEMethods_FINAL.pdf. ("[The] work taken collectively show that there is an observer effect, and therefore managers need to account for this when basing management information off information derived from observed trips. The analyses suggest that estimates of discards on unobserved trips. . .[are] likely to be an underestimated reflection of actual discards.")
[187] USCG First District Enforcement Staff. *Summary of Stock Area Analysis and Investigation of Misreporting in the Northeast Multispecies Fishery*, at 20. ("[The] current regulation regime is vulnerable to stock area misreporting and limits the ability of enforcement to detect and document misreporting of stock areas.")

FMP cannot achieve statutory requirements to prevent, let alone end, overfishing and rebuild the fishery. Among other things, FMPs must prevent overfishing by "including measures to ensure accountability." 16 U.S.C. §§ 1853(a)(15), 1854(a). Under the sector system in New England's groundfish fishery, the accountability measure that exists to prevent overfishing requires a "pound-for-pound payback" in the event that a sector exceeds its quota, without having acquired additional quota from another sector. [188] Compliance with this accountability measure—and therefore ensuring overfishing is not occurring—is dependent on accurate and precise catch data, which the analyses demonstrate does not exist.

Additionally, monitoring coverage is an accountability measure in and of itself. As NMFS has acknowledged, monitoring coverage levels in the fishery should "provide confidence that the overall catch estimate is accurate enough to ensure that sector fishing activities are consistent with National Standard 1 requirements to prevent overfishing while achieving on a continuing basis optimum yield from each fishery."[189] In other words, the level of at-sea monitoring coverage is a critical measure to ensure accountability that overfishing is not occurring and that the imposition of remedial consequences follow when it is. Ultimately, the lack of an adequate monitoring program wholly undermines the accountability measures built into the NE Multispecies FMP for purposes of preventing overfishing as well as the stock assessment science that is attempting to support appropriate catch limits.

While NMFS generally has not taken responsive actions to address the fundamental flaws of the current monitoring program, recent developments provide a glimmer of hope that the situation may improve. After significant delays, the Council recently voted to send out Amendment 23 for public comment. This Amendment aims "to implement measures to improve the reliability and accountability of catch reporting in the commercial groundfish fishery to ensure there is precise and accurate representation of catch (landings and discards)."[190] Additionally, in acknowledgement that bias exists in catch data collected by the current monitoring program, NMFS set the monitoring coverage target for fishing year 2020 above what would be necessary based on the existing program's methodology.[191] Though this new target (40 percent) is still completely inadequate and not supported by science, Amendment 23 presents the opportunity for NMFS to fix the monitoring problem that has contributed so significantly to cod's rebuilding failure to date.

D. Additional Measures are Critical to Cod Recovery

In addition to preventing and ending overfishing by ensuring that all catch, directed and incidental, is monitored and correctly reported, and catch is effectively controlled, additional measures are critical to restoration of cod stock productivity and successful rebuilding including:

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[188] NOAA Fisheries. "Northeast Multispecies Annual Catch Limits and Accountability Measures." Available at: https://www.fisheries noaa.gov/new-england-mid-atlantic/commercial-fishing/northeast-multispecies-annual-catch-limits-and.

[189] Framework 55 Final Rule, 81 Fed. Reg. at 26,435.

[190] NEFMC. *Draft Amendment 23 to the NE Multispecies FMP including its Draft Environmental Impact Statement and Initial Regulatory Flexibility Analysis, Part 1*. Draft for Committee Review dated Jan. 14, 2020, at 11.

[191] *See* Letter from NMFS Regional Administrator Michael Pentony to Council Chairman John Quinn dated Jan. 28, 2020. Available at: https://content.govdelivery.com/accounts/USNOAAFISHERIES/bulletins/2789b07.

(1) meaningful habitat protections for juvenile cod, spawning adults, and large older cod; (2) restoring a normalized age structure; (3) accounting for the true structure of cod populations in New England; and (4) addressing the impacts of climate change. In the past few decades, NMFS has unreasonably reduced rather than increased conservation and management measures that address these issues in the face of the two persistently overfished and unproductive cod stocks.

1. Value of Essential Fish Habitat for Rebuilding Stocks

Congress specifically characterized essential fish habitat ("EFH") protections as an economic and social issue noting that: "One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continued loss of marine, estuarine, and other aquatic habitats." 16 U.S.C. § 1801(a)(9). To halt the further decline of cod spawning stock biomass, protection of spawning areas, juvenile cod nurseries areas and habitats preferred by bigger and older cod must be achieved through the closure of additional habitat known to be important to cod. The EFH regulations are clear that for an overfished stock such as Atlantic cod, all habitats currently used and certain historic habitats are essential for rebuilding:

> If a species is overfished and habitat loss or degradation may be contributing to the species being identified as overfished, all habitats currently used by the species may be considered essential in addition to certain historic habitats that are necessary to support rebuilding the fishery and for which restoration is technologically and economically feasible.

50 C.F.R. § 600.815(a)(1)(iv)(C).

The National Standard 1 guidelines specify: "If manmade environmental changes are partially responsible for a stock or stock complex's biomass being [overfished], in addition to controlling fishing mortality, Councils should recommend *restoration* of habitat and other ameliorative programs, to the extent possible." 50 C.F.R. § 600.310(e)(2)(iii)(C)(emphasis added). The NRC Rebuilding Committee also noted the importance of habitat protection in relation to rebuilding stocks stating that "many species depend on particular habitats to support the growth and survival of specific life stages, suggesting that habitat loss could limit rates of rebuilding."[192] Unfortunately, the importance of restoring cod EFH in order to rebuild the cod stocks has not been part of the rebuilding plans approved by NMFS in this region.

First, the rebuilding plans do not identify and protect spawning areas critical to cod rebuilding. Cod exhibit strong site fidelity to spawning grounds and both the location and timing of historic and current spawning is well described in the available literature. Unfortunately, spawning aggregations that once occurred along the entire coast of the Gulf of Maine[193] have been serially depleted, and there is little suggestion of recovery by these spawning components. In addition, the degradation of nursery habitats and the loss of key forage stocks such as river herring has likely contributed to the disappearance of important coastal spawning components.[194] Inadequate protection of spawning areas for cod has been an impediment to its recovery as many

[192] NRC Report at 94.
[193] Ames. 2004.
[194] Ames. 2004.

rolling closures that were previously considered critical to the protection of cod have been reduced or eliminated over time (Appendix B).

Second, NMFS has not protected favorable habitat for juvenile and adult cod despite the proven benefits of closed areas. The Cashes Ledge Closed Area, for instance, has been shown to contain older cod compared to adjacent open areas, which demonstrates the value of closures as one of the few management options for ensuring the survival of larger, older females.[195] However, with one notable exception on Georges Bank, NMFS recently approved habitat protection measures in New England through the Omnibus Essential Fish Habitat Amendment 2[196] (Habitat Amendment) that reduced existing habitat protections in historically important cod areas, such as the Western Gulf of Maine Closure Area, and failed to protect additional areas that were identified by scientists as known hot spots for juvenile cod such as the Bigelow Bight Area.[197] NMFS is now considering a "trailing action"—the Clam Dredge Framework Adjustment[198]—that would allow destructive clam dredge gear into specific areas in the Great South Channel Habitat Management Area, further weakening cod habitat protection measures if approved. This framework adjustment proposal is particularly egregious as this closure was developed specifically to protect important habitat for juvenile cod and contains historically important cod spawning grounds.[199]

With respect to the NE Multispecies FMP and the two cod stocks, NMFS has repeatedly approved habitat measures that prioritize short-term economic considerations over protections that would produce long-term economic benefits to the coastal communities that depend upon healthy cod populations. While it may be appropriate to consider the needs of fishing communities when establishing the length of a rebuilding period, neither the statute nor the case law allow economic considerations to impede rebuilding to the point that it never occurs and that it results in overfishing and overfished stocks. Closing habitat areas to fishing comes at a cost, but so too does the failure to protect essential cod habitat to facilitate rebuilding.

2. Failure to Rebuild Age-Structure in Cod Populations

Rebuilding normal age demographics in the once-reliably recruiting cod populations is fundamental to improving the anemic recruitment patterns that have set in. The NRC Rebuilding Committee specifically pointed to this aspect of the management challenge: "Truncating the age structure [of a population] may reduce the ability of populations to cope with sequences of poor conditions. . . . Attaining a biomass target may depend on first restoring the age structure of the

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[195] Sherwood GD and Grabowski JF. 2016. "A comparison of cod life-history parameters inside and outside of four year-round groundfish closed areas in New England, USA." *ICES Journal of Marine Science* 73:316-328.

[196] Omnibus Essential Fish Habitat Amendment 2 Final Rule, 83 Fed. Reg. 15,240 (April 9, 2018).

[197] NEFMC. *Omnibus Essential Fish Habitat Amendment 2 and its Final Environmental Impact Statement, Volume 3: Description of spatial management alternatives, including preferred alternatives and considered but rejected alternatives*, at 39. Available at: https://s3.amazonaws.com/nefmc.org/OA2-FEIS_Vol_3_FINAL_161208.pdf; *see also* NEFMC. *Omnibus Essential Fish Habitat Amendment 2 and its Final Environmental Impact Statement, Appendix E: Synopsis of Closed Area Technical Team analysis of juvenile groundfish habitats and groundfish spawning areas*. Available at: https://s3.amazonaws.com/nefmc.org/Appendix_E_Synopsis_of_CATT_analysis_171011_091346.pdf.

[198] Habitat Clam Dredge Exemption Framework Proposed Rule, 84 Fed. Reg. 48,899 (Sept. 17, 2019).

[199] 84 Fed. Reg. at 48,900.

stock. For example, the age structure of Georges Bank haddock became truncated following the stock collapse between 1970 and 1995. . . . The expansion of the age structure in the later 1990s preceded very strong year-classes in 1999 and 2004."[200] Likewise, the age structure of both cod stocks in the late 1980s, when recruitment was substantially higher, was much broader than recent years and included significantly more large fish.[201]

As noted in the stock assessments, truncation of the age-structure and the absence of large fish in the Atlantic cod stocks is correlated with compromised recruitment.[202] The largest, highly reproductive female cod age-classes—which have been systematically fished out over the last 40 years (Figure 8)—contribute disproportionately to successful spawning and are an essential part of any healthy cod population. The reproductive output in terms of energy of one 66-pound cod, for example, is estimated to be equivalent to that of 37 younger females weighing 4.4 pounds each and with a combined biomass of 163 pounds (Figure 13).[203] Both empirical and laboratory studies also suggest that reproductive success, including egg viability and hatching rates and hence their proportional contribution to recruitment success, is greater for older fish.[204] Furthermore, individual cod spawn in multiple batches over many weeks, and large females start spawning earlier and spawn over a longer time period than younger cod.[205] This behavior increases the chance of successful spawning by hedging against environmental conditions that may vary over the spawning season year-to-year or with climate change. The unfortunate corollary that managers have now produced in New England is that cod populations with truncated age structures such as GOM and GB cod are likely to be more sensitive to environmental fluctuations, including those related to climate change.[206]

As a consequence of these multiple age-related effects, when science and management do not account for age structure, the resiliency of cod stocks to fishing is likely overestimated.[207] Restoring and maintaining a normal age-structure in the cod population is essential to rebuilding the stocks. This is a fundamental part of the best science available to NMFS that should be brought to bear on this persistent management problem. *See* 16 U.S.C. § 1851(a)(2).

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[200] NRC Report at 92.

[201] NEFSC. 2012. *Assessment or Data Updates of 13 Northeast Groundfish Stocks Through 2010*. NEFSC Ref. Doc. 12-06, at 30. ("Current low [GB cod] productivity is related to current age structure, which is truncated compared to age structure in the late 1980's.")

[202] Palmer MC. 2014. *2014 Assessment update report of the Gulf of Maine Atlantic cod stock*. NEFSC Ref. Doc. 14-14, at 11. ("...truncation of the age-structure...could compromise the future recruitment success of this stock.")

[203] Barneche DR, Robertson DR, White CR, and Marshall DJ. 2018. "Fish reproductive-energy output increases disproportionately with body size." *Science* 360:642-645.

[204] Trippel EA. 1998. "Egg size and viability and seasonal offspring production of young Atlantic cod." *Trans. Am. Fish. Soc.* 127:339-359; Hixon MA, Johnson DW, Sogard SM. 2014. "BOFFFFs: on the importance of conserving old-growth age structure in fishery populations." *ICES Journal of Marine Science* 71:2171-2185.

[205] *Id.*; Hutchings JA and Myers RA. 1993. "Effect of age on seasonality of maturation and spawning of Atlantic cod, Gadus morhua, in the Northwest Atlantic." *Canadian Journal of Fisheries and Aquatic Sciences* 50:2468-2474.

[206] Rouyer T, Ottersen G, Durant, JM, Hidalgo M, Hjermann DO, Persson J, Stige LC, and Stenseth NC. 2011. "Shifting dynamic forces in fish stock fluctuations triggered by age truncation?" *Global Change Biology* 17:3046–3057.

[207] Murawski SA, Rago PJ, and Trippel EA. 2001. "Impacts of demographic variation in spawning characteristics on reference points for fishery management." *ICES Journal of Marine Science* 58:1002–1014.

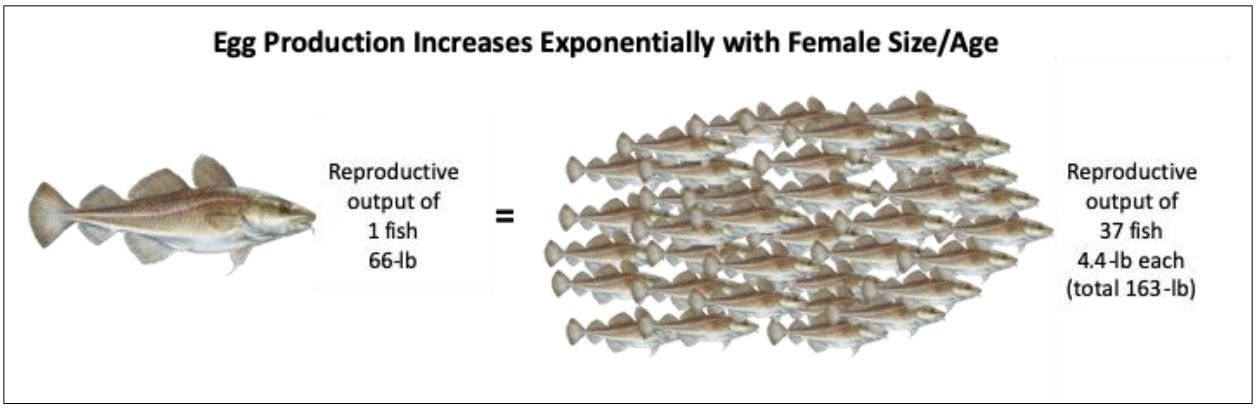

Figure 13: Schematic illustrating the exponential increase in egg production of larger, older female cod. The reproductive output (expressed in terms of energy) from a single 66-pound female cod equals that of 37 smaller fish each 4.4-pound in weight, totaling 163 pounds. [208] Thus, the more that large fish comprise the stock biomass, the greater the potential reproductive output.

NMFS has repeatedly, and without any supporting rationale, approved management actions that wholly fail to address the concerns of stock assessment scientists who have consistently emphasized the importance of rebuilding the age structure of cod stocks as a key to restoring productivity. A truncated age structure is indicative of a population experiencing high mortality, but there has not been a single action approved by NMFS that was specifically designed to redress the severely truncated age structures of the cod populations highlighted as an issue by the agency's scientists.

3. Failure to Consider Sub-Population Structure

The current management paradigm—managing Atlantic cod as two units—oversimplifies the stock structure and fails to consider the importance of sub-populations in cod recovery. The GOM and GB cod stocks are assumed to represent closed, homogeneous populations, which means each is assumed to be a single population with no exchange of fish across stock boundaries. However, based on recent genetic, tagging, and other studies, at least three distinct sub-populations of cod exist in the New England region. One exists on Georges Bank. At least two co-occur in the Gulf of Maine, one of which spans the GOM/GB cod stock boundary (Figure 14).[209] Initial analyses indicate that the current two-stock approach could overestimate the total regional cod maximum sustainable yield by as much as 50 percent because aspects of the stocks' true population dynamics are unaccounted for in the modeling.[210] Thus, current assessment model predictions of stock rebuilding rates are also likely overestimates.

[208] Modified from Barneche *et al.* 2018.

[209] Zemeckis *et al*. 2014.

[210] Kerr LA, Cadrin SX, and Kovach AI. 2014. "Consequences of a mismatch between biological and management units on our perception of Atlantic cod off New England." *ICES Journal of Marine Science* 71:1366-1381.

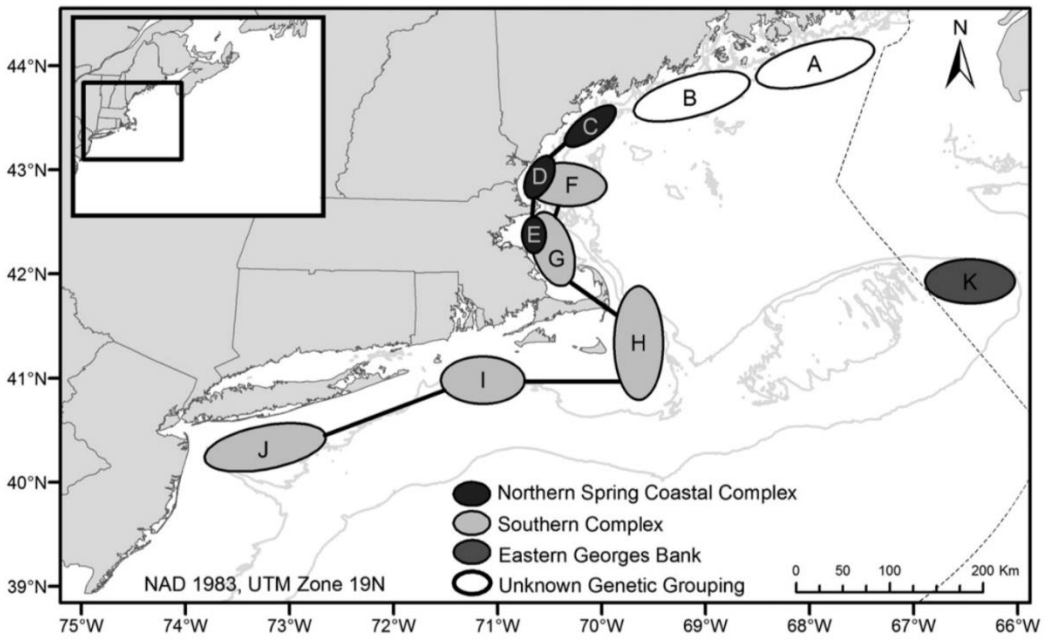

Figure 14: Schematic depicting the emerging understanding of cod population structure generated via inter-disciplinary review of genetic, tagging, morphological, and other data. Cod on Georges Bank are distinct from the more inshore populations. The coastal Gulf of Maine contains two or more populations, including spring and winter spawning groups. The latter spans the boundary that presently divides the GOM and GB stocks, with spawning components in Massachusetts Bay (F-G) but also to the south on Nantucket Shoals (H), southern New England (I) and the middle Atlantic (J). [211]

Equally important for management purposes, the literature recognizes that distinct winter- and spring-spawning sub-populations of GOM cod exist and each contributes differently to overall GOM cod recruitment and catch, which is likely due to differences in closed area protections and vulnerability to changing ocean temperatures.[212] In the words of one scientist who has examined this issue, "[a]n assessment model that does not adequately represent the aggregate dynamics of the population will yield inaccurate catch advice and lead to misguided management, perpetuating, and amplifying the problem. In short, it matters where, when, and which cod are harvested from the population." [213]

Ensuring the viability of sub-populations in a management system where catches are set based on the larger stock unit is difficult but imperative. Loss of historical sub-population structure, such as the spawning groups once distributed along the length of coastal Maine,[214] also contributes to current low recruitment rates relative to historic rates. Therefore, protection of the remaining sub-populations, such as through carefully designed spawning closures that include

[211] Reproduced from Zemeckis DR, Martins D, Kerr LA, and Cadrin SX. 2014. "Stock identification of Atlantic cod (*Gadus morhua*) in US waters: an interdisciplinary approach." *ICES Journal of Marine Science* 71:1490-1506.
[212] Dean MJ, Elzey S, Hoffman, WS, and Buchan N. 2019. "The relative importance of sub-populations to the Gulf of Maine stock of Atlantic cod." *ICES Journal of Marine Science* 76(6):1626-1640.
[213] *Id.* at 13.
[214] Ames. 2004.

consideration of displaced fishing effort, is of critical importance. Recent recreational landings data of Atlantic cod in New York—estimated in 2017 at 1,642,489 pounds which is 40 percent of the total regional cod catch[215]—moreover, points to the specific importance of and need for intensive cod management measures south of Cape Cod.[216]

The recently formed cod structure working group (2018)[217] —the second attempt this decade after a previous workshop (2012) failed to lead to management changes—seeks to achieve scientific consensus on stock structure to develop management alternatives based on the best available science. Presumably, the working group's outputs will figure prominently in the next research track assessments for Atlantic cod. In the meantime, NMFS must use the best scientific information available to identify and conserve all sub-populations through the protection of spawning grounds and other means, and account for the uncertainty introduced by stock structure issues when considering the assessment models to set catch limits.

4. Failure to Account for Climate Change Impacts

Future stock assessments and management actions for Atlantic cod, as well as other species, must account for vulnerability to climate change.[218] The Gulf of Maine is warming faster than 99 percent of the world's oceans[219] and is likely more susceptible to ocean acidification than previously thought.[220] Both New England cod stocks are known to be influenced by environmental conditions[221] and the ecological changes driven by excessive greenhouse gas emissions are already having impacts on distribution and productivity. Specifically, in addition to the effects of fishing and changing forage fish distributions, climate change is affecting spatial distributions as cod move towards deeper, colder waters in the Gulf of Maine and towards the north on Georges Bank, with a shrinking of the overall area occupied by remnant cod

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[215] Data downloaded from NOAA Fisheries. "Landings." Available at: https://foss nmfs.noaa.gov/apexfoss/f?p=215:200:1416339190729::NO:::.

[216] It is not clear where these cod were caught, but it was most likely in the southwestern, coastal extent of the GB cod stock given their being landed in New York. These catches were thus presumably attributed to the GB stock, but in fact likely relate to the coastal population that straddles the GOM/GB boundary (Figure 14). Such large catches on a population not properly accounted for by current stock delineations undoubtedly confounds assessment and management.

[217] *See* NEFSC. "Atlantic Cod Stock Structure Working Group." Available at: https://www.nefsc noaa.gov/press_release/pr2018/other/cod-stock-structure/.

[218] Hare JA, Morrison WE, Nelson MW, Stachura MM, Teeters EJ, Griffis RB, Alexander MA, Scott JD, Alade L, Bell RJ, Chute AS, Curti KL, Curtis TH, Kircheis D, Kocik JF, Lucey SM, McCandless CT, Milke LM, Richardson DE, Robillard E, Walsh JF, McManus MC, Marancik KE, and Griswold CA. 2016. "A Vulnerability Assessment of Fish and Invertebrates to Climate Change on the Northeast U.S. Continental Shelf." *PLOS ONE* 11(2):e0146756.

[219] Pershing *et al.* 2015.

[220] Wang ZA, Wanninkhof R, Cai WJ, Byrne RH, HU Z, Peng TH, and Huang WJ. 2013. "The marine inorganic carbon system along the Gulf of Mexico and Atlantic coasts of the United States: insights from a transregional coastal carbon study." *Limnology and Oceanography* 58:325-342.

[221] Serchuk FM, Grosslein MD, Lough RG, Mountain DG, and O'Brien L. 1994. **"**Fishery and environmental factors affecting trends and fluctuations in the Georges Bank and Gulf of Maine Atlantic cod stocks: an overview." *ICES Mar. Sci. Symp*. 198:77-109.

populations.[222, 223, 224] In the long-term, warming coastal waters are likely to further reduce the amount of habitat that is thermally optimal for cod.[225]

Warmer temperatures also negatively affect stock productivity,[226] and levels of acidification expected by end-of-century may reduce the survival of cod larvae and hence impact recruitment.[227] It appears inevitable that stock rebuilding will likely be slower and more difficult due to climate change. Such environmental and climate-related impacts on the stocks must be evaluated and addressed directly within the assessment models such that the conservation and management measures in rebuilding plans can effectively take them into account.

The importance of prioritizing the rebuilding of GOM and GB cod stocks now is hard to overstate in the context of the emergent and future ecological stresses associated with climate change. In addition to the recognition that healthy stocks are most likely to show resilience in the face of ecological change, recent studies suggest that the genetically different spawning groups in the New England region may differ in their adaptation to varying temperature regimes.[228] The long-term future of the cod fishery in New England may depend on NMFS's ability and willingness to protect the genetic diversity of cod sub-populations that are locally adapted, or potentially capable of adapting, to warmer temperatures and other climate change-related stresses.

Climate change effects, however, are not an excuse for NMFS's historic and current ineffective management of Atlantic cod or for avoiding legal obligations. Despite the known impacts of climate change on cod biology, overfishing has played the dominant role in cod stock declines.[229, 230] Furthermore, unlike environmental conditions and warming ocean temperatures, NMFS can directly control fishing pressure through management actions. The necessary management measures to end overfishing and rebuild New England cod stocks described below

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[222] Adams CF, Alade LA, Legault CM, O'Brien L, Palmer LC, Sosebee KA, Traver ML. 2018. "Relative importance of population size, fishing pressure and temperature on the spatial distribution of nine Northwest Atlantic groundfish stocks." *PLOS ONE* 13(3):e0196583.

[223] Richardson DE, Palmer MC, Smith BE, and Cooper A. 2014. "The influence of forage fish abundance on the aggregation of Gulf of Maine cod (*Gadus morhua*) and their catchability in the fishery." *Can J. Fish Aquat. Sci.* 71:1349-1362

[224] Nye JA, Link JS, Hare HA, and Overholtz WJ. 2009. "Changing spatial distribution of fish stocks in relation to climate and population size on the Northeast United States continental shelf." *Marine Ecology Progress Series* 393:111-129.

[225] Morley JW, Selden RL, Latour RJ, Frolicher TL, Seagraves RJ, and Pinksy ML. 2018. "Projecting shifts in thermal habitat for 686 species on the North American continental shelf." *PLOS ONE* 13(5):e0196127.

[226] Pershing *et al.* 2015.

[227] Stiasny MH, Mittermayer FH, Sswat M, Voss R, Jutfelt F, Chierici M, Puvanendran V, Mortensen A, Reusch TBH, and Clemmesen C. 2016. "Ocean Acidification Effects on Atlantic Cod Larval Survival and Recruitment to the Fished Population." *PLOS ONE 11* (8):e0155448.

[228] Clucas GV, Kerr LA, Cadrin SX, Zemeckis DR, Sherwood GD, Goethel D, Whitener Z, and Kovach AI. 2019. "Adaptive genetic variation underlies biocomplexity of Atlantic Cod in the Gulf of Maine and on Georges Bank." *PLOS ONE* 14(5):e0216992.

[229] *See, e.g.,* Hilborn R and Litzinger E. 2009. "Causes of Decline and Potential for Recovery of Atlantic Cod Populations." *The Open Fish Science Journal* 2:32-38.

[230] Brander K. 2018. "Climate change not to blame for cod population decline." *Nature Sustainability* 1:262-264.

remain the same even with the compounding effects of climate change. Undertaking these measures will only increase the climate resilience of the populations.

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In sum, the Secretarial Amendment must include conservation and management measures that protect cod spawning grounds and other essential cod habitat, rebuild age-structure, address stock structure, and address the effects of climate change. Together with the application of abundant caution in the face of uncertainty, these measures will serve as a means to engender higher recruitment and promote rebuilding as well as promote resilience in face of a changing climate.

E. Ineffective Fishery Management Has Caused Significant Economic Harm

The failure to prevent overfishing and the inability to rebuild Atlantic cod have taken a significant toll on New England fishing communities and U.S. taxpayers. In 1990, a report estimated that overfishing in the groundfish fishery led to at least $350 million in lost revenue and 14,000 lost jobs.[231] A 2011 study concluded that New England commercial fishermen lost $149 million in the 2009 fishing year alone due to the catch losses associated with overfishing.[232]

A recent CLF analysis (Appendix C) demonstrates that between 2010-2017, cumulative lost revenues totaled $925 million, approximately $115.6 million per year, as a result of U.S. fishermen landing Atlantic cod at levels significantly below the maximum sustainable yield estimated for the GOM and GB cod stocks. For example, under this analysis, in fishing year 2017 alone, U.S. fishermen landed an estimated 2.8 percent (867.9 mt) of the combined potential maximum sustainable yield for the GOM and GB cod stocks (as adjusted for the U.S. portion of GB cod landings).

Mismanagement has also cost the U.S. taxpayer. In 1994 and again in 1995, the U.S. Secretary of Commerce declared fishery disasters in New England's groundfish fishery, noting that "fishery management actions have not been sufficient to prevent stock collapse as hoped for strong year classes have failed to appear."[233] In those two years, a combined $55 million of taxpayer funding was provided as an emergency relief to support the fishing industry and affected communities.[234] Nearly 20 years later in 2013, the Acting Secretary of Commerce declared another fishery disaster requiring another taxpayer-funded relief of $32.8 million.[235]

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[231] Massachusetts Offshore Groundfish Task Force. 1990. *New England Groundfish in Crisis – Again*. Publication No. 16, 551-42-200-1-91-CR, at 33.
[232] Hesselgrave T, Kruse S, and Sheeran KA. *The Hidden Cost of Overfishing to Commercial Fishermen: A 2009 Snapshot of Lost Revenues*, Final Report to the Pew Charitable Trusts dated July 25, 2011, at 22.
[233] *See* NOAA Fisheries. "Fishery Disaster Determinations." Available at: https://www.fisheries noaa.gov/national/funding-and-financial-services/fishery-disaster-determinations.
[234] *Id.*
[235] *Id.*

VI. A Secretarial Amendment is Required Under the Circumstances

The Council has repeatedly failed to submit an FMP or amendment that ends overfishing or that rebuilds Atlantic cod consistent with the mandates of the MSA. Consequently, NMFS must prepare a Secretarial Amendment and put this fishery on a path of recovery to optimum yield. *See, e.g.*, 16 U.S.C. § 1854(c), (e)(5). NMFS's repeated failure to end overfishing immediately using the best scientific advice available violates National Standards 1 and 2. NMFS is not only failing one of its most basic and black-letter statutory duties—ending overfishing immediately in an overfished stock—but it also bears full responsibility for the fact that there is virtually no likelihood that GOM cod will rebuild by the end of its second ten-year rebuilding period or produce optimum yields at any time in the foreseeable future. NMFS is ultimately responsible as well for the persistently depleted status of GB cod and its lack of recovery almost 16 years into its rebuilding plan. NMFS must take action to remedy these failures.

A. New Conservation and Management Measures Are Necessary and Appropriate to End Overfishing and Rebuild Atlantic Cod

An effective Secretarial Amendment, developed pursuant to 16 U.S.C. § 1854(e)(5), must be implemented as quickly as possible. *Id*. Given the history of persistently ineffective management measures and a failure to use the best available science, the following elements are the minimum necessary and appropriate conservation and management measures to manage this fishery and should be contained in the Secretarial Amendment.

1. 100 Percent At-Sea Monitoring on All Commercial Groundfish Trips

Chronically overfished cod stocks coupled with growing evidence of observer bias, illegal discarding, and misreporting, demand 100 percent at-sea monitoring by human observers or electronic monitoring on all vessels participating in New England's commercial groundfish fishery as quickly as technically feasible. Recent statements and analyses, in addition to those discussed above, validate the need for 100 percent monitoring. First, the Vice Chair of the SSC and one of its most experienced members, Dr. Patrick Sullivan, stated in relation to some of his previous work regarding observer coverage in Alaska, "We could see changes in behavior of how the fleet was fishing, where it was fishing, and so on and so forth. And so, if we are talking about expanding observer coverage [in New England] . . . trying to get 100 percent coverage is the better way to go from the analyst point of view."[236] Second, as evidenced in the Amendment 23 Draft Environmental Impact Statement, "As coverage increases to 100%, the effective bias of unobserved trips reduces to zero . . . ."[237] Additionally, 100 percent monitoring is expected to have positive biological impacts on regulated groundfish and other species compared to the current ASM program as well as to proposed 25 percent, 50 percent, and 75 percent fixed monitoring coverages (based on a percentage of trips).[238]

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[236] *See* Recording of the January 2019 Council Meeting, SSC Review of FDSAWG at 14:39. Available at https://s3.amazonaws.com/nefmc.org/11_SSC.Peer.Review-of-FDSAWG.mp3.

[237] NEFMC. *Draft Amendment 23 to the NE Multispecies FMP including its Draft Environmental Impact Statement and Initial Regulatory Flexibility Analysis, Part 3a*. Draft for Committee Review dated Jan. 14, 2020, at 12. Available at: https://s3.amazonaws.com/nefmc.org/200116_Groundfish_A23_DEIS_Part-3a.pdf.

[238] *Id*. at 46.

Management of the fishery is currently crippled by a lack of accurate and precise catch data. Increasing accountability through 100 percent at-sea monitoring is critical to understanding the fishing mortality of cod, ensuring adherence to catch limits, and, ultimately, rebuilding the stock. Furthermore, 100 percent monitoring would allow broader use of fishery dependent data. As detailed in the Fishery Data Dependent Working Group report,[239] there are myriad beneficial applications of fishery-dependent data—provided, however, that these data are accurate and precise. As discussed above, the Pacific Fishery Management Council transitioned to 100 percent industry-funded monitoring for its multispecies groundfish fishery in 2010, after which fishermen adapted quickly to improve their fishing strategies through the development of bycatch risk pools,[240] increased cooperation and communication, gear modifications, [241] and other innovations to avoid bycatch. Most of these overfished West Coast rockfish stocks rebuilt well ahead of scientific predictions.[242]

Accurate estimates of cod bycatch in other fisheries is also necessary.[243] Any Secretarial Amendment should evaluate non-groundfish fisheries for cod bycatch potential and require sufficient monitoring coverage in these fisheries to produce accurate and precise estimates of cod bycatch and discards for use in stock assessments and potential future management actions.

2. A Prohibition on Directed Commercial and Recreational Fishing for Atlantic Cod

Given the ongoing failure to end overfishing and rebuild the two cod stocks, a prohibition on directed fishing for GOM cod and GB cod, coupled with an intensive program to reduce incidental catch, is warranted. In the case of GOM cod, this is simply what should have been done already to properly follow the approved ABC control rule and its hierarchy of increasingly stringent measures. Scientific studies show that most successful rebuilding plans "have incorporated substantial, measurable reductions in fishing mortality at the onset, rather than relying on incremental small reductions over time."[244] A prohibition on directed commercial and recreational fishing for cod with a companion incidental catch reduction program, as well as a mechanism for the immediate closure of stocks areas when incidental catch levels are reached, would achieve the necessary "substantial, measurable reductions."[245]

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[239] *See Fishery Data for Stock Assessment Working Group Report*. SSC Review Draft dated Nov. 19, 2018. Available at: https://s3.amazonaws.com/nefmc.org/A1_181119_SSC-Review-Draft_Fishery-Data-for-Stock-Assessment-Working-Group-report-with-appendices.pdf.

[240] Holland DS and Jannot JE. 2012. "Bycatch risk pools for the US West Coast Groundfish Fishery." *Ecological Economics* 78:132-147.

[241] Shems J. "Gear Workshop Highlights Innovators in West Coast Fishery." EDF dated Aug. 5, 2015. Available at: http://blogs.edf.org/edfish/2016/08/05/gear-workshop-highlights-innovators-in-west-coast-fishery.

[242] *See* NOAA Fisheries. 2015. *The West Coast Catch Shares Program: 2015 Update for the West Coast Catch Shares Program.* Available at: https://archive.fisheries noaa.gov/wcr/publications/fishery_management/trawl_program/analytical_docs/final_2012-2013_summary_report.pdf.

[243] National Standard 9 states: "Conservation and management measures shall to the extent practicable: (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch."

[244] Murawski SA. 2010. "Rebuilding depleted fish stocks: the good, the bad, and, mostly, the ugly." *ICES Journal of Marine Science* 67:1830-1840.

[245] *Id.*

Further, prioritizing allocation of incidental catch to groundfish vessels as well as ensuring that catch history during the term of the Secretarial Amendment does not count towards future potential sector contributions may help mitigate the short-term economic impacts and prevent forfeiture of catch history if fishermen do not participate in the fishery during the early phases of rebuilding. As cod stocks start to demonstrate significant and reliable recovery, NMFS should prioritize quota allocation back to the groundfish fishery based on baseline potential sector contributions as of the date of the Secretarial Amendment, rather than to the bycatch fisheries, as a means of revitalizing the fishery and preserving historical participation.

3. Area Closures to Protect All Identified Atlantic Cod Spawning Locations and Favorable Habitat for Juvenile and Adult Cod

Time and area closures have proven effective to protect spawning aggregations[246] and important habitats. Such closures have long been utilized in New England, but they have not always been adequate in size or duration to protect cod. Refuge areas free from the disturbances of fishing—including targeted fishing on cod and its associated impacts on habitat—must be established or in some cases re-established to facilitate rebuilding. This means closing critical spawning areas as well as areas favorable to juvenile and adult cod. All cod closures should be closed to all gears capable of catching groundfish, and NMFS should not authorize any sector exemptions in any closure.

For spawning protection in particular, these closures must:

> … ensure that [the] low SSB of this stock has the opportunity for successful spawning events which is essential to prevent failures in future year classes through recruitment success. Spawning success from a low stock biomass [has] the potential for rapid stock rebuilding. . . .[247]

A PDT study conducted during the development of Framework 53 provided a comprehensive assessment of cod spawning times and locations in the Gulf of Maine and recommended a more extensive suite of seasonal closures than those adopted by the Council and approved by NMFS (Figure 15).[248] Given the current dire circumstances, NMFS should implement these broader spawning closures. NMFS should also re-evaluate the current GOM

[246] Armstrong MP, Dean MJ, Hoffman WS, Zemeckis DR, Nies TA, Pierce DE, Diodati PJ, McKiernan DJ. 2012. "The application of small scale fishery closures to protect Atlantic cod spawning aggregations in the inshore Gulf of Maine." *Fisheries Research* 141:62-69.

[247] Memorandum from Jamie M. Cournane to the Groundfish Committee regarding "Biological and Economic Impacts Analysis for Framework 53 to the Northeast Multispecies Fishery Management Plan" dated Nov. 10, 2014. Available at: http://s3.amazonaws.com/nefmc.org/5a_141110-Council-staff-memo-to-GF-Committee-re-FW-53-impacts-analysis-FINAL-with-attachments.pdf.

[248] Sub-option C provided the most comprehensive set of possible closures and was recommended by the study authors but was not adopted. *See* NEFMC. *Framework Adjustment 53 to the NE Multispecies FMP, Appendix II: Analytic Techniques: GOM Cod and Other Groundfish Analysis.* Available at: https://s3.amazonaws.com/nefmc.org/150115_FW53_Appendix_II_Analytic_Techniques.pdf.

Cod Protection Closures,[249] in particular the areas not encompassed by the broader Framework 53 closures, to determine if they need to be expanded in space and time.

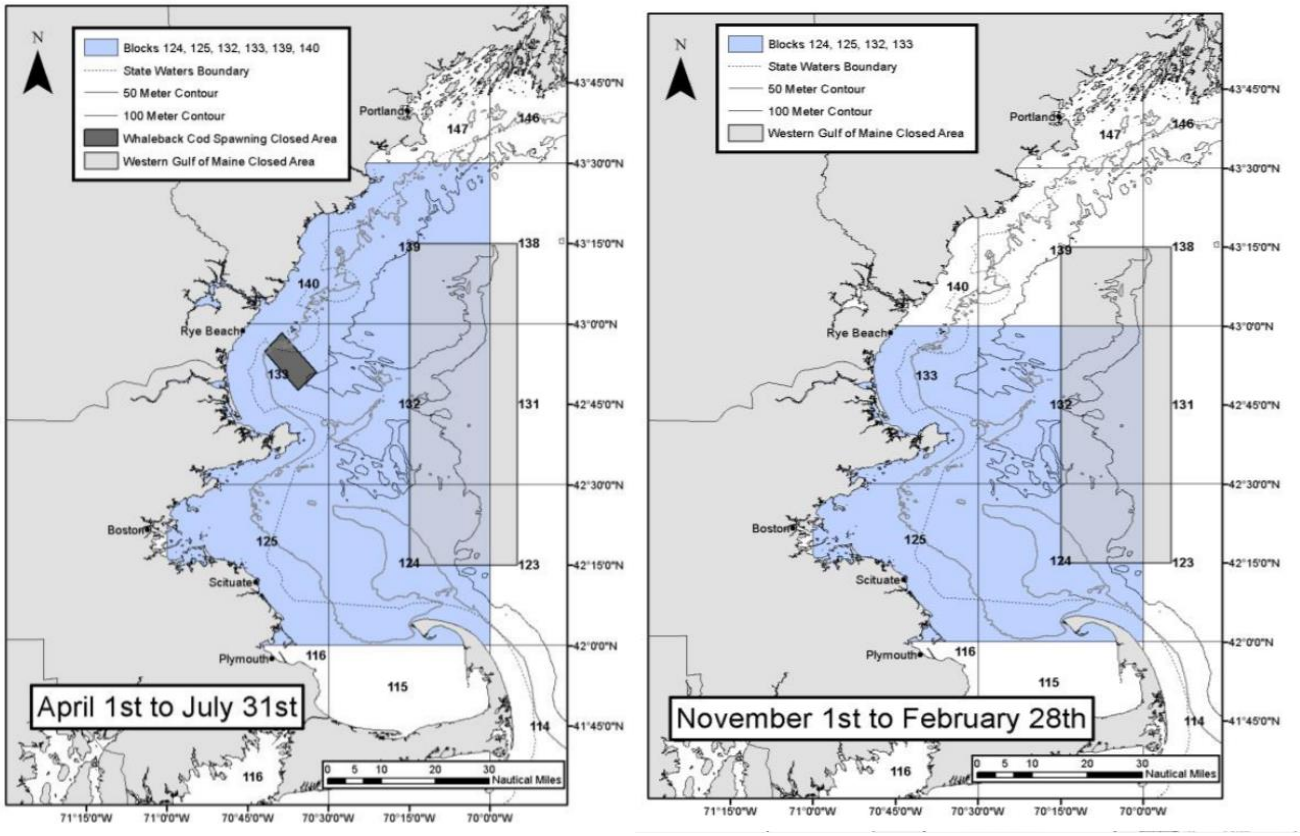

Figure 15: PDT Proposed Seasonal Spawning Closures for Gulf of Maine.[250]

NMFS must conduct a similar comprehensive data review of all relevant data sources to determine the locations, in time and space, of cod spawning on Georges Bank and in Southern New England in order to protect them. One such data source would be the spawning ground areas on Georges Bank identified by fishermen in the Decelles *et al.* paper (Figure 16).[251] NMFS should also use NEFOP observers, federal and state trawl surveys, and fishery dependent-data to identify the real or near real-time locations of cod exhibiting pre-spawning behavior and activity outside of closed areas and implement responsive measures to protect these fish.

[249] *See* NOAA Fisheries. "Northeast Multispecies Information Sheet Closed Area Regulations," at 9. Available at: https://archive.fisheries noaa.gov/garfo/regs/infodocs/multsclosedareas.pdf.

[250] Memorandum from Groundfish Plan Development Team Development to Groundfish Committee regarding "Development of Framework Adjustment 53 (FW 53) to the Multispecies (Groundfish) Fishery Management Plan" dated Nov. 5, 2014, at 17.

[251] DeCelles GR, Martins D, Zemeckis DR, and Cadrin SX. 2016. "Using Fishermen's Ecological Knowledge to map Atlantic cod spawning grounds on Georges Bank." *ICES Journal of Marine Science* doi:10.1093/icesjms/fsx031.

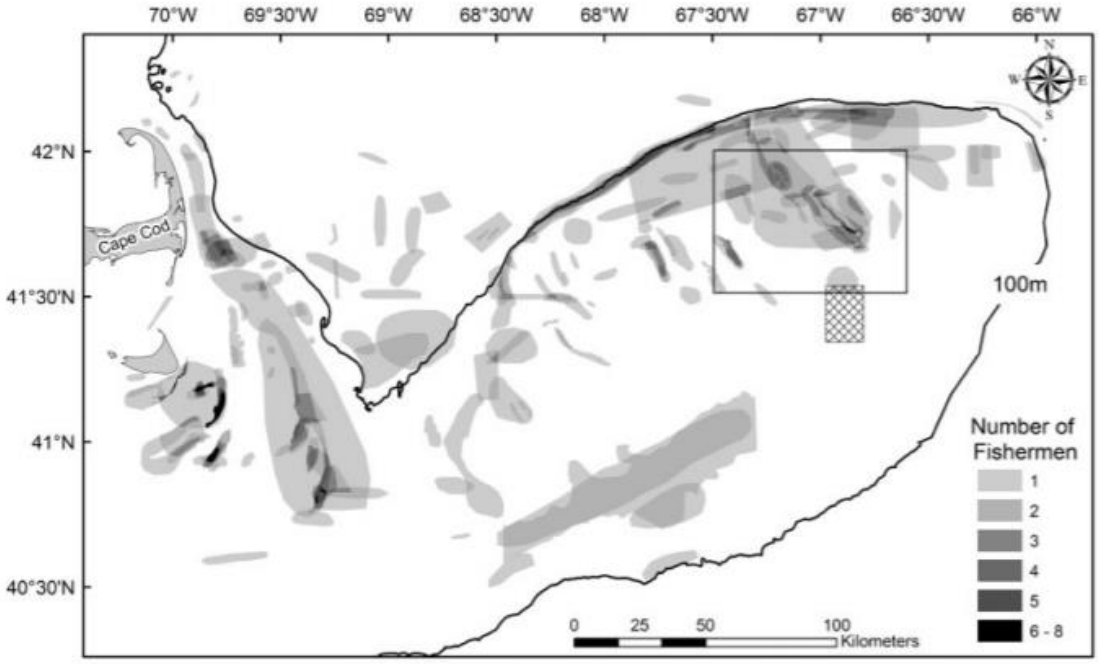

Figure 16: Cod spawning grounds that were identified by fishermen. Each shaded area represents a spawning ground that was identified by a single fisherman. The shading is used to identify areas where there is overlap in the spawning locations reported by multiple fishermen. The rectangle outlined in black depicts the "Winter Fishing Grounds" that were described by Goode (1884) and Rich (1929). The hashed rectangle represents the cod spawning grounds that were reported by Bigelow and Schroeder (1953).[252]

In addition to expanded spawning closures, NMFS should protect known nursery and juvenile habitats used by cod. Areas to initially protect include those identified by experts during the development of the Habitat Amendment.[253] These areas, to the extent they are not already protected, must be closed year-round to all mobile-bottom tending gears to prevent habitat loss and degradation and cod bycatch.

Further, given the importance of larger, older females to successful reproduction and recruitment and the virtual extirpation of these cohorts from current populations, NMFS must work to identify and protect favorable habitat where adult fish aggregate. For example, it is likely that regions similar to the Cashes Ledge Closed Area provide similar value for the survival of larger, older females[254] and may warrant protection. Platts Bank is one such area that shows signs of being a hotspot for the remnants of the GOM cod population (Figure 6). NMFS should conduct a comprehensive data review to determine the locations, in time and space, where adult cod aggregate in order to protect them. In doing so, NMFS should also re-evaluate its current cod mortality closures, such as the Cashes Ledge Closure Area and the Western Gulf of Maine

[252] Reproduced from Decelles *et al.* 2016.

[253] *See* NEFMC. *Omnibus Essential Fish Habitat Amendment 2 and its Final Environmental Impact Statement, Appendix E: Synopsis of Closed Area Technical Team analysis of juvenile groundfish habitats and groundfish spawning areas.* Figures 14 and 15.

[254] Sherwood and Grabowski. 2016.

Closure, and expand boundaries as necessary to provide maximum protection for vulnerable adult cod that are needed to restore a broad age structure of the stocks.

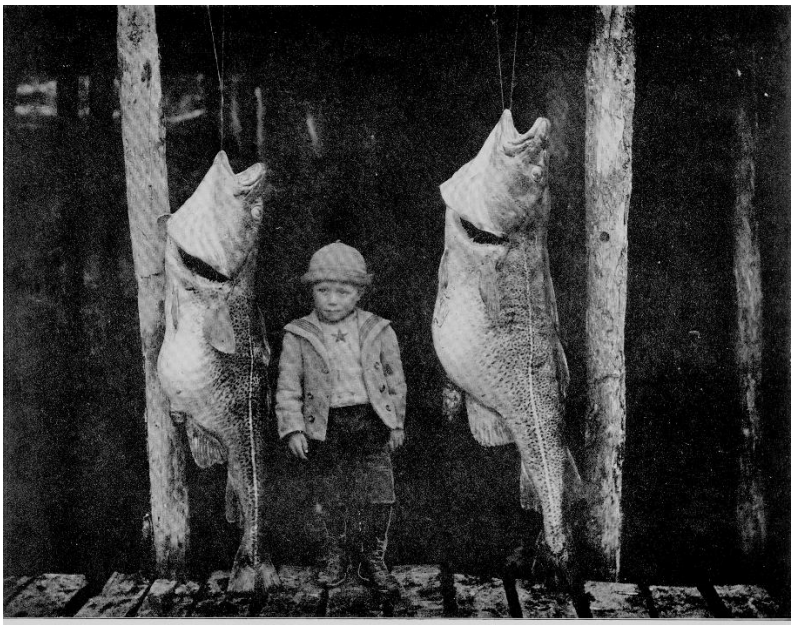

Figure 17: Photo of a young boy standing beside two large cod in Battle Harbor, Labrador in 1910. The larger of the two fished measure 5 feet, 5 inches and weighed 60 pounds.[255]

4. Use of Modified Fishing Gear Throughout the U.S. Range of Atlantic Cod to Reduce Incidental Catch

Courts have noted the importance of minimizing bycatch in a multispecies fishery taking steps to rebuild.[256] Given that Atlantic cod is unintentionally caught when targeting other groundfish species and also unintentionally caught in other fisheries operating in New England, incidental catch will be inevitable even if the directed fishery for Atlantic cod is closed. To allow the groundfish fishery to operate while GOM and GB cod stocks rebuild, NMFS should

[255] Holloway Studio, Library and Archives Canada, PA-076178.

[256] *See NRDC. v. Evans*, 168 F. Supp. 2d 1149, 1152 (N.D. Cal. 2001), *order aff'd in part, vacated in part*, 316 F.3d 904 (9th Cir. 2003) ("An irony exists in that as fishing allowances are lowered to protect a species, the bycatch percentage increases. Fishing boats continue to catch multiple species of fish at the same time, but they are compelled by regulation to discard a greater percentage of the protected species... NMFS acknowledges that it does not have accurate data on bycatch, that the issue is of "serious concern," but that it is "taking steps" to address this lack of information. Without such data, it is extremely difficult to assess the efficacy of NMFS's conservation and management measures, which has resulted in the continued overfishing…"); *see also Oceana, Inc. v. Ross*, 363 F. Supp. 3d 67 (D.D.C. 2019) (holding NMFS violated the MSA by failing to establish management measures to constrain number of overfished dusky sharks and ignored best available science about prevalence of accidental bycatch of sharks),

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implement gear modification requirements throughout the U.S. range of Atlantic cod to reduce the incidental catch of cod.

In this context, there is ample precedent and rationale for requiring haddock separator trawls or another selective fishing technology. For example, in Amendment 13, NMFS required "all groundfish vessels fishing in the Eastern U.S./Canada Area . . . to fish with, and have on board only, either a flatfish net and/or a haddock separator trawl" to reduce bycatch of cod and other species.[257] Regulatory action, as opposed to voluntary action, is necessary now as well. As one recent scientific publication has stated, "widespread voluntary uptake of proven fishing gear by fishers is rare, and usually takes place over many years if at all. The uptake of this gear [is] more likely [to] occur in the face of . . . impending regulation[.]"[258] Additional enforcement measures should also be in place to ensure that the gear is being used and stowed correctly. Again, it is instructive to consider the benefit of the fishing industry's rapid technological responses when the West Coast groundfish fishery was restricted during rebuilding.

5. Additional Measures to Reduce the Mortality of Incidental Catch of Atlantic Cod in Recreational Fisheries

The most recent stock assessment updates for GOM cod and GB cod demonstrate that recreational fishing accounts for a large portion of reported cod catch.[259] The estimated New York recreational landings of cod in 2017 exceeded the entire commercial cod fishery in Massachusetts.[260] The same closed area restrictions that apply to commercial fishermen in groundfish mortality closures, habitat closures, and spawning closures should apply to recreational fishermen targeting groundfish in federal waters as well. Moreover, it is critical to reduce the mortality of cod brought on-board as incidental catch during recreational trips outside of the closed areas. NMFS has significant experience working with the recreational fishing community and has identified best practices for catch and release to improve chances of survival after release.[261] These practices should be requirements for all recreational fishing operations targeting groundfish in federal waters. In state waters, MA DMF has initiated a program providing maps of cod hotspots to avoid along with best practices on handling and releasing incidentally caught cod.[262] NMFS should work with MA DMF and all other states where cod are landed, notably including New York, to further develop and expand this program.

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[257] Amendment 13 Final Rule, 69 Fed. Reg. 22,906, 22,912, 22,913 (April 27, 2004).

[258] Eayrs S and Pol M. 2019. "The myth of voluntary uptake of proven fishing gear: investigations into the challenges inspiring change in fisheries." *ICES Journal of Marine Science* 76:392-401.

[259] 2019 Groundfish Operational Assessment at 26 and 28.

[260] Data downloaded from NOAA Fisheries. "Landings." Available at: https://foss nmfs.noaa.gov/apexfoss/f?p=215:200:1416339190729::NO:::.

[261] *See* NOAA Fisheries. "Catch and Release Best Practices." Available at: https://www.fisheries noaa.gov/national/resources-fishing/catch-and-release-best-practices.

[262] MA DMF. "Helping Recreational Anglers Catch Haddock…and Avoid Cod." *DMF News 1st and 2nd Quarters 2019*. Available at: https://www.mass.gov/info-details/dmf-news-1st-and-2nd-quarters-2019#helping-recreational-anglers-catch-haddock%E2%80%A6and-avoid-cod.

VII. The Secretary Must Take Emergency Action to End Overfishing of Gulf of Maine Cod Immediately

There are three predicates for emergency or interim management action by the Secretary: (1) the action must be driven by recent, unforeseen events; (2) a failure to act through emergency action must present serious conservation and management problems; and (3) the immediate benefits of the emergency rulemaking must outweigh those that would otherwise be provided by public notice, comment, and deliberation.[263] Present circumstances meet these criteria. **Accordingly, CLF hereby petitions the Secretary to promulgate emergency regulations and interim measures to close all commercial and recreational directed fishing on GOM cod and mandate the use of fishing gears in the GOM cod stock area that minimize the risks of incidental cod catch.**

A. Recent Unforeseen Events Require Emergency Action

The most recent survey and assessment results show the GOM cod situation is further deteriorating, constituting two unforeseen, and very troubling, events. First, the 2019 federal fall trawl survey results show that *biomass index fell to a new historic low*, over 2.5 times lower than the previous low points in 1993 and 2012 and 65 times lower than the historic high (Figure 7).[264] Second, the PDT estimates based on 2019 operational assessment demonstrates that GOM cod has the lowest rebuilding probability on record.[265] GOM cod now has *a zero to a one percent chance of rebuilding* on schedule by 2024, which is a 26-fold decline in the rebuilding probability in just the two years between the 2017 and 2019 stock assessments. When NMFS denied the Conservation Groups' 2015 petition, it assured the public that it would take action if future circumstances dictated a need. There can be no confusion about that need now.

B. Failure to Act Presents Serious Conservation and Management Problems

Given the most recent survey and assessment results, the current ACLs are set too high. Further declines in a stock that now has a zero to one percent chance of rebuilding during its *second* rebuilding period is by its very nature and circumstance a "serious conservation and management problem."[266] The longer NMFS waits to take effective action, the greater the risk of a complete stock collapse with long-term consequences for coastal fishing communities and the marine ecosystem.

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[263] *See* NMFS Policy Guidelines for the use of Emergency Rules, 62 Fed. Reg. 44,421 (Aug. 21, 1997).

[264] C. Perretti (NEFSC) pers. comm.; NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 24.

[265] Memorandum from Groundfish Plan Development Team Development to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019, at 7.

[266] 62 Fed. Reg. at 44,422.

C. Immediate Benefits Outweigh Those Provided by Public Notice, Comment, and Deliberation

Under the circumstances here, given that it will take the Secretary time to develop a management action to end overfishing, the immediate benefits of emergency action outweigh those provided by public notice, comment, and deliberation. Immediate benefits include basing catch limits for fishing year 2020 on incidental catch only, consistent with the ABC control rule. This is consistent with NMFS's legal requirements and the long-term needs of fishing communities that depend upon abundant cod stocks.

As provided in 16 U.S.C. § 1855(c), the Secretary is authorized to "promulgate emergency regulations or interim measures necessary to address . . . overfishing." The Secretary should use this authority to promulgate regulations closing all directed commercial and recreational fisheries on GOM cod pending the development of an MSA-compliant FMP that ends overfishing. The Secretary should also require that all groundfish fisheries employ the use of fishing gear determined by the Secretary to reduce the risk of incidental cod catch throughout the GOM cod stock area. Further, the Secretary should direct staff to develop a strategy to extend the emergency regulations before the end of the first six-month period, allowing continued coverage until a full Secretarial Amendment can be developed and implemented.

VIII. The Science Center Must Improve Scientific Assessments of Atlantic Cod

Confidence in the value of the cod assessments for management purposes has waned significantly in New England, a situation that presents a strategic challenge to NMFS and the credibility of and need for appropriate and necessary management. The Science Center is central to solving this problem. It is a fundamental priority that the cod assessment models address longstanding sources of scientific uncertainty, reflect the true population structure of Atlantic cod in U.S. waters, and adequately recognize and adjust for the productivity changes apparent to fishermen and scientists alike, including accounting for climate change considerations.

As described above, multiple sources of scientific uncertainty have been identified in stock assessment models, notably including the dramatically increasing number and severity of retrospective patterns in the region's groundfish models, including GOM and GB cod. For the GOM stock, addressing the retrospective patterns will provide increased and necessary confidence in estimates of stock size, fishing mortality, and the short-term projections used to set catch limits and assess rebuilding progress. Corrections for retrospective patterns are applied to the GOM stock's M=0.2 model as a sensitivity, but these corrected values have generally not been used in setting catch advice[267] despite the fact that the severity of the M=0.2 model's retrospective pattern meets the requirements for correction and despite other stocks with similar patterns receiving adjustments.

For the GB stock, the lack of an accepted analytical model for management purposes due to concerns over the strength of the retrospective pattern precludes quantitative assessment of the stock status and rebuilding timeline progress. The impending deadline for rebuilding (2026) makes addressing the retrospective pattern for this stock of the utmost importance.

[267] Corrected values were used in the development of Framework 59, which is currently awaiting approval.

Two candidate sources of the retrospective pattern that should be addressed are accuracy of catch data and natural mortality. First, to address accuracy of catch data, the Science Center must account for missing catch associated with illegal discards and unreported catch of cod in the groundfish fishery and other fisheries. Second, the Science Center must reassess estimates of natural mortality, including examining evidence for shifts and the potential influences of climate change and large-scale changes in ecosystem dynamics on natural mortality. Of the two accepted GOM cod assessment models, the M-ramp model was intended in part to address the possibility of natural mortality being the source of the retrospective pattern in the M=0.2 model. However, this model itself now suffers from a growing retrospective pattern.[268] The possibility of changing natural mortality for the GB cod stock has also been raised.[269] Overall, the Science Center must immediately identify and prioritize the research, data, and analyses it needs to rehabilitate the performance and confidence in its cod assessment models and give NMFS recommendations on how those needs can be sourced.[270]

The impacts of climate change, including linkages between impaired recruitment and climate change,[271] particularly ocean warming, must be explored and addressed directly within the assessment models themselves.[272] Continued low recruitment and potential linkages between low productivity and climate change factors also need to be confronted. At present, the rebuilding projections, as well as those used to determine biological reference points, do not address these key issues but rather are based on the historic dynamics and productivity of the stocks, which may likely no longer be realistic references.

These concerns are not new and have been raised in the assessments: "The causes of low productivity, relative to historical productivity should be considered in the next benchmark assessment, including the investigation of ecosystem effects. In particular, information on natural mortality should be investigated. The implicit assumption that natural mortality will return to M=0.2 in the reference points associated with the Mramp model should be examined in the next benchmark assessment."[273] The Science Center is critical in ensuring that NMFS and the Council operate with a *realistic and credible range of rebuilding targets for both cod stocks* that account for potential productivity losses associated with climate change.

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[268] 2019 Groundfish Operational Assessment at 28.

[269] 55th SAW Assessment Report.

[270] Unfortunately, this analytical problem is not unique to cod and the growing presence of retrospective patterns in the models substantially complicates management of the groundfish fishery as a whole. During the 2019 operational assessments, it was determined that eight models required adjustments due to significant retrospective patterns, up from seven at the previous assessment. The assessment models themselves reflect state-of-the-art modeling sophistication, but this problem with retrospective patterns is a longstanding flaw that the Science Center must address.

[271] Pershing *et al.* 2015.

[272] Palmer MC, Deroba JJ, Legault CM, and Brooks EN. 2016. Comment on "Slow adaptation in the face of rapid warming leads to collapse of the Gulf of Maine cod fishery." *Science* 352:423-a; Pershing *et al.* 2016. Response to Comments on "Slow adaptation in the face of rapid warming leads to collapse of the Gulf of Maine cod fishery." *Science* 352:423-e.

[273] NEFSC. 2015. *Operational Assessment of 20 Northeast Groundfish Stocks Updated Through 2014*. NEFSC Ref. Doc. 15-24, at 29.

Finally, outputs from the Atlantic cod stock structure working group confirm that the true population structure of Atlantic cod in New England is more complex than the present simplistic two-stock assumption. Currently that working group is scheduled to release its report in early 2020 only after which assessment-related research will commence. The next research track assessments for GOM and GB cod when stock structure issues will be addressed are not scheduled until 2023. As a reminder, the current rebuilding deadlines for GOM cod and GB cod are 2024 and 2026, respectively.

Given the proximate end dates for rebuilding plans and the dire circumstances of the two cod stocks, it is irresponsible to delay the next benchmark assessments for these stocks until 2023. **NMFS should direct the Science Center to prioritize work on GOM cod and GB cod stock assessment modeling to resolve these recurring assessment issues. Both cod assessment research track assessments should be completed no later than fall of 2021.**

CONCLUSION

The numerous stocks in the New England groundfish fishery that are overfished and/or subject to overfishing are a persistent and undeniable stain on the hard-earned reputation of NMFS and the regional fishery management councils for developing well-managed and healthy fisheries in most regions of the United States. Atlantic cod is among the worst of these persistent management failures. The mismanagement of the Atlantic cod fishery is a direct result of NMFS approving risk-prone actions year after year that elevated short-term economic interests over long-term conservation benefits for the fishery and fishing communities. The consequences of that ultimately bankrupt strategy have been severe for Atlantic cod, which is reduced to a distant memory of its former glory; the commercial fishing industry, which has lost hundreds of jobs and fishing operations; recreational fisheries that are continually denied fishing opportunities; and the diminished health of the marine ecosystem. By means of this Petition, CLF calls on NMFS to step up to its responsibilities and put this fishery on a path to recovery and restoration.

APPENDIX A: STOCK ASSESSMENT TABLE

YEAR	MEETING	GOM COD STATUS	GB COD STATUS	ASSESSMENT CONCLUSIONS & MANAGEMENT RECOMMENDATIONS
1986	SAW 3 [i]	Overfishing *	Overfishing	GOM Cod: "…short- term annual yields at the 1985 level (12,000 mt) do not appear to be sustainable. Presently, potential yield and stock reproductive potential can be enhanced by reducing F towards F_{max}." GB Cod: "No rebuilding of total biomass can be expected during 1987 unless F in 1987 is reduced below F=0.58 and towards F_{max}."
1988	SAW 7 [ii]	Overfishing	Overfishing	GB Cod: "The updated assessment described herein indicates that stock conditions have deteriorated further. Fishing mortality in 1987 (F=0.95) is the highest ever recorded for Georges Bank stock…The SAW expressed concern that the SSB may be approaching a level where the probability of future strong recruitment to the stock is low."
1990	SAW 11 [iii]	N/A	Over-exploited, not depleted	
1991	SAW 12 [iv]	Over-exploited, medium stock level	N/A	"Fishing mortality rates need to be reduced to rebuild stock and widen the number of age groups in the spawning stock biomass. Reducing the rate of fishing mortality to the reference level (20% MSP) which defines overfishing would result in a 24% increase in yield per recruit and a 100% increase in spawning biomass per recruit."
1991	SAW 13 [v]	N/A	Over-exploited, medium stock level	"The fishing mortality rate needs to be reduced to increase yield per recruit and at least maintain the stock at its present level. Reducing F to the overfishing definition would increase yield per recruit by 10% and spawning biomass per recruit by 90%. This would also increase catch rates...sharply. If the 1990 year-class is as strong as presently estimated, it may be vulnerable to the fishing gear in 1992 and result in high rates of discards of small fish. Management action may be warranted to forestall excessive discards in 1992."

[i] NEFC. 1986. *Report of the Third NEFC Stock Assessment Workshop (Third SAW).* NEFC Ref. Doc. 86-14.
[ii] NEFC. 1989. *Report of the Seventh NEFC Stock Assessment Workshop (Seventh SAW).* NEFC Ref. Doc. 89-04.
[iii] NEFC. 1990. *Report of the Eleventh NEFC Stock Assessment Workshop.* NEFC Ref. Doc. 90-09.
[iv] NEFSC. 1991. *Report of the Twelfth Northeast Regional Stock Assessment Workshop (12th SAW).* NEFSC Ref. Doc. 91-03.
[v] NEFSC. 1992. *Report of the Thirteenth Northeast Regional Stock Assessment Workshop (13th SAW).* NEFSC Ref. Doc. 92-02.

1993	SAW 15 [vi]	Over-exploited, low biomass level	Over-exploited, low biomass level	GOM Cod: "Continued fishing at current levels of fishing mortality (i.e., F = 1.14) will lead to catches in 1993 declining to their lowest level since 1973. At a minimum, fishing mortality should be reduced to avoid further declines in stock size. A 10% reduction in fishing mortality in 1993 would not result in any appreciable short-term increase in SSB between 1993 and 1994. Recovery of the stock will require a marked reduction in fishing mortality." GB Cod: "Continued fishing at current levels of fishing mortality will result in further declines in SSB to all-time low levels. At a minimum, fishing mortality should be reduced to avoid further declines in stock size. A 10% reduction in fishing mortality in 1993 would not result in any appreciable short-term increase in SSB. Recovery of the stock will require a marked reduction in fishing mortality."
1994	SAW 18 [vii]	N/A	Over-exploited, low biomass level	"Fishing mortality on this stock should be reduced to levels approaching zero. Continued fishing under Amendment 5 scenarios will result in further declines in SSB...Without substantial reductions in fishing mortality, there is the possibility of stock collapse."
1995	SAW 19 [viii]	Over-exploited, low biomass level	N/A	"The decline in spawning stock biomass should be halted and reversed immediately. To achieve this, fishing mortality should be reduced immediately to $F_{20\%}$ or lower to eliminate overfishing… Rebuilding of spawning stock biomass to previously observed higher levels is necessary to reduce the risk of recruitment failure."
1997	SAW 24 [ix]	Over-exploited, low biomass level	Over-exploited, low biomass level	GOM Cod: "The combined effects of low spawning stock biomass, high fishing mortality, record low incoming recruitment, and record low survival of pre-recruit fish indicate that the stock is on the verge of collapse…An immediate reduction in fishing mortality to levels approaching zero is required to halt the declining trend in spawning stock biomass and to rebuild at the maximum rate possible. Measures should be enacted immediately to minimize all directed fishing and bycatch on this stock."

[vi] NEFSC. 1993. *Report of the 15th Northeast Regional Stock Assessment Workshop (15th SAW) The Plenary*. NEFSC Ref. Doc. 93-07.
[vii] NEFSC. 1994. *Report of the 18th Northeast Regional Stock Assessment Workshop (18th SAW) The Plenary.* NEFSC Ref. Doc. 94-23.
[viii] NEFSC. 1995. *Report of the 19th Northeast Regional Stock Assessment Workshop (19th SAW) The Plenary.* NEFSC Ref. Doc. 95-09.
[ix] NEFSC. 1997. *Report of the 24th Northeast Regional Stock Assessment Workshop (24th SAW) Public Review Workshop*. NEFSC Ref. Doc. 97-11.

1998	SAW 27 [x]	Over-exploited, low biomass level	Over-exploited, low biomass level	GOM Cod: "The SARC recommends an immediate reduction in fishing mortality to near zero. Measures should be implemented immediately to cease all directed fishing and minimize bycatch on this stock. Measures implemented in 1998 were only intended to achieve F_{max}. Reductions to F_{max} will be insufficient to promote rebuilding from record low spawning stock biomass. The combined effects of low spawning stock biomass, high fishing mortality, record low recruitment, and record low survival of pre-recruit fish indicate that the stock is collapsing." GB Cod: "Fishing mortality should be reduced from the current level (F=0.26, 21% exploitation) to substantially less than $F_{0\ 1}$=0.18 (Amendment 7 rebuilding target). Poor recruitment coupled with a truncated age structure from years of overfishing has decreased the potential for stock rebuilding at the current fishing mortality rate. Reducing fishing mortality will avoid declines in SSB and enhance the probability of long-term building. Low fishing mortalities will eventually lead to an expansion of the age distribution of the population and increase the likelihood of improved future recruitment."
2000	TRAC 3 [xi]	N/A	Overfishing not occurring, not overfished	
2001	SAW 33 [xii]	Overfishing occurring, not overfished	N/A	"Fishing mortality has remained high despite recent trip limit and area closure management actions to reduce fishing mortality on Gulf of Maine cod. To meet the Amendment 7 fishing mortality target (F_{max}=0.27), fully recruited F must be markedly reduced. The above average 1998 year class, which will become full recruited in 2002, should be protected to enhance the spawning potential and rate of recovery of the stock."
2001	TRAC 4 [xiii]	N/A	Overfishing not occurring, not overfished	"The Georges Bank cod stock remains at a low biomass level. Biomass indices derived from research surveys indicate that the stock remains below the long term average of the 37 year time series…As fishing mortality has declined, the SSB has gradually increased, primarily due to somatic growth, but was still near record-low size (29,000

[x] NEFSC. 1998. *Report of the 27th Northeast Regional Stock Assessment Workshop (27th SAW) Public Review Workshop*. NEFSC Ref. Doc. 98-14.

[xi] NEFSC. 2000. *TRAC Advisory Report on Stock Status - A Report of the Third Meeting of the Transboundary Resources Assessment Committee (TRAC).* NEFSC Ref. Doc. 00-08.

[xii] NEFSC. 2001. *33rd Northeast Regional Stock Assessment Workshop (33rd SAW) Public Review Workshop*. NEFSC Ref. Doc. 01-19.

[xiii] NEFSC. 2001. *TRAC Advisory Report on Stock Status- A Report of the Fourth Meeting of the Transboundary Resources Assessment Committee (TRAC).* NEFSC Ref. Doc. 01-08.

				mt) in 2000…Recovery of the stock will depend on further reductions in fishing mortality as well as improved recruitment." [xiv]
2002	GARM I [xv]	Overfishing occurring, overfished	Overfishing occurring, overfished	GOM Cod: "Overall, there is accumulating evidence that the biomass of Gulf of Maine cod has been increasing in 2001 and 2002. Further increases in biomass may occur if fishing mortality is reduced to maximize the contribution of the 1998 year class to the spawning stock…However, given the expected relatively poor strength of the 1999 and 2000 year classes, rebuilding of the stock may plateau unless additional average or above average year classes recruit in the next several years." GB Cod: "The lack of strong recruitment in the last decade suggests that recovery of this stock will be largely dependent on reducing fishing mortality."
2005	GARM II [xvi]	Overfishing occurring, overfished	Overfishing occurring, overfished	GB Cod: "The lack of strong recruitment in the last decade suggests that recovery of this stock will be largely dependent on reducing fishing mortality in the near term and husbanding the strong 2003 year class, and potentially the 2004 year class, to increase SSB."
2008	GARM III [xvii]	Overfishing occurring, not overfished **	Overfishing occurring, overfished	GB Cod: "Continued exploration of retrospective pattern and methods to account for it are critical for this stock."
2011	SAW 53 [xviii]	Overfishing occurring, overfished	N/A	"Under all projection scenarios, the stock does not rebuild by the current rebuilding date of 2014." [xix] "…studies indicate strong site fidelity to the spawning grounds, and the almost immediate disruption of spawning activity when those areas are opened. This would suggest that area closures to protect spawning grounds is beneficial and could reduce vulnerability. Additional considerations of vulnerability and productivity are the implications of shifts in distribution, recruitment dynamics and increased natural mortality…A considerable source of additional vulnerability is the continued weak recruitment and low reproductive rate (e.g., recruits per spawner) of Gulf of Maine cod. If weak recruitment and low reproductive rate

[xiv] O'Brien and Munroe. 2001. *Assessment of the Georges Bank Atlantic Cod Stock for 2001*. NEFSC Ref. Doc. 01-10.

[xv] NEFSC. 2002. *Assessment of 20 Northeast Groundfish Stocks through 2001*. NEFSC Ref. Doc. 02-16.

[xvi] Mayo et al. 2005. *Assessment of 19 Northeast Groundfish Stocks through 2004*. NEFSC Ref. Doc. 05-13.

[xvii] NEFSC. 2008. *Assessment of 19 Northeast Groundfish Stocks through 2007*. NEFSC Ref. Doc. 08-15.

[xviii] NEFSC. 2012. *53rd Northeast Regional Stock Assessment Workshop (53rd SAW) Assessment Summary Report.* NEFSC 12-03.

[xix] NEFSC. 2012. *53rd Northeast Regional Stock Assessment Workshop (53rd SAW) Assessment Summary Report.* NEFSC 12-03.

				continues, productivity and rebuilding of the stock will be less than projected." [xx]
2012	Update [xxi]	N/A	Overfishing occurring, overfished	"Current low productivity is related to current age structure, which is truncated compared to age structure in the late 1980's. The last year SSB was above the 50,000 mt threshold was 1991 and the 1990 yearclass [sic] was the last above average yearclass [sic]. Population recovery will be more likely if the age structure is expanded due to lower fishing mortality, however, achieving rebuilding will be very slow even under a range of low fishing mortality rates if current productivity continues."
2012	SAW 55 [xxii]	Overfishing occurring, overfished	Overfishing occurring, overfished	GOM COD: "High mortality, both fishing and natural will lead to a truncated age structure, implying that spawning success is increasing dependent upon younger individuals. Murawski et al. (2001) suggest that reproduction by older females is more successful than by young females…If weak recruitment and low reproductive rates of Gulf of Maine cod continue, productivity and rebuilding of the stock will be less than projected." [xxiii] "The available information points to a stock at a low level and with a concentration of the remaining stock into a relatively small region of the western Gulf, the vulnerability of the stock is likely to be increased." [xxiv] "A concentration of the fishery on the areas where the remaining population is concentrated may result in the maintenance of fishery catch rates, make the stock more vulnerable to fishing and give the perception that the stock is in a healthier state than it really is." [xxv] GB Cod: "The last above average year class was 1991. Until spawning stock biomass gets above about 50,000 mt, recruitment is likely to remain low and rebuilding will be slow…Given the uncertainty in the retrospective adjustment, downward trends in mean weight at age, and a potential recent increase in natural mortality (the key

[xx] NEFSC. 2012. *53rd Northeast Regional Stock Assessment Workshop (53rd SAW) Assessment Report*. NEFSC 12-05.

[xxi] NEFSC. 2012. *Assessment or Data Updates of 13 Northeast Groundfish Stocks through 2010*. NEFSC Ref. Doc. 12-06.

[xxii] NEFSC. 2013. *55th Northeast Regional Stock Assessment Workshop (55th SAW) Assessment Summary Report*. NEFSC 13-01.

[xxiii] NEFSC. 2013. *55th Northeast Regional Stock Assessment Workshop (55th SAW) Assessment Report*. NEFSC 13-11.

[xxiv] SARC. 2012. *55th Northeast Regional Stock Assessment Review Committee Summary Report*. https://www.nefsc noaa.gov/saw/saw55/SARC55%20Panel%20Summary%20Report-2013-01-02.pdf.

[xxv] Casey. 2012. *Independent Peer Review Report on the 55th Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC): Benchmark stock assessments for Georges Bank cod and Gulf of Maine cod*. https://www.nefsc noaa.gov/saw/saw55/2012_01_02%20Casey%20SARC%2055%20review%20report.pdf.

				elements of the productivity processes), the projections may be optimistic." [xxvi] "…an age structure of older repeat spawners would likely be more productive, under favorable environmental conditions. Given the uncertainty in the magnitude of M and the overfished state of the stock, at 7% of SSBMSY the stock is vulnerable to an allowable biological catch (ABC) quota that is too high." [xxvii]
2014	Update [xxviii]	Overfishing occurring, overfished	N/A	"Declining spawning stock biomass and truncation of the age-structure…could compromise the future recruitment success of this stock. Recruitment over the last 5 years (2009-2013) has been well below the long-term recruitment levels…If recent weak recruitment of Gulf of Maine cod continues, productivity and rebuilding of the stock will be less than projected."
2015	Operational Assessment [xxix]	Overfishing occurring, overfished	Overfishing occurring,*** overfished	GOM Cod: "When setting catch advice, careful attention should be given to the retrospective error present in both models, particularly given the poor performance of previous stock projections." GB Cod: "The Panel concluded that the updated assessment model (i.e., the SAW55 benchmark configuration) was not acceptable as a scientific basis for management advice…When the retrospective adjustment was attempted in the update assessment for projections, a substantial number (24.2%) of the projected realizations were not feasible, because they could not support the preliminary estimate of 2015 catch… Recent catches have not allowed the stock to rebuild. Mean length at age, the proportion of old fish in the fishery and surveys, and recruitment indices all remain relatively low. None of these indicate stock recovery. Therefore, the Operational Assessment Panel recommends that the overfishing limit (OFL) should be a proportion of the most recent 3-year average catch, and that proportion should be determined by recent survey trends."
2017	Operational Assessment [xxx]	Overfishing occurring, overfished	Overfishing occurring,*** overfished	GOM Cod: "The Gulf of Maine Atlantic cod stock shows a truncated size and age structure, consistent with a population experiencing high mortality. Additionally, there are no positive signs of incoming recruitment, continued

[xxvi] NEFSC. 2012. *55th Northeast Regional Stock Assessment Workshop (55th SAW) Assessment Summary Report.* NEFSC 13-01.
[xxvii] NEFSC. 2012. *55th Northeast Regional Stock Assessment Workshop (55th SAW) Assessment Report*. NEFSC 13-11.
[xxviii] Palmer. 2014. *2014 Assessment Update Report of the Gulf of Maine Atlantic Cod Stock*. NEFSC Ref. Doc. 14-14.
[xxix] NEFSC. 2015. *Operational Assessment of 20 Northeast Groundfish Stocks Updated Through 2014*. NEFSC Ref. Doc. 15-24.
[xxx] NEFSC. 2017. *Operational Assessment of 19 Northeast Groundfish Stocks, Updated Through 2016*. NEFSC Ref. Doc. 17-17.

				low survey indices, and the current spatial distribution of the stock is considerably less than its historical range within the Gulf of Maine…When setting catch advice, careful attention should be given to the retrospective error present in both models, particularly given the poor performance of previous stock projections." GB Cod: "The panel concluded that the operational assessment was acceptable as a scientific basis for management advice. However, a relatively large increase in catch advice results from this approach, and this should be approached with caution, because previous recruitment events were not always realized in the fishery. The Scientific and Statistical Committees (SSCs) approach to buffering catch advice in determining an acceptable biological catch should consider this uncertainty."
2019	Operational Assessment [xxxi]	Overfishing occurring, overfished	Overfishing occurring,*** overfished	GOM Cod: "Should the retrospective patterns continue then the models may have overestimated spawning stock size and underestimated fishing mortality… The Gulf of Maine Atlantic cod shows a truncated size and age structure, consistent with a population experiencing high mortality. Additionally, there are only limited signs of incoming recruitment, continued low survey indices, and the current spatial distribution of the stock is considerably less than its historical range within the Gulf of Maine…Recent low recruitment compromises the rebuilding potential of the stock." GB Cod: "The smoothed survey biomass is decreasing, but without a biomass reference point it is not known if rebuilding is on schedule…The Georges Bank Atlantic cod continues to show a truncated age structure. The most recent survey values remain below the mean of their time series. The 2013 year class was larger than recent year classes, but has not continued to be large as it ages and is below the average from the 1970s at every age in both surveys."

* The 1986 assessment of GOM cod (SAW 3) was based on analysis of empirical data rather than an analytical model. The 1986 GB cod assessment, as well as the majority of subsequent assessments for both stocks, were model-based.

** This "not overfished" determination was based on unusually high uncertainty associated with the 2007 federal survey data and subsequent assessments found that the stock was in fact overfished at the time of the 2008 assessment: "In particular, the [SAW 53] Panel agrees that the 2005 cod year class in the Gulf of Maine was less strong than suggested by analyses conducted for a prior assessment…The addition of three years of catch and survey data since the last assessment has altered the perception of the 2005 year class. Two anomalously large tows in the spring survey (2007 and 2008) produced an estimate of this year class of 23.9 million fish in the previous assessment. The additional recent observations of this year class in the surveys, and

[xxxi] NEFSC. 2019. *Operational Assessment of 14 Northeast Groundfish Stocks, Updated Through 2018. Prepublication copy.*

now in the catch, have revised this estimate downwards to 8.9 million fish. This has reduced estimates of stock biomass substantially…Based on the previous assessment…the stock was predicted to be rebuilt by 2009-2010. The current re-evaluation of the stock indicates that this expectation was incorrect."[xxxii]
*** Recent GB assessments have recommended that overfishing status was unknown, given the lack of an accepted assessment model. As explained above, however, NMFS policy properly holds that "where a known determination had previously been provided and a new assessment is rejected or the results are inconclusive, the [last] known status will continue to be the official stock status" hence the GB stock status continues to be overfishing occurring.

For the 1986 and 1988 assessments, no formal determinations of stock status were made but growth overfishing was shown to be occurring based on estimates of fishing mortality rates exceeding the reference point threshold of F_{MAX}.

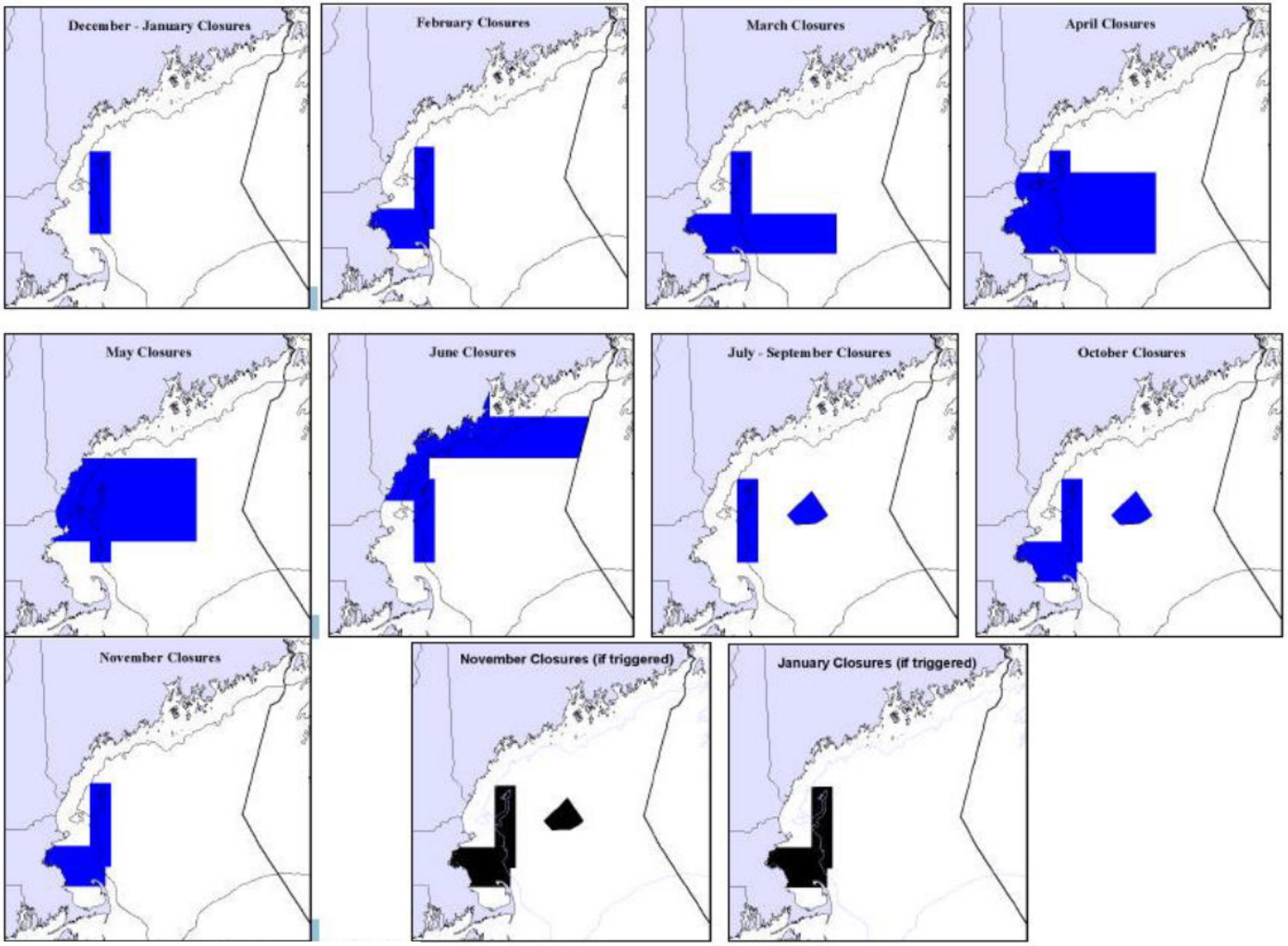
For the 1990-1998 assessments, formal determinations of stock status were made. Exploitation status was determined based on comparisons of estimated fishing mortality rates to threshold reference points and designated as over-, fully, or under-exploited. Stock level was assessed by comparing biomass to historical levels. For the 1990 assessment, stock level was classified as depleted or not seriously depleted compared to historic levels. The 1991-1998 assessments classified stock level as high, medium, or low biomass compared to historic levels.

For later assessments, stock status was formally determined with overfishing defined as occurring when fishing mortality rate exceeded threshold reference points and overfished defined as biomass below threshold reference points. Currently the reference points are the fishing mortality rate and one half the stock spawning biomass at maximum sustainable yield.

[xxxii] NEFSC. 2012. *53rd Northeast Regional Stock Assessment Workshop (53rd SAW) Assessment Summary Report.* NEFSC 12-03.

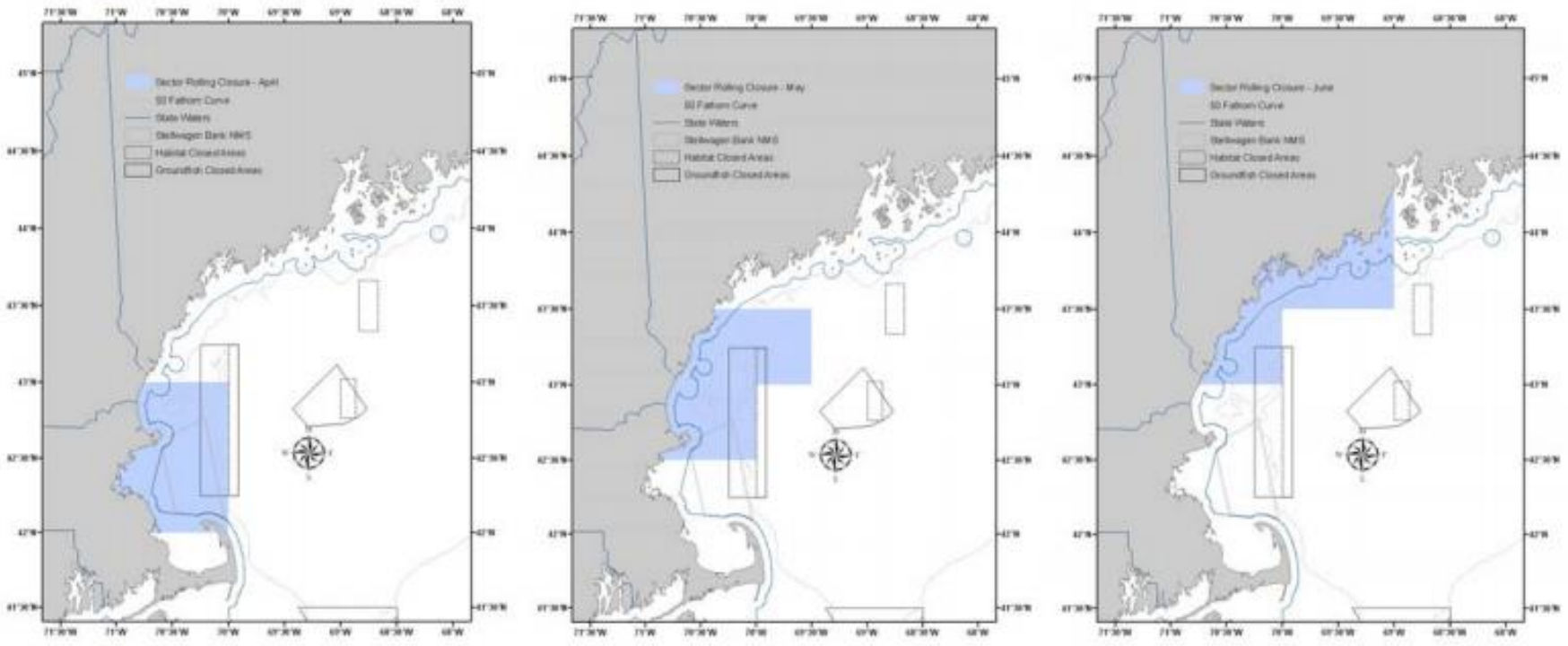
APPENDIX B: GULF OF MAINE CLOSURES (2003-2019)

"No action GOM rolling closures" as proposed in Amendment 13 (December 2003)



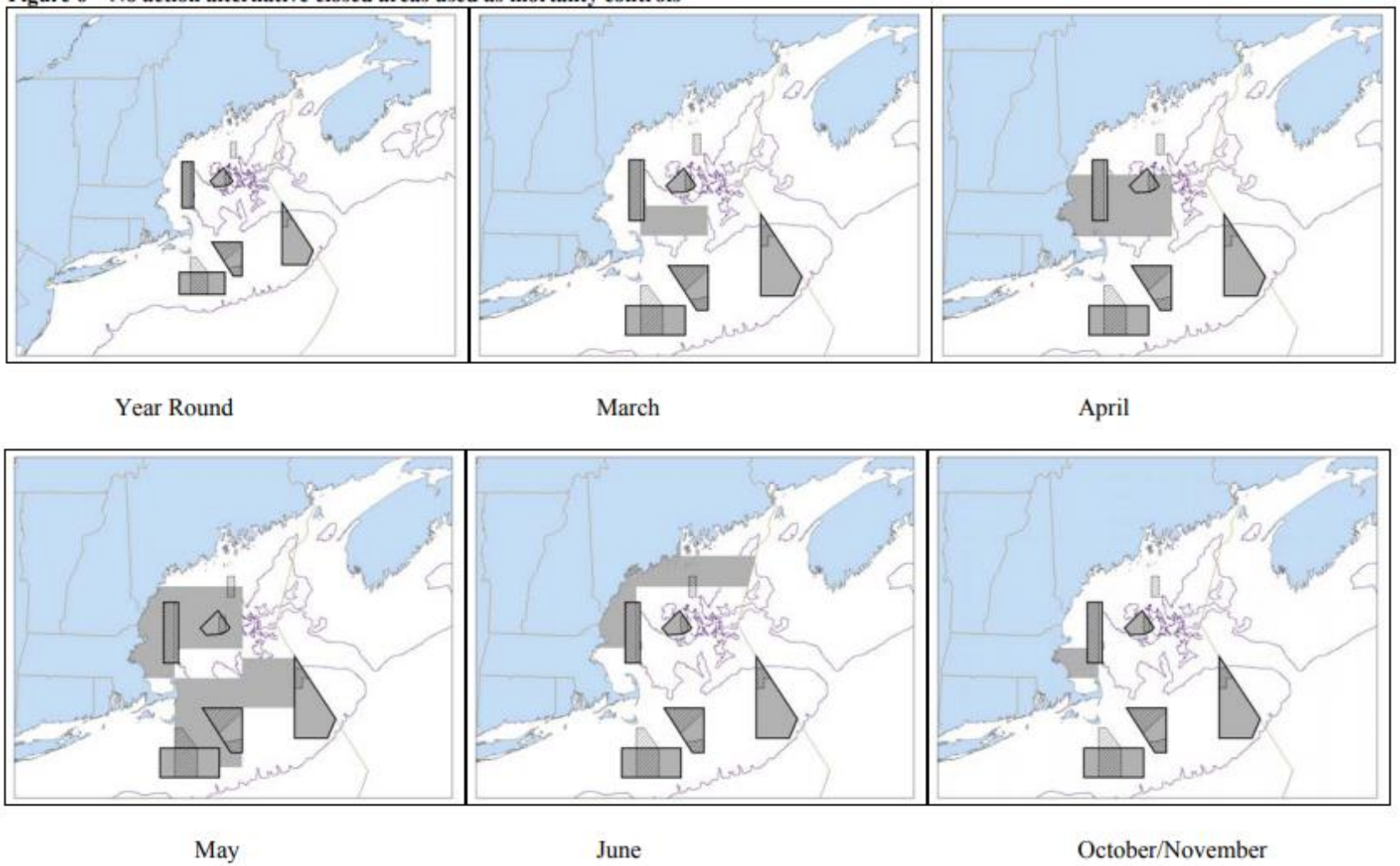
"GOM rolling closure for which sectors to do not receive an automatic exemption" as proposed in Amendment 16 (October 2009)

Figure 1 – GOM rolling closures for which sectors do not receive an automatic exemption

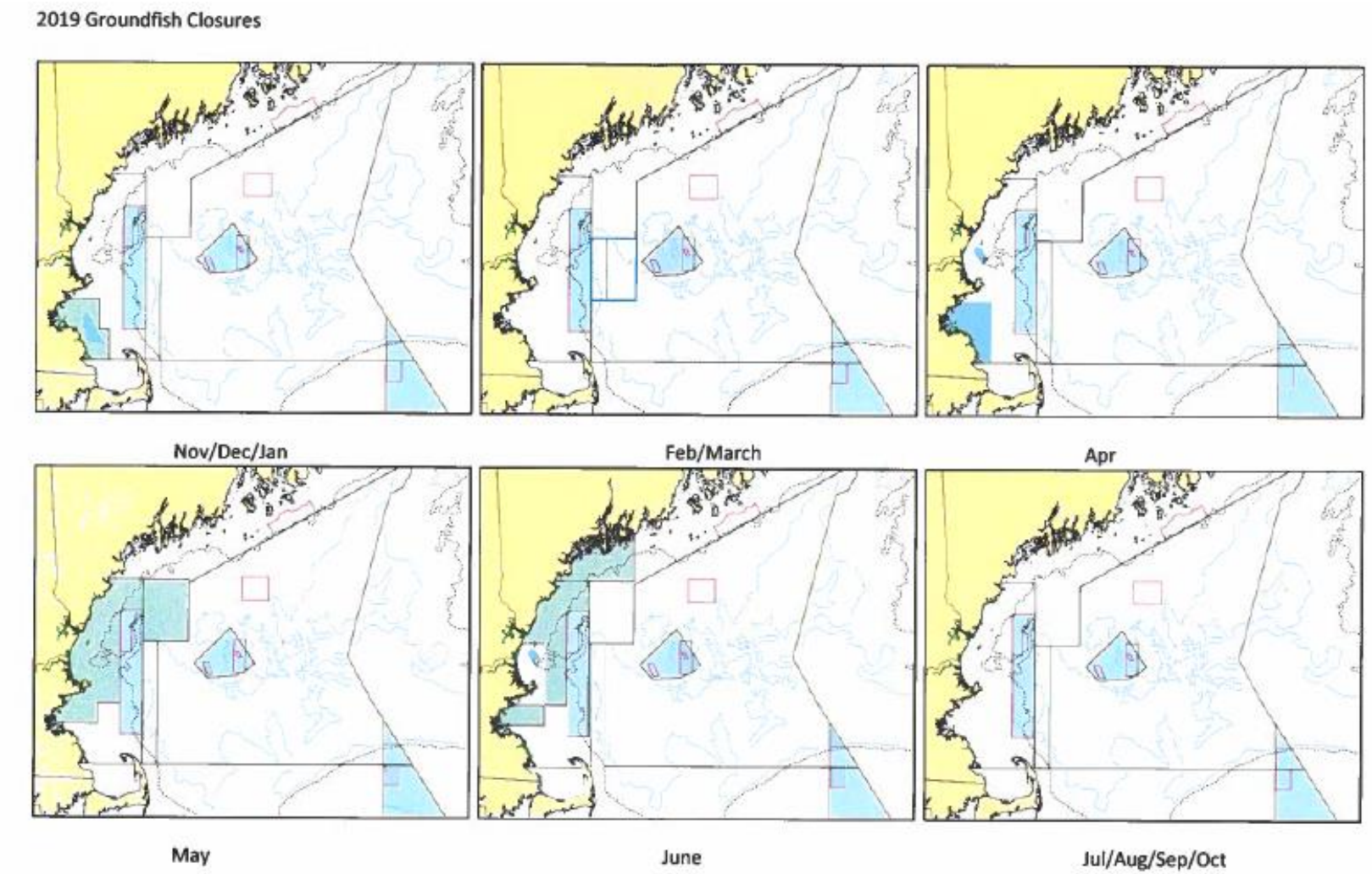


"No action alternative closed areas used as mortality controls" as proposed in Amendment 16 (October 2009)

Figure 6 – No action alternative closed areas used as mortality controls



Current Groundfish Closures



APPENDIX C: ECONOMIC ANALYSIS

U.S Landings of Atlantic Cod:
Lost Harvest and Revenues FY 2010-2017

Stock: Region	Total US Landings[i] (mt)	Canadian Landings (Eastern GB)[ii] (mt)	Total US and Canadian Landings (mt)	Maximum Sustainable Yield[iii] (mt)	Adjusted Maximum Sustainable Yield[iv] (mt)	Lost Harvest[v] (mt)	Lost Harvest (lbs.)	Average Price per Pound[vi] (USD, 2010-2017)	Estimated Lost Revenues (USD)
2017									
GB Cod	499.6	474	973.6	30,622	23,000	22,501	49,604,788	$ 2.39	$ 118,555,443
GOM Cod	368.3	n/a	368.3	7,580	7,580	7,212	15,898,914	$ 2.39	$ 37,998,404
									Total = $ 156,553,847
2016									
GB Cod	1,065.2	428	1,493.2	30,622	23,000	21,935	48,357,866	$ 1.91	$ 92,363,524
GOM Cod	433.4	n/a	433.4	7,580	7,580	7,147	15,755,394	$ 1.91	$ 30,092,803
									Total = $ 122,456,328
2015									
GB Cod	1,790.3	472	2,262.3	30,622	23,000	21,210	46,759,311	$ 1.91	$ 89,310,283
GOM Cod	229.3	n/a	229.3	7,580	7,580	7,351	16,205,353	$ 1.91	$ 30,952,225
									Total = $ 120,262,508
2014									
GB Cod	1,467.3	430	1,897.3	30,622	23,000	21,533	47,471,397	$ 1.81	$ 85,923,228
GOM Cod	1,144.1	n/a	1,144.1	7,580	7,580	6,436	14,188,585	$ 1.81	$ 25,681,339
									Total = $ 111,604,567
2013									
GB Cod	1,554	385	1,939.0	30,622	23,000	21,446	47,280,258	$ 2.10	$ 99,288,541
GOM Cod	1,294.7	n/a	1,294.7	7,580	7,580	6,285	13,856,572	$ 2.10	$ 29,098,802
									Total = $ 128,387,343

2012									
GB Cod	1,578.8	395	1,973.8	30,622	23,000	21,421	47,225,584	$ 2.11	$ 99,645,981
GOM Cod	2,761.9	n/a	2,761.9	7,580	7,580	4,818	10,621,983	$ 2.11	$ 22,412,385
									Total = $ 122,058,366
2011									
GB Cod	3,250.5	702	3,952.5	30,622	23,000	19,750	43,540,154	$ 1.85	$ 80,549,285
GOM Cod	6,158.2	n/a	6,158.2	7,580	7,580	1,422	3,134,500	$ 1.85	$ 5,798,826
									Total = $ 86,348,110
2010									
GB Cod	2,881.6	748	3,629.6	30,622	23,000	20,119	44,353,431	$ 1.59	$ 70,521,955
GOM Cod	5,625.6	n/a	5,625.6	7,580	7,580	1,954	4,308,670	$ 1.59	$ 6,850,786
									Total = $ 77,372,741

2010-2017 Total Lost Revenues:	$ 925,043,809
Average Lost Revenue/Year 2010-2017	$ 115,630,476

[i] U.S. Landings reported in the table above are for the fishing year (FY) and include commercial (sector, common pool, scallop fishery, state waters fishery and other) and recreational landings as reported by GARFO at: https://www.greateratlantic fisheries.noaa.gov/ro/fso/reports/h/groundfish_catch_accounting.

[ii] Canadian landings of Georges Bank cod from the *Transboundary Resources Assessment Committee: Assessment of Eastern Georges Bank Atlantic Cod for 2018* (Andrushchenko I, et. Al. 2018).

[iii] Maximum Sustainable Yield (MSY) is defined as the largest average catch that can be taken from a stock under existing environmental conditions (*NOAA Fisheries Glossary* (NOAA TECHNICAL MEMORANDUM NMFS-F/SPO-69, June 2006)). MSY for GOM cod is that calculated in the *Operational Assessment of 14 Northeast Groundfish Stocks, Updated Through 2018 (*Northeast Fisheries Science Center, prepublication copy of the September 2019 Operational Stock Assessment Report, in press). MSY for GB cod is that calculated in the *55th Northeast Regional Stock Assessment Workshop* (Northeast Science Center, January 2013).

[iv] For transboundary stocks (shared by the US and Canada) including Georges Bank cod, the US portion of the MSY (Adjusted MSY) was calculated as the total stock MSY times the average ratio of the US catch to total catch of the stock over the 2010-2018 period.

[v] Lost harvest is calculated as the adjustment MSY minus total U.S. landings.

[vi] Average value per pound is based on annual landings and revenues data reported on the NMFS Commercial Fisheries Statistics webpage found at https://www.st.nmfs noaa.gov/commercial-fisheries/commercial-landings. Note that landings statistics for the calendar year are close to that reported for the fishing year.

Attachment 2

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June 24, 2020

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Dear Sirs:

Conservation Law Foundation submitted a petition for rulemaking to end overfishing and rebuild Atlantic cod on February 13, 2020 under 5 U.S.C. § 553(e) of the Administrative Procedure Act. It is our understanding based on a letter submitted to the New England Fishery Management Council ("Council") from the Greater Atlantic Regional Fisheries Office ("GARFO"), that a final decision on the merits of our petition has not yet been made.

Please consider the attached documents (listed below), as well as the citations therein, as a supplement to our February 13, 2020 petition and as part of the basis for your final agency action on the petition:[1]

[1] CLF submitted its petition for rulemaking and now this supplement under 5 U.S.C. § 553(e) of the Administrative Procedure Act. We are seeking to compel the National Marine Fisheries Service ("NMFS") to end overfishing of Atlantic cod immediately and rebuild the two stocks in this fishery in as short a time as possible as required by the Magnuson-Stevens Fishery Conservation and Management Act ("MSA"). *See* 16 U.S.C. §§ 1853(a)(1)(A) and 1854(e)(3) & (4).

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- CLF's June 15, 2020 letter to GARFO opposing the fishing year 2020-2022 catch limits for Gulf of Maine cod and Georges Bank cod as proposed in Framework Adjustment 59 to the Northeast Multispecies Fishery Management Plan. We urged the agency to disapprove the proposed catch limits for both cod stocks because (1) they will not end overfishing immediately or rebuild the fishery within the statutory timeframe required and (2) there is no mechanism to ensure accountability in the fishery.

- A 2020 study from Robert Boenish and Yong Chen that assesses Atlantic cod mortality in the lobster fishery: Boenish R and Chen Y. 2020. "Re-evaluating Atlantic cod mortality including lobster bycatch: where could we be today?" *Canadian Journal of Fisheries and Aquatic Sciences* 77(6): 1049-1058.

- CLF's June 17, 2020 letter to the Council urging it to request that the Secretary/NMFS take emergency action to protect known spawning areas of cod in the Western Gulf of Maine and perform a comprehensive data review of cod spawning times and locations in the Georges Bank and Southern New England regions. Our letter responds to the report from the Atlantic Cod Stock Structure Working Group that concluded that the current two stock management approach is inconsistent with the true biological stock structure of cod, which may be inhibiting stock rebuilding.

Thank you for taking this supplementary information under consideration. Please do not hesitate to reach out to us with any questions you may have.

Sincerely,

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June 15, 2020

Michael Pentony, Regional Administrator
National Marine Fisheries Service
55 Great Republic Drive
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Submitted electronically to Regulations.gov

RE: Comments on the Proposed Rule for Groundfish Framework Adjustment 59

Dear Mr. Pentony:

Conservation Law Foundation ("CLF") submits this letter to the National Marine Fisheries Service ("NMFS") in response to the proposed rule for Framework Adjustment 59 to the Northeast Multispecies Fishery Management Plan[1] ("Framework 59"). These comments focus specifically on the proposed measures for Gulf of Maine ("GOM") cod and Georges Bank ("GB") cod. CLF has advocated for sustainable management of New England's groundfish fishery for decades, and we are ever more concerned about NMFS's failure to end overfishing and rebuild cod stocks in New England waters. The continued poor management of GOM cod and GB cod on behalf of the New England Fishery Management Council ("Council") and NMFS has resulted in historically low population levels for both stocks, overfishing that has persisted for decades, and no prospects of rebuilding consistent with the rebuilding schedules—blatantly inconsistent with the most fundamental requirements of the Magnuson-Stevens Act ("MSA").

Framework 59, the proposed measures of which "are intended to help prevent overfishing [and] rebuild overfished stocks . . .[,]"[2] presents an opportunity to begin to right the wrongs of decades of prior management decisions that have merely rubber-stamped the recommendations from an industry-biased regional fishery management council. CLF urges NMFS to disapprove the 2020-2022 catch limits for GOM cod and GB cod as proposed and to remand these measures back to the Council for immediate reconsideration with recommendations that bring the Northeast Multispecies Fishery Management Plan into conformity with requirements of the MSA. As NMFS knows, CLF has recommended a suite of conservation and management measures to end overfishing and rebuild Atlantic cod, including 100% at-sea monitoring, a prohibition on directed fishing for Atlantic cod, area closures to protect spawning locations and other favorable habitat for cod, gear modifications to reduce incidental catch, and measures to reduce mortality of incidentally caught cod in the recreational fishery. [3] CLF has also requested emergency action to immediately implement the measures necessary to reduce overfishing of

[1] 85 Fed. Reg. 32,347 (May 29, 2020).
[2] *Id.* at 32,347.
[3] *See* CLF Petition for Rulemaking to End Overfishing and Rebuild Atlantic Cod dated February 13, 2020. (Attachment #1).

GOM cod, including a prohibition on directed commercial or recreational fishing and a requirement to use modified gear in the GOM cod stock area.[4] CLF reiterates these previous recommendations and requests.

A. MSA Requirements to End Overfishing Immediately and Rebuild Overfished Stocks as Quickly as Possible

Fishery management plans must comply with the MSA's national standards for fishery conservation and management. The primary mandate of the MSA—to prevent overfishing—is set forth in National Standard 1: "Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry."[5] Further, National Standard 2 states: "Conservation and management measures shall be based upon the best scientific information available."[6] As such, the MSA requires that all fishery management plans "contain the conservation and management measures, . . . necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks . . ." and "establish a mechanism for specifying annual catch limits . . ., implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability."[7]

For overfished stocks like GOM cod and GB cod, the MSA is even more proscriptive. In these instances, a council "shall prepare and implement a fishery management plan, plan amendment, or proposed regulations . . . *to end overfishing immediately* and to rebuild affected stocks of fish."[8] The rebuilding plan "shall (A) specify a time period for rebuilding the fishery that shall—(i) be as short as possible . . .; and (ii) not to exceed 10 years . . .."[9]

To date, conservation and management measures for both cod stocks have failed to comply with these mandates of the MSA. The proposed catch limits contained in Framework 59 are no different. After decades of risky decisions, the agency should acknowledge that marginal improvements and slight management changes have not been effective to end overfishing and rebuild Atlantic cod. NMFS has responsibilities to ensure sound management in this fishery before overfishing causes irreversible effects. It cannot satisfy these obligations when it repeatedly approves management measures that have never worked and in a fishery that it acknowledges lacks accountability.

[4] *Id.* at 57-58.
[5] 16 U.S.C. § 1851(a)(1).
[6] *Id.* § 1851(a)(2).
[7] 16 U.S.C. § 1853(a)(1), (15).
[8] *Id.* § 1854(e)(3)(A)(emphasis added).
[9] *Id.* § 1854(e)(4)(A).

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B. Best Scientific Information Available Confirms Continued Overfished and Overfishing Status of Cod

The proposed rule intends to "adopt catch limits for 14 groundfish stocks [including GOM cod and GB cod] for the 2020-2022 fishing years based on stock assessments completed in 2019[.]"[10] The referenced assessments paint a bleak picture for GOM cod and GB cod.

Both cod stocks are overfished with overfishing occurring,[11] despite 16 years in rebuilding plans. The best scientific information available, including the 2019 operational assessments, confirm that the cod stocks have been subject to overfishing for 100 percent of the time periods covered by the assessments (GOM cod: 1982-2018, GB cod: 1978-2011) and have been overfished in all but two years.

According to the 2019 operational assessment, upon which the proposed catch limits in Framework 59 are based, GOM cod lingers at only 6 to 9 percent of its spawning stock biomass target.[12] The stock also exhibits a decline in stock size[13] and geographic range[14] as well as a severely truncated age structure,[15] the latter of which is "consistent with a population experiencing high mortality."[16] To rebuild, new fish must enter the stock complex; yet the best scientific information indicates that recruitment remains near record low with little positive signs of incoming recruitment.[17] Estimates from the Council's Groundfish Plan Development Team ("PDT") based on the 2019 operational assessment confirm the declining fate of GOM cod: halfway into its second 10-year rebuilding program, there is only a zero to one percent chance that GOM cod will rebuild on schedule (2024) even under a no-fishing scenario.[18] The PDT's most recent estimate is a 26-fold decline in rebuilding probability in just the two years between assessments.

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[10] 85 Fed. Reg. at 32,348.

[11] NEFSC. *Operational Assessment of 14 Northeast Groundfish Stocks, Updated Through 2018*. Pre-publication copy last revised Jan. 7, 2020 at 26 and 38. Available at: https://nefsc.noaa.gov/saw/2019-groundfish-docs/Prepublication-NE-Grndfsh-1-7-2020.pdf ("2019 Groundfish Operational Assessment"); Per NMFS policy, "where a known determination had previously been provided and a new assessment is rejected or the results are inconclusive, the [last] known status will continue to be the official stock status." Letter from John K. Bullard to John F. Quinn, August 31, 2017, p. 2. Available at: https://s3.amazonaws.com/nefmc.org/A8_170831_Bullard-to-Quinn_Groundfish-Inadequate-Rebuilding-Progress.pdf.

[12] 2019 Groundfish Operational Assessment at 26.

[13] NEFSC 2019. *Gulf of Maine Atlantic Cod. 2019 Assessment Update Report Draft Supplemental Tables* at 24.

[14] NEFSC. 2017. *Gulf of Maine Atlantic Cod 2017 Assessment Update Report Supplemental Information (Draft)* at 78.

[15] 2019 Groundfish Operational Assessment at 29.

[16] *Id.*

[17] *Id.*

[18] Memorandum from Groundfish PDT to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019) at 7. Available at: https://s3.amazonaws.com/nefmc.org/A.8-GF-PDT-memo-to-SSC-re-FY2020-FY2022-Groundfish-OFLs-ABCs_20191001-REVISED.pdf.

The GB cod stock is in similarly dire straits. The best scientific information available estimates the stock at only 7 percent of its spawning stock biomass target.[19] While that estimate is based on an assessment from roughly seven years ago, more recent survey indices—the primary basis for assessing the stock without an accepted analytical model—confirm low abundance.[20] Like GOM cod, the stock also exhibits a truncated age structure,[21] and although quantitative projections cannot be made, there is no scientific reason to believe that GB cod will rebuild on schedule (2026).

C. Proposed Catch Limits for GOM Cod and GB Cod Do Not End Overfishing or Rebuild the Stocks

Despite decreases from previously approved catch limits, the proposed catch limits for GOM cod and GB cod in Framework 59 do not meaningfully address the extremely poor state of the stocks revealed in the 2019 operational assessments and result in catch limits that cannot meet statutory obligations. As discussed above, the MSA requires that, for overfished stocks like GOM cod and GB cod, fishery management plans must end overfishing immediately and rebuild overfished stocks in as short a time as possible not to exceed ten years. The cod catch limits as proposed by NMFS in Framework 59 fail to meet these most basic mandates of the MSA because they fail to (1) utilize the approved mechanism for specifying annual catch limits ("ACLs") and (2) ensure accountability in the groundfish fishery.

1. Failure to Utilize the Approved Mechanism for Specifying Annual Catch Limits

An acceptable biological catch ("ABC") control rule is the specified approach approved by NMFS for determining the ABC, and subsequently specifying ACLs, for a stock. The ABC control rule accounts for scientific uncertainty in the overfishing limit and is based on an analysis that shows how it will prevent overfishing.[22] In the groundfish fishery, the ABC control rule (approved as part of Amendment 16) includes a hierarchy of options that become more conservative as stock biomass declines or uncertainty increases. Since 2010, the Council has utilized this ABC control rule (however reasonable or unreasonable) to recommend catch limits for the groundfish fishery, and NMFS has repeatedly approved those catch limits. In Framework 59, however, where it is unambiguous that the only reasonable option to specify catch limits for GOM cod and GB cod is "Option C" (an incidental catch only fishery), the Council threw the hierarchy to the wind and again recommend catch limits—those proposed by NMFS—that cannot end overfishing.

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[19] NEFSC. 2013. *55th Northeast Regional Stock Assessment Workshop (55th SAW), Assessment Summary Report*. NEFSC Reference Document 13-01 at 24.
[20] NEFSC. 2019. *Georges Bank Atlantic Cod Tables* (Draft; Supplement to 2019 Operational Groundfish Assessments) at 10.
[21] 2019 Operational Groundfish Assessments at 40.
[22] 50 C.F.R. § 600.310(f)(2).

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Gulf of Maine Cod

In the case of GOM cod—a stock that will not rebuild on time even under a no fishing scenario—the relevant ABC control rule option is unequivocal, stating: "For stocks that cannot rebuild to B_{MSY} in the specified rebuilding period even in the absence of fishing, the ABC should be based on incidental bycatch, including a reduction in the bycatch rate (i.e., the proportion of the stock caught as bycatch.)"[23] The catch limits in the proposed rule, however, are specified in such a way, *i.e.*, determined from an ABC based on catch at $75\%F_{MSY}$, that would only be appropriate under the approved control rule if GOM cod was a healthy stock; the GOM cod stock is the exact opposite of healthy. ABCs based on catch at $75\%F_{MSY}$—which allow for higher ACLs compared to ABCs based on incidental catch—have repeatedly failed to end overfishing and rebuild GOM cod in previous fishing years as evidenced by the 2019 operational assessments.

Unsurprisingly, the catch limits proposed in Framework 59 are not based on a unanimous recommendation from the Council's Scientific and Statistical Committee ("SSC"):

> The SSC did not reach consensus on GOM cod. There was a minority of the SSC that felt the majority recommendations were not appropriately using the harvest control rules for GOM cod. Because the stock could not rebuild per the projections offered, even at an F of zero, a minority of the SSC felt that we were required to use "Option C" of the groundfish control rule [i.e., ABC based on incidental catch with a reduction in the bycatch rate] . . . The minority recommendation would be for a bycatch only fishery with an ABC of 450.5 mt (the FY2018 bycatch/discard estimate as presented by the PDT).[24]

While Framework 59's proposed ABC and ACL for GOM cod are technically below the stock's recommended overfishing limit ("OFL"), the agency provides no explanation of how these catch limits will avoid the pitfalls of previous fishing years. NMFS has repeatedly approved specifications package that set catch limits below the OFLs on paper yet never resulted in an end to overfishing or rebuilt the stocks. There is no rational reason to conclude that Framework 59's proposed catch limits will be any different.

Further justification for an incidental catch only fishery is that the proposed GOM cod catch limits are based on a stock assessment that does not account for all sources of mortality, specifically cod mortality in the American lobster fishery. Mortality of Atlantic cod as a result of bycatch in the lobster fishery has been an issue repeatedly raised by industry and recently

[23] NEFMC. *Final Amendment 16 to the Northeast Multispecies Fishery Management Plan including its Environmental Impact Statement and Initial Regulatory Flexibility Analysis*. Submitted October 16, 2009 at 78-79. Available at: https://s3.amazonaws.com/nefmc.org/091016FinalAmendment16.pdf.

[24] NEFMC. *Framework Adjustment 59 to the Northeast Multispecies Fishery Management Plan, Appendix* I at 18. Available at: https://s3.amazonaws.com/nefmc.org/200218_Groundfish_FW59_Appendix_I_SSC_Reports.pdf.

documented in a study focused on the Maine lobster fishery by Robert Boenish and Yong Chen published in March 2020.[25] Most alarming, cod bycatch in the Maine lobster fishery has been as high as 242.87 mt in 2002 and has hovered at an average of 65 mt since 2007. [26] NMFS cannot "ensure that management measures are based on the best scientific information available"[27] until it considers cod bycatch in the lobster fishery.

NMFS should disapprove the 2020-2022 GOM cod catch limits and recommend that the Council set new catch limits for GOM cod based on incidental catch only with measures to reduce bycatch, consistent with the approved control rule.

Georges Bank Cod

Without an approved analytical model to advise management decisions, the ABC control rule's hierarchy is less applicable in the case of GB cod, but its principles still hold true and should guide NMFS in making a responsible decision for the stock. Presumably, GB cod falls under the control rule option that states: "Interim ABCs should be determined for stocks with unknown status according to case-by-case recommendations from the SSC."[28] As such, after the analytical model for GB cod was thrown out in 2015, the SSC adopted an empirical approach that combines recent catch levels with survey results to provide ABC recommendations for the stock. Prior to Framework 59, the empirical approach had been used to specify an OFL for GB cod; the SSC then applied a 25% scientific uncertainty buffer to recommend an ABC. As previously mentioned, the regulations clearly state that the ABC control rule should account for scientific uncertainty.[29] Framework 59, however, proposes catch limits for GB cod that have zero consideration of scientific uncertainty—in direct violation of this regulation—as the empirical approach here was used to recommend the ABC, not the OFL.

Again, unsurprisingly, these proposed catch limits are not based on a unanimous recommendation from the SSC. The minority report states:

> Given the poor status of Georges Bank cod and the absence of any indication that the stock is increasing (in fact, the trend is downward), the concern is that the approach recommended by the majority of the SSC removes a crucial buffer that is used for other stocks and previously for this stock.[30]

[25] Boenish R and Chen Y. 2020. "Re-evaluating Atlantic cod mortality including lobster bycatch: where could we be today?" *Canadian Journal of Fisheries and Aquatic Sciences 77*(6): 1049-1058.
[26] Boenish and Chen. 2020, Supplementary Information.
[27] 85 Fed. Reg. at 32,347.
[28] NEFMC. *Final Amendment 16 to the Northeast Multispecies Fishery Management Plan including its Environmental Impact Statement and Initial Regulatory Flexibility Analysis*. Submitted October 16, 2009, at 78-79. Available at: https://s3.amazonaws.com/nefmc.org/091016FinalAmendment16.pdf.
[29] 50 C.F.R. § 600.310(f)(2).
[30] NEFMC. *Framework Adjustment 59 to the Northeast Multispecies Fishery Management Plan, Appendix* I at 17-18. Available at: https://s3.amazonaws.com/nefmc.org/200218_Groundfish_FW59_Appendix_I_SSC_Reports.pdf.

And, again, the agency provided no justification that addressed the concerns raised by SSC members nor did it explain how it will account for scientific uncertainty. This failure to account for scientific uncertainty is particularly unreasonable given that scientists have been unable to quantitatively assess the GB cod stock due to lack of an analytical model for nearly five years.

NMFS should disapprove the 2020-2022 GB cod catch limits and recommend that the Council set new catch limits that include a buffer for scientific uncertainty consistent with the National Standard 1 guidelines. Given that the most recent trawl surveys continue to show a severely depleted stock, the utmost precaution should be taken in setting the catch limits for GB cod, and they too should be based on incidental catch with measures to reduce bycatch.

* * *

The MSA requires fishery management plans to "establish a mechanism for specifying annual catch limits . . . at a level such that overfishing does not occur in the fishery,"[31] but it is not enough to simply establish a mechanism and then not follow it. To ensure that overfishing does not occur, the mechanism must be implemented. To date, neither the Council nor NMFS have demonstrated any intention to properly utilize the ABC control rule and its hierarchy of options to prevent overfishing, and Framework 59 is yet another example of sacrificing long term benefits to the fishery and the Nation in favor of short-term economic gains. NMFS must reverse this pattern and uphold the law.

2. Failure to Ensure Accountability in the Fishery

Even if the proposed catch limits were specified in the correct manner (which they weren't) and there was a rationale for keeping a directed fishery open despite lack of rebuilding (which there isn't), the proposed catch limits cannot end overfishing of Atlantic cod in New England in the absence of sector accountability to annual catch entitlement ("ACE") allocations. All fishery management plans must "includ[e] measures to ensure accountability"[32] to prevent overfishing. The Northeast Multispecies Fishery Management plan relies on sector catch reporting "to determine whether a sector has exceeded any of its ACE allocations based upon the cumulative catch by participating permits/vessels . . .." [33] In the event of an overage,

> the sector's ACE shall be reduced by the overage on a pound-for-pound basis during the following fishing year, and the sector, each vessel, vessel operator and/or vessel owner participating in the sector may be charged, as a result of said overages . . ..[34]

[31] 16 U.S.C. § 1853(a)(15).
[32] *Id.*
[33] 50 C.F.R. § 648.87(b)(iii).
[34] *Id.*

Paramount to complying with these measures and holding sectors accountable is accurately tracking catch, which NMFS publicly acknowledges is not currently possible.

The Groundfish PDT declared that the at-sea monitoring ("ASM") program[35] as currently designed does not use "an appropriate method to set at-sea monitoring coverage levels because of the assumption that observed trips are representative of unobserved trips is false . . .[,]"[36] and as a result, the fishery needs "more comprehensive monitoring."[37] Further, recent analyses from the U.S. Coast Guard concluded "that the current regulation regime is vulnerable to stock area misreporting and limits the ability of enforcement to detect and document misreporting of stock areas."[38] Unfortunately, overfished, low-quota stocks like GOM cod and GB cod are most vulnerable to illegal discarding[39] and misreporting,[40] and multiple analyses and comments from both industry and managers have documented these issues in relation to cod.[41]

While there was some discussion at the Council's SSC meeting about how to consider the cod discard/bycatch data, the proposed rule does not address the topic. Ultimately, the agency cannot currently ensure sector accountability to Framework 59's proposed catch limits for GOM cod and GB cod because the mechanism for doing so, i.e., the ASM program, has been deemed inadequate. The Regional Administrator acknowledged this at the Council's June 3, 2020 Executive Committee meeting when he stated that the current ASM program is "no longer

[35] 75 Fed. Reg. 18,262 (April 9, 2010), 18,278. (The at-sea monitoring ("ASM") program was established in the groundfish fishery "to verify area fished and catch (landings and discards), by species and gear type, for the purposes of monitoring sector ACE utilization.").
[36] NEFMC. Draft *Amendment 23 to the Northeast Multispecies Fishery Management Plan, Appendix V* at 112. Available at: https://s3.amazonaws.com/nefmc.org/Amendment-23_Appendix-V_Groundfish-PDT-Monitoring-Analyses-and-SSC-Panel-Peer-Review-Report.pdf.
[37] *Id.* at 113.
[38] USCG First District Enforcement Staff. *Summary of Stock Area Analysis and Investigation of Misreporting in the Northeast Multispecies Fishery* at 21. Available at: https://s3.amazonaws.com/nefmc.org/USCG-Groundfish-Misreporting-Investigation-and-Analysis.pdf.
[39] NEFMC. Draft *Amendment 23 to the Northeast Multispecies Fishery Management Plan, Appendix V* at 110. ("In general, . . . cod stocks have [one of] the highest modeled discard incentives over time," and "cod stocks had higher discard incentives in recent years (2015-2017).").
[40] Palmer MC. 2017. *Vessel Trip Reports Catch-area Reporting Errors: Potential Impacts on the Monitoring and Management of the Northeast United States Groundfish Resource*. NEFSC Ref. Doc. 17-02. ("This quota-based system could have created incentives to intentionally misreport catch along these lines, particularly for stocks where quota was limited. This possibility of incentives would be particularly true for allocated groundfish species managed as multiple stocks (Atlantic cod [*Gadus morhua*], haddock [*Melanogrammus aeglefinus*], yellowtail flounder [*Limanda ferruginea*], and winter flounder [*Pseudopleuronectes americanus*]). For these four stocks, catches of lower quota stocks of the same species could be reported in another stock area where quota was less limiting by either inaccurately reporting the fishing area or catch location on the vessel trip report (VTR). Accurate reporting is critical to ensuring that fishery removals are managed appropriately and that fish stocks are not overharvested.").
[41] NEFMC. Draft *Amendment 23 to the Northeast Multispecies Fishery Management Plan, Appendix V* at 111; *See* Recording of the April 2018 Council Meeting, Introductions, Announcements, and Reports on Recent Activities at around 21:00. Available at: https://s3.amazonaws.com/nefmc.org/1804171Intros-and-Reports.mp3; USCG First District Enforcement Staff at 20.

supportable" for science and management purposes. Without meaningful and enforceable accountability measures, the catch limits proposed in Framework 59 cannot prevent overfishing.

D. Conclusion

Framework 59 presents another opportunity for NMFS to sustainably manage Atlantic cod. In order to set Atlantic cod on a path to recovery, NMFS must disapprove Framework 59's proposed catch limits for GOM cod and GB cod and remand them to the Council with recommendations for catch limits that actually end overfishing.

Thank you for considering these comments.

Sincerely,

Allison Lorenc

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Boenish R and Chen Y. 2020. “Re-evaluating Atlantic cod mortality including lobster bycatch: where could we be today?” *Canadian Journal of Fisheries and Aquatic Sciences* 77(6): 1049-1058. https://doi.org/10.1139/cjfas-2019-0313

ABSTRACT

Full accounting of fisheries mortality is one of the most tractable ways to improve stock assessments. However, it can be challenging to obtain in cases when missing catch comes from small-scale nontarget fisheries unrequired to report incidental catch. Atlantic cod (*Gadus morhua*) in the Gulf of Maine (GoM), USA, once served as a regionally important fishery, but has been serially depleted to <5% of historic spawning stock biomass. Recent management efforts to rebuild GoM cod have largely failed. We test the hypothesis that unaccounted bycatch of Atlantic cod in the Maine American lobster (*Homarus americanus*) fishery is a substantial missing piece in the GoM Atlantic cod assessment. We integrated multiple scenarios of hind-casted discards into the two accepted regional cod assessment models from 1982 to 2016. Incorporation of discards improved the assessment bias for both models (10%–15%), increased estimates of spawning stock biomass (4%), and decreased estimates of fishing mortality (9%). A novel evaluation of longitudinal model bias suggests that alternative modelling approaches or specifications may be warranted. We highlight the importance of accounting for all fishery-related mortality and the need for methods to deliver more comprehensive estimates from both target and nontarget fisheries.

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June 17, 2020

Dr. John Quinn, Council Chairman
Mr. Tom Nies, Executive Director
New England Fishery Management Council
50 Water Street, Mill #2
Newburyport, MA 01950

Submitted via comments@nefmc.org

RE: Protections for Atlantic Cod

Dear Dr. Quinn and Mr. Nies:

Conservation Law Foundation ("CLF") submits this letter for consideration at the New England Fishery Management Council's ("Council") June 2020 meeting. CLF remains focused on the sustainable management of Atlantic cod in New England, which includes advocating for conservation and management measures necessary and sufficient to end overfishing immediately and rebuild the stocks as required by the Magnuson-Stevens Act. As part of these efforts, CLF has closely followed the work of the Atlantic Cod Stock Structure Working Group ("Working Group"), and we offer the following comments and recommendations based on the Working Group's report.

First, we commend the Working Group on the thoroughness with which it approached the interdisciplinary review. Its review of multiple data types provides extensive evidence of a mismatch between the current two stock management units (Georges Bank ("GB") cod and Gulf of Maine ("GOM") cod) and the true biological stock structure. This evidence led the Working Group to "reject the current management units as an accurate representation of cod stock structure within the region"[1] and propose five biological stocks for Atlantic cod: (1) Georges Bank, (2) Southern New England, (3) Western Gulf of Maine and Cape Cod (winter spawners), (4) Western Gulf of Maine (spring spawners), and (5) Eastern Gulf of Maine.[2] Of these proposed stocks, the supporting evidence for the Southern New England and Eastern Gulf of Maine stocks was deemed to be less certain, but evidentiary support was clear for the other three.[3]

[1] McBride RS and Kent Smedbol R. *An Interdisciplinary Review of Atlantic Cod (Gadus morhua) Stock Structure in the Western North Atlantic Ocean.* NOAA Technical Memorandum NMFS-NE-XXX at 233. ("Working Group Report"). Available at: https://s3.amazonaws.com/nefmc.org/Interdisciplinary-Review-of-Atlantic-Cod-Stock-Structure_200505_090723.pdf.
[2] *Id.* at 3.
[3] *See* "Peer Review of the Atlantic Cod Stock Structure Working Group Report." Presentation by Review Panel Chair Jake Kritzer at NEFMC Scientific & Statistical Committee, June 4, 2020. Available at: https://s3.amazonaws.com/nefmc.org/Presentation-ACSSWG-Review-Panel-Report.pdf.

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CLF appreciates the time it will take the Council and additional follow-up working groups to fully analyze the report and determine the implications to both assessments and management. Still, in light of the dire state of Atlantic cod in New England—GOM cod and GB cod stocks remain overfished and subject to overfishing[4] despite 16 years in rebuilding plans—action is needed now to curb persistent overfishing, prevent further decline, and rebuild the fishery. As the Working Group states in its report:

> Declining populations of cod have occurred despite substantially reduced fishery catch and a series of management actions over decades. This has led to concerns that existing cod management units have not adequately captured cod's biological stock structure, contributing to delays in rebuilding . . . .[5]

Failure to account for stock structure can also lead to extirpation of spawning components,[6] such as what happened in coastal Maine waters[7] and what must be prevented in coastal Massachusetts waters. Waiting until the 2023 research track assessment is concluded, reviewed, and moved into management action is too late to address these concerns.

Interim Measures Are Necessary to Protect Spawning Components

CLF urges the Council to fully consider the appropriate management changes needed in light of the new understanding of Atlantic cod stock structure and to implement the measures necessary to end overfishing and rebuild the fishery (and all biological stocks of Atlantic cod). Kerr et al. (2017) provide a framework for considering the range, and associated scope, of management responses to address misalignment of biological and management stocks.[8] Status

[4] NEFSC. *Operational Assessment of 14 Northeast Groundfish Stocks, Updated Through 2018*. Pre-publication copy last revised Jan. 7, 2020 at 26 and 38. Available at: https://nefsc.noaa.gov/saw/2019-groundfish-docs/Prepublication-NE-Grndfsh-1-7-2020.pdf ("2019 Groundfish Operational Assessment"); Per NMFS policy, "where a known determination had previously been provided and a new assessment is rejected or the results are inconclusive, the [last] known status will continue to be the official stock status." Letter from John K. Bullard to John F. Quinn, August 31, 2017, p. 2. Available at: https://s3.amazonaws.com/nefmc.org/A8_170831_Bullard-to-Quinn_Groundfish-Inadequate-Rebuilding-Progress.pdf.

[5] Working Group Report at 6.

[6] Working Group Report at 6-7.

[7] Ames EP. 2004. "Atlantic cod stock structure in the Gulf of Maine." *Fisheries* 29(1):10–28.

[8] Kerr LA, Hintzen NT, Cadrin SX, Clausen LT, Dickey-Collas M, Goethel DR, Hatfield EMC, Kritzer JP, and Nash RDM. 2017. "Lessons learned from practical approaches to reconcile mismatches between biological population structure and stock units of marine fish," *ICES Journal of Marine Science* 74(6): 1708-1722, doi:10.1093/icesjms/fsw188. ("(i) Status quo management—there is insufficient information to change the current management practices. (ii) 'Weakest link' management—there is some knowledge of spatial structure, but insufficient information exists to explicitly manage all spawning components. The assumed weakest spawning component is protected through management measures. (iii) Spatial and temporal closures—there is knowledge of spatial structure, but insufficient information exists to alter the scale of assessment. Spatial and temporal closures are used to protect spawning populations. (iv) Stock composition analysis—there is knowledge of stock mixing, but insufficient information exists to explicitly model connectivity within a stock assessment. Stock composition data

quo management is clearly failing New England cod, and minimally some enhanced degree of spawning component protections will be required. While considering the possibility of more complex forms of management, steps can be taken immediately to address the uncertainty introduced by the misalignment between the current management approach and the new understanding of true stock structure in the region, including (1) approriately buffering for scientific uncertainty when specifying catch limits[9] and (2) protecting known spawning grounds from fishing pressure to conserve spawning components. As elaborated below, sufficient information is available for enhanced spatial and temporal closures for the Western Gulf of Maine spawning components.

As the Council determines how best to reconcile the new scientific information on Atlantic cod stock structure with potential new management measures, **the Council should request that the Secretary take emergency action to protect all known spawning areas of Atlantic cod in the Western Gulf of Maine during the entirety of the spawning seasons.**

Emergency Action is Warranted

Three criteria must be satisfied to warrant emergency action. NMFS policy defines an emergency as:

> a situation that: (1) [r]esults from recent, unforeseen events or recently discovered circumstances; and (2) [p]resents serious conservation or management problems in the fishery; and (3) [c]an be addressed through emergency regulations for which the immediate benefits outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants to the same extent as would be expected under the normal rulemaking process.[10]

These criteria are satisfied in the GOM cod fishery. First, the Working Group's rejection of the current management regime for Atlantic cod, coupled with the most recent survey results for GOM cod reaching the lowest biomass index levels on record,[11] constitute unforeseen events.

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are used to parse data (catches or samples) to the appropriate stock of origin before being input to the stock assessment or used in management. (v) Alteration of stock boundaries—sufficient information is available on population structure and unique harvest stocks exist, which allows updating and redrawing stock boundaries to improve the alignment of biological populations and management units.").

[9] The decision around quotas currently lies with National Marine Fisheries Service in its consideration of Framework Adjustment 59. Note that CLF has filed comments with the NMFS on the legality of the proposed catch limits for GOM cod and GB cod in the proposed rule for Framework Adjustment 59 to the Northeast Multispecies Fishery Management Plan.

[10] *See* NMFS Policy Guidelines for the use of Emergency Rules, 62 Fed. Reg. 44,421 (Aug. 21, 1997).

[11] The 2019 federal fall trawl survey results show that biomass index fell to a new historic low, over 2.5 times lower than the previous low points in 1993 and 2012 and 65 times lower than the historic high. C. Perretti (NEFSC) pers. comm.; NEFSC. 2019. *Gulf of Maine Atlantic Cod 2019 Assessment Update Report Supplemental Tables* (Draft), at 24.

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Second, the continued failure to end overfishing and rebuild GOM cod[12]—a stock that currently has only a zero to one percent chance of rebuilding on schedule during its second rebuilding period even in the absence of any fishing[13]—is without a doubt a "serious conservation or management problem[.]"[14] Further, as previously noted, the Working Group indicates the patent misalignment of the current management approach with the true biological nature of the sub-populations could be inhibiting rebuilding. And third, given the Council's current timeline is to preliminarily address the Working Group's conclusions in time to inform the 2023 research track assessment for GOM cod, the immediate benefits of protecting vulnerable spawning components of an overfished stock through emergency interim measures outweigh the benefits of standard public procedure.

As CLF emphasized in its February 13, 2020 Petition for Rulemaking to End Overfishing and Rebuild Atlantic Cod, the Council's Groundfish Plan Development Team ("PDT") conducted a comprehensive analysis of cod spawning times and locations in the Western Gulf of Maine during the development of Framework Adjustment 53 in 2014. At that time, the PDT recommended seasonal closures that provided more extensive spawning protections for both the winter and spring spawning groups (Figure 1),[15] but the Council chose not to adopt these measures. The PDT's prior recommendation provides an immediate means to address limitations of the current two stock management approach and protect the "two genetically distinct sub-populations [in the Western Gulf of Maine] whose spawning grounds overlap in space, but not in season"[16]—now recognized as two separate biological stocks (Western Gulf of Maine and Cape Cod winter spawners and Western Gulf of Maine spring spawners).

[12] NEFSC. *Operational Assessment of 14 Northeast Groundfish Stocks, Updated Through 2018*. Pre-publication copy last revised Jan. 7, 2020 at 26 and 33.

[13] Memorandum from Groundfish PDT to Scientific and Statistical Committee regarding "Candidate Groundfish OFLs and ABCs for fishing years 2020 to 2022" dated Oct. 10, 2019 & revised Oct. 15, 2019) at 7. Available at: https://s3.amazonaws.com/nefmc.org/A.8-GF-PDT-memo-to-SSC-re-FY2020-FY2022-Groundfish-OFLs-ABCs_20191001-REVISED.pdf.

[14] 62 Fed. Reg. at 44,422.

[15] Memorandum from Groundfish PDT to Groundfish Committee regarding "Development of Framework Adjustment 53 (FW 53) to the Multispecies (Groundfish) Fishery Management Plan" dated Nov. 5, 2014 at 12-13, 17. Available at: https://s3.amazonaws.com/nefmc.org/8_141105_GF-PDT-memo-to-GF-Committee-re-FW-53-FINAL-2-with-Appendicies.pdf.

[16] Dean MJ, Elzey SP, Hoffman WS, Buchan NC, and Grabowski JF. 2019. "The relative importance of sub-populations to the Gulf of Maine stock of Atlantic cod." *ICES Journal of Marine Science*, doi:10.1093/icesjms/fsz083.

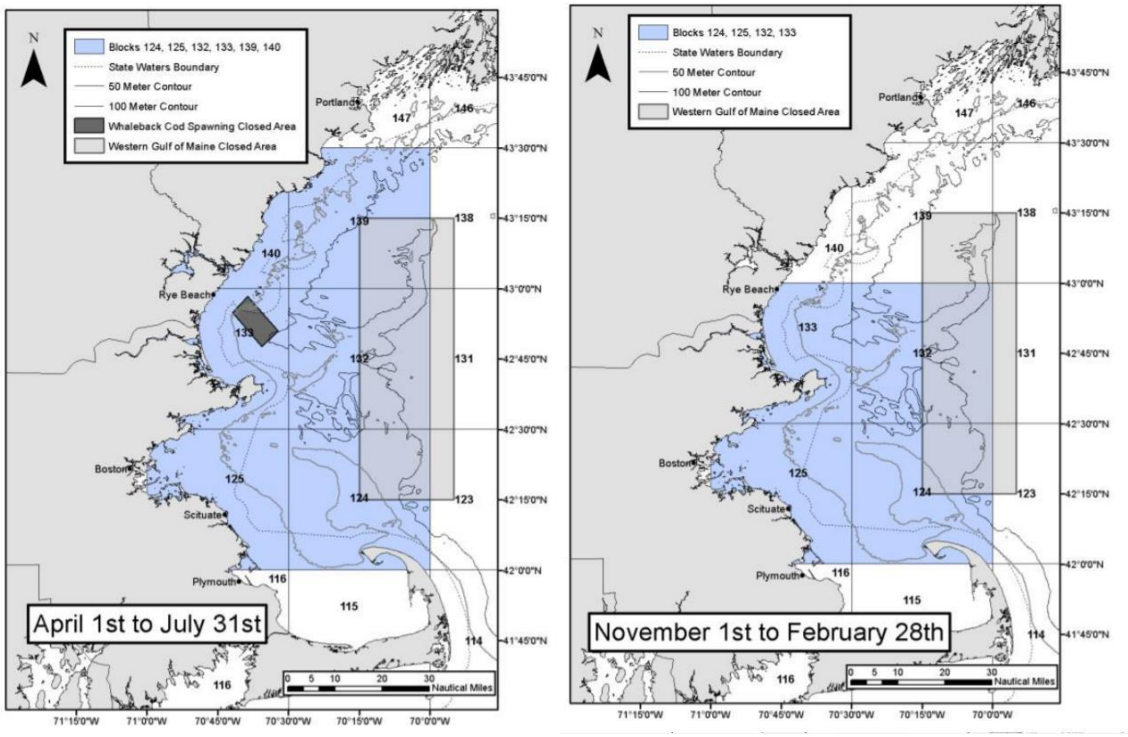

Figure 1: PDT recommendation for seasonal cod spawning closures in the Western Gulf of Maine (shaded in blue) compared to then-current (2014) closures.[17]

To prevent further serious conservation and management problems in the fishery, the Council should request at the June meeting that the Secretary immediately promulgate interim measures to implement the PDT's recommendation for spawning protections in the Western Gulf of Maine. For the remaining biological stocks of cod proposed by the Working Group, the Council should request that NMFS and the Northeast Fishery Science Center prioritize a similarly comprehensive data review of all relevant data sources to determine the locations, in time and space, of spawning cod on Georges Bank and Southern New England.[18]

The law requires the Council to take all necessary actions to end overfishing and rebuild Atlantic cod using the best scientific information available.[19] Appropriate consideration of stock structure is one of those actions. As Dean et. al. (2019) stated when referring to assessment models and the importance of accounting for sub-populations, misrepresenting "the aggregate

[17] Memorandum from Groundfish Plan Development Team Development to Groundfish Committee regarding "Development of Framework Adjustment 53 (FW 53) to the Multispecies (Groundfish) Fishery Management Plan" dated Nov. 5, 2014, at 17.
[18] While the Working Group also proposes the presence of a distinct Eastern Gulf of Maine stock, there is a known "lack of spawning fish in this area." Working Group Report at 69.
[19] 16 U.S.C. § 1853(a)(1); *Id.* § 1851(a)(2).

dynamics of the population will yield inaccurate catch advice and lead to misguided management, perpetuating, and amplifying the problem. In short: it matters where, when, and which cod are harvested from the population."[20] On a more positive note, however, the Working Group report states:

> The [Working Group] believes that improved recognition of population structure may help prevent further loss of spawning components; better guide adjustments of allowable catch to balance fishing mortality across populations; facilitate recovery of currently depleted stocks; and strengthen the resiliency of the populations that exist within fishing areas.[21]

In this context, the best scientific information available suggests that emergency interim measures while the Council wrestles with appropriate management advice are vital and necessary.

Thank you for considering these comments. We look forward to further engaging with the Council as this work moves forward.

Sincerely,

Allison Lorenc

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Conservation Law Foundation

[20] Dean et. at. 2019.
[21] Working Group Report at 3.

From: Bryan Keller - NOAA Federal <bryan.keller@noaa.gov>
Sent: Wednesday, February 18, 2026 1:45 PM
Subject: ICCAT - recreational catches of western Atlantic bluefin tuna

Dear colleagues,

For your awareness, please see the attached ICCAT circular that distributed a letter from U.S. HOD Lawler to the ICCAT Secretariat regarding recreational catches of western Atlantic bluefin tuna.

Distribution

- FMC reps to the ICCAT Advisory Committee
- FMC Staff

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Bryan Keller, Ph.D.

Foreign Affairs Specialist, Office of International Affairs, Trade, and Commerce

NOAA Fisheries | U.S. Department of Commerce

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INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS

COMMISSION INTERNATIONALE POUR LA CONSERVATION DES THONIDES DE L'ATLANTIQUE

COMISION INTERNACIONAL PARA LA CONSERVACION DEL ATUN ATLANTICO

Madrid, 2 February 2026

ICCAT CIRCULAR # 00641 / 2026

SUBJECT: LETTER FROM THE UNITED STATES DELEGATION REGARDING RECREATIONAL CATCHES OF WESTERN ATLANTIC BLUEFIN TUNA

I would like to transmit herewith a letter from the Head Delegate of the United States, Mr Andrew Lawler, regarding recreational catches of western Atlantic bluefin tuna.

The Chair of Panel 2 and the Secretariat have taken note of the interpretation of the *Recommendation by ICCAT for a conservation and management plan for western Atlantic bluefin tuna* (Rec. 22-10) provided by the United States delegation. While this interpretation differs from the understanding of the Chair of Panel 2 and the Secretariat, it is noted that the interpretation of ICCAT Recommendations does not fall within the mandate or authority of either the Chair of Panel 2 or the Secretariat.

In light of the above, the Chair of Panel 2 and the Secretariat would be grateful if Panel 2 members could provide any comments on this matter no later than **20 February 2026**, for possible further discussion during the Intersessional Meeting of Panel 2 to be held from 3 to 5 March 2026, if required. The ICCAT Secretariat will compile all comments received by the date referred to above and present them during the Intersessional Meeting of Panel.

Please accept the assurances of my highest consideration.

Executive Secretary

Camille Jean Pierre Manel

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Attachment: Letter sent by the United States [ICCAT Entrada #00781 of 28 January 2026].

January 27, 2026

Mr. Camille Jean Pierre MANEL
ICCAT EXECUTIVE SECRETARY
C/ Corazón de María 8, 28002 Madrid, Spain

Dear Camille;

This letter is to acknowledge that the Western Bluefin Recommendation 22-10 does not require Western harvesters to count their recreational catch of Bluefin toward their quota. As such, beginning January 1, 2026 and henceforth, the United States will continue to report its recreational catch of bluefin tuna for management purposes but will not count its recreational catch toward its current quota of 1572mt, which will be solely allocated to its commercial catch.

Respectfully,

Andrew Lawler

Andrew “Drew” Lawler

Principal Deputy Assistant Secretary
NOAA International Fisheries

February 27, 2026

Michael Pentony, Regional Administrator
Greater Atlantic Regional Fisheries Office
55 Great Republic Ave.
Gloucester, MA 01930

Via email

Dear Mike,

We the undersigned Northeast groundfish sector managers petition for relief from the frankly ridiculous delay in what should have been a belated but routine approval of groundfish Framework 69 (FW69). FW69 sets quotas for the current fishing year. There are only nine weeks left in that year. We will focus exclusively on the Gulf of Maine haddock quota (HADGM) situation.

FW69 increased the HADGM quota by about 50% over the prior fishing year. Final approval of the Framework was delayed past the start of the fishing year, but this is not too unusual and has been manageable in years past. Fishermen knew what their final quotas were going to be and adjusted to them – if quotas were going to increase they were comfortable with higher catch rates knowing that extra allocation was arriving soon, and if quotas were going to decrease, fishermen (under the guidance and monitoring of the undersigned) throttled back their catch to ensure that a to-be-reduced quota limit was not exceeded before Framework approval.

This year, knowing the HADGM quota was scheduled to increase, fishermen were comfortable with maintaining a robust, steady catch rate. But FW69 languishes in Washington DC. The bureaucratic "why" doesn't matter anymore. Some sectors are requiring vessels to stop fishing in the Gulf of Maine for lack of HADGM quota that should have been in the bank account six months ago. It is bad enough when limited quotas force fishermen to tie up prematurely. Being told to stop fishing because the NMFS is unable to sign off on a quota vetted by the NEFSC and approved by the NEFMC one year ago is intolerable.

Our petition for relief: NMFS should allow – right now – the active fishing sectors (not the leasing sectors) to exceed their current HADGM annual catch entitlement limits. Through our experience with delayed Frameworks, we have a long track record of managing to known future quota limits. We can manage to FW69's HADGM limit regardless of what is happening (or not) in the nation's capital. Even if Framework approval was delayed past April 30 (the end of the fishing year), sectors will ensure that (and other quota changes contained in

FW69) are not exceeded. As a harvest safety buffer, we propose capping our catch to 90% of the FW69 limit.[1]

There is a precedent for allowing sectors to temporarily exceed quota because of a delayed framework. In fishing year 2023, the Georges Bank West cod quota was 22.3 metric tons at the beginning of the year. Sectors could convert Eastern to Western quota to cover Western catch, but did not want to do so because they knew their Western quota would increase tenfold once a delayed Framework 65 was approved.

NMFS allowed sectors to exceed their Western allocations (in the end by over 200%) in anticipation of an approved framework. It is true that this precedent differed from the current HADGM situation, because there was sufficient Eastern cod quota available to cover the Western catch if need be. However, the worst that can happen here, were FW69 never to be approved, is that the sector allocation would be reduced by the overage next year.

Approval of this petition will put fishermen back to work and unlock the currently frozen HADGM leasing market. Now is the time. We have nine weeks left in the season and the spring run of fish, as usual, are there to be caught.

Thank you for your consideration. With regret for the at-times spicy tone of this letter, this snafu is interminable.

Sincerely,

David Leveille NE Groundfish Sector II	George Oliveira NE Groundfish Sector VIII	Hank Soule Sustainable Harvest Sectors 1, 3
John Haran NE Groundfish Sectors X, XIII	Dan Salerno NE Groundfish Sectors V, XI	Amy Morris Fixed Gear Sector

cc Cate O'Keefe, Executive Director, NEFMC
Pete Christopher, Supervisory Fishery Policy Analyst, NMFS
Eugenio Piñeiro Soler, Assistant Administrator, NOAA Fisheries

[1] We note that witch flounder really should be included in this relief measure as well.

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

March 3, 2026

Mr. Michael Pentony
GARFO Regional Administrator
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

Dear Mike:

Today, my staff electronically submitted Framework Adjustment 72 to the Northeast Multispecies Fishery Management Plan, including the Supplemental Information Report, to your staff in the Sustainable Fisheries Division at the Greater Atlantic Regional Fisheries Office.

The measures proposed in Framework 72 would:

- Set status determination criteria for Georges Bank (GB) yellowtail flounder;
- Set fishing year (FY) 2026 total allowable catches (TACs) for U.S./Canada management units of Eastern GB cod, Eastern GB haddock and the GB yellowtail flounder stock;
- Set FY2026 specifications for GB cod, GB haddock, and GB yellowtail flounder;
- Set FY2026-FY2030 specifications for Cape Cod/Gulf of Maine yellowtail flounder; Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder, GB winter flounder; Gulf of Maine winter flounder, SNE/MA winter flounder, white hake, Acadian redfish, ocean pout, and Atlantic wolffish; and
- Establish a regulatory process for the regional administrator to adjust recreational measures for cod and haddock.

Upon review of the Framework 72 document, please communicate any comments and/or need for further document revision directly to me. To help expedite the review process, my staff would appreciate if requested changes could be listed and categorized as 'required' or 'suggested.' Please contact me if you have any questions.

Sincerely,

Cate O'Keefe
Executive Director

The Commonwealth of Massachusetts
Division of Marine Fisheries
(617) 626-1520 | mass.gov/MarineFisheries

Maura T. Healey	Kimberly Driscoll	Rebecca L. Tepper	Thomas K. O'Shea	Daniel J. McKiernan
Governor	***Lt. Governor***	***Secretary***	***Commissioner***	***Director***

March 4, 2026

Eugenio Piñeiro-Soler
Assistant Administrator, NOAA Fisheries
1315 East-West Highway
Silver Spring, MD 20910
Via Federal e-Rulemaking Portal: https://www.regulations.gov

Re: MA DMF Comments on Groundfish Amendment 25 (NOAA–NMFS–2025–1230)

Dear Mr. Piñeiro-Soler:

Amendment 25 to the Northeast Multispecies Fishery Management Plan is the result of eight years of development, engagement and review representing the best scientific information available. This first phase of the overall cod transition is a fair and balanced bridge towards a more durable fishery that is long overdue. When the four Atlantic cod stock model finally is integrated into the management framework the New England Fishery Management Council (NEFMC) can refocus its efforts, with industry input, on supporting meaningful fisheries adaptations to these changes.

State of the Science

Scientific information underlies all fishery management decisions, nothing more directly than population assessments and projection models that provide estimates for Overfishing Limits (OFL) and Acceptable Biological Catch (ABC). Uncertainties are inherent to science but do not automatically equate to deficiencies for purposes of decision-making. While the newly adopted Woods Hole Assessment Model (WHAM) is not without need of refinement, the transition to WHAM as the preferred model platform came from a considered process involving a broad team of experts from NOAA Fisheries, academia, and Fisheries and Oceans Canada (DFO), including the Massachusetts Division of Marine Fisheries (MA DMF) and the School for Marine Science and Technology (SMAST) at the University of Massachusetts-Dartmouth. It is appropriate to consider the 2023 Atlantic cod Research Track assessment as having addressed many areas of uncertainty identified in past assessments, delivering more credible results and stock information closer to the truth than in past Atlantic cod assessments.

Unfortunately, these first WHAM assessments (2023 Research Track and 2024 Management Track) of Western Gulf of Maine cod suggest we've been overfishing the stock for the entire time series, despite all the rounds of painful cuts. Persistent overfishing isn't the "fault" of the fishery - overly optimistic projections have repeatedly set the catch limits at unsustainably high levels. All this underscores the importance of maintaining core assessment functions at NOAA, including restarting a small-mesh survey after loss of the Northern shrimp fishery independent survey, adequate port

sampling, sufficient ageing, and recreational catch sampling to ensure a robust scientific basis for management decisions.

Additionally, the NEFMC's Science and Statistical Committee (SSC) stressed several research recommendations that should be prioritized, including:

- Further work to define the appropriate approach to estimating short-term projections and reference points for the Western Gulf of Maine cod stock and continued evaluation of the appropriate use of the recruitment time series to inform future expectations of stock productivity.
- Work to address how WHAM treats survey indices when the value represents a true zero and the impact this could have on assessment estimates.
- Exploration of approaches such as spatio-temporal models to inform an integrated model-based index of abundance, given the numerous surveys that inform WHAM.
- Follow up on requests for swept area biomass estimates made during the peer review process in future Management Track assessments.

Moving Management Forward

Amendment 25 recommends a bridge approach to transition cod management and fishery operations from the previous two to the current four stock structure. The proposed cod specifications for Fishing Year 2026 (FY2026) and apportionment method for setting the Western Gulf of Maine cod commercial sub-annual catch limit (sub-ACL) is a fair and balanced approach to achieve optimum yield and prevent overfishing while transitioning. The basis for apportioning the commercial groundfish sub-ABC between the north and south accounts for differences between the Gulf of Maine and Georges Bank cod stocks, differences in ACLs over the time period, and differences in fishing opportunities, practices, and equities between vessels operating in the north and south portions of the Western Gulf of Maine stock area. NMFS all but agreed with this approach in its emergency actions governing FY2025 cod rules that adopted effectively the same specifications as recommended by the NEFMC.

In providing cod catch advice to the NEFMC, the SSC reviewed Plan Development Team recommendations, the 2024 Management Track assessment and Peer Review Panel report, catch and economic information, and the current groundfish ABC Control Rule. The distribution between the recreational and commercial fisheries is consistent with the method used in Amendment 16 based on the proportional amount of recreational and commercial catch from 2001 through 2006.

It is often said that all Northeast US fisheries and their management plans run through groundfish. Small-mesh fisheries like whiting are regulatory exemptions to groundfish mesh regulations. Monkfish and skate fishers must often utilize groundfish Days-at-Sea. And in the case of Amendment 25, delays to implementation have caused run-on delays including implementation of Framework 69 which specifies increased catch limits for numerous Gulf of Maine haddock and several flatfish stocks in FY2025. Framework 69 additionally provides flexibility in sector management and in the $360-million Atlantic sea scallop fishery. Less than two months remain in the 2025 fishing year to take advantage of these fishing benefits. Solidifying Amendment 25 will give the NEFMC a chance to exit what has been a very chaotic, reactionary management cycle. Then and only then can focus shift to not just rebuilding cod but towards support of economic benefits from all our fisheries and ultimately optimum yield for our Nation.

Continued Collaboration

All in all, Amendment 25 recommendations for regulating Atlantic cod fishing come from sound science and a thoughtful process. MA DMF has committed resources to supplement vital federal port sampling programs, develop protocols for multi-area trips that historically have not been sampled, and partner with local fishermen to seek viable access to healthy, less utilized groundfish stocks. MA DMF remains committed to creative solutions working cooperatively with the fishing industry and our federal partners to find tangible ways to assist our fishing communities.

Thank you for your consideration of these comments.

Sincerely,

Daniel J. McKiernan
Director

Cc:
Cate O'Keefe, NEFMC
Mike Pentony, GARFO
Jon Hare, NEFSC

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March 5, 2026

Mr. Michael Pentony
GARFO Regional Administrator
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

Dear Mike:

Today, my staff electronically sent the final submission of Amendment 25 (Revised) to the Northeast Multispecies (Groundfish) Fishery Management Plan, including the Environmental Assessment and appendices, to your staff in the Sustainable Fisheries Division.

After reviewing the letter and comments dated January 8, 2026, on the preliminary submission sent on November 14, 2025, we updated the amendment document and appendices to incorporate all the changes requested. My staff appreciates the guidance and support provided by GARFO staff on NEPA compliance.

Sincerely,

Cate O'Keefe
Executive Director

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

March 16, 2026

Mr. Michael Pentony
GARFO Regional Administrator
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

Dear Mike:

In accordance with provisions of the Magnuson-Stevens Act, I reviewed the draft regulatory text for Framework Adjustment 72 (FW72) to the Northeast Multispecies Fishery Management Plan to deem whether it is consistent with the action's text and the Council's intent. The review was based on the draft regulatory text provided to the Council staff by email on March 13, 2026. The review focused on only the regulatory changes necessary to implement FW72.

I deem the regulatory text in the enclosure consistent with Council intent for implementing measures proposed by FW72.

Please feel free to call me with any concerns.

Sincerely,

Daniel Salerno
Council Chair

648.89 **Recreational and charter/party vessel restrictions.**

* * * * *

(b) * * *

(2) * * *

(ii) Transiting. If the minimum size specified for cod and haddock differ between stock areas, vessels in possession of cod or haddock that meet the minimum size specified for fish caught in one stock area, as specified in § 648.88, may transit a different stock area with that cod and haddock, provided all bait and hooks are removed from fishing rods, and any cod and haddock on board has been gutted and stored.

* * * * *

(g) *Regional Administrator authority for cod and haddock recreational measures.* The Regional Administrator, after consultation with the NEFMC, may adjust recreational measures for cod and haddock stocks that do not have a recreational allocation to set consistent measures with other stock areas, as appropriate. Appropriate measures, including adjustments to fishing seasons, minimum fish sizes, or possession limits, may be implemented in a manner consistent with the Administrative Procedure Act, with the final measures published in the **Federal Register** prior to the start of the fishing year when possible. Separate measures may be implemented for the private and charter/party components of the recreational fishery.

1. In §648.90, revise introductory paragraph (a)(5)(i)(E), paragraph heading (a)(5)(i)(E)(*4*), and paragraph (a)(5)(i)(H) to read as follows:

648.90 **NE multispecies assessment, framework procedures and specifications, and flexible area action system.**

* * * * *

(a) * * *

(5) * * *

(i) * * *

(E) *Windowpane flounder.* Unless otherwise specified in paragraphs (a)(5)(i)(E)(*5*) and (*6*) of this section, if NMFS determines the total catch exceeds the overall ACL for either stock of windowpane flounder, as described in this paragraph (a)(5)(i)(E), by any amount greater than the management uncertainty buffer, up to 20 percent greater than the overall ACL, the applicable small AM area for the stock shall be implemented, as specified in paragraph (a)(5)(i)(E) of this section, consistent with the Administrative Procedure Act. If the overall ACL is exceeded by more than 20 percent, the applicable large AM area(s) for the stock shall be implemented, as specified in this paragraph (a)(5)(i)(E), consistent with the Administrative Procedure Act. Unless further specified in paragraphs (a)(5)(i)(E)(*1*) through (*3*), any vessel issued a limited access NE multispecies permit and fishing with trawl gear in these areas may use only a haddock separator trawl, as specified in § 648.85(a)(3)(iii)(A); a Ruhle trawl, as specified in § 648.85(b)(6)(iv)(J)(*3*); a rope separator trawl, as specified in § 648.84(e); or any other gear approved consistent with the process defined in § 648.85(b)(6).

* * * * *

(*4*) Windowpane Flounder and Ocean Pout AM Areas. * * *

* * * * *

(H) *Ocean pout.* If NMFS determines the total catch exceeds the overall ACL for ocean pout, as described in this paragraph (a)(5)(i)(H), by any amount greater than the management uncertainty buffer up to 20 percent greater than the overall ACL, the applicable small AM area for the stock

shall be implemented, as specified in this paragraph (a)(5)(i)(H), consistent with the Administrative Procedure Act. If the overall ACL is exceeded by more than 20 percent, the large AM area(s) for the stock shall be implemented, as specified in this paragraph (a)(5)(i)(H), consistent with the Administrative Procedure Act. The AM areas for ocean pout are defined in paragraph (a)(5)(i)(E)(*4*) of this section, connected in the order listed by rhumb lines, unless otherwise noted. Any vessel issued a limited access NE multispecies permit and fishing with trawl gear in the Ocean Pout AM Areas may use only a haddock separator trawl, as specified in § 648.85(a)(3)(iii)(A); a Ruhle trawl, as specified in § 648.85(b)(6)(iv)(J)(*3*); a rope separator trawl, as specified in § 648.84(e); or any other gear approved consistent with the process defined in § 648.85(b)(6). If a sub-ACL for Atlantic ocean pout is allocated to another fishery, consistent with the process specified at § 648.90(a)(4), and AMs are developed for that fishery, the multispecies fishery AM shall only be implemented if the sub-ACL allocated to the multispecies fishery is exceeded (*i.e.,* the sector and common pool catch for a particular stock, including the common pool's share of any overage of the overall ACL caused by excessive catch by other sub-components of the fishery pursuant to § 648.90(a)(5), exceeds the common pool sub-ACL) and the overall ACL is also exceeded.

* * * * *

New England Fishery Management Council
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March 12, 2026

Mr. Michael Pentony
Regional Administrator
NOAA Fishery Service
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
Gloucester, MA 01930

Re: URI Scallop Kite Panel EFP

The New England Fishery Management Council (Council) has no objection to the exempted fishing permit to support a conservation engineering study testing modifications to the rigging of a scallop dredge, as published in the *Federal Register* on March 9, 2026. Reducing the catch of flatfish species and juvenile scallops is an important endeavor in the scallop fishery, and the Council looks forward to seeing the results of this work.

Please contact me if you have questions.

Sincerely,

Cate O'Keefe
Executive Director

The Nature Conservancy
Protecting nature. Preserving life.

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March 12, 2026

Howard Lutnick
Secretary of Commerce
US Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

Re: Notice of Availability - Amendment 25 to the Northeast Multispecies Fishery Management Plan – Atlantic Cod Stocks in Need of Conservation and Management

Please accept The Nature Conservancy's (TNC) comments regarding the Notice of Availability for Amendment 25 to the Northeast Multispecies Fishery Management Plan (Groundfish FMP). TNC is a non-profit organization whose mission is to conserve the lands and waters on which all life depends. We are known for our science-based, collaborative approach to developing creative solutions to conservation challenges. Our on-the-ground and in-the-water conservation work is carried out across all states and territories of the United States and in 83 countries around the world.

TNC has been actively involved in the management of Atlantic cod for over twenty years through service on the New England Fisheries Management Council (Council) and its Advisory Panels and participation in cod-related research projects with New England fishermen. We appreciate the opportunity to comment on the proposed rule and strongly urge the Agency to revise the stock delineations for Atlantic cod managed under the Groundfish FMP by approving Amendment 25 as expeditiously as possible.

The four cod stock delineations included in Amendment 25 (Western Gulf of Maine, Eastern Gulf of Maine, Georges Bank, and Southern New England) are the result of extensive scientific research that has been peer reviewed and overwhelmingly supported by the New England Fisheries Management Council. Moreover, the four cod stock structure is consistent with decades of fishermen's on-the-water observations of cod spawning, migration, and productivity. Approval of Amendment 25 is long overdue and critically needed to ensure sustainable management of the New England groundfish fishery and the social and economic benefits it provides for fishing communities up and down the coast.

1. Four Cod Stock Structure is the Best Scientific Information Available

The four cod stock structure is the result of extensive, interdisciplinary scientific research undertaken by the Atlantic Cod Stock Structure Working Group (ACSSWG). The ACSSWG was formed in 2018 to inventory and summarize all relevant peer-reviewed information about stock structure of Atlantic cod in US and adjacent waters, including early life history, genetic markers,

natural markers, and fishermen's ecological knowledge. In their synthesis, the group identified a number of mismatches between the current cod management units (Gulf of Maine and Georges Bank) and the actual biological stock structure. Based on its analysis, the ACSSWG concluded that improved recognition of population structure may help prevent further loss of spawning components, better guide adjustment of allowable catch to balance fishing mortality across populations, facilitate recovery of currently depleted stocks, and strengthen resiliency of the populations that exist within fishing areas (NOAA Tech Memo NMFS-NE-273 December 2022).

The Atlantic Cod Research Track Working Group was convened in 2022 to conduct analytical stock assessments on the newly delineated cod stocks identified by the ACSSWG. As part of that process, the Research Track Working Group opted to combine the winter and spring spawning groups in the Western Gulf of Maine and completed research track assessments for four stocks Atlantic cod: 1) Eastern Gulf of Maine, 2) Western Gulf of Maine, 3) Georges Bank, and 4) Southern New England.

These research track stock assessments were then peer reviewed by scientists from the Center for Independent Experts in 2023. The Peer Review Panel approved the outcomes of these assessments and concluded that ***"the working group's approaches to estimating biological reference points and making projections for all four stocks were well reasoned, they should form a reasonable basis for providing management advice for the four assessment units when data are updated in the management track assessments"*** (2023 Research Track Assessment Peer Review Report).

Building on the results of the peer reviewed Research Track Assessments, Management Track Assessments for the four cod stocks were completed and peer reviewed in 2024. Again, the peer review endorsed the assessment results, concluding ***that the results of all four assessments are suitable for management advice*** (2024 Management Track Peer Review Report).

2. Four Cod Stock Structure is Consistent with Fishermen's Observations

The comprehensive research, assessment and peer review process described above demonstrates that the four cod stock structure proposed in Amendment 25 is the best scientific information available to guide management of New England cod populations. It is also consistent with decades of fishermen's on-the-water observations regarding the distribution and movements of Atlantic cod across the Gulf of Maine and Georges Bank.

As part of its' analysis, the ACSSWG completed semi-structured interviews with fifty fishermen with a detailed understanding of cod movement patterns and fine-scale knowledge of the spatial and temporal distribution of cod spawning activity. Collectively, these fishermen had over 2,000 years of fishing experience, including 1,700 years of experience specifically targeting cod on Georges Bank and in the Gulf of Maine.

The interviews revealed that many fishermen perceived that cod on eastern Georges Bank are likely distinct from cod in the Great South Channel and Nantucket Shoals, as noted through differences in size, diet, fillet quality, geographic distribution, and seasonal movements. Fishermen also remarked that cod on Nantucket Shoals and the Great South Channel are

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connected to groups in the western Gulf of Maine (Fishermen's Ecological Knowledge chapter, NOAA Tech memo NMFS-NE-273 December 2022). These observations directly support the new delineations between Western Gulf of Maine cod and Georges Bank cod proposed in Amendment 25.

Moreover, they are consistent with fishermen's observations that have been shared with the New England Fisheries Management Council for over twenty-five years, including most recently during the three Cod Stock Structure Workshops hosted by the Council in 2024 and throughout the extensive public engagement process during the development of Amendment 25.

3. Four Cod Stock Structure is Overwhelmingly Supported by the New England Fisheries Management Council (Twice)

The Council initiated Amendment 25 and Framework 69 to incorporate the new, peer reviewed cod science into the Groundfish FMP in 2024.

Amendment 25 included the four cod stock management units identified by the ACSSWG and endorsed through peer review of the Atlantic Cod Research and Management Track Stock Assessments. The Council proposed these changes because it recognized that revising the cod stock boundaries was consistent with the best scientific information available and the National Standards of the Magnuson-Stevens Act, and that it would better align the stock assessment and management boundaries so that specifications could be appropriately set for all four stocks. **The Council approved the new stock delineations proposed in Amendment 25 in September 2024 without objection.**

The Council developed Framework 69 as a trailing action to Amendment 25 to add status determination criteria and revised specifications (including Overfishing Limits, Allowable Biological Catches, and Annual Catch Limits for Fishing Years 2025-2027) to the FMP consistent with the four cod stocks proposed in Amendment 25. These revised specifications were based on advice from the Council's Science and Statistics Committee (SSC). The SSC reviewed the results of the 2024 Management Track Stock Assessments and recommended catch limits that would prevent overfishing and ensure consistency with the Council's groundfish ABC control rule, rebuilding plans, and the Council's risk policy statement. **The Council overwhelmingly approved the proposed Status Determination Criteria and Annual Specification at its' December 2024 meeting by a 13-4 vote**.

Despite the fact that Amendment 25 and Framework 69 were based on the best available science and overwhelmingly supported by the Council, the Secretary of Commerce disapproved Amendment 25 in May 2025 based on procedural concerns. Importantly, however, the Secretary's disapproval letter highlighted the fact that all of the organizations that commented on the original Amendment 25 submission (including both fishing industry and conservation groups) endorsed future implementation of the four Atlantic cod stock units because the proposed revisions are supported by extensive collaborative research by scientists and fishermen, and are based on the best scientific information available, consistent with section 301(a)(2) of the

Magnuson-Steven Act. Moreover, it rightly pointed out that the four stock units must be incorporated into the FMP in accordance with National Standard 2 because the four stock Atlantic cod structure and the resulting management track assessments have been determined to be the best scientific information available (Mike Pentony letter to Council May 19, 2025).

Because it recognized the critical importance of implementing the four cod stock structure into the FMP, the Council changed its management priorities for 2025 and quickly corrected the procedural flaws identified by the Secretary. The Revised Amendment 25 revisions now under consideration in this rulemaking include the Status Determination Criteria, annual specifications, and accountability measures for the cod stocks requested by the Secretary. And importantly, **the Council voted overwhelmingly in support of adopting the Revised Amendment 25 management measures for a second time at its September, 2025 meeting by a vote of 13/1/2**.

4. Failure to implement Amendment 25 is preventing sustainable management of Atlantic cod and adversely impacting New England groundfish fishermen

As described in detail above, the four cod stock structure under consideration in the Revised Amendment 25 is widely supported by peer reviewed assessment science, the Council, and fishermen across New England because it represents the best scientific information available for the management of Atlantic cod stocks. Unfortunately, delays in implementing Amendment 25 are preventing sustainable management of Atlantic cod stocks and adversely impacting New England groundfish fishermen.

A. <u>Failure to adopt Amendment 25 is preventing the Council and the Agency from managing cod based on the Best Scientific Information Available as required by the Magnuson-Stevens Act</u>

Because the Agency has not yet adopted the four stock definitions into the Northeast Multispecies FMPs, the Council has not been able to develop appropriate management measures to ensure long-term sustainability of Atlantic cod. For example, in its September 4, 2024 memo to the Council, the Science and Statistics Committee noted that because the four new cod stocks (which are all overfished) have not been added to the FMP, the supporting analysis required to define rebuilding plans has not been conducted.

Moreover, failure to adopt the new cod stock definitions into the FMP has forced the Greater Atlantic Regional Field Office (GARFO) to convert the results of the four new stock assessments (EGOM, WGOM, GB, and SNE) into the two old stock areas (GOM and GB) for management purposes. This has created particular challenges for the management of the new WGOM stock, which is currently overfished and subject to overfishing. Because the new WGOM stock straddles the boundary between the old GOM and GB stocks, the Agency has been forced to apportion the allowable catches for new WGOM stock across the two old management boundaries. While we recognize the pragmatic reasons for adopting the so-called bridge approach, we are concerned it is increasing the risk of overfishing the Western Gulf of Maine cod stock.

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Protecting nature. Preserving life.

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web nature.org/maine

B. Failure to adopt Amendment 25 is causing significant uncertainty and confusion within the New England groundfish industry.

Apportioning the catch advice from four stock assessment into the two outdated stock management areas has also been problematic for fishermen and regional sector managers. For example, in both Fishing Years 2025 and 2026, the annual Potential Sector Contribution Letters that each fishermen receives include two sets of numbers that dictate their allowable catches for the year – one for the four stock management approach and another for the two stock management approach. This prevents fishermen from effectively planning for how much cod they can catch from each management area while also creating significant uncertainty in the cod lease market. It can also force sector managers to have to maintain two sets of catch records that detail the statistical areas and stock units the cod catch is coming from.

To make matters worse, this situation forces both fishermen and sector managers to grapple with uncertainty regarding whether the allowable catch limits will change in the middle of the fishing year. Recent experiences with delays in the final approval and implementation of Groundfish Framework 69 clearly demonstrate the significant disruptions that uncertainties regarding allowable catches cause for fishing businesses, sector managers, and the quota lease market. Stability and predictability in catch advice are consistently identified by the groundfish industry as critical factors in successful business planning and sector management. Unfortunately, delays in implementing the four cod stock structure are creating more uncertainty, not less.

C. Failure to adopt Amendment 25 is preventing the Council and industry from moving forward with phase two of the Council's cod transition plan.

When the results of the peer reviewed Research and Management Track stock assessments were published, the Council embarked on a two-phased process for transitioning management of Atlantic cod consistent with the new stock boundaries. Phase 1 included near-term actions focused on incorporating the new stock boundaries into the FMP, establishing status determination criteria, and setting catch limits for Fishing Years 2025-2027. Once Phase One was complete, Phase 2 would focus on addressing broader, long-term management measures, including consideration of establishing new cod management units, adjusting allocations to be consistent with new stock boundaries, revisiting spawning protections, and considering modifications to seasonal and year-round closures.

Addressing these longer-term issues in a timely manner are critically important to fishermen, sector managers, and other stakeholders interested in the sustainable management of the New England groundfish fishery. The Council planned on

initiating a thoughtful, deliberative process to address these issues in 2025, but delays in implementing the four stock boundaries into the FMP and completing Phase One of the transition plan have prevented it from doing so.

Conclusion

The four biological cod stock definitions under consideration in the Revised Amendment 25 Notice of Availability are the result of extensive peer reviewed science and widely supported by the Council, the fishing industry, and other important stakeholders in the region. They are based on extensive collaborative research by scientist and fishermen and are widely recognized as the best available scientific information to guide sustainable management of Atlantic cod. Accordingly, the new stock definition must be incorporated in the Groundfish FMP in a timely manner to ensure consistency with section 301(a)(2) of the Magnuson-Stevens Act.

Delays in implementing the four biological stock definitions into the Groundfish FMP are undermining sustainable management of Atlantic cod, causing significant uncertainty for fishermen and sector managers, and preventing the Council undertaking critically important work under Phase 2 of the cod transition plan. We urge the Agency to approve and implement the Revised Amendment 25 cod stock definitions as expeditiously as possible to benefit cod populations and the New England fishing communities they depend on for their livelihoods.

Thank you for considering our perspectives on these important issues and please feel free to contact me directly if you would like to discuss them in further detail.

Sincerely,

Geoffrey S. Smith

Geoffrey Smith
Marine Program Director

From: Michael Pentony - NOAA Federal <michael.pentony@noaa.gov>
Sent: Friday, March 13, 2026 9:42 AM
To: Cate O'Keefe <cokeefe@nefmc.org>; Daniel Salerno <daniel.j.salerno@gmail.com>
Cc: Peter Christopher <Peter.Christopher@noaa.gov>; Heather Nelson <heather.nelson@noaa.gov>; Moira Kelly <Moira.Kelly@noaa.gov>
Subject: Preliminary 2026 Groundfish ASM coverage target

Dan and Cate,

I have made a preliminary determination that the groundfish sector at-sea monitoring (ASM) coverage target will be 100 percent for the 2026 fishing year, based on available Federal funding. I am announcing the preliminary coverage target to facilitate preparations by industry members and monitoring companies ahead of the start of the 2026 fishing year. The preliminary coverage target also affects the management uncertainty buffers for sector allocations under the Council's Framework 72 recommended specifications and we will explain this clearly in the proposed rule for Framework 72.

This preliminary ASM coverage target is based on an evaluation of all appropriations information currently available to us. We continue to use previously-appropriated funds to reimburse sector monitoring costs while we await the final apportionment of Congressional appropriations for fiscal year 2026. As with previous years, our spending plan for the 2026 appropriation must be approved by Congress before we can commit to a final allocation of those appropriated funds. We will announce the final ASM coverage target for fishing year 2026 once the spending plan is approved.

The Atlantic States Marine Fisheries Commission will continue to reimburse 100 percent of sector ASM and electronic monitoring (EM) costs using NMFS appropriated funds. We will separately announce the video review rates for EM video footage for fishing year 2026. The 100-percent ASM coverage target, in conjunction with EM, will continue to help address bias by collecting catch and other information that may be used for future determinations of appropriate ASM coverage targets and reliably estimating overall catch by sector vessels to the extent practicable.

If you have further questions about the revised ASM coverage target for fishing year 2026, please contact Pete Christopher at (978) 281-9288.

Mike

--

Michael Pentony

Regional Administrator

Greater Atlantic Regional Fisheries Office

NOAA Fisheries | U.S. Dept. of Commerce

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Conservation Law Foundation

Michael Pentony
GARFO Regional Administrator
Heather Nelson
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55 Great Republic Drive
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March 16, 2026

Submitted via regulations.gov

Re: Comments on Amendment 25 (Revised) to the Northeast Multispecies Fisheries Management Plan (Groundfish Plan) (NOAA-NMFS-2022-1230)

Dear Mr. Pentony,

Conservation Law Foundation (CLF) writes in strong support of the Amendment 25 (Revised)[1], which represents extensive work by the New England Fishery Management Council (Council) to address all issues NOAA identified in its May 19, 2025[2], disapproval letter. CLF urges NOAA to swiftly publish and finalize the Amendment 25 (Revised) proposed rule or, if necessary, issue an interim final rule, and to immediately direct the Council to establish rebuilding plans. Timely completion of this rulemaking is essential to aligning Atlantic cod management with the best available science and will directly advance several of the core requests outlined in CLF's recent petition for rulemaking (Attachment 1).

Founded in 1966, CLF is a regional environmental organization with long-standing interest in fisheries management and cod recovery. CLF and its members are dedicated to ensuring science-based sustainable management across New England.

Amendment 25 (Revised) adopts the peer-reviewed four-stock structure and updates status determination criteria, catch specifications and accountability measures which reflect the best available science. The Council has fully resolved all procedural deficiencies NOAA identified in 2025 and added a transparent analysis of the allocation impacts.[3] No barriers remain, and the amendment should be promptly published and approved.

[1] Notification of Availability of Fishery Management Plan Amendment 25, 91 Fed. Reg. 1,257 (Jan. 13, 2026).
[2] NOAA, Letter to the NEFMC Regarding Amendment 25 Review (May 19, 2025), https://d23h0vhsm26o6d.cloudfront.net/5a_20250515-A25-Council-Decision-Letter-0648-XE237-v2-Signed.pdf.
[3] 91 Fed. Reg. 1,258 (Jan. 13, 2026).

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Finalizing this rule is essential to ending overfishing and addressing the severely overfished status of the Western Gulf of Maine and Southern New England cod stocks. Approving this amendment will also allow NOAA and the Council to finally initiate long-overdue rebuilding plans for all four cod stocks. The urgent need to establish rebuilding plans for these overfished stocks cannot be deferred any longer, and the statutory obligation to adopt timely rebuilding plans remains unchanged. With the outdated two-stock system contributing to decades of unsuccessful rebuilding efforts, NOAA must, upon approval of Amendment 25 (Revised), immediately direct the Council to end overfishing and begin developing rebuilding plans through the fastest available regulatory mechanism.

If NOAA cannot promptly publish the Amendment 25 (Revised) proposed rule in time for the new measures to be effective by May 1, 2026, then the agency must immediately issue an interim final rule to ensure implementation of the measures contained within this amendment at the start of the fishing year. Taking this step would ensure that the management measures developed through Amendment 25 are fully in effect on May 1, even if the revised proposed rule cannot be completed in time.

Given the urgent need for rebuilding plans, NOAA must act swiftly. Administrative complexities associated with completing management priorities cannot justify further delay. NOAA should promptly publish the proposed rule for Amendment 25 (Revised) and ensure its timely approval or, if necessary, issue an interim final rule, to place Atlantic cod on a viable path to recovery. Once the Atlantic cod stocks are incorporated into the fishery management plan, NOAA must immediately direct the Council to begin developing rebuilding plans using the most expeditious regulatory mechanism available. Fast-tracking this amendment and rebuilding plans will help secure the future of Atlantic cod through science-based, sustainable management and directly address CLF's petition.

Sincerely,

Elizabeth "Libby" Etrie,
Director Ocean Policy, Ocean Program

Gareth Lawson,
Senior Scientist, Ocean Program

Erica Fuller,
Senior Counsel, Ocean Program

CC: New England Fishery Management Council

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NOTICE OF PETITION FOR RULEMAKING

BEFORE THE U.S. DEPARTMENT OF COMMERCE AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

PURSUANT TO THE ADMINISTRATIVE PROCEDURE ACT 5 U.S.C. § 553(e)

FOR PROMULGATION OF RULEMAKINGS THAT END OVERFISHING AND REBUILD ATLANTIC COD

February 17, 2026

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Via Electronic Mail and Certified Mail/Return Receipt Requested

I. EXECUTIVE SUMMARY

Conservation Law Foundation (CLF) submits this petition for rulemaking under 5 U.S.C. § 553(e) of the Administrative Procedure Act (APA) seeking to compel the U.S. Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA) to take immediate and decisive action to end overfishing and rebuild Atlantic cod populations in U.S. waters.[1]

Atlantic cod shaped New England's cultural heritage and economic development for centuries. Once the backbone of the region's fishing industry, the fishery ultimately collapsed. It has been more than 30 years since a federal court first ordered NOAA to prevent overfishing of Atlantic cod.[2] Further, despite strengthened mandates under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and 24 amendments plus 67 framework adjustments to the Northeast Multispecies Fishery Management Plan (NE Multispecies FMP), NOAA has not yet ended overfishing or rebuilt Atlantic cod.

Fundamental principles of U.S. fishery management include mandatory statutory duties to prevent overfishing while achieving optimum yield on a continuing basis and to expeditiously rebuild overfished fisheries.[3] Once a fishery[4] is identified as overfished, actions must be taken to end overfishing immediately and prepare plans that rebuild the fishery in a time period that is "as short as possible," taking into account various factors, "not to exceed 10 years" unless the biology of the stock, environmental conditions, or management measures under an international agreement dictate otherwise.[5] Effective measures based on these rebuilding have successfully rebuilt 50 fish stocks from previously overfished levels across the nation.[6] Unfortunately, Atlantic cod (among other chronically overfished New England stocks) is a glaring exception, having been declared overfished more than 20 years ago and still hovering at historic low population levels.

The scientific understanding of cod stock structure has changed.

Since 1977, Atlantic cod has been managed as two stocks in the US—one in the Gulf of Maine (GOM) and the other in Georges Bank (GB) (this management area under the two-stock approach includes both Georges Bank proper and adjacent waters off Southern New England). As early as 2012, the Council's Science and Statistic Committee (SSC) identified Atlantic cod

[1] The information cited should properly be considered part of the basis for a final agency action on the Petition.
[2] *See Conservation Law Found. et al. v. Mosbacher*, 1991 WL 501640 (D. Mass., Aug. 28, 1991), *aff'd sub nom. Conservation Law Found. v. Franklin*, 989 F.2d 54 (1st Cir. 1993).
[3] 16 U.S.C. §§ 1851(a)(1), 1854(e).
[4] The MSA defines a "fishery" as "one or more stocks of fish which can be treated as a unit for purposes of conservation and management, and which are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics." *Id.* § 1802(13).
[5] *Id.* § 1854(e)(4)(A)(ii).
[6] NOAA, *Status of the Stocks 2023 Annual Rep. to Congress on the Status of U.S. Fisheries*, 3 (May 2024), https://www.fisheries.noaa.gov/s3/2024-04/2023SOS-final.pdf.

population stock structure as an area of uncertainty. Recent scientific advancements involving a wide variety of data types (including tagging, genetics, and fishermen's ecological knowledge), led the Atlantic Cod Stock Structure Working Group to conclude that the two-stock approach was not valid. Their findings supported the recognition of five distinct biological populations in U.S. waters: Eastern Gulf of Maine (EGOM), Western Gulf of Maine (WGOM) spring spawners, WGOM winter spawners, GB (now including just the bank proper), and Southern New England (SNE). These results were confirmed by rigorous peer review in 2020.

A multi-year research track assessment (2021-2023) found that for assessment purposes, these five biological populations should be grouped into four stock units by combining the WGOM spring and winter spawners into a single stock (collectively, WGOM). This four-stock structure approach passed peer review in 2023 and has subsequently been affirmed by NOAA as the best scientific information. Based on new reference points, the research track assessment determined that all four newly identified stocks are overfished and that the WGOM and SNE cod stocks are experiencing overfishing.[7]

Management track assessments completed in 2024 reconfirmed that all four stocks are overfished, with WGOM and SNE cod at only 3% of their biomass targets, EGOM at 12%, and GB at 32%. These assessments also confirmed that WGOM and SNE cod are experiencing overfishing with SNE cod subject to fishing pressure more than 700% above the overfishing threshold. This underscores the urgent need for NOAA to initiate rebuilding plans because continuing to manage as two stocks increases the risk of overfishing the weakest components and delays rebuilding.

Stock	Stock Status	Overfishing Occurring?
WGOM	Overfished	Yes
SNE	Overfished	Yes
GB	Overfished	No
EGOM	Overfished	No

The Council took action to meet statutory obligations (and the urgency of the situation) to stop overfishing and rebuild the fishery.

To prevent any further delay, the New England Fishery Management Council (Council) undertook a multi-year, phased approach to transition from two-stocks to four based on this new understanding. Phase I involved formal adoption of the four new stock boundaries and implementation of short-term management measures. As planned, Phase II will be a broader, long-term approach to implementing new management units, with potential allocation revisions and conservation and management measures to protect spawning cod populations. Initially, the Council (with NOAA's input) intended Phase I to adopt the new stock structure in an

[7] Atl. Cod Rsch. Track Working Grp., *Rsch. Track Assessment of Atl. Cod*, NEFSC, 12–13 (July 14, 2023), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=-1&map_type_id=&filename=Atlantic%20cod%20WG%20FULL%20REPORT%20format%20w.%20exec%20summ%20(1).pdf.

amendment (Amendment 25) and to utilize a framework (Framework 69) to establish associated status determination criteria, 2025-2027 catch limits, and management measures. Both Amendment 25 and Framework 69 were developed with significant stakeholder engagement and were evidence of the Council's commitment to improving the long-term health of this fishery. During the development of both actions, NOAA supported the Council's plan to publish the two actions concurrently, and even encouraged it based on workload concerns.

In developing Amendment 25 and Framework 69, the Council's Phase I approach sought to minimize disruption to the commercial fishery associated with reallocation of quota among sectors. This was accomplished using existing potential sector contributions established under Amendment 16 (for the original GOM and GB stocks) to allocate catch entitlements under the four new stock areas. This represented a bridge approach, deferring broader questions of reallocation to Phase II.

NOAA supported the Council's approach during the development of Amendment 25 and Framework 69, but ultimately disapproved Amendment 25 on process grounds and implemented an emergency action using the two-stock structure.

Despite years of stock-structure debate and alarming assessment results, NOAA disapproved Amendment 25 on May 19, 2025, and failed to publish Framework 69 in a timely fashion.[8] In its disapproval, NOAA confirmed the "biological stock definitions are supported by extensive collaborative research by scientists and fishermen and based on the best scientific information available, consistent with MSA National Standard 2."[9] NOAA specified that the Council could resolve its disapproval in a new or revised amendment with management measures that include "SDCs [status determination criteria], distribution of ABCs [acceptable biological catch], and accountability measures for the four cod stocks as developed and included in Framework 69."[10]

To ensure the fishery could operate on May 1, 2025, the Agency took emergency action —again acknowledging the Council's recommended 2025 catch limits in Framework 69 were "based on the best scientific information available and reflect[ed] the biological conditions of the four stocks and the levels of catch that are expected to prevent overfishing."[11] Yet under the emergency action, NOAA continues to manage Atlantic cod as two stocks, thus increasing the likelihood of overfishing and compromising rebuilding despite mandatory statutory duties.

In June 2025, the Council postponed its work on its previously planned 2025 priorities to focus on revising Amendment 25 and addressing the recommendations identified in NOAA's

[8] The proposed rule for Framework 69 was eventually published on December 8, 2025, 90 Fed. Reg. 56,836 (Dec. 8, 2025), but its fate was uncertain for months despite NOAA's statutory deadline to determine its consistency with the Act and other applicable law within 15 days of transmittal from the Council. 16 U.S.C. § 1854(b)(1).

[9] NOAA, Letter to the NEFMC Regarding Amendment 25 Review (May 19, 2025), https://d23h0vhsm26o6d.cloudfront.net/5a_20250515-A25-Council-Decision-Letter-0648-XE237-v2-Signed.pdf.

[10] *Id*.

[11] Fishing Year 2025 Measures Emergency Action, 90 Fed. Reg. 18,804 (May 2, 2025).

disapproval letter.[12] The Revised Amendment 25 adopted the four updated Atlantic cod stock units, their corresponding status determination criteria, and other specifications (formerly in Framework 69). The Council took final action at its September 2025 meeting and voted to submit the Revised Amendment 25 to the Agency for review and a determination.[13] A preliminary submission of the amendment was transmitted to NOAA on December 12, 2025,[14] and NOAA published its Notice of Availability in the federal register on January 13, 2026.[15] Because the Revised Amendment 25 addresses all the stated reasons for its prior disapproval, aligns with the National Standards, and continues to advance MSA mandates, we urge NOAA to expeditiously approve it and initiate rebuilding plans. Any further delay based on internal agency processes or politics is unreasonable.[16]

While recent stock structure research refined our understanding of the population dynamics and spatial distribution of cod (ultimately forcing NOAA and the Council to operate under the assumption that prior rebuilding plans are no longer in effect), it did not alter the agency's rebuilding obligations under MSA. Atlantic cod has been overfished for decades, with the former GOM and GB stocks failing to meet rebuilding targets at every juncture since the early 2000s. Putting aside past failures under the two-stock approach, NOAA and the Council have known that these four cod stocks are overfished since at least the July-August 2023 peer-review,[17] and this understanding was reconfirmed in June of 2024 by the management track assessment.[18] Yet no rebuilding plans have been initiated.

The MSA was enacted and amended to ensure that once a stock is identified as overfished, actions are taken to end overfishing immediately and plans are prepared within two years (or less) that rebuild the fishery. The plain words of the Act say, "end overfishing immediately" and specify rebuilding in a time period that is "as short as possible."[19]

To protect the long-term viability of the fishery, NOAA must incorporate the four cod stock structure in the NE Multispecies FMP, end overfishing on the WGOM and SNE

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[12] Letter from Michael Pentony, Reg'l Administrator, NOAA Fisheries, to Rick Bellavance, Chairman, NEFMC (May 19, 2025) (on file with NEMFC Library).
[13] NEFMC, *Final Motions to the Council* (Sept. 2025), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-September-2025.pdf.
[14] NEFMC, *Groundfish Revised A25 Preliminary Submission* (Dec. 12, 2025), https://d23h0vhsm26o6d.cloudfront.net/251212_Groundfish_Revised-A25_Preliminary-Submission.pdf.
[15] Amendment 25 (Revised) to the Ne. Multispecies Fishery Mgmt. Plan; Atl. Cod Stocks in Need of Conservation and Mgmt., 91 Fed. Reg. 1257 (Jan. 13, 2026).
[16] The APA does not require any finding of "impropriety lurking behind agency lassitude" to "hold that agency action is 'unreasonably delayed.'" *Telecomm. Rsch. & Action Ctr. v. FCC*, 750 F.2d 70, 80 (D.C. Cir. 1984) (Citing *PCHRG v. FDA*, 740 F.2d 21, 34 (D.C. Cir. 1984)).
[17] *See* Jean-Jacques Maguire et al., Summary Rep. of the Atl. Cod Rsch. Track Assessment Peer Review, (July 31 – Aug. 3, 2023), https://d23h0vhsm26o6d.cloudfront.net/15bPanelSummaryReportoftheAtlanticCodRTPeerReview.8-17-23.pdf.
[18] *See* John Wiedenmann et al., 2024 June Mgmt. Track Peer Review Panel Rep., (June 2024), https://d23h0vhsm26o6d.cloudfront.net/2.a.xi_2024-June-Management-Track-Peer-Review-Panel-Report_508_7_18_24.pdf.
[19] 16 U.S.C. § 1854(e)(3)(A), 4(A)(i).

stocks, and move enforceable rebuilding plans forward for all four stocks.

Specifically, CLF petitions the Department of Commerce and NOAA to expeditiously approve the Revised Amendment 25,[20] *and* e*ither*

1) **immediately notify the Council that it must take action to end overfishing on the WGOM and SNE cod stocks, and prepare rebuilding plans within two years for all four cod stocks, consistent with 16 U.S.C. § 1854(e)(3)(A), (4); *or***
2) **prepare a Secretarial Amendment (and any accompanying regulations) within 9 months that stops overfishing on the WGOM and SNE cod stocks and rebuilds all four cod stocks, consistent with § 1854 (c), (e)(4), (5).**

II. PETITIONER'S INTEREST

Founded in 1966, CLF is a non-profit member-supported organization that works to solve environmental problems threatening the natural environment and communities of New England. In pursuit of that mission, CLF has advocated for NOAA to meet its statutory mandates including to prevent and end overfishing, rebuild overfished stocks, and ensure adequate accountability in fisheries to "protect, restore, and promote the[ir] long-term health and stability." *Id.* § 1853(a)(1)(A).

CLF first challenged NOAA's failure to prevent overfishing and rebuild overfished groundfish stocks, including Atlantic cod, in 1991. *See Conservation Law Found. et al. v. Mosbacher*, 1991 WL 501640 (D. Mass. 1991) (entering settlement agreement order requiring NOAA to develop new groundfish rebuilding plans by a date certain), *aff'd sub nom. Conservation Law Found. v. Franklin*, 989 F.2d 54 (1st Cir. 1993) (rejecting fishing associations' request to vacate the settlement agreement). In finding the settlement agreement just, fair, and equitable, the Court stated the Council would be allowed the "initial opportunity to develop a groundfish rebuilding program that meets the terms and conditions of this Consent Decree." *Id.* at *1. However, the Court made clear that if the program fell "short of successful and timely development and submission to the Secretary," NOAA would "not be excused from complying with the deadlines for development" of the groundfish rebuilding program. *Id.*

A decade later, CLF challenged NOAA's implementation of the 1996 Sustainable Fisheries Act amendments. *Conservation Law Found. v. Evans*, 209 F. Supp. 2d 1, 15 (D.D.C. 2001) (finding Amendment 9 failed to minimize bycatch and bycatch mortality in the groundfish fishery in violation of the SFA.) In 2013, CLF challenged NOAA's catch limits for GOM cod in Framework 50. *See Conservation Law Found. v. Pritzker*, 37 F.Supp.3d 254 (D.D.C. 2014) (finding cod carryover violated MSA because it was not considered when setting the annual catch limit (ACL) for cod and it exceeded the SSC's acceptable biological catch recommendation). Most recently, CLF challenged NOAA's catch limits for Atlantic cod in Framework 59 on grounds that the specifications could not rebuild cod stocks and were based on an arbitrary application of the Council's control rule. *Conservation Law Found. v. Ross*, No. 19-

[20] If NOAA cannot implement the repackaged Amendment 25 by the start of the FY on May 1, 2026, it should issue an interim final rule adopting the four-stock structure, status determination criteria, catch limits, accountability measures, and other provisions in the repackaged amendment.

5365, 2020 WL 2610894, (April 27, 2020). CLF voluntarily dismissed this case when the next specifications package was finalized because NOAA appeared to be moving toward rebuilding Atlantic cod consistent with statutory obligations.

On February 13, 2020, CLF petitioned NOAA for rulemaking (albeit a different suite of rules) to end overfishing and rebuild the cod fishery; and supplemented it with new scientific information on September 16, 2020. NOAA denied that petition on April 7, 2022, but some of the same issues remain at the heart of this petition. A copy of the 2020 petition and its supplement are incorporated by reference and attached as Attachments 1 and 2.

Petitioner's Right to Petition

Under the APA, all citizens have the right to petition federal agencies for the "issuance, amendment, or repeal" of an agency rule. 5 U.S.C. § 553(e). A "rule" is the "whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy…" *Id.* § 551(4). CLF brings this petition for emergency and permanent rulemaking before NOAA under that authority.

The APA further requires that "within a reasonable time, each agency shall proceed to conclude a matter presented to it." *Id.* § 555(b). The Secretary must "fully and promptly consider" all petitions presented to him. *WWHT, Inc. v. F.C.C.*, 656 F.2d 807, 813 (D.C. Cir. 1981). If a petition is denied, the agency must provide "a brief statement of the grounds for denial," 5 U.S.C. § 555(e), and the petitioning party is entitled to a "response on the merits of the petition." *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 115-16 (D.D.C. 1995). Federal courts have authority to compel agency action on petitions that are unlawfully withheld or unreasonably delayed. 5 U.S.C. § 706(1).

The APA also provides for judicial review of NOAA's final agency action on this Petition. *Id.* at §§ 701-706. Under the APA's judicial review provision, agency actions are to be set aside if they are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *See id.* at § 706(2). It is well settled that in any such action an "agency must examine the relevant data and articulate a satisfactory explanation for its action" that does not "run[] counter to the evidence before the agency" and that "include[s] a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotation marks omitted).

NOAA has ample legal authority to take the requested actions under the MSA. 16 U.S.C. §§ 1854(b)(1)(B), (b)(3), (c)(1), (e)(1)-(5); *Id.* §§ 1855(c), (d). NOAA must now notify the Council of its duties or prepare its own Secretarial Amendment with conservation and management measures that seek to end overfishing immediately and rebuild the four cod stocks in a timeframe consistent with rebuilding requirements of the Act.

III. THERE HAS BEEN A HISTORICAL FAILURE TO END OVERFISHING & REBUILD THE COD FISHERY.

Atlantic cod has been managed as two stocks, one in the GOM and the other in GB (Figure 1) since 1977.[21] Under the two-stock approach, NOAA has been unable to end overfishing for decades. The first assessment of Atlantic cod after the MSA was implemented was conducted in 1977 and it determined that both stocks were subject to overfishing based on the definition of the day.[22] Following the adoption of the current reference point definition of the fishing mortality rate (F_{MSY}) that would produce maximum sustainable yield (MSY), the GOM and GB cod were subject to overfishing[23] as far back as the 2002 stock assessments. Every assessment since then led to the same overfishing status designation through to the last assessments conducted under the two-stock approach in 2021.[24]

Likewise, NOAA has been unable to rebuild Atlantic cod. As far back as the 2002 stock assessments,[25] GOM and GB cod have been overfished.[26] In 2004, NOAA implemented the first rebuilding plans for GOM cod and GB cod in Amendment 13.[27] GOM cod failed to rebuild under its first ten-year plan and again under its second ten-year plan. At the time of the last GOM cod assessment, and shortly before implementing a third ten-year rebuilding plan in 2023,[28] scientists estimated spawning stock biomass (SSB) was only 5% of its biomass target.[29] GB cod has remained in its original 2004 rebuilding plan with a terminal date of 2026. The rejection of the GB analytical assessment in 2015 made it impossible to quantitatively assess rebuilding progress thereafter, but as of the 2021 assessment, survey indices continued to trend downwards with no indication of stock recovery.[30]

The two-stock approach under which these historical assessments were conducted, and rebuilding plans developed, is no longer the best available science and the mismatch between this approach and the true biological stock structure of Atlantic cod likely contributed to its

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[21] F.M. Serchuk and S.E. Wigley, *Assessment and Mgmt. of the Georges Bank cod fishery: a historical review and evaluation.*, 13 J. Northw. Atl. Fish. Sci (1992).
[22] F.M. Serchuk et al, *Analysis of the Georges Bank and Gulf of Maine Cod Stocks,* NEFC Ref. Doc. 77-24, (1977), https://www.nefscnoaa.gov/publications/series/whlrd/whlrd7724.pdf.
[23] NEFSC, *55th Ne. Reg'l Stock Assessment Workshop Assessment Summary Rep.*, NEFSC 13-01, (2013).
[24] *See* Table 1, Attachment 1; NEFSC 2021a. Gulf of Maine Cod. Management Track Assessment Report. Available: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php; NEFSC 2021b. Georges Bank Cod. Management Track Assessment Report. Available: https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php.
[25] NEFSC, *55th Ne. Reg'l Stock Assessment Workshop Assessment Summary Rep.*, NEFSC 13-01, (2013).
[26] Based on the threshold definition of spawning stock biomass at maximum sustainable yield (SSB_{MSY}). Note that multiple assessments prior to 2002 also showed low biomass under earlier reference points and definitions, see Table 1 in Appendix 1.
[27] Amendment 13 Final Rule, 69 Fed. Reg. 22,906 (Apr. 27, 2004).
[28] Framework Adjustment, 65 Final Rule, 88 Fed. Reg. 56,527 (Aug. 18, 2023).
[29] NOAA, *Gulf of Maine Atl. cod, 2021 Update Assessment Rep.* (Oct. 2021). https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2021&species_id=4&stock_id=2&review_type_id=3&info_type_id=-1&map_type_id=&filename=2021_COD_GOM_ASSESSMENT_v3.pdf.
[30] NOAA, *Georges Bank Atl. cod, 2021 Mgmt. Track Assessment Rep.* (Sept. 2021). https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2021&species_id=4&stock_id=1&review_type_id=2&info_type_id=-1&map_type_id=&filename=2021_COD_GB_REPORT_ver3.pdf.

historical rebuilding failures and persistent overfishing.[31]

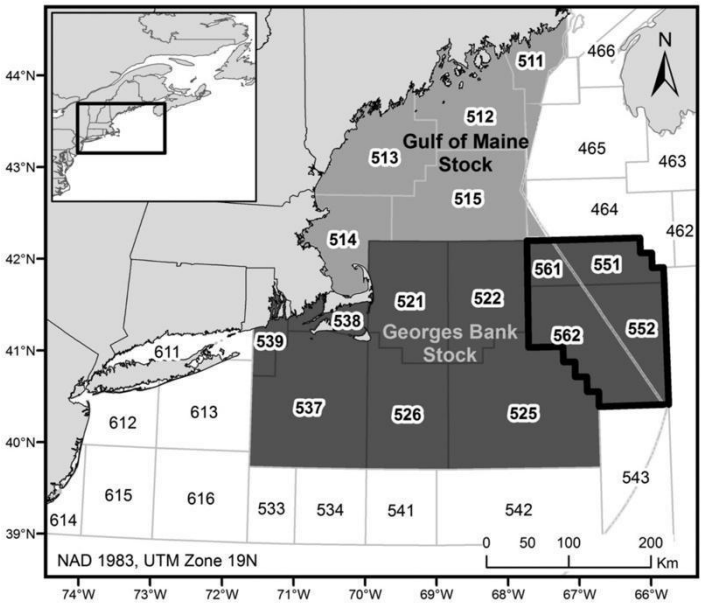

Figure 1: Map showing the GOM and GB stock boundaries used for management of Atlantic cod in the New England region. The area bounded by the thick black line indicates the eastern population of GB cod, which is managed as a transboundary resource jointly by the U.S. and Canada.[32]

IV. THE BEST AVAILABLE SCIENCE DEMANDS ACTION.

A. <u>The Current Understanding of Cod Stock Structure is Not New.</u>

The issue of cod stock structure is not a new one: in 2012 the Council's SSC identified population structure as an area of uncertainty and recommended a "comprehensive evaluation of scientific information on cod population structure and its management implications, including the possibility of revising management units."[33] A subsequent 2012 workshop on stock structure of Atlantic cod in the Gulf of Maine region found general agreement about the inaccuracy of the two stock management boundaries but failed to reach consensus about revised biological stock boundaries.[34]

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[31] *See generally* Lisa Kerr, Steven Cardin & Adrienne Kovach, *Consequences of a Mismatch Between Biological and Mgmt. Units on our Perception of Atl. Cod off New England*, 71 ICES J. of Marine Sci., (Sep. 2014); Douglas Zemeckis et al., *Spawning Site Fidelity by Atl. Cod (Gadus morhua) in the Gulf of Maine: Implications for Population Structure and Rebuilding*, 71 ICES J. of Marine Sci., (Sep. 2014).
[32] Douglas Zemeckis et al., *Stock Identification of Atlantic Cod (Gadus morhua) in US Waters: An Interdisc. Approach,* 71 ICES J. of Marine Sci., 1490, 1490 (Sep. 2014).
[33] Memorandum from Sci. and Stat. Comm. to Paul Howard, Exec. Dir. 3 (Jan. 30, 2012) (on file with NEFMC Library).
[34] John Annala, *Rep. of the Workshop on Stock Structure of Atl. Cod in the Gulf of Maine Region* 1–2 (July 24, 2012), https://gmri-org-production.s3.amazonaws.com/documents/Microsoft_Word_-_Cod_workshop_final_report_25_July_2012_1.pdf.

The Atlantic Cod Stock Structure Working Group ("Working Group") was formed in 2018. It had a broad range of expertise and a two-year working timeline that allowed for thorough scrutiny and consideration of a wide variety of data types including genetics, spawning information, egg and larval distributions, life history characteristics, migratory patterns based on natural markers (e.g., otolith and body shape, parasites) and tagging, as well as fishermen's ecological knowledge. The Working Group found compelling evidence for a lack of congruence between true population structure and the two-stock approach, whereas it found strong scientific support and consensus across data types that cod found off New England is comprised of five biological stocks:[35] EGOM, WGOM spring spawners, WGOM winter spawners, GB, and SNE. These findings were accepted by rigorous peer review in May of 2020.[36]

The onset of the Working Group was marked by a Cod Stock Structure Symposium at the University of New Hampshire in June of 2018 that was well attended by a wide range of stakeholders including active commercial and recreational groundfishermen. The efforts of the Working Group were met with support and enthusiasm for updating cod stock structure and aligning it with fishing industry perspectives. Following publication of the Working Group's report, additional public workshops supported by New Hampshire Sea Grant, the Council, and NOAA were held in 2021 to present the findings on each of the new stocks followed by an open public discussion to ensure comprehensive information sharing.[37] These meetings created a transparent, inclusive process that allowed stakeholders to fully engage with the emerging science and its management implications.

B. <u>The Research Track Assessment (2021-2023) Identified all Four Cod Stocks as Overfished.</u>

In late 2021, following these workshops, the Atlantic Cod Research Track Assessment Working Group (Research Track) was formed. In addition to the standard research track terms of reference, an additional ninth term of reference was added to:

> Apply the findings of the Atlantic Cod Stock Structure Working Group and identify what assessment approaches the available data can support in defining the appropriate scale of Atlantic cod stock assessment. Consider implications for management processes and other practical limitations in the final units and boundaries used for stock assessments."[38]

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[35] Richard McBride & Kent Smedbol, NMFS-NE-273, *An Interdisc. Review of Atl. Cod (Gadus morhua) Stock Structure in the Western N. Atl. Ocean*, (Dec. 2022), https://doi.org/10.25923/sk1x-z919.

[36] Memorandum from Jake Kritzer et al. to Thomas A. Nies, Exec. Dir. (May 29, 2020) (on file with NEFMC Library).

[37] NH Sea Grant, *2021 Atl. Cod Stock Structure Workshops,* U. NH, https://seagrant.unh.edu/2021-atlantic-cod-stock-structure-workshops (last visited May 5, 2025).

[38] Atl. Cod Rsch. Track Working Grp., *Rsch. Track Assessment of Atl. Cod*, NEFSC., 12–13 (July 14, 2023), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=-1&map_type_id=&filename=Atlantic%20cod%20WG%20FULL%20REPORT%20format%20w.%20exec%20summ%20(1).pdf.

In response, the Research Track combined the WGOM spring and winter spawners, which could not be separated for data purposes due to their spatial overlap, into a single WGOM unit and developed robust analytical models for the resulting four stock units (Figure 2). Their work passed peer review during the summer of 2023.[39] Notably, the peer review panel found that the ninth term of reference had been met and commented that "[t]here were clearly some signs of mis-specification in the cod assessments in the past and the Panel agrees that aligning the stocks with the assessment units is a significant step towards improving the assessments."[40]

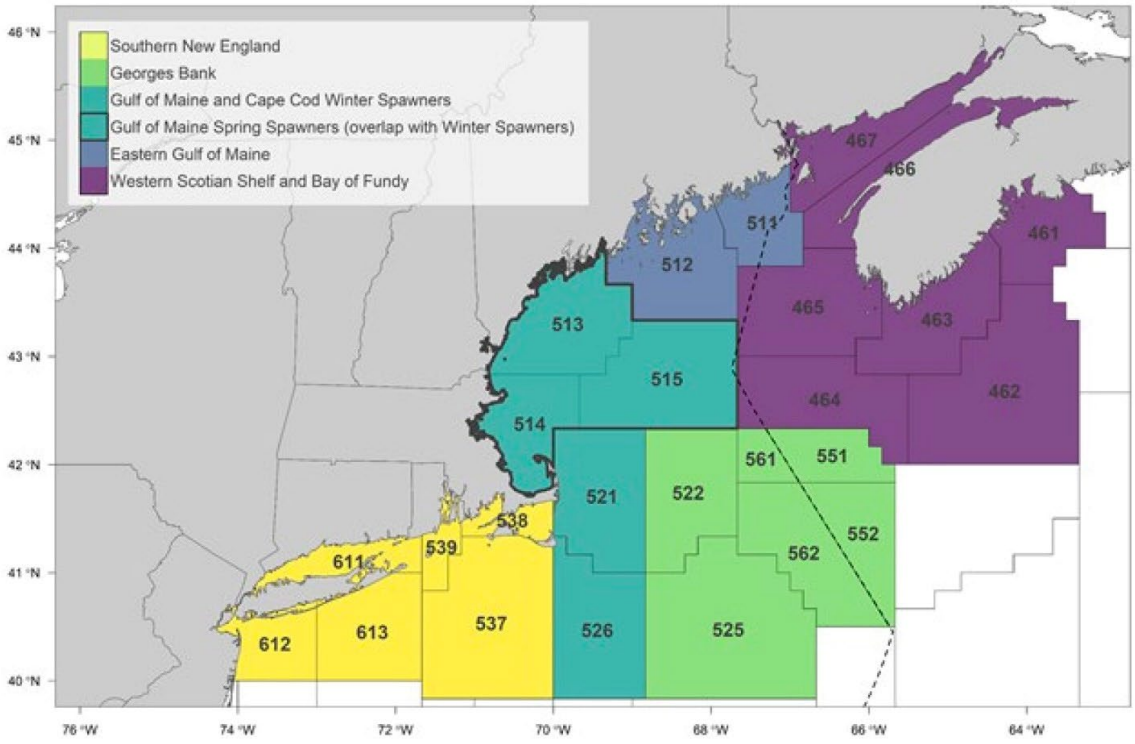

Figure 2: Map showing the new EGOM, WGOM (comprised of separate winter and spring spawners), GB, and SNE cod stock structure proposed by the Working Group and adopted by the Research Track Assessment.[41]

The analytical assessments developed by the research track reflected the new stock structure and led to clear conclusions about the poor status of all four new stocks: relative to

[39] NOAA, *Atl. Cod: 2023 Rsch. Track Peer Review,* https://www.fisheries.noaa.gov/event/atlantic-cod-2023-research-track-peer-review (last updated May 21, 2024).
[40] Jean-Jacques Maguire et al., *Summary Rep. of the Atl. Cod Rsch. Track Stock Assessment Peer Review,* 24, (Aug. 3, 2023), https://www.fisheries.noaa.gov/s3//2023-08/PanelSummaryReportoftheAtlanticCodRTPeerReviewAugust172023-mlt-508-8-23-23ajd-508gw.pdf.
[41] Atl. Cod Rsch. Track Working Grp., *Rsch. Track Assessment of Atl. Cod*, NEFSC, 419 (July 14, 2023), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2023&species_id=4&stock_id=11&review_type_id=5&info_type_id=-1&map_type_id=&filename=Atlantic%20cod%20WG%20FULL%20REPORT%20format%20w.%20exec%20summ%20(1).pdf.

newly developed biological reference points, all four stocks were overfished and three were severely so.[42] In addition, WGOM and SNE cod were also subject to overfishing.[43]

C. <u>The Management Track Assessments (2024) Confirmed All Four Cod Stocks are Overfished</u>.

Management track assessments with updated data were conducted in 2024 based on the research track assessment and associated peer review panel recommendations. All four management track assessments passed peer review in June of 2024, and their results were deemed acceptable for management advice.[44] The results confirmed the research track assessment findings—all four cod stocks are overfished and two are subject to overfishing.

1. WGOM cod is overfished with overfishing occurring.

As of 2023 (the terminal year of the assessment), WGOM cod SSB was **only 3% of its target biomass** while **fishing mortality was 63% above the overfishing threshold.**[45] Furthermore, relative to the new biological reference points, the stock has been **subject to overfishing for the entire 1981-2023 time period** covered by the assessment and has been in an **overfished state for all but a very brief period in the early 2000s**.[46] It is also important to note that an initial version of the assessment included the extremely low spring 2023 bottom long-line survey data,[47] but the peer review panel recommended excluding it due to the strong influence on assessment results for recent years.[48] There is thus substantial uncertainty around the assessment results. If the spring 2023 datapoint is in fact valid, stock status would be even worse and, as noted in the assessment report, projected catch at F_{MSY} should have been 3-6 times lower than what was ultimately recommended.

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[42] *Id*. at 353–355.
[43] *Id.*
[44] John Wiedenmann et al., *2024 June Mgmt. Track Peer Review Panel Rep.*, 4–5, (June 2024), https://www.fisheries.noaa.gov/s3//2024-07/2024-June-Management-Track-Peer-Review-Panel-Report-508-7-18-24.pdf.
[45] NOAA, *Western Gulf of Maine Cod, 2024 Mgmt. Track Assessment Rep.* 1 (July 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=12&review_type_id=3&info_type_id=-1&map_type_id=&filename=Western_Gulf_of_Maine_cod_Update_4.pdf.
[46] *Id.* at 4.
[47] *Id.* at 2.
[48] John Wiedenmann et al., *2024 June Mgmt. Track Peer Review Panel Rep.* 31 (June 2024), https://www.fisheries.noaa.gov/s3//2024-07/2024-June-Management-Track-Peer-Review-Panel-Report-508-7-18-24.pdf.

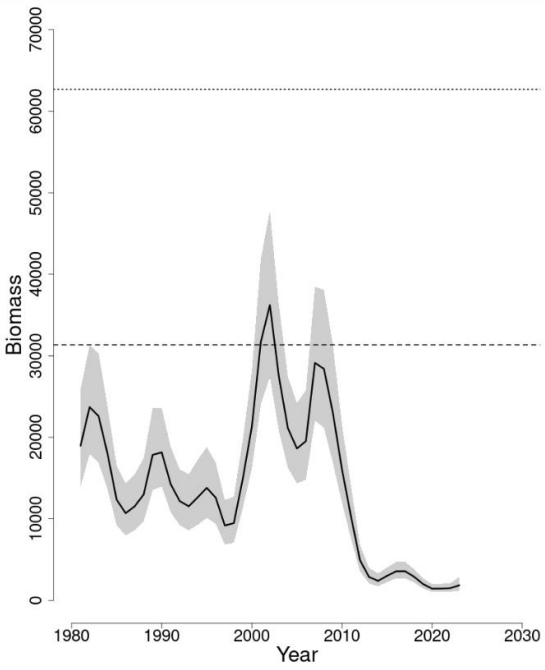

Figure 1: Trends in spawning stock biomass of Western Gulf of Maine cod between 1981 and 2023 from the current assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the 2024 assessment. SSB was not adjusted for a retrospective pattern because the retrospective pattern was minor. The approximate 90% lognormal confidence interval is shown.

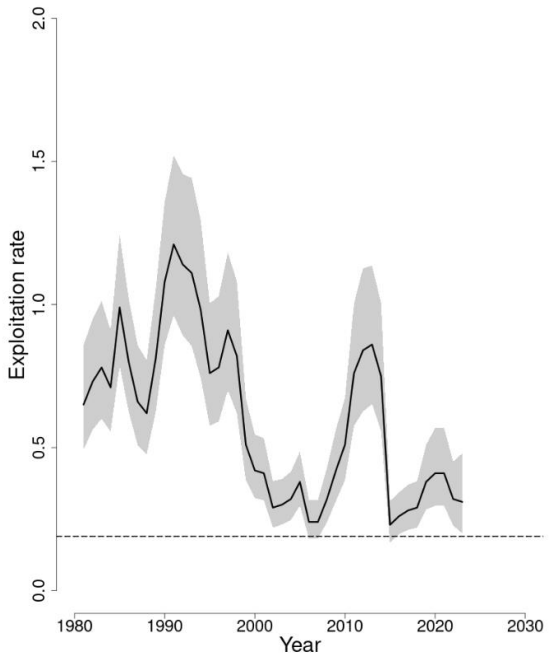

Figure 2: Trends in the fully selected fishing mortality (F_{Full}) of Western Gulf of Maine cod between 1981 and 2023 from the current assessment and the corresponding $F_{Threshold}$ (F_{MSY} *proxy*=0.19; horizontal dashed line). F_{Full} was not adjusted for a retrospective pattern because the retrospective pattern was minor. The approximate 90% lognormal confidence interval is shown.

Figure 3: Left: WGOM cod SSB between 1981 and 2023 relative to the target SSB (horizontal dotted line) and overfished threshold (horizontal dashed line). Right: Fishing Mortality relative to the overfishing threshold (horizontal dashed line). Grey shading indicates 90% confidence intervals. Reproduced from the 2024 management track assessment.[49]

2. SNE cod is overfished with overfishing occurring.

As of 2023, SNE cod SSB was **only 3% of the target biomass** while **fishing mortality was 706% above the overfishing threshold**.[50] Relative to the new reference points, the stock has been **overfished since 1983** and **subject to strong overfishing for the entirety of the 1981-2023 time period** covered by the assessment.[51]

[49] NOAA, *Western Gulf of Maine Cod, 2024 Mgmt. Track Assessment Rep.* 4 (July 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=12&review_type_id=3&info_type_id=-1&map_type_id=&filename=Western_Gulf_of_Maine_cod_Update_4.pdf.
[50] NOAA, *Southern New England Cod, Mgmt. Track Assessment Rep.* 1 (July 15, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=14&review_type_id=3&info_type_id=-1&map_type_id=&filename=Southern_New_England_Cod_2024_report_revised_projections.pdf.
[51] *Id.* at 4–5.

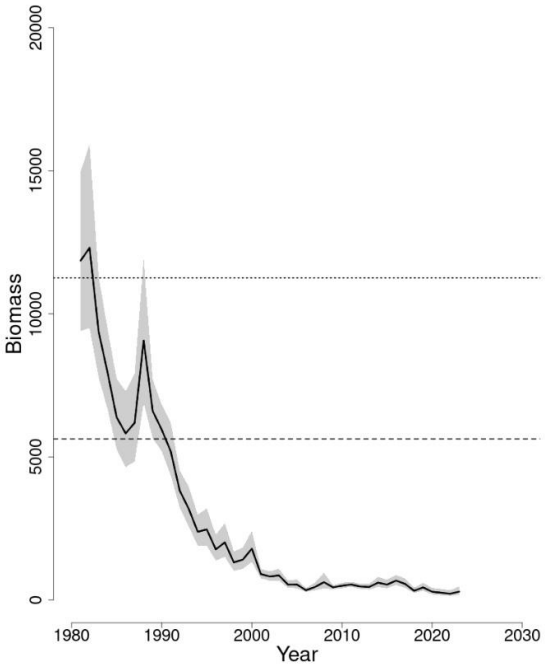

Figure 1: Trends in spawning stock biomass of Southern New England Cod between 1981 and 2023 from the current (solid line) assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the 2024 assessment. The approximate 90% lognormal confidence intervals are shown.

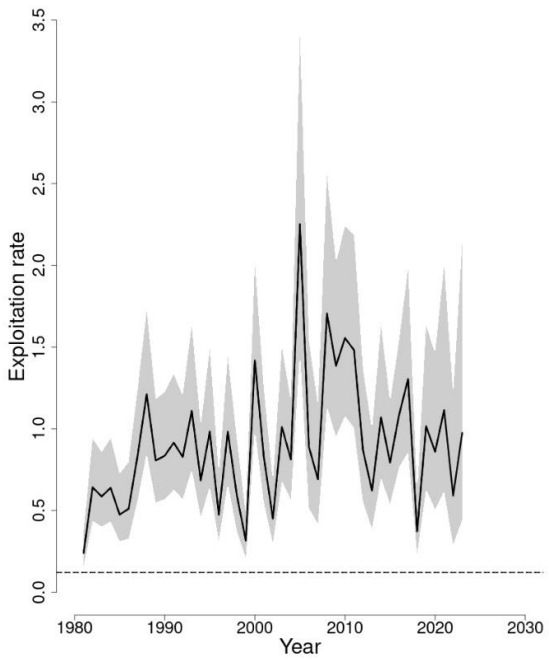

Figure 2: Trends in the fully selected fishing mortality (F_{Full}) of Southern New England Cod between 1981 and 2023 from the current (solid line) assessment and the corresponding $F_{Threshold}$ (F_{MSY} *proxy*=0.121; horizontal dashed line) based on the 2024 assessment. The approximate 90% lognormal confidence intervals are shown.

Figure 4: Left: SNE cod SSB between 1981 and 2023 relative to the target SSB (horizontal dotted line) and overfished threshold (horizontal dashed line). Right: Fishing Mortality relative to the overfishing threshold (horizontal dashed line). Grey shading indicates 90% confidence intervals. Reproduced from the 2024 management track assessment.[52]

3. GB cod is overfished.

SSB for GB cod has declined precipitously since the 1980s. As of 2023, SSB was **32% of the biomass target**, representing an all-time low for the time period covered by the assessment (1978-2023).[53] Projections through 2027 furthermore showed that fishing at F_{MSY} would lead to further declines in SSB.[54]

4. EGOM cod is overfished.

Following a steep decrease prior to 2000, EGOM cod SSB remains low and as of 2023 was **12% of the biomass target**.[55]

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[52] *Id.*

[53] NOAA, *Georges Bank Cod, Mgmt. Track Assessment Rep.*, 8 (June 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=1&review_type_id=3&info_type_id=-1&map_type_id=&filename=2024_COD_GB_Report.pdf.

[54] *Id.* at 2.

[55] NOAA, *Eastern Gulf of Maine Cod, Mgmt. Track Assessment Rep.,* 8 (July 1, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=13&review_type_id=3&info_type_id=-1&map_type_id=&filename=Eastern_Gulf_of_Maine_Atlantic_Cod_Update_2024_Post_Review.pdf.

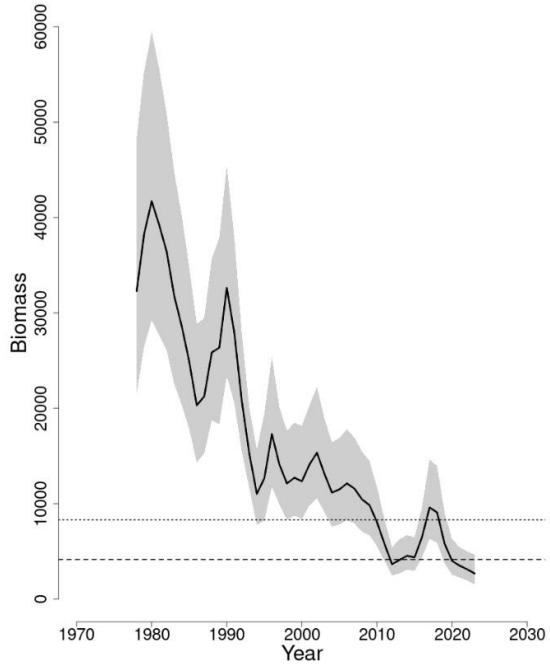

Figure 1: Trends in spawning stock biomass of Georges Bank Atlantic cod between 1978 and 2023 from the current Management Track (solid line). The corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) are based on the 2024 assessment. The approximate 90% lognormal confidence intervals are shown.

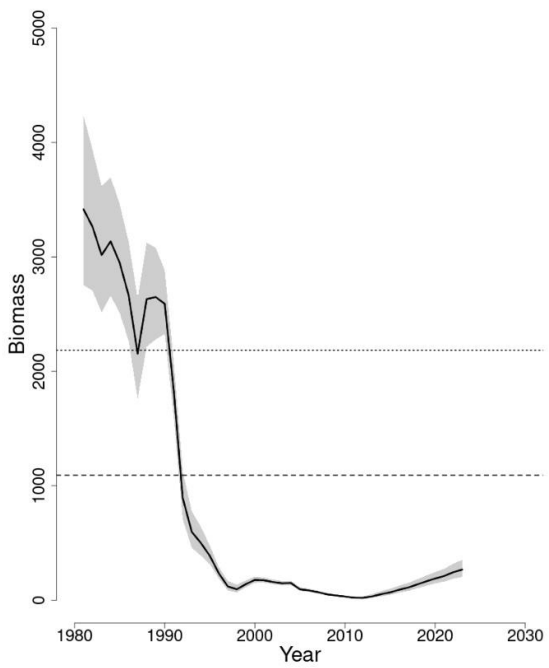

Figure 1: Trends in spawning stock biomass of Eastern Gulf of Maine Atlantic Cod between 1981 and 2023 from the current assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the current assessment. The approximate 95% lognormal confidence intervals are shown.

Figure 5: GB cod SSB between 1978 and 2023 (left) and EGOM cod SSB between 1981 and 2023 (right) relative to the target SSBs (horizontal dotted lines) and overfished thresholds (horizontal dashed lines). Grey shading indicates 90% confidence intervals. Reproduced from the 2024 management track assessments.[56]

V. NOAA'S DELAY IN APPROVING AMENDMENT 25 HAS IMPEDED INCORPORATION OF ALL FOUR STOCKS INTO THE NE MULTISPECIES FMP.

Transitioning from managing as two stocks to managing as four was widely understood to be a challenge.[57] Since 2020, however, the Council has actively engaged in educating the public and stakeholders about this new cod stock structure and its implications.[58] These efforts included numerous meetings, workshops, and consultations to ensure that all parties were informed about the issues prior to initiating management actions. In 2023 the Council adopted a multi-year priority to "develop a transition plan for Atlantic cod management."[59]

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[56] *Id.* at 4; NOAA, *Georges Bank Cod, Mgmt. Track Assessment Rep.,* 8 (June 10, 2024) at 4.
[57] Mark Grant (GARFO), *Draft for Committee Discussion*, NEFMC (Mar. 24, 2024), (on file with NEFMC Library).
[58] NEFMC, *Atl. Cod Mgmt. Transition Plan,* https://www.nefmc.org/library/atlantic-cod-management-transition-plan, (last visited Nov. 13, 2025).
[59] NEFMC, *2023 New England Fishery Mgmt. Council Priorities,* (Jan. 13, 2023) https://d23h0vhsm26o6d.cloudfront.net/230113_Approved-_2023_Priorities_2023-07-14-200243_fvab.pdf.

The Council unanimously adopted a phased approach to this transition plan at its April 2024 Council meeting. Phase I would define the stocks in an amendment (Amendment 25) and use the next annual specifications framework (Framework 69) to establish status determination criteria and develop options for apportioning commercial and recreational catch limits for the four new stocks. Phase II was envisioned to implement a broader, long-term approach to adopt new management units, potentially adjust allocations, and include measures to protect spawning cod populations.[60] It was expected that once the new cod stocks were added to the Northeast Multispecies FMP, that NOAA would promptly notify the Council that rebuilding plans were required. The initiation and development of Amendment 25 and Framework 69 were also guided heavily by NOAA General Counsel's process recommendations.

In developing Amendment 25 and Framework 69, the Council sought explicitly to minimize disruption to the groundfish Sectors by avoiding any immediate reallocation of Potential Sector Contribution (PSC). To accomplish this, the Council retained individual permit PSCs established under Amendment 16 for the original GOM and GB stocks, applying these two-stock historical PSCs to allocate sector annual catch entitlements (ACE) under the four new stock areas.[61] The Council treated this as a bridge approach, intentionally deferring any broader reallocation questions to Phase II.[62] Because the new WGOM stock area spans portions of both former stock areas, the bridge approach required an apportioning of WGOM commercial catch between its northern portion (former GOM) and southern portion (former GB) using a method based on catch history from a subset of years.[63] Development of the bridge approach and apportionment method included substantial industry and public input.

Amendment 25 would incorporate the new Atlantic cod stock structure into the NE Multispecies FMP, based on the latest research, had it been approved. The Council noted in Amendment 25 that failure to revise the stock structure and maintain the two-stock approach was inconsistent with peer-reviewed science and untenable because stock assessments are no longer conducted for prior GOM and GB cod.[64] By adopting the new structure, the Council aimed to improve assessment accuracy and management effectiveness. It expected that this would provide long-term conservation benefits by preventing the loss of spawning populations and distributing fishing pressure across biological populations. Recognizing the new stock structure would also enable the development of stock specific management measures that recover depleted stocks and strengthen overall resilience.[65]

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[60] NEFMC, *Final Motions* (Apr. 16-18, 2024), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-April-2024.pdf.

[61] NEFMC, *Amendment 25 (Revised) Appendix III Development of Phase 1 Measures for Atl. Cod Mgmt. Transition Plan: Bridge Approach for Sector Allocation*, at 1, (Dec. 12, 2025) https://d23h0vhsm26o6d.cloudfront.net/A3_250911_Amendment-25-Revised_Appendix-III_Development-of-Phase-1-Cod-Transition_Sector-Allocation-Bridge-Approach.pdf.

[62] *Id*. at 2.

[63] *Id.* at 3.

[64] NEFMC, *Northeast Multispecies Fishery Mgmt. Plan Amendment 25 Final Submission,* (Mar. 2025), at 9, https://d23h0vhsm26o6d.cloudfront.net/250305_Groundfish_Amendment-25_final_submission.pdf.

[65] *Id.* at 14–15 (citing R.S. McBride & R.K. Smedbol, An Interdisc. Review of Atl. Cod Stock Structure in the Western N. Atl. Ocean, NOAA, (2022), https://repository.library.noaa.gov/view/noaa/48082.

On September 25, 2024, the Council took final action on Amendment 25. A preliminary submission was provided to NOAA on November 14, 2024, and a final submission was transmitted on March 5, 2025.[66] On the same day, NOAA published a notice of availability and request for comment on Amendment 25.[67] The proposed rule made no mention of NOAA's concerns about the parallel approach it had supported throughout development of the action. It was not until NOAA notified the Council on May 19, 2025 that it was disapproving Amendment 25 that it mentioned "that the procedural approach to using Framework 69 as a companion trailing action to Amendment 25 did not fully address the requirements of the Magnuson-Stevens Fishery Conservation and Management Act."[68] This disapproval unreasonably ignored the facts and reversed course on prior agency advice to the Council.

NOAA's disapproval letter made the following recommendations consistent with requirements in 16 U.S.C. §1854(a)(3)(C), stating:

> the Council must include in a revised amendment the elements necessary for the action to be consistent with the National Standards and required provisions of the Magnuson-Stevens Act. These management measures must include the SDCs, distribution of ABCs, and accountability measures for the four cod stocks, as developed and included in Framework 69.[69]

Although the Council transmitted Framework 69 to the agency on March 11, 2025, just six days after receipt of Amendment 25, it took NOAA 272 days to publish a proposed rule implementing Framework 69. This is inconsistent with 16 U.S.C. § 1854(b)(1)(A),(B), which sets a firm 15-day deadline for NOAA's determination and, if that determination is affirmative, publish such regulations in the federal register. Alternatively, if that determination is negative, notify the council of its disapproval, any inconsistencies, and provide recommendations on revisions. *Id.* NOAA has never adequately explained why two rule packages submitted within days of each other took such divergent rulemaking paths.

VI. THE REVISED AMENDMENT 25 MUST BE APPROVED.

Faced with Amendment 25's disapproval, the Council had to decide whether to repackage its work and resubmit the action or step aside and allow NOAA to proceed through Secretarial action. It went with the former and, in mid-2025, the Council shifted its attention from previously planned priorities to concentrate on developing a Revised Amendment 25[70] that

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[66] *Id*. at 2.
[67] Amendment 25 Notice of Availability, 90 Fed. Reg. 11,246 (Mar. 5, 2025).
[68] Letter from Michael Pentony, Reg'l Admin'r, to Rick Bellavance, NEFMC Chairman, (May 19, 2025) (on file with NEFMC Library).
[69] *Id*. at 2.
[70] NEFMC, *Final Motions to the Council* (June 2025), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-June-2025.pdf.

would fully address the deficiencies identified in NOAA's disapproval letter.[71] It adopted the four new Atlantic cod stock units and carried forward their associated status determination criteria and ABC specifications (among other things) originally housed in Framework 69. The Council took final action on the Revised Amendment 25[72] at its September 2025 meeting and voted to forward it to NOAA for review. A preliminary version was transmitted on December 12, 2025, followed by NOAA's publication of the Notice of Availability in the Federal Register on January 13, 2026.[73]

In revising Amendment 25, the Council addressed all concerns identified by NOAA in its disapproval letter. NOAA did not identify allocation concerns as a reason for disapproving Amendment 25. Nevertheless, in its revision the Council acknowledged concerns raised earlier regarding potential allocation impacts and provided additional analysis[74] clarifying how the bridge approach would function and explaining why it would not change individual permit PSC and sector ACE calculations. While the original Amendment 25 was deemed administrative in nature (because it only changed the management units) and thus merited a categorical exclusion from environmental review requirements under NEPA, the Revised Amendment 25 benefits from a full environmental assessment including the impacts on human communities.

VII. ANY FURTHER RELIANCE ON THE TWO-STOCK APPROACH COMPROMISES REBUILDING AND EXACERBATES OVERFISHING.

Instead of approving Amendment 25 and Framework 69 in advance of the start of FY 2025 as intended, NOAA issued an emergency action rule for FY 2025.[75] Rather than adopt the scientifically supported four stock approach in its emergency action, NOAA continued the outdated two stock management approach but set catch limits for these two stocks by aggregating ACLs calculated for the four distinct stocks in Framework 69. By focusing its regulatory efforts on emergency action rather than the timely publication of Amendment 25 and Framework 69, NOAA unreasonably delayed the formal adoption of the scientifically supported four-stock approach, undermined efforts to implement more accurate and effective conservation measures and perpetuated a management framework that has repeatedly failed to end overfishing and rebuild cod.

National Standard 1 requires conservation and management measures that "prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the

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[71] NOAA Fisheries, Letter to the New England Fishery Mgmt. Council Regarding Amendment 25 Review (May 19, 2025), https://d23h0vhsm26o6d.cloudfront.net/5a_20250515-A25-Council-Decision-Letter-0648-XE237-v2-Signed.pdf.

[72] NEFMC, *Final Motions to the Council* (Sept. 2025), https://d23h0vhsm26o6d.cloudfront.net/Final-Motions-to-Council-September-2025.pdf.

[73] Amendment 25 (Revised) to the Northeast Multispecies Fishery Mgmt. Plan; Atl. Cod Stocks in Need of Conservation and Mgmt., 91 Fed. Reg. 1257 (Jan. 13, 2026).

[74] Appendix III to Revised Amendment 25, https://d23h0vhsm26o6d.cloudfront.net/A3_250911_Amendment-25-Revised_Appendix-III_Development-of-Phase-1-Cod-Transition_Sector-Allocation-Bridge-Approach.pdf.

[75] Fishing Year 2025 Measures Emergency Action, 90 Fed. Reg. 18,804 (May 2, 2025).

United States fishing industry,"[76] and National Standard 2 requires measures be "based upon the best scientific information available."[77] By aggregating catch limits for four biologically distinct stocks into two management units, the emergency action contradicts the best available science and increases the likelihood of continued statutory non-compliance under MSA by failing to end overfishing on WGOM and SNE cod and compromising the rebuilding of all four stocks.

The mismatch between the two-stock approach and true population structure has been repeatedly linked to persistent overfishing and failures to rebuild.[78] A Council-contracted simulation analysis comparing the approaches confirmed overfishing would likely continue on WGOM and SNE cod, particularly in the short term, and rebuilding would be delayed.[79] These findings are alarming for SNE cod, where the management track assessment documented overfishing at 8 times the sustainable level,[80] and the simulation concluded rebuilding is not possible under the two-stock approach.[81] It is also crucial to recognize the numerous uncertainties[82] in Framework 69's four-stock catch limits themselves. This is particularly true for WGOM cod where exclusion of the bottom long-line survey datapoint and overly optimistic projections heighten the risk of overfishing.[83] Combining these already uncertain limits derived for four stocks into the outdated two stocks only increases the risk of overfishing. By continuing to manage under this outdated and inaccurate approach, NOAA's emergency action ignores the best scientific information available, and fails to prevent overfishing and rebuild the fishery.

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[76] 16 U.S.C. §1851(a)(1).
[77] *Id.* §1851(a)(2).
[78] Lisa A. Kerr, Steven X. Cadrin & Adrienne I. Kovach, *Consequences of a Mismatch Between Biological and Mgmt. Units on our Perception of Atl. Cod off New England*, 71 ICES J. of Marine Sci. 1366–1381 (July 6, 2014), https://doi.org/10.1093/icesjms/fsu113; Douglas R. Zemeckis et al., *Spawning Site Fidelity by Atl. Cod (Gadus morhua) in the Gulf of Maine: Implications for Population Structure and Rebuilding*, 71 ICES J. of Marine Sci. 1356–1365 (July 22, 2014), https://doi.org/10.1093/icesjms/fsu117.
[79] J. Roger Brothers et al., *Comparing Candidate Spatial Mgmt. Unit Structures for U.S. Atl. Cod: Preliminary Demonstrations*, (Mar. 20, 2024), https://d23h0vhsm26o6d.cloudfront.net/3_REVISED_CodStockStructureMSE_TechReport_March2024_SSCreview.pdf.
[80] NOAA, *Southern New England Cod 2024 Mgmt. Track Assessment Rep,* (2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=14&review_type_id=3&info_type_id=-1&map_type_id=&filename=Southern_New_England_Cod_2024_report_revised_projections.pdf.
[81] J. Roger Brothers et al., *Comparing Candidate Spatial Mgmt. Unit Structures for U.S. Atlantic Cod: Preliminary Demonstrations*; (Mar. 20, 2024), https://d23h0vhsm26o6d.cloudfront.net/3_REVISED_CodStockStructureMSE_TechReport_March2024_SSCreview.pdf.
[82] Memorandum from Sci. and Stat. Comm. to Cate O'Keefe, Exec. Dir., (July 31, 2024) (on file with NEFSC Library); Memorandum from Sci. and Stat. Comm. to Cate O'Keefe, Exec. Dir., (September 4, 2024) (on file with NEFSC Library).
[83] NOAA, *Western Gulf of Maine Cod, 2024 Mgmt. Track Assessment Rep.,* NEFSC, 2 (July 10, 2024), https://apps-nefsc.fisheries.noaa.gov/saw/sasi_files.php?year=2024&species_id=4&stock_id=12&review_type_id=3&info_type_id=-1&map_type_id=&filename=.

VIII. NOAA IS LONG OVERDUE TO END OVERFISHING AND INITIATE REBUILDING PLANS FOR ATLANTIC COD.

The new understanding of cod stock structure improves our ability to effectively manage the species, but it does not alter NOAA's statutory obligation to rebuild. Given that the four-stock structure is the best available science and that no valid assessments exist for the former two stocks, NOAA and the Council have had to operate under the assumption that prior rebuilding plans are no longer in effect. This has created a void in rebuilding progress that must be remedied. Setting aside past failures, NOAA has known that these four stocks have been overfished since the research track assessment peer review was completed three years ago, and this status was confirmed by accepted management track assessments completed two years ago.

The APA authorizes courts to "compel agency action unlawfully withheld or unreasonably delayed." 5 U.S.C. § 706(1). Actions are "unlawfully withheld" when they fail to meet a statutory deadline. *Norton v. S. Utah Wilderness All. et al.*, 542 U.S. 55, 64 (2004); *Leigh et al., v. U.S. Dep't of Interior*, No. 2:22-cv-01200-MMD-BNW, 2024 WL 4279156 (D. Nev., Sep. 23, 2024). Even if nothing in the MSA explicitly contemplates this situation – changed understanding of stock structure - the Act's plain language compels actions to end overfishing immediately once identified as overfished and to initiate plans that rebuild in a timely manner. Either the Council or the Secretary must promptly prepare rebuilding plans that set a time period for rebuilding that is "as short as possible," taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations, and interactions of the overfished stock within the marine ecosystem.[84] Any continued failure to act by NOAA is wholly unreasonable; *see Telecomm. Rsch. & Action Ctr. v. FCC*, 750 F.2d 70 (D.C. Cir. 1984) (finding unreasonable delay can be determined in part by considering whether "Congress has provided a timetable or other indication of speed…").

We urge NOAA to approve and implement the Revised Amendment 25 as expeditiously as possible, and definitely before the start of the fishing year on May 1, 2026. If it cannot complete APA rulemaking by publishing a proposed rule in the federal register and finalizing after public comment, then it should issue an interim final rule and allow public comment on that rule prior to publishing a final rule. NOAA must immediately thereafter ensure that rebuilding plans are initiated consistent with the MSA and other applicable laws.

[84] 16 U.S.C. § 1854(e)(3)(A), (4)(A)(i).

IX. CONCLUSION

Atlantic cod presents a unique and urgent case in U.S. fisheries management. Atlantic cod has been subject to nearly three decades of unsuccessful rebuilding efforts. The updated understanding of stock structure and the peer reviewed adoption of four stock assessment models for the region do not lessen the imperative to rebuild. Rather, they enhance the scientific precision of management actions for this imperiled specie**s.** We are not asking the Secretary of Commerce or NOAA to go beyond what the APA and MSA already demand. We are simply asking it to recognize the extensive work completed by the Council, implement the Revised Amendment 25 before May 1, 2026, and begin the urgent, overdue actions required to set Atlantic cod on a genuine course to recovery. Continued delay in approving actions necessary to end overfishing and initiate new rebuilding plans for Atlantic cod, or in developing the plans through a Secretarial Amendment, is unacceptable.

To protect the long-term viability of the fishery, NOAA must incorporate the four cod stock structure in the NE Multispecies FMP, end overfishing on the WGOM and SNE stocks, and move enforceable rebuilding plans forward for all four stocks.

Specifically, CLF petitions the Department of Commerce and NOAA to expeditiously approve the Revised Amendment 25,[85] *and* e*ither*

1) **immediately notify the Council that it must take action to end overfishing on the WGOM and SNE cod stocks, and prepare rebuilding plans within two years for all four cod stocks, consistent with 16 U.S.C. § 1854(e)(3)(A), (4); *or***
2) **prepare a Secretarial Amendment (and any accompanying regulations) within 9 months that stops overfishing on the WGOM and SNE cod stocks and rebuilds all four cod stocks, consistent with § 1854 (c), (e)(4), (5).**

Thank you for your consideration and please do not hesitate to contact us if you have any questions.

Erica Fuller	Elizabeth Etrie	Sarah Shahabi
Senior Counsel	Director, Ocean Policy	Associate Attorney
efuller@clf.org	eetrie@clf.org	sshahabi@clf.org

The contact information for Conservation Law Foundation for purposes of this Petition is:

62 Summer Street
Boston, MA 02110
Telephone: 617-350-0990
Fax: 617-350-4030

[85] If NOAA cannot implement the Revised Amendment 25 by May 1, 2026, it should issue an interim final rule adopting the four-stock structure, status determination criteria, catch limits, accountability measures, and other provisions in the revised amendment.

March 2026

Georges Bank Haddock
2026 Management Track Assessment Plan

Plan for 2026 Management Track Assessment

- The 2022 Research Track WHAM model will be updated.
- The last assessment was in September 2024 and used data through 2023. This assessment will include data through 2024. As outlined in the National Marine Fisheries Service/Fisheries and Oceans Canada (DFO) transboundary science data sharing agreement, if all required assessment data inputs are available by April 15, 2026, data through 2025 will be used.
- Performance of projections from the 2024 assessment will be evaluated.
- Differences with the Eastern Georges Bank WHAM assessment completed by DFO will be highlighted to aid in transboundary decision making.

Backup Assessment Plan

- These methods were developed during the Research Track Assessment (2022) and approved by peer reviewers; backup methods are only used in situations when the primary assessment approach described above is rejected by the Management Track peer review.
- The backup plan is an empirical, index-based approach broadly known as Ismooth.

Most Recent Assessments

- Management Track (2024)
  - Assessment Report
  - Peer Review Panel Summary Report
- Research Track (2022)
  - Assessment Report
  - Peer Review Panel Summary Report

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930

March 23, 2026

Dr. Catherine O'Keefe
Executive Director
New England Fishery Management Council
50 Water Street Mill 2
Newburyport, MA 01950

Dear Cate:

We recently completed the groundfish year-end accounting for the 2024 fishing year, and the final report is enclosed with this letter. In fishing year 2024, catch of southern windowpane flounder and ocean pout exceeded the total annual catch limits (ACL) and the acceptable biological catches (ABC) for those two stocks. As a result, the accountability measures (AM) for these stocks will take effect in 2026, and are described in more detail below. Table 1 summarizes the catch and catch limits for these three stocks.

Recreational catch of Gulf of Maine (GOM) haddock exceeded the recreational sub-ACL, resulting in an ACL overage of 1 mt. More information regarding this overage is found below.

Table 1: Fishing year 2024 catch and catch limits

Stock	ABC (mt)	Total ACL (mt)	Fishing Year 2024 Catch (mt and percent of ACL or sub-ACL)					
			Total		Commercial Groundfish Fishery	Scallop Fishery	State Waters	Other sub-component
Southern windowpane flounder	213	205	425.4	207.5%	117.7%	5.5%	357.8%	370.0%
Ocean pout	87	83	97.9	118.0%	89.4%	-	625.0%	151.8%

Southern Windowpane Flounder
Catch of southern windowpane flounder exceeded the commercial groundfish fishery's sub-ACL and the amounts set aside for state and other subcomponents, contributing to a total ACL overage. Because the ACL was exceeded by more than 20 percent, the large AM areas for southern windowpane flounder will be in effect for all trawl vessels on a groundfish trip, and for non-groundfish trawl vessels fishing with a codend mesh size of 5 inches or greater (see Figure 1 for more information). There are no restrictions on common pool or sector vessels fishing with hook or gillnet gear. Vessels fishing in these areas may only use a haddock separator trawl, a Ruhle trawl, or a rope separator trawl. The regulations specify that the AM applies to the full groundfish fishing year, which begins on May 1, 2026. The AM will be implemented consistent with the Administrative Procedure Act (APA).

The size of the windowpane AM area restrictions for both the groundfish fishery and the non-groundfish trawl vessels can be reduced if the stock is rebuilt and the biomass criterion is met. The biomass criterion is defined as the most recent 3-year average of catch per tow from the fall surveys multiplied by 75 percent of F_{MSY} (fishing mortality at maximum sustainable yield). Because southern windowpane flounder is rebuilt, we reviewed the biomass criterion for this stock. Based on the 2023-2025 fall surveys, the most recent 3-year average catch per tow is 0.361 kg, and when applied to 75 percent of F_{MSY} (*i.e.*, 75 percent of 1.333, or .99975), results in 361 mt, which is less than the 2024 catch. As a result, the biomass criterion is not met, and the size of the AM cannot be reduced for southern windowpane flounder at this time.

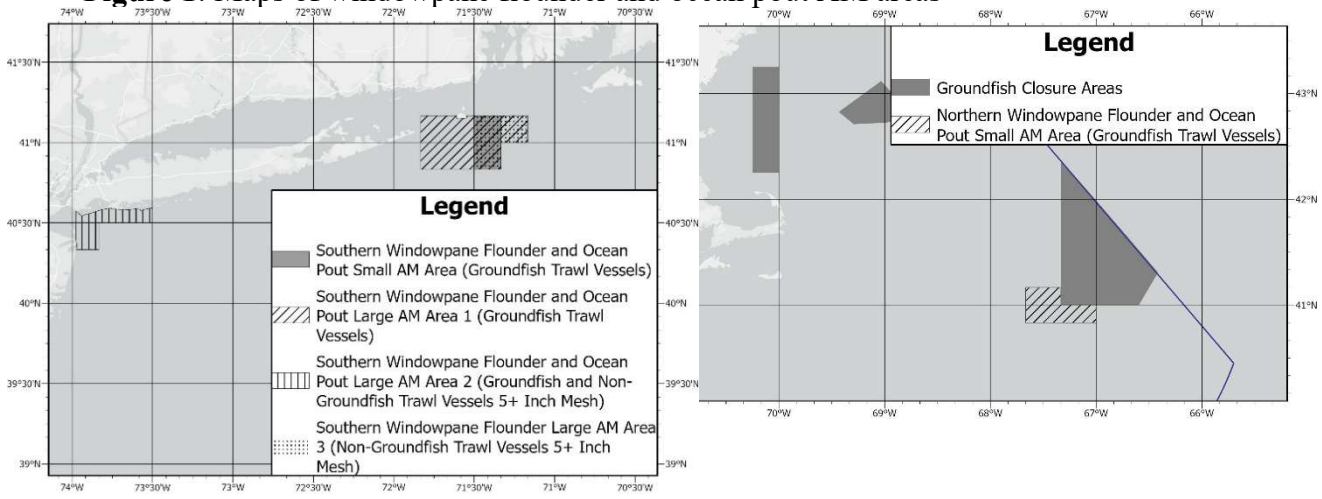
The duration of the windowpane AM area restrictions for both the groundfish fishery and the non-groundfish trawl vessels implemented in fishing year 2026 can also be reduced on or after September 1, 2026, if we determine that the windowpane ACL is not exceeded in the prior fishing year (*i.e.*, 2025). At this time, in-season monitoring of the groundfish fishery does not preclude this option, but total catch will not be available until next fall.

Ocean Pout

Catch of ocean pout exceeded the total ACL for the stock by 18 percent. Because the overage is less than 20 percent, the small AM areas for ocean pout will be in effect for all Northeast multispecies permitted trawl vessels (see Figure 1 for more information). There are no restrictions on common pool or sector vessels fishing with hook or gillnet gear. Vessels fishing in these areas may only use a haddock separator trawl, a Ruhle trawl, or a rope separator trawl. The regulations specify that the AM applies to the full groundfish fishing year, which begins on May 1, 2026. The AM will be implemented consistent with the APA.

Some of the ocean pout small AM areas lie within the large AM area for southern windowpane flounder, with the same gear restrictions. Unlike for southern windowpane flounder, there are no provisions for reducing the duration of the ocean pout AM for the groundfish fishery. If the duration of the southern windowpane AM is shortened on or after September 1, 2026, the ocean pout small AM area would remain in place.

Figure 1: Maps of windowpane flounder and ocean pout AM areas



Northern Windowpane Flounder
In fishing year 2024, the scallop fishery caught a total of 53.3 mt of northern windowpane, which exceeds the sub-ACL of 27 mt by 26.3 mt, or 97.4 percent. However, Framework 69 modified the AM for northern windowpane so that it is implemented only if the sub-ACL *and* total ACL are exceeded. Therefore, there is no AM for the scallop fishery for the 2026 fishing year.

GOM Haddock
In fishing year 2024, the recreational fishery caught 1,135 mt of GOM haddock, contributing to an ACL overage of 1 mt. The regulations specify that when evaluating recreational catch, a 3-year average of recreational catch should be compared to the 3-year average of the recreational sub-ACL for that stock. Although the 2024 catch of GOM haddock exceeded the 2024 sub-ACL, the 3-year average of catch is lower than the 3-year average sub-ACL. Therefore, the GOM haddock recreational sub-ACL is not considered to be exceeded. Because no other GOM haddock sub-ACLs or sub-components had an overage, no AMs are necessary.

Georges Bank Cod and 2023 ACL Overage
Framework 65 temporarily modified the AMs for Georges Bank cod when an ACL overage occurs due to vessels fishing in state or other, non-specified fisheries. The modified AM stated that an overage would be reduced by any underage of the Georges Bank cod ACL in the fishing year following the overage, in order to determine the final amount of payback required from the commercial fishery. In fishing year 2023, total catch of Georges Bank cod exceeded the ACL by 103 mt. A combination of catch from state waters and other subcomponents contributed to that overage. The commercial groundfish fishery did not exceed its sub-ACL in fishing year 2023.

Given the complications regarding the start to the 2025 fishing year, the 2023 overage was not deducted from the commercial fishery at that time. However, in fishing year 2024, the total catch of GB cod was 378 mt, which is 156 mt below the 2024 ACL. Therefore, the underage of fishing year 2024 mitigates the overage caused in 2023, and no additional payback is required.

If you have any questions on the report, please contact Peter Christopher, Groundfish Team Supervisor, at (978) 281-9288.

Sincerely,

Michael Pentony
Regional Administrator

cc: Dr. Jon Hare, Science and Research Director, Northeast Fisheries Science Center

Enclosure

Northeast Multispecies Fishery

Year-End Results for Fishing Year 2024

Tables 1 through 5: Total groundfish caught, landed, and discard estimates

Table 6: Estimated state water catch

Tables 7-9: Other sub-component catch detail

Table 10: FY 2022 through FY 2024 GOM cod and haddock recreational catch evaluation

Table 11: Sector carryover table expected to be available soon

Tables 12 through 17: U.S./Canada stocks catch evaluation

In this report: a table cell value of '0' or '0.0' indicates a non-zero value in the cell. '-' is displayed for values exactly equal to zero. Blanks are shown when there are no values. 'NA' is displayed when no value is applicable or available.

Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Table 1: FY 2024 Northeast Multispecies Percent of Annual Catch Limit Caught (%)

Stock	Components with ACLs and sub-ACLs: With Accountability Measures (AMs)								Sub-components: No AMs	
	Total	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
GB Cod	70.7	75.7	77.5	11.8					43.5	61.2
GOM Cod	73.4	75.9	89.0	57.0	57.4				42.9	
GB Haddock	28.3	28.4	29.0	2.0		1.9				
GOM Haddock	100.0	103.2	81.2	17.4	149.6	-			9.4	13.8
GB Yellowtail Flounder	9.3	2.6	2.7				45.5	0.0		
SNE Yellowtail Flounder	2.8	0.6	0.4	1.3			11.1		-	30.0
CC/GOM Yellowtail Flounder	32.1	28.4	28.9	17.7					54.3	100.8
Plaice	25.0	24.9	25.2	12.8					39.3	43.9
Witch Flounder	95.9	93.5	95.3	43.2					108.4	183.2
GB Winter Flounder	40.9	40.9	42.1							48.1
GOM Winter Flounder	29.1	16.9	18.0	9.4					70.6	145.0
SNE/MA Winter Flounder	22.7	11.6	12.4	6.0					25.8	57.6
Redfish	64.6	64.5	65.0	9.6						
White Hake	91.3	91.3	91.4	87.8						76.0
Pollock	19.4	17.9	18.0	6.7					35.3	39.9
Northern Windowpane	55.5	9.9					197.4			29.4
Southern Windowpane	207.5	117.7					5.5		357.8	370.7
Ocean Pout	118.0	89.4							625.0	151.8
Halibut	88.3	74.7							81.9	816.7
Wolffish	0.8	0.7								

Source: NMFS Greater Atlantic Regional Fisheries Office
2026-03-19; run date of 2026-01-04

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 2: FY 2024 Northeast Multispecies Annual Catch Limits (mt)

Stock	Components with ACLs and sub-ACLs: With Accountability Measures (AMs)								Sub-components: No AMs	
	Total ACL	Groundfish	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery[2]	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
GB Cod	534	405	394	11.0					43	86
GOM Cod	536	488	286	10.0	192				48	0
GB Haddock	7,040	6,909	6,755	154		131			0	0
GOM Haddock	2,346	2,268	1,478	31	759	22			48	8
GB Yellowtail Flounder	70	58	55	3.0			11	1.3	0.0	0.0
SNE/MA Yellowtail Flounder	40	35	27	8.0			2.7		0.2	2.0
CC/GOM Yellowtail Flounder	990	920	876	44					30	40
American Plaice	5,513	5,457	5,313	144					28	28
Witch Flounder	1,253	1,203	1,162	41					19	31
GB Winter Flounder	1,548	1,532	1,488	44					0.0	16
GOM Winter Flounder	800	635	553	82					153	12.0
SNE/MA Winter Flounder	624	461	408	53					19	144
Redfish	8,303	8,303	8,226	77					0	0
White Hake	1,933	1,923	1,905	18					0	10
Pollock	13,934	12,819	12,696	123					627	488
N. Windowpane Flounder	128	94		94			27		0.0	7
S. Windowpane Flounder	205	30		30			71		6	98
Ocean Pout	83	49		49					0	34
Atlantic Halibut	75	58		58					16	1.2
Atlantic Wolffish	87	87		87					0	0

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Table 3: FY 2024 Northeast Multispecies Total Catch (mt)

Stock	**Total Catch**	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery[1]	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
GB Cod	377.8	306.5	305.2	1.3					18.7	52.6
GOM Cod	393.6	370.6	254.6	5.7	110.3				20.6	2.4
GB Haddock	1,994.0	1,962.6	1,959.5	3.1		2.5			0.6	28.3
GOM Haddock	2,346.9	2,341.3	1,200.5	5.4	1,135.4	-			4.5	1.1
GB Yellowtail Flounder	6.5	1.5	1.5				5.0			-
SNE/MA Yellowtail Flounder	1.1	0.2	0.1	0.1			0.3		-	0.6
CC/GOM Yellowtail Flounder	317.9	261.3	253.5	7.8					16.3	40.3
Plaice	1,380.7	1,357.4	1,338.9	18.5					11.0	12.3
Witch Flounder	1,202.0	1,124.6	1,106.9	17.7					20.6	56.8
GB Winter Flounder	633.9	626.2	626.2							7.7
GOM Winter Flounder	232.6	107.2	99.5	7.7					108.0	17.4
SNE/MA Winter Flounder	141.6	53.7	50.5	3.2					4.9	83.0
Redfish	5,360.0	5,354.0	5,346.6	7.4					4.0	2.0
White Hake	1,765.1	1,756.5	1,740.7	15.8					1.0	7.6
Pollock	2,706.9	2,290.7	2,282.5	8.2					221.6	194.6
Northern Windowpane	71.0	9.3	9.3	-			53.3		6.4	2.0
Southern Windowpane	425.4	35.3	26.5	8.8			3.9		22.9	363.3
Ocean Pout	97.9	43.8	42.7	1.1					2.5	51.6
Halibut	66.2	43.3	38.8	4.5					13.1	9.8
Wolffish	0.7	0.6	0.6	-					-	0.1

[1]Based on scallop fishing year April 2023 through March 2024

Values in metric tons of live weight

Any value for a non-allocated species may include landings of that stock or misreporting of species and/or stock area. These are northern windowpane, southern windowpane, ocean pout, halibut, and wolffish.

Source: NMFS Greater Atlantic Regional Fisheries Office
2026-03-19; run date of 2026-01-04

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 4: FY 2024 Northeast Multispecies Landings (mt)

Stock	**Total Landings**	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
GB Cod	347.3	297.9	296.6	1.3					9.7	39.7
GOM Cod	318.1	298.0	250.2	5.5	42.3				19.5	0.6
GB Haddock	1,912.1	1,909.6	1,909.3	0.3		2.5				-
GOM Haddock	1,847.7	1,842.4	1,159.3	5.0	678.1	-			4.4	0.9
GB Yellowtail Flounder	1.3	1.3	1.3				-			
SNE/MA Yellowtail Flounder	-	-	-	-			-		-	-
CC/GOM Yellowtail Flounder	218.8	207.2	200.0	7.2					11.2	0.4
Plaice	1,321.2	1,311.1	1,293.1	18.0					9.9	0.2
Witch Flounder	1,080.8	1,078.3	1,061.0	17.3					1.6	0.9
GB Winter Flounder	625.3	625.2	625.2							0.1
GOM Winter Flounder	206.5	101.4	93.8	7.6					104.8	0.3
SNE/MA Winter Flounder	57.1	52.3	49.2	3.1					2.2	2.6
Redfish	5,278.5	5,274.1	5,273.8	0.3					3.9	0.5
White Hake	1,742.4	1,740.0	1,726.3	13.7					0.1	2.3
Pollock	2,388.9	2,189.4	2,184.2	5.2					137.7	61.8
Northern Windowpane	0.1	0.1	0.1				-			
Southern Windowpane	14.3	-	-				-		13.8	0.5
Ocean Pout	-	-	-							
Halibut	42.0	26.7	22.3	4.4					12.9	2.4
Wolffish	-	-	-							

Values in metric tons of live weight

Any value for a non-allocated species may include landings of that stock or misreporting of species and/or stock area. These are northern windowpane, southern windowpane, ocean pout, halibut, and wolffish.

Source: NMFS Greater Atlantic Regional Fisheries Office

2026-03-19; run date of 2026-01-04

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 5: FY 2024 Northeast Multispecies Discards (mt)

Stock	**Total Discards**	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
GB Cod	30.5	8.6	8.6	-					9.0	12.9
GOM Cod	75.5	72.6	4.4	0.2	68.0				1.1	1.8
GB Haddock	81.9	53.0	50.2	2.8		-			0.6	28.3
GOM Haddock	499.2	498.9	41.2	0.4	457.3	-			0.1	0.2
GB Yellowtail Flounder	5.2	0.2	0.2				5.0			-
SNE/MA Yellowtail Flounder	1.1	0.2	0.1	0.1			0.3		-	0.6
CC/GOM Yellowtail Flounder	99.1	54.1	53.5	0.6					5.1	39.9
Plaice	59.5	46.3	45.8	0.5					1.1	12.1
Witch Flounder	121.2	46.3	45.9	0.4					19.0	55.9
GB Winter Flounder	8.6	1.0	1.0							7.6
GOM Winter Flounder	26.1	5.8	5.7	0.1					3.2	17.1
SNE/MA Winter Flounder	84.5	1.4	1.3	0.1					2.7	80.4
Redfish	81.5	79.9	72.8	7.1					0.1	1.5
White Hake	22.7	16.5	14.4	2.1					0.9	5.3
Pollock	318.0	101.3	98.3	3.0					83.9	132.8
Northern Windowpane	70.9	9.2	9.2	-			53.3		6.4	2.0
Southern Windowpane	411.1	35.3	26.5	8.8			3.9		9.1	362.8
Ocean Pout	97.9	43.8	42.7	1.1					2.5	51.6
Halibut	24.2	16.6	16.5	0.1					0.2	7.4
Wolffish	0.7	0.6	0.6	-					-	0.1

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office

2026-03-19; run date of 2026-01-04

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 6: FY 2024 Northeast Multispecies Estimated State Water Sub-Component Catch Detail(mt)

Stock	Total			Commercial			Recreational		
	Catch	Landings	Discard	Total Catch	Landings	Discard	Total Catch	Landings	Discard
	A+B+C+D	A+C	B+D	A+B	A	B	C+D	C	D
GB Cod	18.7	9.7	9.0	1.2	1.1	0.1	17.5	8.6	8.9
GOM Cod	20.6	19.5	1.1	20.6	19.5	1.1			
GB Haddock	0.6	-	0.6	0.6		0.6			
GOM Haddock	4.5	4.4	0.1	4.5	4.4	0.1			
GB Yellowtail Flounder	-	-	-						
SNE/MA Yellowtail Flounder	-	-	-	-	-	-			
CC/GOM Yellowtail Flounder	16.3	11.2	5.1	16.3	11.2	5.1			
Plaice	11.0	9.9	1.1	11.0	9.9	1.1			
Witch Flounder	20.6	1.6	19.0	20.6	1.6	19.0			
GB Winter Flounder	-	-	-						
GOM Winter Flounder	108.0	104.8	3.2	84.6	82.0	2.6	23.4	22.8	0.6
SNE/MA Winter Flounder	4.9	2.2	2.7	3.6	1.7	1.9	1.3	0.5	0.8
Redfish	4.0	3.9	0.1	4.0	3.9	0.1			
White Hake	1.0	0.1	0.9	1.0	0.1	0.9			
Pollock	221.6	137.7	83.9	1.1	1.0	0.1	220.5	136.7	83.8
Northern Windowpane	6.4	-	6.4	6.4		6.4			
Southern Windowpane	22.9	13.8	9.1	22.9	13.8	9.1			
Ocean Pout	2.5	-	2.5	2.5		2.5			
Halibut	13.1	12.9	0.2	13.1	12.9	0.2			
Wolffish	-	-	-	-		-			

*Recreational catch of GOM cod and haddock in state waters is attributed to the recreational sub-ACL (see Tables 1 - 5), and so is not included above.
Some stocks were attributed using Massachusetts logbook data
Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
2026-03-19; run date of 2026-01-04

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 7: FY 2024 Northeast Multispecies Other Sub-Component Catch Detail(mt)

Stock	Total	SCALLOP[1]	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB[2]	MACKEREL	MENHADEN	MONKFISH	REDCRAB	RESEARCH[3]	SCUP	SHRIMP	SQUID	SQUID/ WHITING	SURF CLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	52.6	3.1	0.1		1.2	0.1	-	-	0.5		-	0.1	-	0.6	0.2			-	1.6	45.1
GOM Cod	2.4	0.2	-		0	0.3			0.4		0.3	-		-	0.1			-	1.1	-*
GB Haddock	28.3	3	-		3.5*	-	-	-			-	-	0.1	12.0	8.4			-	1.3	
GOM Haddock	1.1	0.2			0*	-			-		0.9								-	-*
GB Yellowtail Flounder	-	-*	-		0									-	0*				-	
SNE Yellowtail Flounder	0.6	-*	0.2		0			-			-	0.1	-	0.2	0				0.1	
CC/GOM Yellowtail Flounder	40.3	26.7	-		3.2	-			-		0.3	-	-	0.1	5.4			0.1	4.5	
American Plaice	12.3	10.6	-		0.4	-		-	-		0.1			0.1	0				1.1	
Witch Flounder	56.8	46.1	1.4		1.1	-	-	0.2		-	-	1.0	-	3.6	0.8			-	2.6	
GB Winter Flounder	7.7	6.3	-		0.2									0.5	0.7				-	
GOM Winter Flounder	17.4	2.4	-		1.4	0.2		-	-		-	-	-	-	6.1			0.2	7.1	0
SNE Winter Flounder	83.0	17.2	10.5		1.6	-	-	0.9			-	8.1	0.1	30.6	4.3			-	8.2	1.5
Redfish	2.0	0			0.5	-	-	-			-		0.2	0.6	0.2			-	0.5	
White Hake	7.6	1	0.1		0	-		-	2.8	-	0.7	0.1	-	1.3	0				1.6	
Pollock	194.6	0	-		0.3	0.4	-	-	0.6		-		-	0.3	0.1			-	0.5	192.4
Northern Windowpane	2.0	-*	0.1		0	-			-		-	-		0.3	0.1			-	1.5	
Southern Windowpane	363.3	-*	79.0		5.9		-	3.7	-		-	59.7	0.5	147.1	16.7	0.5		-	50.2	
Ocean Pout	51.6	1.5	9.6		1.3	-	-	-			-	6.8	0.1	17.4	3.3	0.1		-	11.5	
Halibut	9.8	0.8			0	1.8	-	-	5.7		0.1		-	0.1	0.1			-	1.2	
Wolffish	0.1	0.1			0	-													-	

Values in metric tons of live weight

[1]Based on scallop fishing year April 2023 through March 2024

[2]Landings only. Discard estimates not applicable. Lobster/crab discards were not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

[3]Accounting of research catch varies according to research program, consistent with MSA requirements and research permit policy.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional Fisheries Office
2026-03-19; run date of 2026-01-04

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to

Table 7: FY 2024 Northeast Multispecies Other Sub-Component Catch Detail(mt)

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

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Table 8: FY 2024 Northeast Multispecies Other Sub-Component Landings Detail(mt)

Stock	Total	SCALLOP[1]	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB	MACKEREL	MENHADEN	MONKFISH	REDCRAB	RESEARCH[2]	SCUP	SHRIMP	SQUID	SQUID/ WHITING	SURF CLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	39.7	0	-		0	0.1			0.1		-	-							0.3	39.2
GOM Cod	0.6					0.3					0.3								-	-*
GB Haddock	-	0			0*						-			-						
GOM Haddock	0.9				0*						0.9								-	-*
GB Yellowtail Flounder	-	-*													NA*					
SNE Yellowtail Flounder	-	-*												-						
CC/GOM Yellowtail Flounder	0.4	0.1									0.3								-	
American Plaice	0.2	0			0.1				-		0.1								-	
Witch Flounder	0.9	0.9									-									
GB Winter Flounder	0.1	0.1																		
GOM Winter Flounder	0.3					0.2					-								0.1	0
SNE Winter Flounder	2.6	0	0.4		0.1	-					-	0.2		0.2	0				0.2	1.5
Redfish	0.5				0.1						-		0.2	0.1	0.1					
White Hake	2.3	0	0.1								0.7	0.1		1.2	0				0.2	
Pollock	61.8		-			0.4					-								-	61.4
Northern Windowpane	-	-*																		
Southern Windowpane	0.5	-*			0.5								-						-	
Ocean Pout	-																			
Halibut	2.4	0.1				1.8			0.3		0.1								0.1	
Wolffish	-																			

Values in metric tons of live weight

[1]Based on scallop fishing year April 2023 through March 2024

[2]Accounting of research catch varies according to research program, consistent with MSA requirements and research permit policy.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional Fisheries Office

2026-03-19; run date of 2026-01-04

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to

Table 8: FY 2024 Northeast Multispecies Other Sub-Component Landings Detail(mt)

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

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Table 9: FY 2024 Northeast Multispecies Other Sub-Component Discard Detail(mt)

Stock	Total	SCALLOP[1]	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB[2]	MACKEREL	MENHADEN	MONKFISH	REDCRAB	RESEARCH[3]	SCUP	SHRIMP	SQUID	SQUID/ WHITING	SURF CLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	12.9	3.1	0.1		1.2	-	-	-	0.4		-	0.1	-	0.6	0.2			-	1.3	5.9
GOM Cod	1.8	0.2	-		0	-			0.4		-	-		-	0.1			-	1.1	-*
GB Haddock	28.3	3	-		3.5*	-	-	-			-	-	0.1	12.0	8.4			-	1.3	
GOM Haddock	0.2	0.2			0*	-			-		-								-	-*
GB Yellowtail Flounder	-	-*	-		0									-	0*				-	
SNE Yellowtail Flounder	0.6	-*	0.2		0			-			-	0.1	-	0.2	0				0.1	
CC/GOM Yellowtail Flounder	39.9	26.6	-		3.2	-			-		-	-	-	0.1	5.4			0.1	4.5	
American Plaice	12.1	10.6	-		0.3	-		-						0.1	0				1.1	
Witch Flounder	55.9	45.2	1.4		1.1	-	-	0.2		-	-	1.0	-	3.6	0.8			-	2.6	
GB Winter Flounder	7.6	6.2	-		0.2									0.5	0.7				-	
GOM Winter Flounder	17.1	2.4	-		1.4	-		-	-		-	-	-	-	6.1			0.2	7.0	0
SNE Winter Flounder	80.4	17.2	10.1		1.5	-	-	0.9			-	7.9	0.1	30.4	4.3			-	8.0	0
Redfish	1.5	0			0.4	-	-	-					-	0.5	0.1			-	0.5	
White Hake	5.3	1	-		0	-		-	2.8	-		-	-	0.1	0				1.4	
Pollock	132.8	0			0.3	-	-	-	0.6				-	0.3	0.1			-	0.5	131
Northern Windowpane	2.0	-*	0.1		0	-			-		-	-		0.3	0.1			-	1.5	
Southern Windowpane	362.8	-*	79.0		5.4		-	3.7	-		-	59.7	0.5	147.1	16.7	0.5		-	50.2	
Ocean Pout	51.6	1.5	9.6		1.3	-	-	-			-	6.8	0.1	17.4	3.3	0.1		-	11.5	
Halibut	7.4	0.7			0	-	-	-	5.4				-	0.1	0.1			-	1.1	
Wolffish	0.1	0.1			0	-													-	

Values in metric tons of live weight

[1]Based on scallop fishing year April 2023 through March 2024

[2]Discard estimates not applicable. Lobster/crab discards were not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

[3]Accounting of research catch varies according to research program, consistent with MSA requirements and research permit policy.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional Fisheries Office

2026-03-19; run date of 2026-01-04

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to

Table 9: FY 2024 Northeast Multispecies Other Sub-Component Discard Detail(mt)

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 10: FY 2022-2024 GOM Cod and Haddock Recreational Catch Evaluation (mt)

Stock	Fishing Year	Recreational Catch				
		Catch	Landings	Discard	Recreational sub-ACL	Percent of Catch Limit Taken
		A + B	A	B		
GOM Cod	2022	165.7	23.9	141.8	192	86.2
	2023	170.4	70.7	99.7	192	88.7
	2024	110.3	42.3	68.0	192	57.4
	Average	**148.8**	**45.6**	**103.2**	**192**	**77.4**
GOM Haddock	2022	477.2	398.4	78.8	3,634	13.1
	2023	474.3	330.3	144.0	793	59.8
	2024	1,135.4	678.1	457.3	759	149.6
	Average	**695.6**	**468.9**	**226.7**	**1,729**	**74.2**

Recreational estimates based on Marine Recreational Information Program(MRIP) data.

GOM Cod and GOM Haddock recreational catch estimates are based on the Fishery Effort Survey (FES)

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

These data are the best available to NOAA's National Marine Fisheries Service (NMFS)

Stock**	FY 2024 Available Annual Catch Entitlement (ACE)				Available Carryover from FY 2024 to FY 2025	
	FY 2024 Initial ACE	FY 2023 Carryover	FY 2024 Total ACE	Total ACE as a Percent of Initial ACE	*de minimis*	Maximum
	A	B	C = A + B	C / A	D	E
GB Cod	394	1	395	100.3	0	0
GOM Cod	286	15	301	105.2	2	9
GB Haddock	6,755	18	6,773	100.3	0	0
GOM Haddock	1,478	60	1,538	104.1	21	86
GB Yellowtail Flounder	55.0	NA*	55.0	100.0	NA*	NA*
SNE/MA Yellowtail Flounder	27	0	27	100.0	0	0
CC/GOM Yellowtail Flounder	876	2	878	100.2	2	2
Plaice	5,313	8	5,321	100.2	13	13
Witch Flounder	1,162	2	1,164	100.2	3	3
GB Winter Flounder	1,488	1	1,489	100.1	2	2
GOM Winter Flounder	553	4	557	100.7	5	5
SNE Winter Flounder	408	3	411	100.7	3	3
Redfish	8,226	4	8,230	100.0	5	5
White Hake	1,905	1	1,906	100.1	1	1
Pollock	12,696	6	12,702	100.0	6	6

*Carryover of GB yellowtail flounder is not allowed because this stock is jointly managed with Canada.
**There is no carryover for non-allocated stocks: Northern windowpane flounder, southern windowpane flounder, ocean pout, halibut, and wolffish.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic

Source: NMFS Greater Atlantic Regional Fisheries Office 3/19/2026

Table 12: FY 2024 End of Year Accounting of Transboundary U.S./Canada Stocks - Percentage of U.S. TACs Caught (%)

Stock	% of U.S. TAC	Percent of Each Fishery Component U.S. TAC Caught								
		Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
Eastern GB Cod	6.8	22.8	23.5	0.0						
Eastern GB Haddock	9.3	9.2	9.5	0.0		10.0				
GB Yellowtail Flounder	9.2	2.6	2.7	0.0			45.5	0.0		

Values in percent live weight (%)
'NA' amounts not available due to confidentiality
Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Any value for a non-allocated species may be due to catch of that stock and/or misreporting of species and/or stock area..

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 13: FY 2024 End of Year Accounting of Transboundary U.S./Canada Stocks- U.S. TACs (mt)

Stock	U.S. TAC	Fishery Component TAC								
		Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery[1]	Small-Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
Eastern GB Cod	520	151.0	147.0	4.0						
Eastern GB Haddock	3,100	3,096	3,027	69.0		4				
GB Yellowtail Flounder	71.0	58.3	55.0	3.3			11.0	1.3		

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Table 14: FY 2024 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Catch (mt)

Stock	U.S. Catch	U.S. Catch by Fishery Component								
		Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
Eastern GB Cod	35.3	34.5	34.5	-	-	-	-	-	-	0.8
Eastern GB Haddock	287.4	286.2	286.2	-	-	0.4	-	-	-	0.8
GB Yellowtail Flounder	6.5	1.5	1.5	-	-	-	5.0	-	-	-

Values in metric tons of live weight
'NA' amounts not available due to confidentiality
3/19/2026

Table 15: FY 2024 End of Year Transboundary U.S./Canada Vessels, Trips, DAS Used and Observers

Area[1]	Number of Vessels		Number of Trips		DAS Used		Number of Observed Trips	
	Total	Common Pool	Total	Common Pool	Total	Common Pool	Sector	Common Pool
Eastern U.S./Canada Area	31	0	182	0	1,111	0	118	0
Western U.S./Canada Area	40	0	439	0	2,532	0	280	0
Total	41	0	488	0	3,644	0	314	0

[1]Area based on area fished. Totals don't sum due to multi-area trips
'NA' amounts not available due to confidentiality

Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Any value for a non-allocated species may be due to catch of that stock and/or misreporting of species and/or stock area..

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 16: FY 2024 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Landings (mt)

Stock	**U.S. Landings**	U.S. Catch by Fishery Component								
		Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
Eastern GB Cod	31.7	31.7	31.7	-	-	-	-	-	-	-
Eastern GB Haddock	263.7	263.3	263.3	-	-	0.4	-	-	-	-
GB Yellowtail Flounder	1.3	1.3	1.3	-	-	-	-	-	-	-

Values in metric tons of live weight
'NA' amounts not available due to confidentiality
Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Any value for a non-allocated species may be due to catch of that stock and/or misreporting of species and/or stock area..

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 17: FY 2024 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Discards (mt)

Stock	**U.S. Discards**	U.S. Catch by Fishery Component								
		Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	B	C	D	E	F	G	H
Eastern GB Cod	3.6	2.8	2.8	-	-	-	-	-	-	0.8
Eastern GB Haddock	23.7	22.9	22.9	-	-	-	-	-	-	0.8
GB Yellowtail Flounder	5.2	0.2	0.2	-	-	-	5.0	-	-	-

Values in metric tons of live weight
'NA' amounts not available due to confidentiality
Source: NMFS Greater Atlantic Regional Fisheries Office
3/19/2026

Any value for a non-allocated species may be due to catch of that stock and/or misreporting of species and/or stock area..

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers, at-sea monitors, and electronic monitoring via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930

March 24, 2026

Dr. Catherine O'Keefe, Executive Director
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, Massachusetts 01950

Dear Cate:

Thank you for the New England Fishery Management Council's submission of the Final Environmental Assessment for Amendment 25 (Revised) to the Northeast Multispecies Fishery Management Plan. In preparing to make a decision regarding the amendment, we found an error in the certification language for the National Environmental Policy Act (Section 7.2) that required an editorial correction. We have made that correction in the attached PDF and adjusted the Document History section to document the change. For your reference, we have also attached a Microsoft Word document that contains track changes so that you can easily view the changes made.

Sincerely,

Moira Kelly

Moira Kelly
Assistant Regional Administrator
Sustainable Fisheries Division

From: Geoff White <Geoff.White@ACCSP.org>
Sent: Tuesday, March 24, 2026 12:32 PM
To: Accsp Coordinating Council <coord@accsp.org>; Accsp Operations Committee <ops@accsp.org>; ACCSP Advisory Committee <advisors@accsp.org>
Cc: Accsp Recreational Technical Committee <rectech@accsp.org>; Alex DiJohnson <alex.dijohnson@ACCSP.org>; Julie Simpson <Julie.Simpson@ACCSP.org>
Subject: Review APAIS changes - Results

Coordinating Council, Operations, and Advisory Committee members,

Thank you to those of you who provided questions and comments (summarized below). A special thank you to Ben Dyer (SC) for discussing implications with staff and raising questions to the group. ACCSP and SC met on Friday morning, and in combination with other responses there is agreement to move forward with the PRA request now, add a discussion item to the May Coordinating Council Agenda, and plan to revisit the APAIS changes as an action item at the October 2026 Coordinating Council meeting.

Summary of questions and points of interest
Process:

- ACCSP is the Regional coordinating point for changes to MRIP survey design, and these items were deemed appropriate by ACCSP Recreational Technical Committee for standard coastwide application (finalized at the RTC meeting March 4, 2026)
- PRA is generally done once every 3 years to evaluate potential survey changes, and takes several months for review and response. The PRA request is required for any changes to the APAIS in the next few years.
- The feasibility work can be done at the same time the PRA request is under consideration.
- If given the green light by PRA, the detailed changes can be re-evaluated for implementation after the area-fished feasibility work is completed.

Area Fished:

- Does the 10-minute grid map extend the full coast?
    - YES, note added to figure on attached document
- How many states are participating in 2026 Feasibility?
    - Six (MA, RI, CT, VA, NC, GA)
- What is the value? more granular areas fished for fishery activity, stock unit areas, and ocean use. Within the survey, potential for fewer questions asked when a grid square is entirely 'offshore'.
- Note Atlantic Cod, Amendment 25 was published March 18, 2026 which includes definition of 4 stock areas and proposed management measures of recreational sub-ACL's for stock units in 2026 fishing year.

Amended Area Fished Feasibility Testing for the APAIS

ACTION:

The Recreational Technical Committee recommends approval of the area fished map grid as an Atlantic coastwide change to APAIS data collection, for testing and PRA submission in CY2026 and potential survey implementation in CY2027.

Resources needed:

There are no new funds required to complete the technical feasibility testing. Programming changes in the DIA and data delivery can be completed within existing contracts and staff capabilities at ACCSP.

Plan

In CY26, the RecTech 'Area Fished' subcommittee will test the feasibility of collecting spatial information from recreational anglers by adding a map question to the APAIS questionnaire in the tablet-based Dockside Interceptor Application (DIA). After successful testing, full implementation of the change in APAIS would require Paperwork Reduction Act (PRA) approval, which must be submitted by NOAA in early April 2026. This new question will be asked in combination with the currently asked fishing area and distance from shore questions to reduce burden where possible (eg. answering all 3 questions for offshore areas). The subcommittee will test two different approaches for collecting spatial information, both utilizing a reference map presented to the angler. This reference map will incorporate a 10-minute grid overlay and the anglers will be asked to indicate where they spent the majority of their time fishing, following the design of the current fishing area question. The first method will ask the angler to identify the 10-minute grid square while the second will ask the angler to point to a location within a 10-minute grid square. Two versions are being tested to assess angler responsiveness (e.g., do they refuse to select a specific point of fishing grounds, but a less granular grid is acceptable?) and interviewer feedback about DIA functionality/flow. Additional spatial resolutions (grid sizes) can be incorporated into the DIA for testing throughout the year. Testing of private/rental and charter boat angler responses will be conducted opportunistically at sites and times selected by interviewers and will be outside of the APAIS sample frame.

Proposed Question Text(s) by Approach

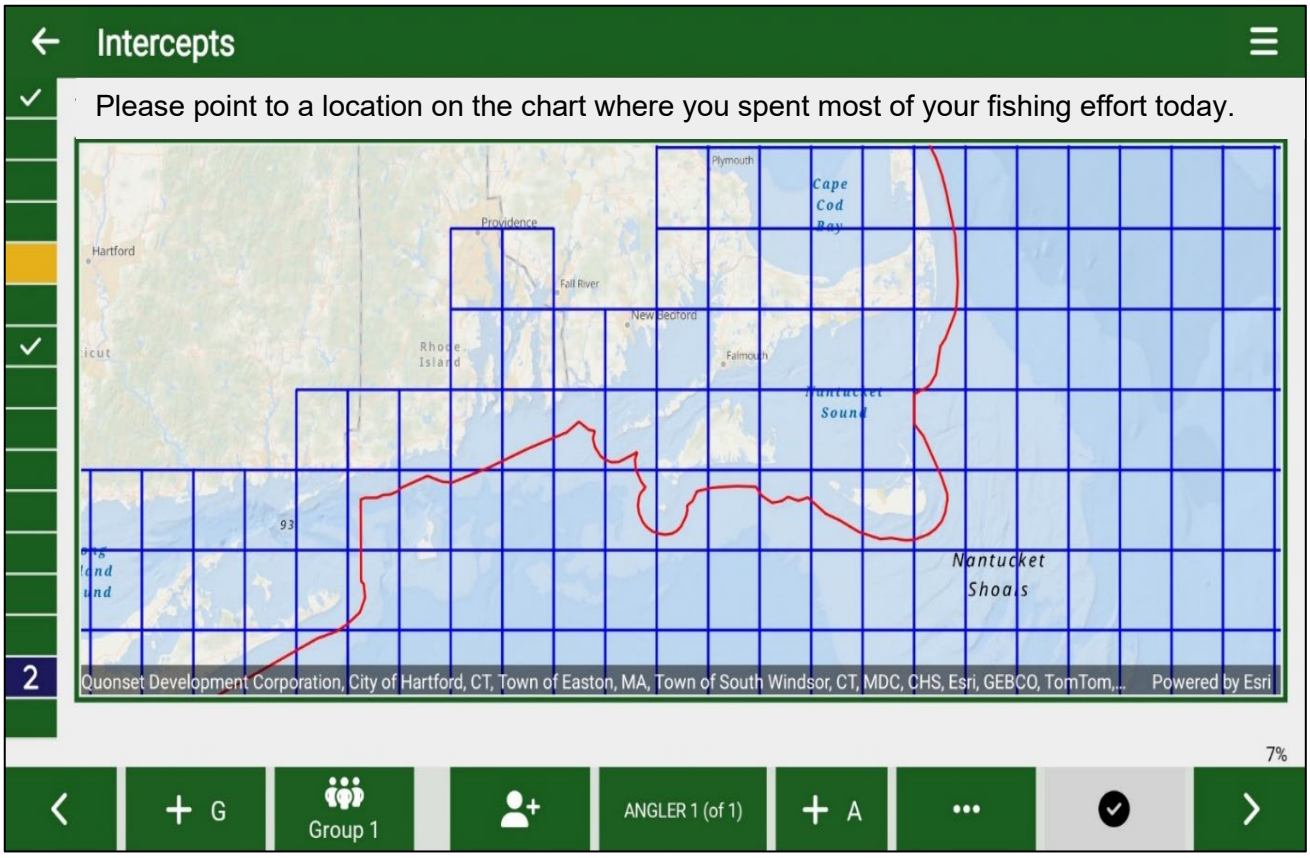
Selection of an entire grid square

1. In which box was most of your fishing effort today?

Selection of a location/area within a grid square

1. Please point to a location on the chart where you spent most of your fishing effort today.
2. Please point to a general area on the chart where you spent most of your fishing effort today.

Sample Map question incorporated into the DIA: (note proposed grid extends Maine to Georgia)



Proposed Data Availability

The angler responses to the area fished by grid-cell will be delivered from ACCSP to NOAA fisheries and included in the NOAA Micro-data download data as additional information that can be used in custom analysis, for example to support fishery stock assessments where multiple regional stocks exist.

The additional definition of areas will not change the MRIP Catch Estimates on the public website queries available through NOAA (Recreational Fisheries Statistics Queries | NOAA Fisheries) or ACCSP data warehouse (Home).

Depredation Amendment for the APAIS

ACTION:

The Recreational Technical Committee recommends approval of the depredator list as an Atlantic coastwide change to APAIS data collection, for PRA submission in CY2026 and survey implementation in CY2027.

Resources needed:

There are no new funds required. Programming changes in the DIA and data delivery can be completed within existing contracts and staff capabilities at ACCSP.

Plan

In response to request from HMS through the ACCSP RecTech Committee, during CY26 a list of depredation-specific disposition codes were added to the APAIS which also allows for the inclusion of detail about the type of depredator (eg. sharks, marine mammals, birds). Currently, the list of depredators exists as an addition to the interview comments; however, the RecTech would like to include the list as a separate item response, requiring Paperwork Reduction Act (PRA) approval for implementation in CY27.

Disposition Codes

Unavailable Catch

- Eaten/plan to eat/depredation damage (A)
- Thrown back dead/plan to throw away depredation damage (B)
- Thrown back alive and undamaged/observed scavenged (C)

Discarded Catch (Headboat Assignment Only)

- Thrown back dead/plan to throw away depredation damage (B)
- Thrown back alive and undamaged/observed scavenged (C)

Available Catch

- Eaten/plan to eat/depredation damage (A)
- Thrown back dead/plan to throw away depredation damage (B)

Proposed Depredator List

- Sharks
- Bony Fish
- Dolphins/porpoises
- Seals/sea lions
- Birds
- Other/unknown

Proposed Data Availability

The angler responses to the depredation dispositions will be delivered from ACCSP to NOAA fisheries and included in the NOAA Micro-data download data as additional information that can be used in custom analysis.

The additional depredation codes will be mapped to existing unobserved catch as dead (B1), and will not change the presentation of MRIP Catch Estimates on the public website queries available through NOAA (Recreational Fisheries Statistics Queries | NOAA Fisheries) or ACCSP data warehouse (Home).

Depredation:

- Data use section in attached document updated for clarity
- Would fish thrown back alive and then scavenged be part of the B1 (dead) or B2(released alive) estimates?
    - B1 (Dead) estimates. MRIP and ACCSP will reconfirm the exact code mappings.
- Would each fish need depredation questions?
    - No, the unobserved catch questions are in groupings by species (e.g. 4 bubblegum fish eaten/plan to eat/depredation damage).

Good day,
Geoff

Geoff White
ACCSP Director
Atlantic States Marine Fisheries Commission
1050 North Highland Street, Suite 200-AN
Arlington, VA 22201
W: 703-842-0785

From: Lucinda Nieuwkerk <cammiekendrick@icloud.com>
Sent: Wednesday, March 25, 2026 2:02 PM
To: comments <comments@nefmc.org>
Subject: Comment for the Joint Ground Fish Committee and Advisory Panel

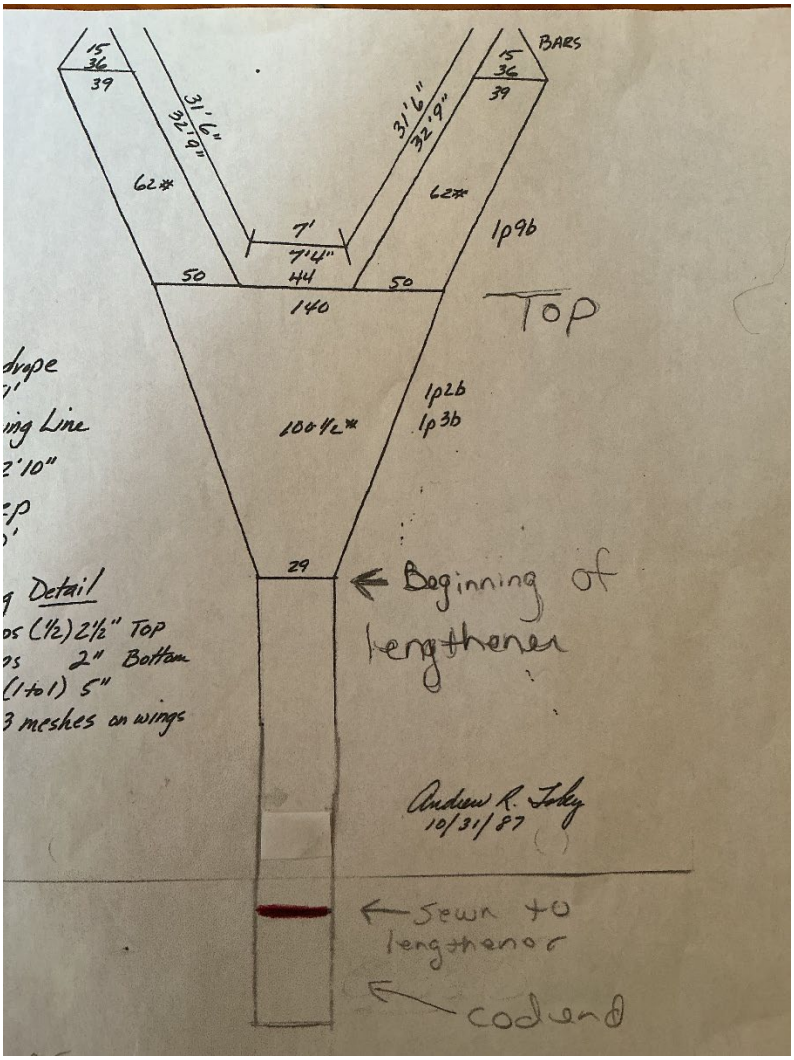
Dear Council Chair Daniel Salerno,

This is a picture of a vessel doing a haulback for redfish. The pink stuff in the extension/lengthener is the red fish. Behind the red fish is the codend. The codend is completely empty. Knoep and I call this a 'decoy' codend. The crew on the vessel weave a heavy piece of twine between the extension and the codend so it pinches off the 5 1/2 inch mesh of the codend. This tells us that the mesh size in the lengthener is probably a smaller mesh size than the mesh in the codend. As the crew hauls back the net and it gets closer to the net reel, they jerk the net reel, and all the red fish dump into the 'decoy' codend, and the bag comes aboard. Anybody on deck, like an observer, would never know that the red fish were actually caught with the extension.

This is a common practice with the red fish boats.

This photo was taken by a private citizen from an airplane, not by any Enforcement agency.

The photo below is a ground fish net plan. On every groundfish net, the regulation of the mesh size of the body of the net is 6 inches. On every lengthener of a groundfish net the regulation of the mesh size is 6 inches.



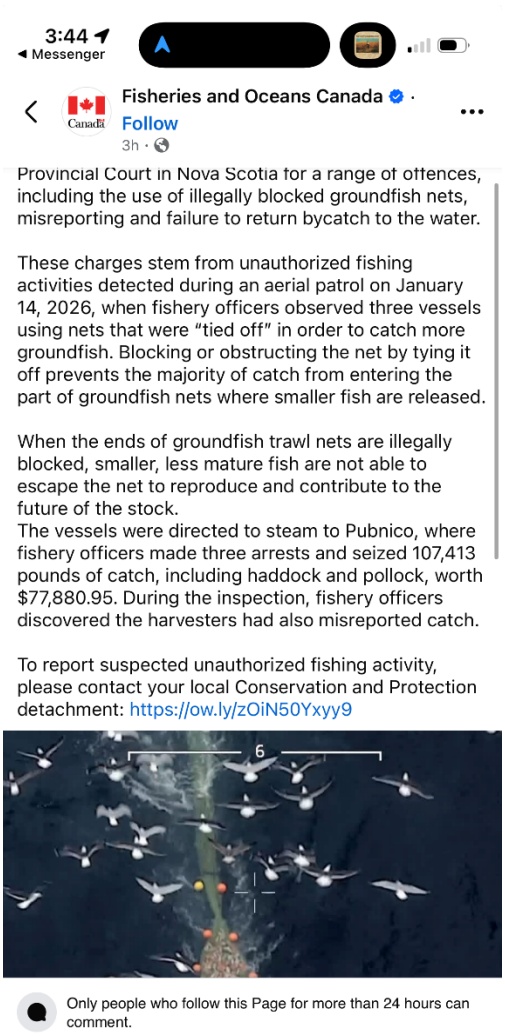
On every groundfish net the regulation mesh size for the codend is 6 1/2 inches, except for the Special Exemption Redfish Program. These participants can use a 5 1/2 inch mesh for the codend only during Part B of the red fish trip.

The photo below is a close-up of the mesh size used in this lengthener/extension of a red fish net. It clearly shows the mesh size is 4 1/2 inches. It is not 6 inches. Six inches is the legal requirement for any lengthener on a groundfish net.

Normally, the extension is a tube of single ply mesh all the way to the codend. The extension is sewn to the codend.
Normally the codend has three layers of chafing gear on the bottom side of it because this is the part of the net that is dragged across the bottom of the ocean. Without the chafing gear, the net would tear and the fish would escape.

The photo below is actually a picture of the lengthener above, except it is the backside of the lengthener. Lengtheners normally don't have any chafing gear because the codend is the last part of the net and the cod end is the one being dragged along the bottom.
This net was being pinched off where the lengthener meets the codend, so the cod end had no fish in it (like the top picture above). If you pinch off the codend then you have to put chafing gear on the bottom of the lengthener. This would be a red flag for enforcement.

The photo below is similar to the first picture, of the green vessel, hauling back the net. Except, this is a Canadian vessel, doing a haul back. They were recently caught pinching off the bag, so it could retain the smaller fish, which resulted in violations.



New England fisherman are not the only ones pinching off the extension.

The Red Fish Special Exemption Program has a Part A and a Part B for the redfish exemption trip.

Part A they are required to catch groundfish and flounders with a 6.5" codend and a 6" extension, which is a normal fishing trip for any ground fish vessel.
When a red fish vessel wants to catch redfish in the special redfish exemption area, they call in with a VMS and they declare a TSH (trip start hail) which means they are going to start Part B of the trip. Now they can use the 5 1/2 inch codend, but they still have to use a 6 inch extension.

The Plan Development Team (PDT) had a report for the red fish review via a Zoom meeting last week that we watched.
They showed data of 'length frequencies' of the size fish that the red fish boats were catching for Part A of the trip and Part B of the trip. What we were thinking is that we would see less discards of small fish and that the fish that were landed would have longer 'frequency lengths', I.e. larger fish, because in Part A of the trip they used the larger mesh.
We thought, for Part B of the trip, the length frequencies would be smaller and have more discards,

because there would be sub-legal fish by using 5.5" mesh. The assumption would be that the landed fish would be smaller because the smaller mash would retain smaller fish.
The PDT had 'length frequency' data for all ground fish, and flat fish. What Knoep and I saw, was that the data showed that the landed catch was the same for the large mesh portion of the trip and the small mesh portion of the trip. The discards were also the same for the large mesh portion of the trip and the small mesh portion of the trip. It would appear that the redfish boats were using the same mesh size for Part A and Part B.

We have never heard of the Federal Enforcement Agency checking the size of the mesh in the extension on any vessel.
Our biggest concern for the Special Redfish Exemption Program is that Federal Enforcement does not board vessels and measure the extension.
We would like to know from Federal Enforcement, if there's any documentation or reports that can verify that they have checked the mesh size of the extensions on the boats that have a Special Redfish Exemption permit.
Enforcement has to be part of all fishery activities. Without enforcement, captains can choose whatever mesh size they want to use. It's the honor system.

This is the only multi-mesh fishery in New England. It is extraordinarily complicated for enforcement
officers to enforce, which makes it really easy for fishermen to cheat.
If National Marine Fisheries Service is not capable of enforcing the special redfish exemption regulations then we think this program should be suspended, until they can find a way to enforce the mesh size.

Sincerely,
Knoep and Lucinda Nieuwkerk
Owner operator, commercial fisherman

PORTLAND FISH EXCHANGE, INC.

All-display fresh fish auction.

6 Portland Fish Pier
Portland, Maine 04101
Toll Free 1-866-633-4741
Telephone 207-773 - 0017
Fax 207-871 - 8013
www.pfex.org

Dear Council Chair Daniel Salerno,

My name is Robert Vanmeter, and I am the General Manager of the Portland Fish Exchange. In recent conversations with fishermen landing at the Exchange, many have expressed significant concerns about the Redfish Exemption Program—particularly its perceived impact on pollock landings in Maine. A primary issue raised is the enforcement of mesh-size requirements at the extension and cod ends, which are essential for allowing smaller fish to escape, reproduce, and contribute to long-term stock health. These fishermen believe that smaller mesh sizes are resulting in increased landings of small, low-value fish, which is negatively impacting pollock landings, stock health, and market conditions in Maine.

The Portland Fish Exchange stands firmly with our fleet, whose work is critical to sustaining our working waterfront. Fishermen already face constant pressures on their livelihoods, and many are concerned that current measures may influence the number of fish that survive to marketable size. Smaller fish have limited commercial value at the Exchange, and our fleet depends on landings of larger groundfish, which bring higher market value and help sustain both fishing operations and the financial stability of the Exchange.

Here in Portland, we continue to work to maintain a small-boat groundfish fleet. Mesh-size limits are broadly recognized as necessary to support that fleet and protect future stocks. When a regulation provides short-term or modest benefits to a narrow subset of vessels—while also creating enforcement challenges and raising concerns about potential impacts on the broader groundfish fishery—it is understandable that fishermen request closer review. On behalf of those landing at the Portland Fish Exchange, who report reduced pollock landings while complying with larger mesh requirements, we ask the Council to evaluate how the redfish mesh-size exemption aligns with the broader needs and conditions of the fishery.

Thank you for your consideration of our groundfish fleet.

Sincerely,

Robert Vanmeter
Portland Fish Exchange

-----Original Message-----
From: hugh bowen <bowenh1974@hotmail.com>
Sent: Tuesday, March 31, 2026 8:19 AM
To: comments <comments@nefmc.org>
Subject: Redfish exemption program

I realize the deadline for comments on the RF exemption program was on 3/26/26, but I hope this can be read for consideration regardless.

After analyzing data provided for the meeting today (3/31/26), several things are apparent: the program is only benefiting vessels >75', and the program has a relatively high discard rate of small pollock. This coincides over time, with higher catch rates of pollock by larger boats while catch for vessels <50' has only diminished. This is especially concerning when you look at the small boat gillnet fleet participation and catch of pollock, which has shrunk over this period of time, and the fact that I am attempting to diversify my fishing business and participate in this small boat fishery.

In my opinion, the traditional, smaller boat, owner /operator fishing fleet is the heart and soul of New England fishing, and that traditional way of life is disappearing to be replaced by large boats with hired captain and crew, many on board only as a means to an end rather than pursuing a way of life. There may not be a direct correlation between the redfish exemption program and this occurrence, but there seems to be some. In closing, the red fish exemption program seems to be favoring larger vessels, creating an unfair advantage, and in violation of the Magnuson Steven's act.

Respectfully,
Hugh Bowen

From: Katherine Papacostas - NOAA Federal <katherine.papacostas@noaa.gov>
Sent: Tuesday, March 31, 2026 1:17 PM
Subject: Follow-up on the Recreational Angler Partnership Improvement Directive (RAPID)

Colleagues and Partners,

I want to follow up on some key points regarding the Recreational Angler Partnership Improvement Directive (RAPID) highlighted during remarks made by Dr. Neil Jacobs, NOAA Administrator, at the Miami Boat Show Feb. 11.

During his speech, Dr. Jacobs announced this priority initiative to transform how recreational fishing data is collected in the United States. RAPID is intended to transform our national data collection through three core pillars:

- RAPID Active Co-Design: The agency is moving beyond traditional consultation to a shared-governance model. Over the next year, we will conduct a series of RAPID workshops to design the new partnership alongside the Commissions as well as your agencies.
- Survey Investment: The agency is backing this transition with an additional $2.5 million to increase sampling for the NOAA Fisheries Access Point Angler Intercept Survey—the first major influx of recreational data funding since 2020.
- Improved Fishing Effort Survey: 2026 will see the implementation of the optimized FES survey design to improve our recreational fishing effort estimates.

Recreational Angler Partnership Improvement Directive Active Co-Design

RAPID enhances, re-invigorates, and ultimately replaces our former partnership re-envisioning effort. RAPID serves as the transformation stage to increase data collection capabilities and strengthen our partnerships to modernize our recreational data collection enterprise. With enthusiasm for continued progress, please find attached the framework report from our initial re-envisioning effort. We recognize, though it is a snapshot in time, that this compilation of regional feedback is still critical and relevant to share and will help serve as a foundational building block for discussions to occur at upcoming regional workshops. We are currently targeting summer and fall 2026 for these sessions, which will serve as the primary forum for devising our revised partnership model. RAPID is designed to utilize state-led data innovations. The agency's goal is to build a system that is regionally flexible while remaining nationally consistent.

Tim Sartwell (tim.sartwell@noaa.gov) will serve as the primary point of contact for the RAPID initiative. Please feel free to reach out to him with questions and input regarding the transition or upcoming regional workshops.

Survey Investment

We are planning to increase funding in 2026 for the NOAA Fisheries Access Point Angler Intercept Survey (in-person catch survey) and the mail Fishing Effort Survey. The majority of funding will go to states that conduct APAIS to enhance existing survey sampling to improve the precision of estimates. We will be in further discussions with our partners on timing

considerations for this funding as well as how to best allocate the funding to states contingent upon partner capacity to support increased dockside sampling as well as needs and anticipated benefits. We understand and appreciate the interest by all partners nationwide in strengthening regional recreational data, and we will continue to work with you to identify areas of opportunity. This includes elevating priorities outlined by partners in existing regional implementation plans, while also further refining and expanding upon the feedback provided through our previous partnership listening sessions.

Improved Fishing Effort Survey

In January, we began implementing the improved Fishing Effort Survey according to existing regional survey administration schedules. The new FES should increase the accuracy of recreational effort estimates by mitigating potential overreporting of fishing trips. This follows extensive testing and a favorable independent peer review that indicates the new design offers improved utility for stock assessments and management decisions. This summer, we will publish the calibrated historical estimates, which have been rescaled to the improved design using the updated peer-reviewed calibration model. As these calibrated estimates are published, the agency will continue to coordinate closely with all relevant Councils and Commissions to effectively manage the transition. We recognize the critical importance of having the updated data available for upcoming management decisions and stock assessment schedules. Our team is working diligently to complete this calibration work as quickly as possible. We will continue to keep partners informed of our progress and stand ready to provide statistical guidance and support to integrate these results into stock assessment and management processes.

All the best,
Katherine

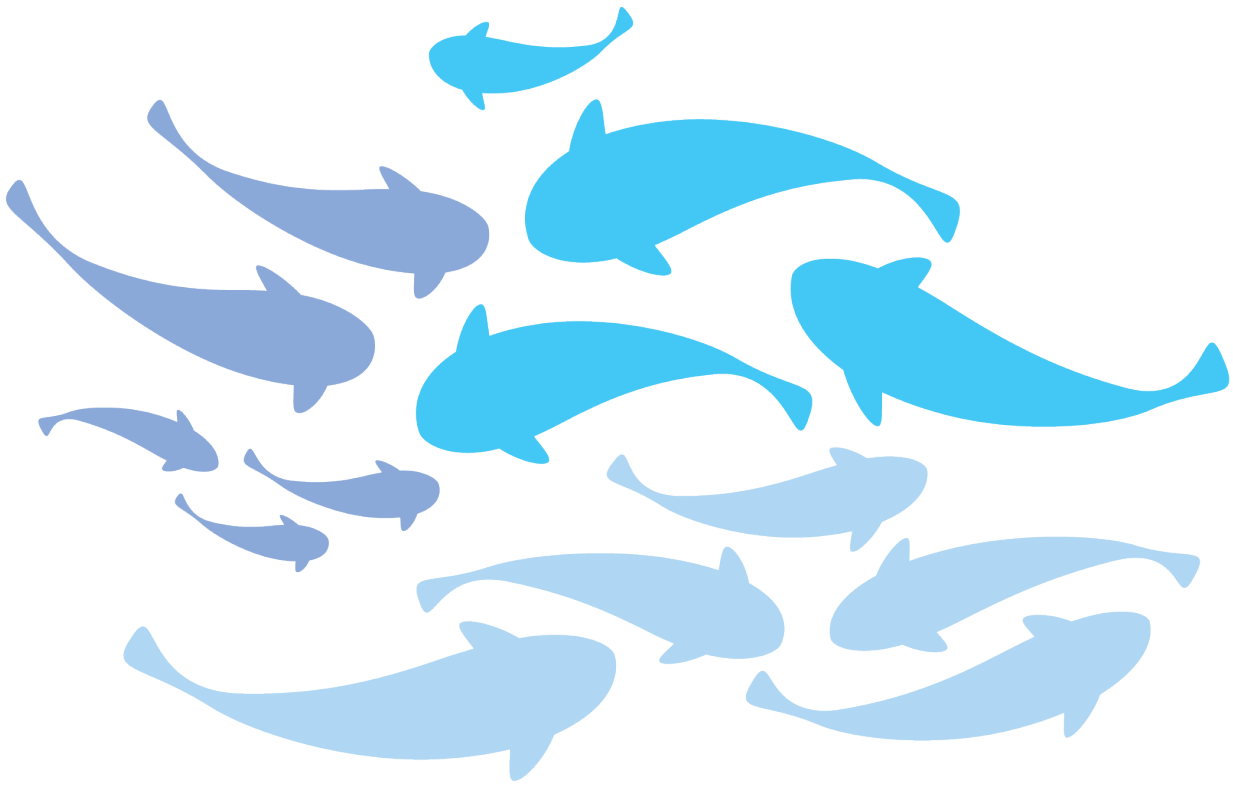
--
Katherine Papacostas, PhD
Supervisory Fish Biologist, Office of Science and Technology
NOAA Fisheries | U.S. Department of Commerce
Office: 301-427-8210
www.fisheries.noaa.gov

NOAA FISHERIES

Re-envisioning the Recreational Fishing Data Collection Partnership

Framework Report

April 24, 2025



Contents

Introduction

Improved recreational fishing data are critical for sustainable fisheries management and for supporting optimal fishing opportunities that benefit coastal communities.

This report presents a comprehensive overview of national cross-cutting themes, priorities, current and potential actions, and regional considerations related to recreational fishing data collection needs and improvements. The foundational content is based on input received through a series of nationwide listening sessions conducted in 2024 and early 2025. Participants in these sessions included:

- NOAA Fisheries recreational data (recreational fishing catch and effort estimates) producers, data users (NOAA Fisheries and partner stock assessors and fisheries managers), and communicators;
- State and regional partners, including Regional Fishery Management Councils ("councils" hereafter) and Interstate Marine Fisheries Commissions ("commissions" hereafter); and
- Members of the fishing community.

To ensure accuracy and completeness, a draft version of this report was circulated to partners from the aforementioned groups in February 2025. Feedback included several hundred comments and suggested edits from partners representing all regions within the partnership, including input on prioritization of potential improvements. This final version reflects both the insights gathered during the listening sessions and the written feedback received during the draft report review process.

This report is intended to guide improvements to the federal-regional-state recreational fishing data collection partnership known as the Marine Recreational Information Program (MRIP) and to be used by the partnership to determine practical pathways to tackle specific national and regional recreational fishing data challenges and opportunities, and to designate partner roles and responsibilities to achieve these agreed-upon goals.

Collaboration across all partners will be essential to the long-term success of this re-envisioning initiative.

To assist with prioritizing and assessing the feasibility of proposed actions, NOAA Fisheries staff identified the following considerations and criteria:

- **Clearly defined partner roles and responsibilities in accomplishing the action,** i.e., NOAA Fisheries headquarters offices; NOAA Fisheries regional offices; NOAA Fisheries science centers; states; commissions; Fisheries Information Networks (FINs); councils; and the recreational fishing community.
- **Identification of expert staff** from the agency and partners to lead or support specific actions.
- **Anticipated timeline** for implementing potential actions.
- **Level of complexity** of each proposed action.
- **Expected outcomes** and the extent to which each action advances the corresponding priority theme.

- **Anticipated resource needs,** including explicit staffing and funding requirements for start-up and ongoing implementation.
- **Ongoing or related efforts**, such as existing teams already engaged in similar work.
- **Potential barriers or conflicts** and strategies to address or overcome them.

It is important to note that some of the priorities and/or potential actions outlined in this report extend beyond MRIP's traditional scope, and, in some cases, even beyond the boundaries of recreational data collection itself. These broader issues, raised by partners, underscore the deeply interconnected nature of recreational data and fisheries management. As such, realizing the full spectrum of desired improvements will require interdisciplinary collaboration—not only within the recreational data collection partnership, but also through aligned efforts across complementary management frameworks and programs.

Current Purpose and Scope of the Marine Recreational Information Program

To effectively re-envision the partnership, it is essential to first establish a shared understanding of how it currently operates. The Marine Recreational Information Program (MRIP) is the state-regional-federal partnership that develops, implements, and continually improves a national network of recreational and non-commercial fishing surveys to estimate total recreational catch. These estimates are combined with commercial catch and biological data to assess the health of fish stocks and to inform management decisions in support of sustainable fisheries. These data are essential for NOAA Fisheries to fulfill mandates under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) and are in alignment with the Modernizing Recreational Fisheries Management Act of 2018 and the Atlantic Coastal Fisheries Cooperative Management Act.

Each partner within MRIP plays a key role in producing recreational fishing data, whether that role is in data collection, program priority planning, or improvement research. NOAA Fisheries' Office of Science and Technology (OST) plays an organizational role in implementing national recreational fishing survey and data standards[1]; administering the National Saltwater Angler Registry; implementing general catch and effort surveys in some regions; and providing technical and funding support to commissions and states for recreational fishing survey operations. Regional partners (i.e., commissions, councils, states, and NOAA Fisheries' regional offices and science centers) identify data collection priorities. In all regions, states and commissions manage survey operations, administer angler intercept surveys, and apply quality assurance and quality control procedures. As required by Sec. 202 of the Modernizing Recreational Fisheries Management Act, NOAA Fisheries completed the existing MRIP Plan for State Partnerships in 2021. The plan describes the existing state-federal data collection program partnerships and outlines recommendations for improving them. An update on the plan is produced and submitted to Congress every two years.

[1] In all regions regardless of partner roles in data collection, NOAA Fisheries' national recreational fishing survey and data standards are intended to promote consistency, comparability, and data quality across different survey programs and to facilitate the shared use of the estimates these programs produce.

Region-by-region, specific NOAA Fisheries and partner roles in recreational fishing data collection vary based on regional preferences, priorities, and expertise.

- **Along the Atlantic and Gulf of America coasts from Maine to Mississippi[2] and in Hawai'i:** NOAA Fisheries OST designs and administers general catch and effort surveys to private recreational anglers and uses these data to estimate total recreational catch (landings and releases) for a multitude of state and federally managed species. For-hire and large pelagics surveys are also administered along portions of the Atlantic Coast by NOAA Fisheries OST, Office of Sustainable Fisheries/Atlantic Highly Migratory Species Division, and several regional offices and science centers. In these regions, the Atlantic and Gulf commissions, FINs, and state partners as well as contractors coordinate survey operations and conduct on-site data collection, and participate in quality assurance and quality control procedures. State and regional partners further participate in preliminary estimate review. NOAA Fisheries OST, FINs, commissions and some states also play a key role in data warehousing.
- **Along the Gulf of America and Pacific Coasts, Alaska[3] and in the Pacific Island territories:** NOAA Fisheries OST provides technical support and funding where available for regional and state-administered surveys of private recreational and for-hire anglers, including facilitating peer reviews to certify surveys to assure they have statistically valid sample designs and estimation methods. NOAA Fisheries-certified surveys are prioritized to receive available program funding for operation. In these regions, states take on the role of producing and warehousing catch and effort estimates for a multitude of state and federally managed species. The Gulf Fisheries Information Network (GulfFIN) and the Pacific Coast Recreational Fisheries Information Network (Pacific RecFIN) both also play a key role in coordinating with the states and in regional data warehousing.

Nationally, MRIP is organized into teams that oversee, evaluate, and facilitate various aspects of the program, such as programmatic priorities, survey operations and logistics, survey and estimation methodology research, transition to revised or new surveys, and communications and outreach. See Appendix A for further information on the responsibilities of various teams within MRIP.

Re-envisioning MRIP

In late 2023, the NOAA Fisheries Assistant Administrator at that time directed MRIP to begin collaboratively developing a new long-term partnership vision for recreational fishing data collection. The intent of this effort is to strengthen regional partnerships; improve survey and resulting data accuracy, precision, and credibility; better meet regional data needs; and increase transparency and

[2] Note: While still operating within the recreational data collection partnership framework, Alabama and Mississippi, with support from NOAA Fisheries, are in the process of transitioning to general state survey programs to replace the NOAA Fisheries Office of Science and Technology designs, estimated to occur by 2026. Their designs are being modeled after Louisiana's recreational saltwater landings data collection program (LA Creel) for consistency and comparability of state-administered programs in the region. LA Creel is NOAA Fisheries certified, meaning it has been peer reviewed and found to have a statistically valid design for producing catch estimates.

[3] In Alaska, all recreational saltwater fishing is managed by the Alaska Department of Fish and Game with the exception of halibut, which falls under a U.S.-Canada convention managed by the International Pacific Halibut Commission (IPHC), supplemented by domestic regulations from NOAA Fisheries. ADFG provides nearly all of the data used by NOAA Fisheries and works jointly with the agency to establish regional priorities.

collaboration. The agency initiated the re-envisioning process in early 2024 with a working goal of a state-federal recreational fishing data collection system that better identifies regional data priorities and leverages partner expertise and resources to obtain the best data possible to inform sustainable, adaptive fisheries management.

This process is aligned with a core agency mandate that productive, sustainable, economically viable fisheries are driven by accurate and robust scientific information to inform management. Congress has emphasized that "the collection of reliable data is essential to the effective conservation, management, and scientific understanding of the fishery resources of the United States" (16 U.S.C. § 1801(a)(8)). Further, federal fisheries management must be based on "the best scientific information available" and involve "interested and affected states and citizens," while leveraging federal, state, and academic capabilities (16 U.S.C. § 1801(c)(3)).

Prior to this process, partners and the recreational fishing community raised specific areas of concern regarding recreational data and its uses.

- Along the **Atlantic and Gulf coasts**, there are concerns over both the level of precision/uncertainty in MRIP estimates at small spatial and temporal scales, particularly when data are used for in-season management in the Southeast and also accuracy/bias for the fishing effort estimates that originate from the NOAA Fisheries-administered Fishing Effort Survey. There is also particular concern about uncertainty in recreational released catch data (mostly self-reported) as well as uncertainty in the separately estimated (or assumed) release mortality rates. While discard mortality rates are usually addressed in assessments or independent research, data on catch depth or gear may inform those efforts. In the Gulf states region, there are additional concerns related to comparability and calibration between MRIP estimates and state survey estimates.
- On the **West Coast**, concerns have been raised over lack of available microdata (individual survey responses) and the absence of precision estimates – key indicators of uncertainty and estimate quality – from some state survey programs.
- In **Alaska**, there are concerns over respondent recall bias in state survey data for the private/unguided recreational fishing sector, declining response rates, and the long lag time for estimates to be generated.
- **Hawai'i and the Pacific Island territories** have low survey sampling rates and low sampling productivity (i.e., low numbers of completed surveys) in monitoring their unique fisheries (e.g., majority subsistence and other non-commercial fishing activity).
- The **Caribbean** lacks a consistent data collection system for monitoring, although collaborative progress is being made by NOAA Fisheries Southeast Fisheries Science Center, Puerto Rico, and the U.S. Virgin Islands in designing and administering pilot data collection projects.
- Other challenges previously identified by partners across **all regions** include limited biological data; concerns regarding the need to balance benefits of continual survey improvements with the potential disruptions updated survey implementation may cause to stock assessment and management actions; the need to better clarify partnership roles and responsibilities; and the need to improve communications across the partnership, both internally (among NOAA Fisheries headquarters offices, regional offices, and science centers) and externally (among commissions, states, councils, and the fishing public).

In April and May 2024, four initial virtual briefings were held with approximately 150 key partners from commissions, councils, and states and territories across the nation. These briefings introduced the re-envisioning process and garnered initial feedback. In the second half of 2024 and into 2025, NOAA Fisheries OST staff:

- Held discussions with representatives from every NOAA Fisheries regional office and science center as well as several headquarters offices, and;
- Participated in more than 15 public and partner engagements, including listening sessions during several council meetings and recreational fisheries roundtable events, to obtain feedback and further inform necessary re-envisioning focal points.

Based on the contents of this report, the MRIP partnership plans to organize topical working groups leveraging existing recreational data partnership teams or formulating new teams to tackle specific action items, as well as to host regional workshops. Our aim is to explore ways to work more effectively with state and regional partners to achieve our shared goals, not to place additional burdens on them.

The ultimate goal is to transition to a reinvigorated partnership, with a revitalized organizational structure and improved processes. The timeline to develop and implement regional action plans from this framework report is contingent upon partnership capacity as well as funding and personnel resource availability.

The following section highlights specific national themes and regional considerations compiled through partner input.

Areas of Sustainment

Partners across the regions expressed their appreciation for the program in several areas. They value the technical expertise and guidance provided by NOAA Fisheries as well as the collaboration and work carried out within several of the existing interagency team structures, including the regional implementation and transition teams. Some partners highlighted the statistical robustness of the MRIP general surveys and their ability to show trends in fishing activity over time, as well as the program's continuous efforts to rigorously test and evaluate MRIP surveys and methodology and make improvements when warranted to improve data quality. Other partners noted that state involvement in on-the-ground survey implementation has been beneficial and is helpful in building rapport with the recreational fishing community. Partners also felt transparency has been improving across the partnership, and that NOAA Fisheries-facilitated opportunities to share lessons learned within and across regions have been valuable.

Cross-Cutting National Areas for Improvement

The following areas were highlighted by partners across all regions as areas for cross-cutting improvement of the program. The themes appear in order of national priority, as informed via aggregated regional partner priority rankings compiled during the final review period of this report.

The top national priorities that emerged include the need to produce more consistent, timely, accurate, and precise catch and effort estimates to better meet regional needs; improve biological data collection; determine suitable methods to effectively integrate self-reported app data into management and the stock assessment process; ensure consistent, centralized, accessible regional data warehousing and adherence to national and regional data standards; support adaptive management frameworks that acknowledge data limitations and uncertainty; and improve communication and coordination between recreational fishing data producers and recreational fishing data users.

As part of this prioritized list, NOAA Fisheries staff and partners identified current actions as well as other areas that could be explored to address these priorities.

Regionally-specific actions are highlighted where relevant. Additionally, regionally specific priorities are highlighted in the Regional Priorities and Considerations section.

1. Produce more consistent, timely, accurate, and precise catch (landings and discards) and effort estimates to better meet regional data needs

Actions currently underway

Cross-Regional: Atlantic, Gulf of America, and Hawai‘i

- NOAA Fisheries OST conducted a study of its Fishing Effort Survey in 2024 to reduce reporting error and improve fishing effort data quality. The study also evaluated a shift to increased monthly sampling, so there could be flexibility to potentially produce monthly catch estimates in the future. The intent, pending favorable peer review, is to transition to a revised design in 2026.
- NOAA Fisheries OST is conducting an initial feasibility study in 2024-2025 evaluating the utility of commercially available mobility (cell phone) data for improving recreational effort estimates. Potential applications include evaluating non-sampling errors in existing surveys and fishing pressure at fishing access sites.
- NOAA Fisheries OST and Southeast Fisheries Science Center have developed a simple moving average wave-level catch rate estimation method as one tool (pending peer review) for MRIP data users nationwide to employ to improve the precision of some highly imprecise estimates. The goal of the work is to identify an interim methodology that can be implemented by a broad cross-section of data users that: provides gains in estimate precision; provides a consistent

framework across regions, species, and fishing modes for treatment of highly imprecise estimates; and retains fishing activity trend information in catch time series.

Atlantic

- Through the Modern Fish Act, NOAA Fisheries OST and the Atlantic Coastal Cooperative Statistics Program (ACCSP) have increased Access Point Angler Intercept Survey (APAIS) dockside sampling levels by 30% since 2001. Partners continue to collaboratively adjust sample survey allocations by month and site groups (for-hire, private boat, shore) to provide adequate coverage of active fisheries.
- ACCSP is developing for-hire data collection methods for certification to more fully utilize electronic logbooks for both effort and catch statistics.
- ACCSP is piloting a discard catch card project (supplemental to APAIS) from Maine to Georgia from May through November 2025. Results will be compared with discard data collected via the APAIS dockside interviews to explore differential reporting errors between the two data collection methods.
- NOAA Fisheries, ACCSP, and the Atlantic states have worked together to establish a standardized process for regional and state partner review of preliminary catch and effort estimates. As a component of this review process, NOAA Fisheries is implementing weight trimming procedures, where appropriate, to mitigate the influence of outlier catch observations or extreme weights, flagged by partners, on the magnitude of the MRIP catch estimates.
- **New England and Mid-Atlantic:** NOAA Fisheries, the Atlantic states, and ACCSP, have spent several years developing and testing an improved design for the Large Pelagics Intercept Survey, which gathers catch and effort information from vessels targeting large pelagic or highly migratory species in Maine through Virginia. When implemented (timeline TBD based on resource availability), the redesigned survey should produce more statistically valid and robust catch estimates for large pelagic species while maintaining or potentially enhancing survey sampling productivity.

Gulf of America

- The Gulf States Marine Fisheries Commission hosted workshops in summer 2024 through NOAA Fisheries Inflation Reduction Act (IRA) funding to investigate novel approaches for further consideration to estimate and/or validate fishing effort and to improve discard data. Requests for proposals were due in February 2025. **Note: Findings from these workshops and projects will likely be applicable to other regions**.
- Through the Modern Fish Act, NOAA Fisheries OST and the Gulf Fisheries Information Network have increased APAIS sampling levels by 30% since 2001. Partners continue to collaboratively adjust sample survey allocations by month and site groups (for-hire, private boat, shore) to provide adequate and representative coverage of active fisheries.
- NOAA Fisheries, GulfFIN, and the Gulf states have worked together to establish a standardized process for regional and state partner review of preliminary catch and effort estimates. As a component of this review process, NOAA Fisheries is implementing weight trimming procedures, where appropriate, to mitigate the influence of outlier catch observations or extreme weights, flagged by partners, on the magnitude of the MRIP catch estimates.

Caribbean

- The Territories of Puerto Rico and the U.S. Virgin Islands, supported by the Southeast Fisheries Science Center, are piloting port sampling methods to obtain both commercial and non-commercial catch data.

West Coast and Alaska

- State partners continue to work toward NOAA Fisheries certification of state surveys on the West Coast and in Alaska to produce more timely and precise estimates for certain species.
    - The Alaska Department of Fish and Game is working to modernize and address recall bias in their Alaska Statewide Harvest Survey, in consultation with NOAA Fisheries and independent expert statisticians. In addition, the Department is reinstituting the eLogbook program for charter guides statewide in saltwater in 2025.
    - The Oregon Department of Fish and Wildlife is working to develop statistically appropriate survey-based point and variance estimates to meet the terms of NOAA Fisheries certification for their Ocean Recreational Boat Survey.
    - The Oregon Department of Fish and Wildlife is working toward full deployment of the Video Boat Council technology in all Oregon ports except Pacific City.
    - The California Department of Fish and Wildlife is working to address peer review comments and recommendations to meet certification requirements for their Commercial Passenger Fishing Vessels Survey Program.

West Pacific

- Hawai‘i Department of Land and Natural Resources continues to work toward NOAA Fisheries certification of state data collection methods to produce more timely and precise estimates for certain species. Specifically, Hawai‘i Division of Aquatic Resources is developing a certification package for a roving creel survey to better capture shore fishing activity.
- The NOAA Fisheries Pacific Islands Fisheries Science Center is working on gathering information to provide to NOAA Fisheries OST for certification of territorial creel surveys.

Additional suggested and potential courses of action for the partnership

National

- Seek increased state and federal resources[4] to maintain/enhance survey sampling levels and operation for all ongoing recreational fishing surveys. Emphasize the importance of increased resources to improve and augment existing survey programs.
    - **Contiguous coastal states, particularly on the Atlantic Coast**, could consider allotting budgetary resources similar to neighboring states to improve regional recreational data

[4] Note that partners will need to be specific in terms of funding needs and what specifically can be gained or lost with and without additional funding.

collection[5]. Consideration could be given to using the funds from state licensing programs to augment federal funding for collaborative recreational data collection.

- Consider re-focusing program priority and sampling allocation to fisheries with large recreational components, and/or fisheries that are most important regionally[6] and/or federally managed species, recognizing this may result in some stocks having no catch observations or biological samples, other species will lose precision of estimates, and fisheries priorities may change over time.
- In regions that currently lack state data collection programs where joint data collection from state and federal fishing trips is not desired, chart a plan for states to collect in-shore recreational fishing data (Note: this would require supplemental survey programs).
- Improve survey sampling for rare-event species (e.g., offshore species) and/or evaluate the need to establish specialized surveys to better address the rare-event nature of many council-managed species. The Large Pelagics Survey design could serve as a model.
- Identify ways to reduce angler burden as much as possible during survey participation[7].
- Use other fishery dependent and fishery independent data sources to provide additional diagnostic tools to review recreational catch estimates.
- Include a ranking order for the priorities outlined in regional implementation plans to help with resource allocation.
    - **This was especially highlighted in the West Coast region.**
- Ensure the states, commissions, and relevant NOAA Fisheries offices (i.e., OST, regional offices and science centers), have clear, both individual and shared responsibility and accountability, in producing quality data for use in management.
- Ensure all members of the partnership commit to: (1) continually assessing and improving survey programs, (2) being transparent with their methodologies, and (3) ensuring data products are compatible with each other and accessible to data users and the public.
- Review all Memoranda of Agreement (MOA) between states and NOAA Fisheries under the National Saltwater Angler Registry and State Exemption Program (NSAR - required by the Magnuson-Stevens Act), and consider developing a recurring schedule for these reviews. Among other conditions, NSAR-exempted states, through the MOAs, are required to submit lists of state saltwater recreational angler and for-hire vessel license holders/registrants to NOAA Fisheries at least annually, as well as to inform NOAA Fisheries of any changes to their license requirements or structure as soon as possible, and address potential data gaps from state licensing exemptions. These data assist with making the sampling frame for the Fishing Effort Survey more efficient, and thus could assist in the production of more precise effort estimates.

[5] New England partners highlighted a disparity in the financial contributions of different states to MRIP sampling (in addition to the base federal funding) and that having a negative impact on data quality across the region.

[6] Note there are tradeoffs to this approach - more uncertain estimates for some stocks means more uncertain management for those species, and in some regions, the less important state fisheries are those that sustain local business in shoulder/off season.

[7] For example in APAIS on the Atlantic and Gulf of America coasts: asking anglers about their zip code and county is redundant, and the question asking for a call back number could be put at the end of the survey to potentially increase participation and minimize refusals.

Cross-Regional: Atlantic, Gulf of America, and Hawai'i

- In the Atlantic, Gulf of America, and Hawai'i, facilitate the addition of questions, as needed[8], to the Access Point Anger Intercept Survey (APAIS), addressing: more detailed area fished; depredation; sub-modes, e.g. kayaks; gear type, e.g. use of descenders; and protected species interactions.
    - Consider changes to APAIS reporting of fishing location to be based on area fished rather than the survey intercept site (Note: ACCSP is evaluating this item for Atlantic states in 2025, for potential implementation in 2026).
        - **New England:** Concern has been expressed regarding the need for higher resolution spatial data and refined fishing location data to support numerous stock assessments – particularly for species with multiple stocks (e.g., Atlantic cod, haddock, red hake, winter flounder, black sea bass, tautog)[9] – and to more accurately assign catch to the appropriate stock.
    - **Hawai'i and NOAA Fisheries Highly Migratory Species Management Division:** Consider additional disposition codes in APAIS (e.g., discards, sharing, trading).
    - Include questions in surveys about gear type in relation to discard and release mortality.
- Continue moving forward with the NOAA Fisheries Fishing Effort Survey improvements and calibration in a transparent way.
- Investigate additional novel approaches to validate fishing effort.

Atlantic

- Implement and validate supplemental catch card programs for specific regionally significant species, especially to obtain more precise data for in-season management needs along the Atlantic Coast[10].
- Develop methods to improve precision and accuracy of shore-based catch estimates to better support state fisheries management.
- Investigate ways to decrease initial APAIS interview refusals.
- Shift to publication of monthly estimates instead of bimonthly to support state and federal management needs, **specifically in the South Atlantic.**
- Investigate how best to obtain fishing activity data from private docks.
- The partnership can consider stressing the importance to state legislatures of state for-hire logbooks.
- Support efforts to improve discard data collection, such as securing additional resources for For-Hire Observer programs.

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[8] In the Gulf of America and some other locations, field interviewers have relayed that additional questions often lead to reduced angler survey participation. Given this unintended impact, it may be necessary to consider separate programs/surveys from the ones used to obtain catch estimates for management so as to not adversely affect those estimates and subsequent management actions.

[9] For several species, release mortality is closely associated with variables like depth and/or temperature – the lack of spatial data for the recreational fishery prevents accounting for these variables when calculating removals, which introduces a major source of uncertainty in assessment and management. Furthermore, marine spatial planning that is needed due to proposed wind turbine projects and offshore aquaculture suffer from lack of spatial data on recreational fishing in New England, the East Coast, and the Gulf of America.

[10] State surveys implemented in the southeast and West Coast enhance recreational fisheries data collection (e.g., Florida State Reef Fish Survey) and could provide a model for how to implement integrative, but specialized survey approaches to address both state and federal fisheries assessment and management needs.

- Investigate means to better define and sample the offshore recreational fishing community. For example, investigate statistical gains from instituting a federal or state-administered fishing license or registry for anglers fishing in the Federal Exclusive Economic Zone/offshore waters (e.g., Recreational Offshore Landing Permit), potentially leveraging and modeling state stamp programs.

Gulf of America

- Determine ways to better capture data from increased kayak fishing activity.
- Shift to publication of monthly estimates instead of bimonthly estimates to support state and federal management needs.
- Investigate how best to obtain fishing activity data from private docks.

West Coast and Alaska

- Revisit survey interview allocation in creel sampling to address data gaps specifically in regions like northern California and south central Alaska.
- Determine ways to better capture data from increased kayak fishing activity along portions of the West Coast.

West Pacific

- **In Hawai'i:**
    - Consider having APAIS and FES re-focus on federally managed, boat-based fisheries for select species of regional importance (uku and Deep 7 bottomfish) to improve estimate precision and assessment and annual catch limit (ACL)-tracking needs.
    - The Hawai'i Department of Land and Natural Resources could consider a no-fee angler registry for residents to improve the survey sampling frames.
    - Determine ways to better capture data from increased kayak fishing activity.
    - Consider expanding survey programs beyond finfish and including invertebrate species (e.g., kona crab) given their high importance to regional fisheries.
- **In the territories (specifically raised by the Commonwealth of the Northern Mariana Islands (CNMI) partners):** Enhance survey methodologies, increase survey sampling frequency, incorporate mobility (cell phone) data for improving recreational effort estimates, and secure additional funding for surveys.

2. Improve biological data collection (aging and reproduction) to better inform stock abundance and health[11]

Actions currently underway

Atlantic

- NOAA Fisheries Southeast Fisheries Science Center is providing funding for the Large Pelagics Biological Survey to collect otoliths and muscle tissue samples from juvenile bluefin tuna. The

[11] Note: Other than length and weight data, comprehensive biological data have not been collected as part of the MRIP or state recreational catch surveys. The listed actions currently underway are NOAA Fisheries Science Center initiatives.

muscle tissue samples are being used for genetic testing for a close-kin mark-recapture study to estimate the adult spawning stock size of western Atlantic bluefin tuna.

- **New England and Mid-Atlantic:** NOAA Fisheries Northeast Fisheries Science Center is cooperatively working with the fishing industry on the Pilot Hook and Line Survey. This survey samples un-towable habitat (i.e., a data gap in the Bottom Trawl Survey) to provide supplemental data on the distribution, abundance, biomass, length composition, and biology of federally managed species.
- **New England:** NOAA Fisheries Northeast Fisheries Science Center is cooperatively working with the New England for-hire fleet on the Recreational Biological Sampling Program (RecBio), which uses a version of an electronic reporting app, AnglerCatch, to collect biological data for cod and winter flounder in key management areas. This project is transitioning to the ACCSP SciFish program in 2025 to centralize data storage and accessibility for stock assessments.

West Coast

- NOAA Fisheries Southwest Fisheries Science Center is cooperatively working with the fishing industry to collect otoliths to obtain age data for key species.

Additional suggested and potential courses of action

National

- Federal and state partners should identify additional opportunities to work with the private sector and the fishing industry to collaboratively fill data gaps.
- The partnership should emphasize the importance of stable funding to achieve increased biological data collection.

Atlantic

- NOAA Fisheries Northeast Fisheries Science Center could consider alternatives for estimating age composition and numbers and weights at-age using other available data streams (e.g., Northeast Fisheries Observer Program and At-Sea Monitoring Program data combined with survey information) to fill a five-year gap and supplement the existing data collection system.

Gulf of America

- Epigenetic aging techniques could improve the cost efficiency of using fin clips in the future, but further research is needed before they can be implemented. In the meantime, the partnership should consider collecting biological data during intercept surveys, while recognizing this may reduce the ability to gather trip-related information.

West Coast and Alaska

- **Alaska:** Identify funding opportunities to expand existing biological data collection efforts.

West Pacific

- Expand existing otolith sampling programs in the territories.
- Strengthen industry collaboration/leverage private sector partnerships to collect biological data in the region.

- Integrate additional biological indicators into survey frameworks.

3. Determine suitable methods to effectively integrate self-reported app data (and other sources of non-probability data) into management and the stock assessment process to enhance public engagement in data collection and fill in data gaps from traditional surveys

Much debate and discussion has occurred in recent years across the recreational data collection partnership regarding electronic reporting advancements and the opportunities they may provide for improving fisheries management. A key principle in estimating accurate statistical totals that are representative of a population is that each member of that population has a known chance of being represented in the sample (i.e., probability-based sampling). Self-reported app data are collected via non-probability sampling, which lacks a well-developed framework for statistical inference, which can introduce inaccuracy (bias) that is extremely challenging to evaluate and address, especially since those biases may vary considerably over time. However, hybrid approaches (e.g., coupling non-probability sampling with probability sampling) show promise in helping to mitigate these risks.

Notably, following discussions at the 2018 NOAA Fisheries National Saltwater Recreational Fisheries Summit, the now disbanded Marine Fisheries Advisory Committee (MAFAC) formed the Recreational Electronic Reporting Task Force to explore the use of electronic reporting for data collection and published a 2022 report of their findings. The Task Force emphasized that the success of electronic reporting programs hinges upon sustained angler participation, clear data standards, and stepwise development of data systems. Their recommendations included integrating electronically reported data with existing data sources, establishing a Data Standards Plan and a Data Integration Plan, ensuring data verification protocols, and exploring alternative statistical methods for analysis. They further advocated a structured approach to implementing regional or federal electronic reporting programs to enhance data collection and management.

Actions currently underway

National

- In August 2024, NOAA Fisheries put out a request for proposals for citizen science projects to address data gaps in stock assessments and support climate-ready fisheries. The selected project(s) were anticipated to receive funding in fiscal year 2025, pending funding availability.
- Non-profit organizations have led projects in partnership with states, commissions, councils, and NOAA Fisheries (e.g., to collect release length data for key state and federally managed species and gather supplemental catch, release, and effort data for rare-event species.)

Atlantic

- In spring 2024, ACCSP launched Sci-Fish, which is a mobile application that allows the public to participate in scientific research by collecting and sharing data on Atlantic Coast fisheries. This app standardizes aspects of citizen science data collection from Atlantic Coast fisheries by providing a single platform and storage for multiple data collection projects. The project builder

allows researchers to create new data collection projects with minimal resources. Sci-Fish projects help address current data gaps and research needs, clearly explain how collected data will be used in management and stock assessments, centralize data storage, and encourage collaboration between scientists and fishermen.

- **New England:** In 2024, ACCSP approved a project to integrate the New England Recreational Biological Sampling Program (RecBio)/AnglerCatch data into the ACCSP Sci-Fish data storage.

Gulf of America

- The Gulf States Marine Fisheries Commission's 2024 recreational effort and discard workshops, as well as project proposals to investigate novel approaches to improve discard and effort data could provide some unique outcomes and opportunities related to self-reported data.

Additional suggested and potential courses of action

National

- Revisit the 2022 MAFAC Electronic Reporting Task Force recommendations.
- Encourage supplemental/independent app-based data collection programs to adhere to the national recreational fishing survey and data standards to maximize comparability, compatibility and usability of such data. NOAA Fisheries should also consider developing additional needed standards specific to app-based/non-probability data collection as appropriate to facilitate/promote standardization across app-based reporting programs[12].
- Leverage existing recreational fisheries app-platforms to see how they could be modified to meet certain data standards (e.g., funneling data to a central repository such as ACCSP's Sci-Fish or similar). Identify and leverage the best qualities of existing private sector apps.
- Identify novel ways to improve recruitment and retention of app users in app-based reporting to improve the usability of the data[13]:
    - Mandatory harvest reporting - create an app that incentivizes use by including access to data that fishers want such as weather alerts, and provide additional incentives for reporting (access to wash stations, lotteries for tournaments, fish tags, fishing store discounts, etc.). For added efficiency (i.e., reduced costs for start-up marketing/campaigning), the partnership could alternatively consider evaluating current popular fishing apps and if incentives could be incorporated into them in order to sustain reliable reporting of catch and effort over time.
- Complete and accurate reporting greatly benefits both survey-based estimates and would enhance the utility of self-reported app data – as such, the partnership should invest in education and outreach for the recreational fishing community about the importance of comprehensive reporting (e.g., including trips where fish were landed/released and also zero-catch trips) for both mandatory and voluntary data collection systems.
- Update or create any relevant policy/procedural directives related to use of non-probability data collected via electronic technologies and standardized procedures for integration.

[12] This suggestion is being considered as part of the ongoing peer review of the NOAA Fisheries national recreational fishing survey and data standards by the National Academies of Sciences, Engineering, and Medicine.

[13] ACCSP held town halls and discussions on the Sci-Fish project related to this topic, which could be leveraged to help explore this suggested course of action.

- Consider leveraging of supplemental, non-probability data collection initiatives as well as additional sampling of small scale/rare-event fisheries to improve catch estimates.

4. Ensure consistent, centralized, accessible regional data warehousing and adherence to national and regional data standards to enhance data stream connectivity, accessibility, and transparency.

Actions currently underway

National

- NOAA Fisheries awarded a contract to the National Academies of Sciences, Engineering, and Medicine in September 2024 for an independent review of the agency's national recreational fishing survey and data standards. The National Academies will: evaluate the effectiveness and applicability of the standards for key data uses; identify the alignment of the standards to best practices in federal agencies and the survey profession more generally; and assess the adequacy of the standards for meeting Office of Management and Budget's Standards and Guidelines for Statistical Surveys, including the standard regarding data access and information management. The review is anticipated to conclude in late 2025. The intent of these survey and data standards is to promote data quality, consistency, and comparability across data collection programs and facilitate the shared and effective use of the statistics produced.

Atlantic

- In 2024, ACCSP implemented updated data warehouse public recreational queries to match the NOAA Fisheries presentation of cumulative, annual, and wave estimates. This work is being shared with the Gulf States Marine Fisheries Commission (GSMFC) in 2025.

Gulf of America

- The Gulf States Marine Fisheries Commission, in collaboration with partners, hosted a workshop Feb. 4-5, 2025, to support development of a centralized, transparent, and accessible database to house all Gulf state survey data, as well as development of a regional data management program to improve consistency and data quality for Gulf state survey data.

West Coast and Alaska

- In 2024, the Alaska Department of Fish and Game joined the Pacific RecFIN, which will facilitate data consistency and a central location for recreational fishing statistics via the FIN's data warehouse. The department is in the early stages of developing a database system for the Division of Sport Fish and is interested in funding opportunities to aid this effort.

Additional suggested and potential courses of action

National

- Include language related to data standards and management as a condition of state survey certification and/or part of the transition planning process for new or improved surveys.
- Revisit, improve, and/or create a standard template for all data-sharing agreements.
- Better promote and send recurring reminders of the national standards and the partner incentives for meeting them, including adherence potentially resulting in available program funding.
- States with their own survey programs should collaborate to develop regional standards that are additive to the existing national standards and provide clarity for data availability, review[14], and publication.
- Ensure recreational fishing databases are broadly accessible and useful to key data users as well as the public. For example, recommendations were made for NOAA Fisheries OST to engage with a subset of key data users to inform improvements to the usability of the public online MRIP query tool.
- Promote sharing of FIN data portals with other FINs, such as the for-hire observer database developed by GSMFC in 2024.

West Coast and Alaska

- Stock assessment scientists' need for improved access to microdata was specifically emphasized for Alaska and the West Coast. To address these concerns, California is working on a revised data-sharing Memorandum of Understanding, and Alaska has joined the Pacific RecFIN.
- **West Coast:** To ensure the success of centralized data warehousing and reinforce its value, stock assessors and other data users should consistently obtain data from regional warehouses rather than directly from individual states. This approach strengthens the incentive for data providers to submit their data to the warehouses by highlighting their importance as the primary access point.

[14] State survey programs within a region (i.e., Gulf of America and West Coast states) could collectively agree to a regional review process for state data that could be similar to NOAA Fisheries OST's partner review of preliminary recreational catch and effort estimates.

5. Support adaptive management frameworks that acknowledge data limitations and uncertainty (i.e., scaling management to realistic expectations of the data-collection system in place for the region; how to handle in-season monitoring and management recognizing constraints in using MRIP data for this purpose)[15]

Actions currently underway

Atlantic

Mid-Atlantic

- The Mid-Atlantic Fishery Management Council Recreational Reform Initiative is an effort of the council and the Atlantic States Marine Fisheries Commission to improve management of the recreational fisheries for summer flounder, scup, black sea bass, and bluefish. The goals of the Initiative are to (1) provide stability in the recreational bag, size, and season limits, (2) develop strategies to increase management flexibility, and (3) achieve accessibility aligned with availability/stock status for all four species.
    - This also includes scoping recreational sector separation (i.e., charter and headboat fishing allocation and/or management practices separated from private boat and shore fishing).

Gulf of America

- The Gulf Fishery Management Council's Recreational Initiative is an effort to evaluate past and current recreational reef fish management strategies and explore potential innovative management approaches that could be applied in the future. The effort focuses on red snapper, red grouper, gag grouper, greater amberjack, and gray triggerfish.

Additional suggested and potential courses of action

National

- Consider recommending revisions to language in the Magnuson-Stevens Fishery Conservation and Management Act (if requested by Congress) and/or NOAA's interpretation guidance of the law to allow managers to more appropriately account for uncertainty in recreational data (i.e., to allow for increased flexibility in management measures).
- Increase information sharing among NOAA Fisheries and councils about existing management flexibility in the Magnuson-Stevens Fishery Conservation and Management Act. To accomplish this, NOAA Fisheries and councils could consider creating forum(s) to educate on these issues among fisheries management partners across regions.

[15] This theme is not a role of MRIP or part of an improved data collection system, but is a closely related improvement to how data users apply and interpret data to better inform fisheries management.

- Research and develop in-season management data collection methods (e.g., revisiting recommendations of the 2021 National Academies' Review: Data and Management Strategies for Recreational Fisheries with Annual Catch Limits).
- Investigate statistical tools and approaches to best address shortened seasons.
- Evaluate sample allocation approaches that more effectively optimize both sampling and percent standard error for the highest priority species.

6. Improve communication and coordination between recreational fishing data producers and recreational fishing data users (fisheries managers and stock assessors) to facilitate effective data production and usage

Actions currently underway

Atlantic

- Strengthening of the ACCSP Recreational Technical Committee to bring data users and data producers together to frequently share information and collaborate.

Additional suggested and potential courses of action

National

- Improve leveraging of other regional FIN technical teams to bring data users and data producers together to share information and collaborate.
- Develop a collaborative decision-making framework of agreed-upon criteria for how and when to implement new or updated survey designs and resulting calibrated time series, if needed, recognizing potential impacts to stock assessment schedules and council and commission planning processes.
- Establish a recurring data user seminar series schedule (similar to those held in the past) with specific themes to address topics of importance to data users.
- Consider placing OST team members on relevant partner and NOAA Fisheries science center and regional office teams.
- Re-evaluate MRIP team membership and structures to better meet the objectives of the re-envisioned partnership. Considerations include:
    - Potential consolidation of teams that require the same entities to be involved.
    - Better representation from federal and state data users on MRIP teams, including leadership representation where appropriate.
    - Elimination of certain MRIP teams and instead ensure appropriate MRIP representatives attend relevant regional meetings.
    - Potential enhanced regionalization of MRIP teams - for instance, regional research teams, regional survey operations teams, regional data science/user teams.
    - Ensure team members assist in communication and information sharing across the partnership.

Gulf of America

- Explore and encourage the use of state resource data and other special studies in stock assessments[16].

7. Improve trust, credibility, and engagement with partners and the recreational fishing community, including anglers and Non-Governmental Organizations (NGOs)

Actions currently underway

National

- NOAA Fisheries OST is distributing quarterly partner e-news updates via email to FINs, state partners, and commission and council members and staff. The updates provide information on upcoming presentations and briefings, key partnership milestones and topics of interest, as well as links to relevant resources.
- NOAA Fisheries will continue participating in the Marine Resource Education Program (MREP), which hosts collaboratively designed regional workshops attended and moderated by fishermen to assist fisheries scientists and managers in articulating issues and complex concepts in an approachable way.
- NOAA Fisheries OST leads recurring interagency communications working group meetings among regional offices, science centers, and communications and other team leads with councils, commissions, FINs, and some state agencies. The intent is to discuss communications challenges and opportunities across the partnership.

Cross-Regional: Atlantic, Gulf of America, and Hawai'i

- NOAA Fisheries OST is working on the MRIP Estimate Review and Information Tracking (MERIT) system to enhance the ability to report estimates of concern and transparently view status and outcomes of estimate reviews online as part of the data query tool.
- NOAA Fisheries OST has worked with regional FINs, specifically in the Gulf and Atlantic coasts, to revise and strengthen state partner preliminary estimate review procedures. NOAA Fisheries has also worked to revitalize the internal estimate review process involving OST, Greater Atlantic/Northeast, Southeast, and Pacific Islands NOAA Fisheries regional offices and science centers.

[16] Example from Texas Parks and Wildlife Department: Better integration of data from the Great Red Snapper Count into Gulf of America red snapper stock assessments.

Additional suggested and potential courses of action

National

- Re-evaluate current partnership team structure, specifically regional implementation teams, to potentially include better partner and angling community representation, accounting for any Federal Advisory Committee Act limitations.
- Collaboratively develop guidelines for public participation to inform and review/provide public comment on FIN's MRIP regional implementation plans. Plan approval would be contingent upon meeting the established public participation guidelines.
- Encourage development of partner estimate review frameworks for state-administered surveys.
- Strengthen data correction processes for legacy errors in the MRIP data set, especially size data.
- Encourage state partners to be more involved in MREP.
- Consider producing regional snapshot products bi-annually or annually (could be integrated as part of aforementioned partner update e-newsletter). Topics can include top landings by species/fishing mode and 3-year trends using accessible graphics, as well as state points of contact and survey statistics (such as numbers of interviews conducted). Information could be pulled from annual survey reports, assessment schedules, and any key regulations made using MRIP data from the prior year, etc.
    - In addition, package, streamline, and promote publishing of the annual survey reports and consider including additional content that would be useful to partners.
- Hold regional qualitative panel discussions with anglers once or twice a year to corroborate what they're seeing on the water and/or raise questions about the estimates that councils could consider in their decision-making alongside quantitative recreational fishing data. This could be intertwined as part of existing state, FIN, commission, or council Advisory Panel meetings.
- Consider development of an objective process for public participation in state and federal estimate review that leverages lessons learned from prior attempts. This could similarly be intertwined as part of existing state, FIN, or council Advisory Panel meetings where appropriate, and/or interested public groups could follow current state review procedures.
- Increase education efforts with influencers in the fishing community (e.g., tackle shop owners and captains), so they can further educate their clients about recreational fisheries data collection and management, and collaborate with fishing and/or environmental non-governmental organizations to assist with broader public outreach and education.
- Develop robust outreach with partners to dispel misinformation. This could be done through workshops or listening sessions with robust partnership representation, as well as strengthened state participation in communications and education workgroups.
- Consider a contractor to better understand the online social comprehension and perception of MRIP, and how to enact positive, meaningful change that can be measured.
- Develop additional useful products and services that help anglers better understand and value the work MRIP does and the data that are collected.

West Pacific

- **Hawai'i:** Strengthen partner review of preliminary MRIP estimates similar to the aforementioned efforts along the Gulf and Atlantic coasts.

8. Re-evaluate and collaboratively update, as necessary, the current recreational fishing survey certification and transition frameworks to help assure new or modified surveys meet needs identified by regional data users to best inform and improve stock assessments and fisheries management

Actions currently underway

National

- NOAA Fisheries OST collaboratively updated the recreational survey transition procedural directive 04-114-01 in January 2025. Revisions include a new section related to assuring utility of data from new or modified surveys and additional language to better specify required content of transition plans and partner responsibilities in transition processes.

Additional suggested and potential courses of action

National

- Incorporate language into the framework regarding access to microdata (survey data at the level of individual respondents) from partner-administered surveys.
- Where they don't already exist or are outdated, develop updated templates for data-sharing agreements between states and NOAA Fisheries with clear language regarding access to necessary data and microdata, including updated provisions for ensuring necessary data confidentiality.
- Ensure all survey programs (state and federal) produce and publish levels of uncertainty for estimates, which is an indicator of the quality of the estimates.
- Consider having survey certification, continued certification, and access to available funding be contingent on meeting all qualifying elements outlined in the certification framework.
- As a condition of receiving federal funding, survey programs should adhere to the annual reporting requirement established in Procedural Directive 04-114-02.
- Specific potential actions within NOAA Fisheries:
    - Leverage regional NOAA Fisheries expertise (i.e., regional office and science center staff) in survey certifications to ensure utility of supplemental and replacement data collection systems in meeting data needs for federally managed species.
    - Add deadlines to the certification process and develop templates for certification documentation requirements to improve timeliness and efficiency of the process for partners.
    - Consider having certification apply to a comprehensive survey program rather than certifying components of a survey program separately.
    - Consider redefining certification so that survey programs are only certified once they have met the NOAA Fisheries Recreational Survey and Data Standards and are ready for use in stock assessment and management applications.

9. Improve methods to hire and retain survey samplers

Note: This was mentioned as a specific priority for the individual states of Maryland, Rhode Island, Alaska, North Carolina, and Texas.

Actions currently underway

West Coast

- The Washington Department of Fish and Wildlife has secured subsidized housing for their Ocean Sampling Program survey samplers, which has improved hiring and retention issues for the survey, but has resulted in increased operating expenditures.
- The Oregon Department of Fish and Wildlife is developing a tactical communication program to provide training and resources to field staff to improve their safety in the field.

Additional suggested and potential courses of action

National

- Consider establishing Memoranda of Understanding with local universities to start up an internship program for relevant marine sciences majors in undergraduate or graduate programs to serve as survey samplers, leveraging lessons learned from prior attempts[17].
- Emphasize the importance of base or enhanced funding for the purpose of hiring and retaining samplers, and secure funding to increase pay of field samplers.
- Research and implement housing stipends at the state level and/or identify other mechanisms to provide basic housing for field interviewers in locations with high costs of living (e.g., in the outer banks in North Carolina).
- Bring state and regional partners together to exchange cross-regional lessons learned and best practices on recruitment and retention efforts.

10. Improve economic and demographic information to facilitate improved understanding of the economic impacts of recreational fisheries; estimation of the benefits of those fisheries; understanding and consideration of economic effects of management actions; and disaster relief funding decision-making where relevant

[17] The Florida Fish and Wildlife Commission/Fish and Wildlife Research Institute's Fisheries Dependent Monitoring group explored the use of an internship program to recruit samplers. It was discontinued due to scheduling conflicts during academic sessions and variability in scheduling throughout the year, as well as challenges in hiring seasonal employees to fill those gaps.

Actions currently underway

National

- The NOAA Fisheries OST Economics and Human Dimensions Division administers the Marine Recreational Fishing Expenditure Survey every 5 years. From Maine to Mississippi and in Hawai'i, this survey is also known as the Socio-Economic Add-on Survey (SEAS) because it is conducted as an 'add-on' to the MRIP Access Point Angler Intercept Survey. In Alaska, California, Washington, Oregon, Texas, and Louisiana, the OST Economics and Human Dimensions Division uses angler license frames to conduct the survey directly by email and mail. New data-quality checks developed by ACCSP and proposed for implementation beginning in 2027 are under review. For example, the proposed checks would prompt the review of records to flag potential respondents who may be seasonal residents (i.e., are staying more than 30 days away from home) and to look for ineligible expenses in the data.

Additional suggested and potential courses of action

National

- NOAA Fisheries economists and partner economists should revisit and consider findings from the 2023 NOAA Fisheries Recreational Fisheries Economic Constituent Workshop.
- Consider angler concerns regarding economic questions in the Southeast For-Hire Integrated Electronic Reporting Program and other non-MRIP surveys as well as their support for collecting information about ocean use (wind farms) and disaster relief.

11. Determine actions to adapt to changing ocean conditions affecting species distribution

Actions currently underway

National

- In August 2024, NOAA Fisheries put out a request for proposals for citizen science projects to address data gaps in stock assessments and support climate-ready fisheries. Funding will prioritize projects that provide information for use in stock assessments and increase understanding of current and/or future impacts of climate change on fish stocks and/or fishing communities.

Atlantic

- During January and February 2025, Atlantic states completed pilot testing of NOAA Fisheries For-Hire Telephone Survey sampling from Georgia to Maryland and APAIS dockside sampling in South Carolina. ACCSP's Recreational Technical Committee plans to explore expanding For-Hire Telephone Survey sampling up through Connecticut and Rhode Island in 2026.

Additional suggested and potential courses of action

National

- Review current survey sampling designs, including months and states of sampling, for potential impacts from changing ocean and other climate/weather conditions and determine what design aspects will likely be impacted by changing ocean conditions[18].

Atlantic

New England and Mid-Atlantic

- Include January and February in survey sampling for the Mid-Atlantic and New England regions to better capture possible increases in fishing activity that may be occurring due to warmer conditions[19].
- Expand Large Pelagics Survey sampling in the Mid-Atlantic for April and May (currently starts in June), and in New England for September through December.

12. Improve characterization of depredation to help quantify the extent of the issue and identify potential fisheries where depredation may be contributing to excess mortality

Actions currently underway

Atlantic

- NOAA Fisheries Highly Migratory Species team is developing a proposal to add catch disposition codes identifying depredated catch to two questions within APAIS on the Atlantic Coast. The team plans to submit the proposal to ACCSP's Recreational Technical Committee for their consideration in 2025 and intended implementation in 2026.
    - **South Atlantic:** This issue is of particular importance to southern Atlantic states.

Additional suggested and potential courses of action

Gulf of America

- Consider collecting depredation information through APAIS and/or state surveys.

[18] On the Atlantic Coast, this effort started in 2021 within general survey-sampled states/months and has continued annually.

[19] In addition to the testing of January-February data collection that occurred in 2025 for the For-Hire Telephone Survey, ACCSP is also discussing extension of private effort sampling via the Fishing Effort Survey, as well as geographic expansion of APAIS during those winter months.

West Pacific

- **Hawai'i:** Consider collecting depredation information through APAIS.

Regional Priorities and Considerations

The below section includes priority rankings and considerations by region as expressed by regional and state partners who provided feedback during the final review of this report. Note that not all regional considerations are included below. Please click on the hyperlinked priorities to view current actions underway and additional actions for consideration to help address these priorities; the current and proposed actions are segmented nationally and by region(s) for easier viewing and consumption. National and broader cross-regional actions should also be considered by the sub-regions. For example, the outlined Atlantic actions could potentially be applicable and of interest to the New England, Mid-Atlantic, and South Atlantic regions for further consideration and regional action planning.

Atlantic Top-Ranked Priorities

New England

- Improve catch/effort estimates, especially concerning rare-event sampling and spatial resolution of data. Higher resolution spatial data (more specific fishing location data) will be needed to support numerous stock assessments in this region and will greatly help assign catch to the appropriate stock (e.g., Atlantic cod, haddock, red hake, winter flounder, black sea bass, tautog). In addition, the consideration of incorporating January and February in dockside angler survey sampling efforts to better capture possible increases in fishing activity that may be occurring due to warmer conditions, and expanding the Large Pelagics Survey sampling into September through December (currently runs from June - October). In addition, New England partners mentioned the importance of equity in state financial contributions to augment MRIP dockside survey sampling (in addition to the base federal funding).
- Improve biological data collection, including consideration of alternatives for estimating age composition and numbers and weights at-age using other available data streams (e.g., Northeast Fisheries Observer Program and At-Sea Monitoring Program data combined with survey information) to fill a five-year gap and supplement the existing data collection system. A continuing priority also includes integrating the New England Recreational Biological Sampling Program (RecBio), which is using an electronic reporting app, AnglerCatch, to collect biological data for cod and winter flounder in key management areas, into ACCSP's SciFish program to centralize data storage for use in stock assessments.
- App-based data integration.
- Improve trust, credibility, and engagement with partners and the recreational fishing community.

Additional partner communicated priorities include: Improve economic/demographic data; Adaptive management frameworks; and Survey sampler recruitment and retention (brought up specifically by Rhode Island).

Mid-Atlantic

- Improve catch/effort estimates, including incorporating January and February in dockside angler survey sampling efforts to better capture possible increases in fishing activity that may be occurring due to warmer conditions and expanding the Large Pelagics Survey sampling into April and May (currently runs from June - October).
- App-based data integration.
- Support adaptive management frameworks, including continued work toward progressing the Mid-Atlantic Fishery Management Council Recreational Reform Initiative to improve management of the recreational fisheries for summer flounder, scup, black sea bass, and bluefish.
- Improve trust, credibility, and engagement.
- Survey sampler recruitment and retention (brought up specifically by Maryland as a priority).

South Atlantic

- Improve catch/effort estimates, specifically more timely estimates to help inform in-season monitoring and management and comprehensive and cohesive for-hire reporting across and within regions; considerations for simplifications in the dockside questionnaire; obtaining catch data from private docks; and better discard data.
- App-based data integration.
- Data warehousing & standards.
- Support adaptive management frameworks.

Additional partner communicated priorities include: Improve trust, credibility, and engagement; Improve communication between data producers and data users; and Improve biological data collection.

Not included in the above prioritized list, however, southern Atlantic states have flagged for particular importance improving the characterization of depredation to help quantify the extent of the issue and identify potential fisheries where depredation may be contributing to excess mortality. NOAA Fisheries Highly Migratory Species team is developing a proposal to add catch disposition codes identifying depredated catch to two questions within APAIS on the Atlantic Coast. The team plans to submit the proposal to ACCSP's Recreational Technical Committee for their consideration in 2025 and intended implementation in 2026.

Moreover, Survey sampler recruitment and retention was brought up specifically by North Carolina as a priority. Managing distrust from interviewees in survey interviewers and resulting survey participation refusals was another concern raised.

Gulf of America Top-Ranked Priorities

- Improve catch/effort estimates, specifically determining ways to better capture data from increased kayak fishing activity; MRIP shifting to publication of monthly catch estimates instead of bimonthly to support state and federal management needs; investigating how best to obtain fishing activity data from private docks; supporting efforts to improve discard and depredation

data (potentially through APAIS questionnaire additions); finalizing data analysis and next steps following Mississippi's and Alabama's pilot testing of the LA Creel effort survey in 2024 to potentially replace use of NOAA Fisheries' Fishing Effort Survey. In addition, Mississippi and Alabama are employing a LA Creel style dockside (catch) survey in 2025 to ultimately potentially replace NOAA Fisheries' APAIS in their states. Current plans, contingent on available funding, are to conduct the full LA Creel design (catch and effort) for 12 months with analysis to follow. Outcomes of the analysis will inform the path forward in both states, including decisions on whether or not Tails 'n Scales (MS) and AL Snapper check will be continued or if the tested designs will replace these methods.

- Improve biological data collection.
- Support adaptive management frameworks, such as continuing progress on the Gulf Fishery Management Council's Recreational Initiative to review and evaluate past and current reef fish management strategies and explore potential new approaches that could be applied in the future.
- Data warehousing & standards.
- Improve communication between data producers and data users.

Additional partner-communicated priorities include: App-based data integration; Improve trust, credibility, and engagement; Improve economic/demographic data; Re-evaluate survey certification frameworks; and Survey sampler recruitment and retention.

The Gulf is undertaking specific, parallel initiatives that are complementary to this partnership re-envisioning process with an aim at improving both recreational data collection and management. In fall 2024, Gulf regional and state partners and NOAA Fisheries released a blueprint that prioritizes research projects and serves as a guide for the state-federal effort to enhance and streamline catch and effort estimates used in Gulf state stock assessments and fisheries management guidance. This research plan is a component of the Transition Plan for Gulf State Recreational Fishing Surveys, which was developed to facilitate a consistent, historical time series of regional recreational fisheries statistics across the Gulf survey programs, so stock assessors and fisheries managers have the data needed to make informed decisions.

By 2027, based on research outcomes, Gulf regional and state partners and NOAA Fisheries plan to make needed survey design improvements and calibrate estimates produced from different Gulf survey designs into the same scale and/or produce a composite estimate that integrates the data from all the Gulf surveys.

Related to improving catch/effort estimates, data warehousing and standards, and app-based data integration:

NOAA Fisheries has worked with the Gulf states to develop, implement, and certify several state-led surveys to provide more timely and precise estimates for certain species. In Texas and Louisiana, state surveys serve as an alternative to NOAA Fisheries' general recreational fishing surveys.

The Gulf States Marine Fisheries Commission, with support from NOAA Fisheries and other federal, regional, and state partners, hosted multiple workshops to investigate methods to improve recreational fishing effort estimates, improve recreational discard data, and support development of a regional data

management system and data standards that are additive to the existing national standards and provide clarity for data availability, review, and publication for state-led surveys. Proposals will be funded to further explore projects to address these needs. These proposals may also provide unique outcomes and opportunities related to self-reported data. Pending available funding, proposal awards are anticipated to be distributed in spring or summer 2025; funded work is to be completed by the end of 2027; and project reports will be due in March 2028.

Caribbean Top-Ranked Priorities

- Improve catch/effort estimates, including having consistent data collection by island, species-specific data, and consideration of licensing/permitting systems.
- App-based data integration.
- Improve biological data collection.

Similar to the Gulf, the Caribbean has also been undertaking specific, parallel initiatives that are complementary to this partnership re-envisioning process.

Following Hurricanes Irma and Maria, recreational data collection efforts in Puerto Rico ceased in 2017 due to widespread damage to fishing access sites and other critical infrastructure. There wasn't a data collection program yet incorporated in the U.S. Virgin Islands (USVI) prior to the storms. NOAA Fisheries has been working with the Puerto Rico Department of Natural and Environmental Resources, the USVI Department of Planning and Natural Resources' Division of Fish and Wildlife, and scientific consulting firms, to rebuild fishing site registers and to pilot recreational and commercial data collection programs. NOAA Fisheries Southeast Fisheries Science Center is working alongside regional partners in the USVI and Puerto Rico to study methods for comprehensive fishing data collection.

In Puerto Rico, the team is analyzing data from pilot studies that began in January 2024. The initial pilot study was four months in duration and included port sampling to collect recreational fishing catch and biological data from private and for-hire vessels. Data collection methods for commercial vessels and shore fishing will be evaluated as additional funding is available. This also includes evaluating the use of novel technologies like artificial intelligence to make the biological sampling process more efficient. Several additional rounds of data collection were completed in Puerto Rico throughout 2024 and have continued into 2025. Analyses of these extended data sets have led to improvements in the survey design, which have since been incorporated into subsequent rounds of the pilot. The intent remains to continue iterating on the design through multiple rounds of the study to refine and enhance data collection methods.

In the USVI, a similar pilot study is anticipated to start in summer 2025, also incorporating the collection of commercial data. Ahead of the full launch, efforts have focused on field testing an electronic measuring system that automates length measurement, weight, and species identification. A full pilot sampling program is scheduled to begin later in 2025. To help estimate fishing trips or effort, the team is also considering additional novel technologies such as satellite and remote sensing. This work will be evaluated by Caribbean partners as well as MRIP for potential implementation and survey design certification.

A facilitated workshop occurred in May 2023 in San Juan, Puerto Rico, to identify collaborative efforts that improve and inform stock assessment and ecosystem based fisheries management in Puerto Rico and the USVI. The outcomes included a 5-year strategic plan and consensus on the strategic goals. Working groups continue to meet to advance work on these goals.

West Coast and Alaska Top-Ranked Priorities

Pacific States

- Improve catch/effort estimates, including continuing work toward MRIP certification of state surveys. The Oregon Department of Fish and Wildlife is working to develop statistically appropriate survey-based point and variance (uncertainty) estimates for their Ocean Recreational Boat Survey. The Oregon Department of Fish and Wildlife is working toward full deployment of their Video Boat Council technology in most Oregon ports. The California Department of Fish and Wildlife is working to address peer review comments and recommendations to certify their Commercial Passenger Fishing Vessels Survey Program.
    - In addition, considerations include revisiting interview allocation in creel sampling to address data gaps specifically in regions like northern California, and determining ways to better capture data from increased kayak fishing activity along portions of the West Coast.
- Improve biological data collection, including continued cooperative otolith collection.

Additional partner-communicated priorities:

- Data warehousing & standards, including continued work on a revised data-sharing Memorandum of Understanding to help facilitate access to microdata for stock assessment scientists. In addition, states along the West Coast with their own survey programs should collaborate to develop regional survey design and data standards that are additive to the existing national standards and provide clarity for data availability, review, and publication.
- App-based data integration.
- Improve communication between data producers and data users.
- Re-evaluate survey certification frameworks.
- Survey sampler recruitment and retention: Of note, the Washington Department of Fish and Wildlife has secured subsidized housing for their Ocean Sampling Program samplers, which has improved hiring and retention issues for the survey, but has resulted in increased operating expenditures. The Oregon Department of Fish and Wildlife is developing a tactical communication program to provide training and resources to field staff to improve their safety in the field.
- Specific to Washington State: Support adaptive management frameworks; Improve economic/demographic data; and Improve trust, credibility, and engagement.

In addition, to assist with resource allocation, West Coast partners recommended incorporating a ranking order for the priorities outlined in recreational fishing data collection regional implementation plans.

Alaska

- Improve catch/effort estimates, including continuing progress on the Alaska Department of Fish and Game's work to modernize and address recall bias in their Alaska Statewide Harvest Survey, in consultation with NOAA Fisheries and independent expert statisticians; progress on the reinstatement of the eLogbook program for charter guides; and revisiting interview allocation in creel sampling to address data gaps specifically in south central Alaska.
- Improve biological data collection.
- Data warehousing & standards: In 2024, the ADFG joined the Pacific RecFIN, which will facilitate data consistency and a central location for recreational fishing statistics via the FIN's data warehouse. Stock assessment scientists have emphasized their need for improved access to microdata from Alaska, which may be further facilitated through RecFIN. The department is also in the early stages of developing a database system for the Division of Sport Fish and is interested in funding opportunities to aid this effort.
- App-based data integration, specifically for generating harvest estimates more quickly than currently possible through the Stateside Harvest Survey.
- Survey sampler recruitment and retention.

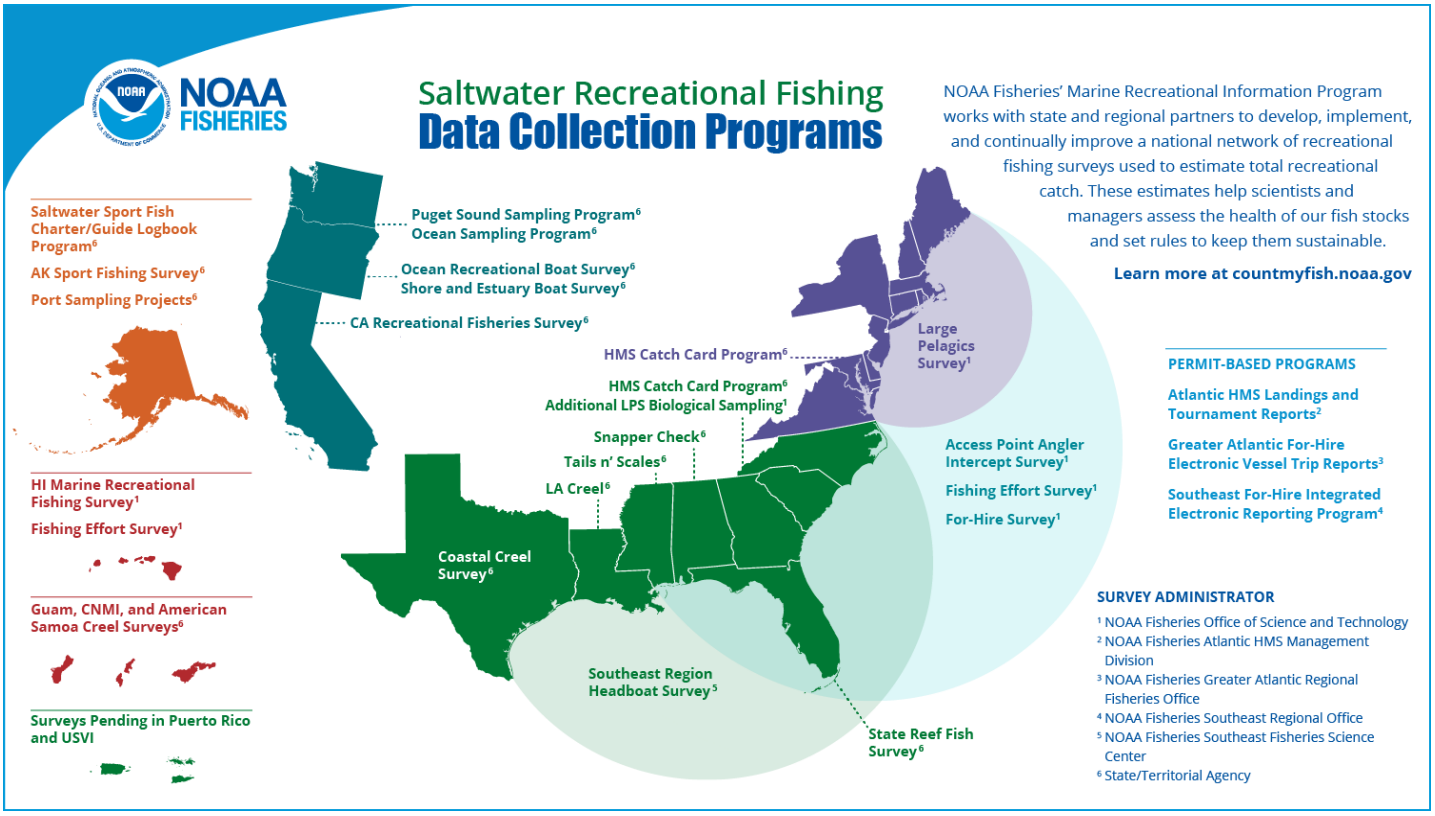
West Pacific Top-Ranked Priorities

- Improve catch/effort estimates, including continuing progress on Hawai'i developing a certification package for a roving creel survey to better capture shore fishing activity and the territorial surveys being submitted for NOAA Fisheries certification; consideration of additional disposition codes in APAIS (e.g., discards, sharing, trading); determining ways to better capture data from increased kayak fishing activity; consideration of MRIP surveys re-focusing data collection efforts on federally managed, boat-based fisheries for select species of regional importance (uku and Deep 7 bottomfish) to improve estimate precision and assessment and annual catch limit (ACL)-tracking needs; consideration of a no-fee registry to improve the survey sampling frame; inclusion of invertebrate species (non-finfish like Kona crab) in the survey program; and in addition to the consideration of additional discard disposition codes in APAIS, the consideration of adding questions related to more detailed area fished, depredation, sub-modes (e.g. kayaks), gear type (e.g. use of descenders), and protected species interactions.
- Improve biological data collection.
- App-based data integration.

Additional partner-communicated priorities include: Improve trust, credibility, and engagement; Improve communication between data producers and data users; Survey certification frameworks; and Actions to adapt to changing ocean conditions.

Appendix A - Additional MRIP Background

Current National Recreational Data Collection Network



MRIP's Current Organizational Structure

The **Executive Steering Committee (ESC)** monitors the work of MRIP teams and overall progress of MRIP projects and initiatives and identifies resource needs and national programmatic priorities for consideration by NOAA Fisheries and partners. It also provides the framework for overseeing the certification of new and improved recreational fisheries survey designs. Members of the ESC provide a connection between MRIP and federal and state marine fisheries agencies, commissions, councils, and the now disbanded Marine Fisheries Advisory Committee (MAFAC). The ESC includes senior managers and representatives from NOAA Fisheries and commissions, as well as participants from MAFAC and the eight councils.

The **Program Management Team (PMT)** identifies policy and process needs, develops policy advice, and drafts policy and procedural documents. It also produces, garners feedback on, and maintains the MRIP Strategic Plan and annual fiscal year Implementation Plan and oversees, monitors, and assures the completion of deliverables within these plans. In addition, the PMT serves as a liaison to MRIP Regional

Implementation Teams. The PMT includes the NOAA Fisheries Office of Science and Technology-MRIP Program Manager, the Executive Secretary of the ESC, and the NOAA Fisheries MRIP team leads.

Regional Implementation Teams (RITs) develop Regional Implementation Plans that identify priorities for regional recreational fishing data collection needs and recommendations for programmatic improvements. These plans are updated at least every 5 years. The RITs also help coordinate regional review of relevant programmatic policies, standards, procedures, and other regional documents. Atlantic, Pacific, and Gulf RITs are led by their respective FINs and include representation from the relevant NOAA regional offices and science centers, commissions, councils and states. Ad hoc RITs include the Caribbean (co-led by NOAA Fisheries Southeast Regional Office and Southeast Fisheries Science Center staff), Pacific Islands (co-led by NOAA Fisheries Pacific Islands Fisheries Science Center and Western Pacific Fishery Management Council staff), Alaska (led by Alaska Department of Fish and Game), and Atlantic Highly Migratory Species (led by NOAA Fisheries Office of Sustainable Fisheries). The Regional Implementation Council is composed of the heads of the seven RITs.

The **Survey Operations Team (SOT)** oversees administration of NOAA Fisheries' recreational fishing surveys and data management and advises the MRIP PMT on survey operations to support national-level recreational fisheries data needs. The SOT also works with regional and state partners to assure national survey and data standards are applied in the implementation of certified surveys; reviews survey and data quality assurance and control; and participates in regional data planning. Membership includes representation from commissions, FINs, and NOAA's Office of Science and Technology staff.

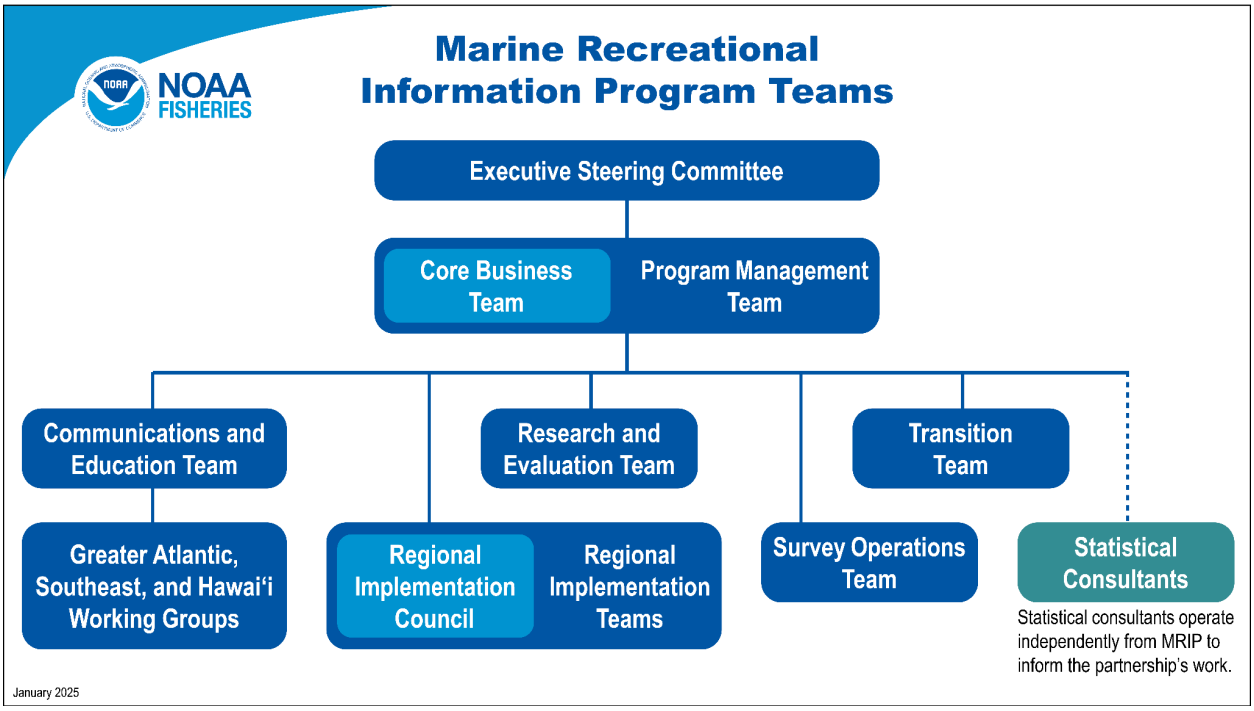
The **Research and Evaluation Team (RET)** provides advice to MRIP teams on topics relevant to survey methodology and sampling statistics, such as evaluation of survey performance and data quality; identification of research projects to meet programmatic goals and improve survey operations; and development of methods to test and evaluate new survey methods and potential improvements to existing survey methods. The RET also completes technical reviews of MRIP team products and partner products (e.g., report reviews and preliminary certification reviews).

The team includes NOAA Fisheries OST Fisheries Statistics Division statisticians and other NOAA Fisheries OST staff whose duties involve the development and/or application of survey methods or sampling statistics. The RET is supported by a team of external statistical consultants. Individuals representing other MRIP teams or partner organizations may be added to support specific research needs on an ad hoc basis.

The **Transition Team** works collaboratively to establish guidelines on implementing new or improved surveys to minimize disruptions to stock assessments, catch monitoring, and management regulations to the greatest extent possible. The team develops and recommends statistically robust methods to compare historical estimates from legacy surveys (surveys to be replaced) to estimates produced from the new or modified surveys. It also determines when calibration or other means of updating historical estimates is feasible and necessary, and identifies the requirements and methods for doing so. The goal is to assure continued consistency of the critical long-term trend information that helps inform management decisions when implementing new or improved survey designs. Transition Team membership includes representation from NOAA Fisheries OST, NOAA Fisheries regional office and science centers, NOAA Fisheries Sustainable Fisheries, NOAA Fisheries Highly Migratory Species, commissions, and state agencies. Transition Team participants also include representation from councils.

Statistical Consultants from various institutions and firms operate independently from MRIP to inform the partnership's work by providing expert objective input and feedback and peer review on a variety of MRIP products and processes, including research reports, calibration, and survey certification.

The **Communications and Education Team** supports MRIP's strategic communications and programmatic goals and enhances partnership and customer relationships. This team supports three external regional communications working groups: Greater Atlantic, Southeast, and Hawai'i. Membership from the external teams include representation from councils, commissions, FINs, Sea Grant extensions, state agencies, and NOAA Fisheries HQ, regional office, and science center communications staff. These teams collaborate to provide transparent partnership updates to recreational and non-commercial fishing interests, address misinformation, and identify regional product, messaging, and engagement needs to educate, obtain necessary feedback, and build trust and credibility across the partnership and fishing community.



References for further MRIP Background

- An Introduction to Marine Recreational Information Program Data
- MRIP Data User Handbook
- Current National Priorities and National Annual Implementation Plans
- Current Regional Priorities/Regional Implementation Plans
- Recreational Fishing Data Glossary

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930

April 1, 2026

Dr. Cate O'Keefe
Executive Director
New England Fishery Management Council
50 Water Street Mill 2
Newburyport, MA 01950

Dear Cate:

Thank you for your February 2, 2026, letter providing the New England Fishery Management Council's recommendations for proactive recreational accountability measures for Western Gulf of Maine (WGOM) Atlantic cod and Gulf of Maine (GOM) haddock for fishing year 2026.

As you noted in your letter, preliminary fishing year 2025 Wave 5 Marine Recreational Information Program (MRIP) data were made available only shortly before the January 2026 Council meeting. This did not leave sufficient time for the new information to be fully incorporated into the Recreational Demand Model (RDM) that underpins the Decision Support Tool (DST) prior to the Council making its recommendation for recreational measures for WGOM cod and GOM haddock. To account for this updated information for Council consideration, Northeast Fisheries Science Center staff applied a scaling adjustment of 3.65 times to prior model predicted outcomes for mortality of cod for each set of measures considered by the DST. As such, the Council was only able to consider a limited suite of potential measures that prevented cod mortality from exceeding both cod and haddock sub-annual catch limits (ACL) in at least 50 percent of the model runs.

After the January 2026 Council meeting, Center staff began work to fully incorporate Wave 5 data into the RDM to re-estimate the potential cod and haddock mortality under the Council-recommended measures and the other sets of measures that were considered.

On March 4, 2026, Center staff completed a report (attached) including full RDM results for four sets of measures:

- "Status Quo Actual" – Measures in place during most of fishing year 2025, prior to the publication of the final rule for Framework Adjustment 69 to the Northeast Multispecies Fishery Management Plan (FMP);
- "Haddock 17" – Identical measures to Status Quo Actual, except for a 17-inch minimum size for GOM haddock. This is the same as what can currently be found in the Northeast multispecies regulations in 50 CFR 648.89 following implementation of Framework 69;
- WRTIII5 – The Council-considered option that kept cod closed for private anglers year-round; and
- KLB8 – The Council-recommended option that allowed all modes to keep one cod per person, per day during the month of October only.

Based on the new RDM results, the impact of the Wave 5 data was less than initially expected under the estimates produced via scaling of previous RDM results. As the report details, all these options constrain mortality of cod under the sub-ACL greater than 50 percent of the time. Center staff also evaluated management options with a May open season for cod, but none of these resulted in projected cod mortality under the sub-ACL in greater than 50 percent of the simulations run.

For fishing year 2026, I have determined that we will not change current recreational measures for cod and haddock. This is represented by the "Haddock 17" option in the attached report. This option constrains cod catch below the sub-ACL in 77 percent of simulations. It retains the 17-inch minimum-size limit for haddock recommended by the Council in January and avoids the more restrictive seasonal changes for cod under both WRTIII5 and KLB8. The two-month September-October season provides stability and continuity for the for-hire recreational fleet compared to more restrictive options. Among the measures considered by the Council and re-analyzed by the Center, the measures under the Haddock 17 option best balance the needs of the recreational fishery for groundfish in the Gulf of Maine with obligations under the Magnuson-Stevens Fishery Conservation and Management Act to prevent overfishing.

Because the measures under Haddock 17 are currently implemented in the Northeast multispecies regulations, no additional rulemaking action is required from what has already been planned in this calendar year. If approved, the Amendment 25 (Revised) final rule would revise the stocks of Atlantic cod managed in the FMP from two to four and change existing regulations necessary to manage four stocks of Atlantic cod. As part of that final rule, we would modify the recreational measures currently in place for GOM cod to apply to the WGOM stock.

If you have any questions or concerns regarding recreational measures for these stocks, please contact Spencer Talmage, Fishery Policy Analyst, at (978) 281-9232 or spencer.talmage@noaa.gov.

Sincerely,

Michael Pentony
Regional Administrator

cc: Daniel Salerno, Chair, New England Fishery Management Council
Dr. Jon Hare, Science and Research Director, Northeast Fisheries Science Center

Attachment

WGoM cod and GoM haddock recreational fishery projections for fishing year 2026 based on updated preliminary 2025 wave 4 and preliminary 2025 wave 5 MRIP data

Lou Carr-Harris, Min-Yang Lee, Kim Bastille

3/4/2026

Table 1. FY2026 projections based on updated prelim. 2025 wave 4 and prelim. 2025 wave 5 MRIP data. Regulatory changes from "Status quo actual" are bolded.

	Status quo actual	Haddock 17"	WRTIII5 (close private)	KLB8 (close September)
Cod limit	1	1	1	1
Cod size	23"	23"	23"	23"
Cod open season	Sep. 1st – Oct. 31st	Sep. 1st – Oct. 31st	For-Hire: Sep. 1st – Oct. 31st **Private: closed**	**Oct. 1st – Oct. 31st**
Projected cod total mortality (mt; median of 201 simulations)	89 mt	90 mt	65 mt	74 mt
Cod sub-ACL	118 mt	118 mt	118 mt	118 mt
% under cod ACL (out of 201 simulations)	77%	77%	95%	89%
Haddock limit	15	15	15	15
Haddock size	18"	**17"**	**17"**	**17"**
Haddock open season	May 1st – Feb. 28th April 1st – April 30th	May 1st – Feb. 28th April 1st – April 30th	May 1st – Feb. 28th April 1st – April 30th	May 1st – Feb. 28th April 1st – April 30th
Projected haddock total mortality (mt; median of 201 simulations)	445 mt	468 mt	467 mt	468 mt
Haddock sub-ACL	1,146 mt	1,146 mt	1,146 mt	1,146 mt
% under haddock ACL (out of 201 simulations)	100%	100%	100%	100%

Note: The recreation demand model was also used to simulate a management option that opened cod in May, September, and October with a one-fish, 23" daily possession limit. Fewer than 50% of the simulations projected cod total mortality below the cod sub-ACL.

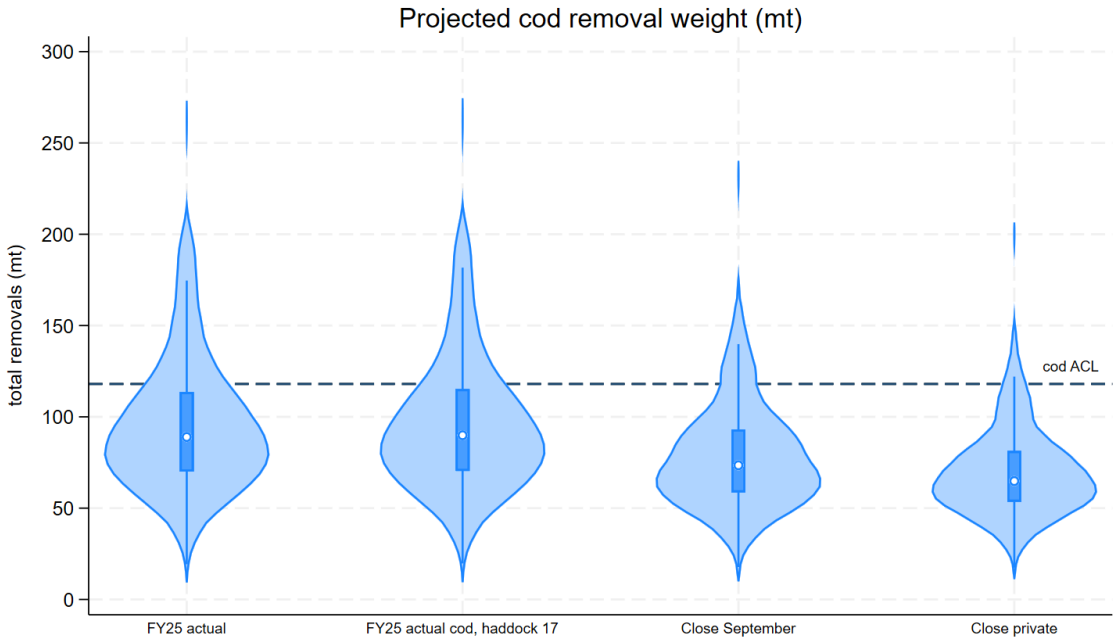


Figure 1. Distribution of projected total cod removals across 201 simulations for each management alternative. The dot on the violin plot represents the median, the bars represent the 25th -75th percentiles of outcomes, and the exterior lines represent the entire probability distribution of outcomes.

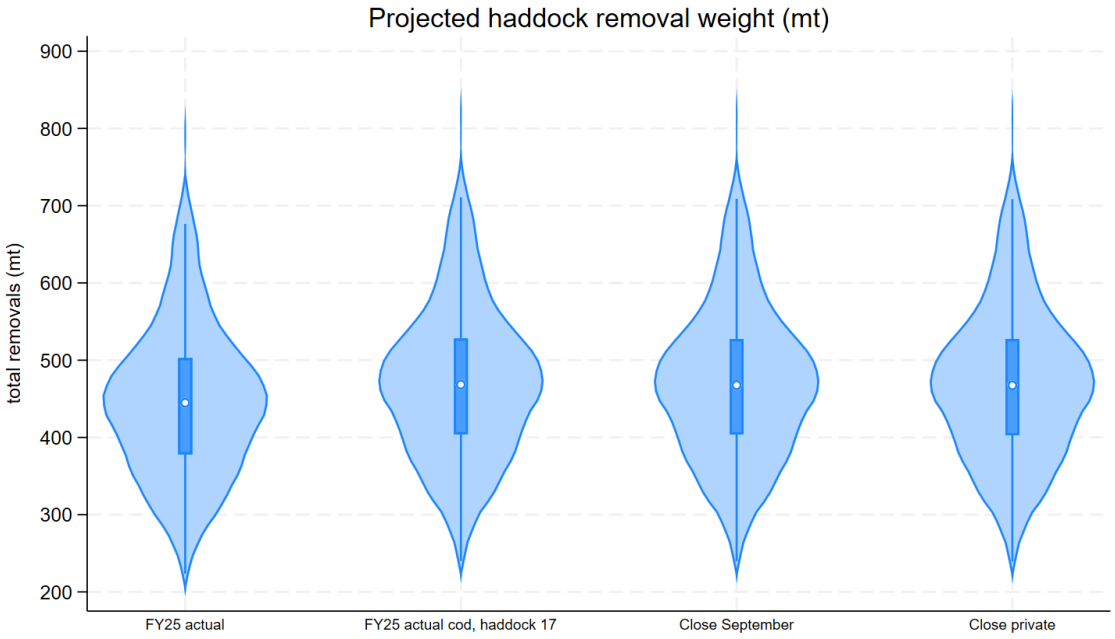


Figure 2. Distribution of projected total haddock removals across 201 simulations for each management alternative. The dot on the violin plot represents the median, the bars represent the 25th -75th percentiles of outcomes, and the exterior lines represent the entire probability distribution of outcomes.

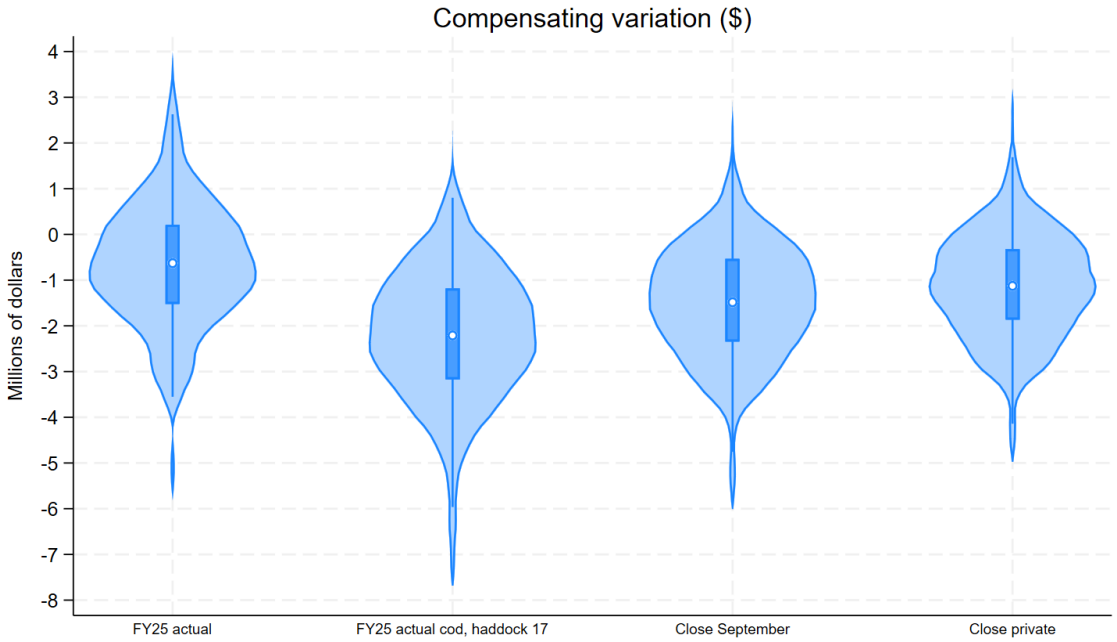


Figure 3. Distribution of compensating variation (CV) across 201 simulations for each management alternative. CV measures the dollar amount that would be needed to be paid to, or taken from, anglers to make them as well off under a given management alternative as they were under management and fishing conditions in the baseline year (November 1, 2024 to October 31, 2025). ***Negative values therefore indicate better angler outcomes;*** money could be taken away from anglers and they would still be as satisfied as they were in the baseline year. The dot on the violin plot represents the median, the bars represent the 25th -75th percentiles of outcomes, and the exterior lines represent the entire probability distribution of outcomes.

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Dear Council Chair Daniel Salerno,

My name is Robert Vanmeter, and I am the General Manager of the Portland Fish Exchange. In recent conversations with fishermen landing at the Exchange, many have expressed significant concerns about the Redfish Exemption Program—particularly its perceived impact on pollock landings in Maine. A primary issue raised is the enforcement of mesh-size requirements at the extension and cod ends, which are essential for allowing smaller fish to escape, reproduce, and contribute to long-term stock health. These fishermen believe that smaller mesh sizes are resulting in increased landings of small, low-value fish, which is negatively impacting pollock landings, stock health, and market conditions in Maine.

The Portland Fish Exchange stands firmly with our fleet, whose work is critical to sustaining our working waterfront. Fishermen already face constant pressures on their livelihoods, and many are concerned that current measures may influence the number of fish that survive to marketable size. Smaller fish have limited commercial value at the Exchange, and our fleet depends on landings of larger groundfish, which bring higher market value and help sustain both fishing operations and the financial stability of the Exchange.

Here in Portland, we continue to work to maintain a small-boat groundfish fleet. Mesh-size limits are broadly recognized as necessary to support that fleet and protect future stocks. When a regulation provides short-term or modest benefits to a narrow subset of vessels—while also creating enforcement challenges and raising concerns about potential impacts on the broader groundfish fishery—it is understandable that fishermen request closer review. On behalf of those landing at the Portland Fish Exchange, who report reduced pollock landings while complying with larger mesh requirements, we ask the Council to evaluate how the redfish mesh-size exemption aligns with the broader needs and conditions of the fishery.

Thank you for your consideration of our groundfish fleet.

Sincerely,

Robert Vanmeter
Portland Fish Exchange

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492
Daniel Salerno, *Chair* | Cate O'Keefe, PhD, *Executive Director*

March 27, 2026

Mr. Michael Pentony
GARFO Regional Administrator
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

RE: Comments on Exploration of Targeted Commercial Groundfish Sector Access to Inshore Cod Protection Closures to better optimize overall yield of other allocated groundfish stocks and provide cod spawning information for the New England Fishery Management Council's Phase 2 of the Atlantic Cod Transition Plan

Dear Mike:

Please consider the following comments regarding the exempted fishing permit (EFP) application submitted by the Northeast Seafood Coalition (NSC) and the Massachusetts Division of Marine Fisheries (MA DMF). The New England Fishery Management Council (Council) has no objection to the proposed work outlined in the EFP request as published in the Federal Register on March 16, 2026 (91 FR 12585). The Council wishes to provide comments regarding support for the objectives, suggest considerations to maximize project utility, and highlight concern about the potential impacts from the proposed fishing activity in the new Area C under the EFP.

As described in the Federal Register notice, the EFP proposes refinements to last year's EFP for a study aimed at evaluating the utility of seasonal Gulf of Maine (GOM) cod protection closure areas, collecting biological samples of cod, and supporting industry access to healthy groundfish stocks. The Council continues to support the primary objective of the proposed study to explore the potential for future groundfish sector access to selected locations within the inshore GOM cod protection closure areas (in the spring GOM Cod Protection Closures I and II, closed in May and June, respectively[1]) to harvest other allocated groundfish stocks, while maintaining cod protections. More specifically, the fishing industry has voiced to the Council that these spring cod protection closures limit access to other underutilized groundfish stocks including GOM haddock, American plaice, GOM winter flounder, and Cape Cod (CC)/GOM yellowtail flounder, due to an overlap in the seasonal and/or spatial availability of these stocks within the closures. This study may confirm times and locations within the protection closures where other groundfish can be harvested with minimal impacts to spawning cod. The Council supports the refinements made to Areas A and B based on experience with the project in 2025.

[1] https://www.fisheries.noaa.gov/new-england-mid-atlantic/commercial-fishing/northeast-multispecies-closed-area-regulations-gulf#gulf-of-maine-cod-protection-closures

The revised EFP for 2026 adds a third location (Area C) in November within GOM Cod Protection Closure III. The addition of Area C could provide information about the winter spawning stock of WGOM cod, to complement information on the spring spawning stock of WGOM cod in Areas A, B1, and B2. The proposal notes this new area would provide additional access at a different time of year and for vessels from other ports, but the proposal is not clear about which species would be the target of the fall fishing activity. The November catch data provided documents that the greatest portion of groundfish caught is cod (32.98%). The November catch of the underutilized species cited in the proposal is substantially lower than cod catch: American plaice (23.02%), yellowtail flounder (15.72%), haddock (6.72%), and winter flounder (no value provided).

Based on the detailed project narrative shared with the Council, we offer comments on design considerations that could improve the utility of the project in meeting the first objective. We offered some of these comments in our April 28, 2025 letter related to the 2025 project, and we re-emphasize and offer additional comments particularly with respect to the addition of Area C:

- The project intends to evaluate and develop finer-scale "targeted" areas within the cod protection closure areas that would allow for harvest of groundfish species with low bycatch rates of cod in spawning condition.
    - The Council recommends participating vessels conduct their own catch reporting of all groundfish species including Atlantic cod on a tow-by-tow basis. This will provide an additional data stream to compare to observer or electronic monitoring data. If this is not feasible, we recommend that participating vessels report catch on a tow-by-tow basis on Vessel Trip Reports (VTRs), not at the subtrip level. While VTR and dealer data are typically collected at the subtrip level, tow-by-tow data reported on VTRs will provide more information about when and where higher or lower catch rates of cod and other species occur, as well as facilitate matching of fishing effort and catch between the observer or electronic monitoring data and VTRs.
- The project narrative specifies that tows conducted within the targeted areas would be restricted to remain inside the area for the entire tow, but vessels could make tows both inside and outside the target area on the same trip.
    - The Council recommends that vessels not have the ability to move in and out of the "targeted" study area multiple times on a single trip unless vessels report on a tow-by-tow basis. With sub-trip level reporting, we recommend that either the vessel commits to fishing within the study area first and then moves outside, or the vessel commits to fishing outside the area first and then moves inside. This will facilitate better monitoring of catch. Whichever option is chosen, vessels should send a notification (such as a Vessel Monitoring System (VMS) catch report) to NMFS and the sector manager that indicates that they are switching from fishing inside to outside the study area (or vice versa). A VMS notification would help with enforcement purposes. Similarly, not allowing participating vessels to move in and out of the study area on a single trip could improve enforcement.

- The project proposes 178 tows (80 tows in Area A; 48 tows in Areas B1/B2; and 50 tows in Area C) to be conducted by 14 vessels (all single day trips). The maximum tow duration would be 4 hours in Areas A, B1, and B2; and 2 hours in Area C.

    - Trips should be evenly distributed (as best as possible) across the project both temporally and spatially to maximize the level of information collected.
    - A 4-hour tow time appears very long given the small geographic size of Areas A, B1, and B2. Tows of that duration could result in large catches of spawning cod, if they are encountered. Is a 4-hour maximum tow time necessary to achieve the project's objectives?
    - The 2-hour tow time for Area C appears less likely to risk a large bycatch of spawning cod. This seems particularly important because the Industry-Based Survey Data overlaid on Area C depicts that approximately one third of the tows in Area C caught spawning cod. Notably, it would appear that making the eastern border of Area C the western border, and thus moving the box east by its own width (approximately 2.4 nm), would avoid all tows that had a bycatch of spawning cod.

- The project narrative specifies vessels would only be allowed in targeted areas if they have a Northeast Fisheries Observer or At-Sea Monitor aboard or participate in an approved electronic monitoring program for the trip.

    - Given the importance of this study focus, we recommend that the Observer Program prioritize full review by data debriefers of these study trips when processing observer data.

The second objective of the study stated in the EFP is to generate data to evaluate the nature of Western Gulf of Maine (WGOM) cod spawning activity in spring seasonal cod protection closures. Through input received at the Atlantic Cod Management Transition Plan workshops held in spring 2024, stakeholders expressed a desire for the Council to re-evaluate current cod protection closures and spawning closures in the context of the revised Atlantic cod stock structure, as well as consider additional spawning protections during Phase 2 of the transition plan. Catch and bycatch information collected during this study could inform adjustments to the temporal or spatial extent of the cod protection closures or affirm whether the areas targeted in this study would be appropriate as discrete time/area exemptions from the cod protection closures. However, as noted above and in the project narrative, the study is designed to focus on areas within the GOM cod protection areas that were previously demonstrated to have low spawning cod density compared to other portions of the closure based on data from industry-based surveys, as well as having a provision to terminate EFP activity if proposed thresholds of encountered spawning cod are exceeded. Thus, the aim of the design appears to be to minimize impacts to spawning cod. As a result, the Council provides the following comments that could improve the understanding and utility of the second objective:

- It is unclear how the project will address the second objective of the study (to generate data to evaluate the nature of WGOM cod spawning activity in spring seasonal cod protection closures) given the primary objective to focus on targeted areas within the cod protection closures expected to have minimal cod spawning activity. It seems this

objective is more about verifying the absence of, or minimal levels of, spawning cod in these targeted areas. We suggest a clearer description of this objective would help with interpretation of project findings and application to management consideration in Phase 2 of the Council's Atlantic Cod Management Transition Plan.

- Further, the study is focused on one sub-set of the statistical blocks that comprise GOM Cod Protection Closure Areas I in May and GOM Cod Protection Closure Areas II in June; and a second sub-set of the statistical blocks that comprise the GOM Cod Protection Closure Area III in November. Blocks 125, 138, 139, 140, 146, and 147 are omitted from this project in May and June; and the closed portion of block 124 is omitted in November. The overall re-evaluation of the spawning closures would benefit from a holistic understanding of cod use and their spawning condition in and across the current closure areas.
- It is noted that the provision intended to reduce harvest of spawning cod (i.e., spawning cod thresholds) will by nature limit the utility of these data for evaluating WGOM cod spawning activity.
- The Council applauds the timely monitoring of spawning thresholds that occurred in 2025 and supports the continued use of the approach in 2026.
- The information used to develop the cod protection closure areas was based primarily on spawning (ripe, ripe and running, and spent) cod but also considered developing cod to reduce mortality prior to spawning and enhance survival of mature fish to increase spawning potential. We suggest the project consider including a similar threshold for termination of the project if vessels encounter developing cod (the stage prior to ripe). Given developing is a longer stage of maturity, this threshold could be higher than for spawning cod to allow for additional fishing effort while preventing excessive catch of this stage of cod.
- It is unclear the extent to which the spawning condition of any cod encountered will be representative of the spawning condition of cod in the entire protection closure area and how this might impact interpretation of project findings.
- The project narrative states that cod of all sizes caught in each tow conducted within the target areas would be kept whole (round) and sampled for sex and maturity by MA DMF upon return to the dock. Further, the narrative asserts that legal size catch would be sold.

    - The Council agrees it is appropriate to identify sex and maturity stage of all cod caught during the study. Cod size, as well as all tow information should be documented. As the catch will be stored round during the trip, catches should be stowed in a manner to reduce degradation of organs (e.g., gonads) that will be sampled.

Lastly, the Council appreciates that the revised EFP provided summary catch data from 2024 to facilitate evaluation of the potential impacts on WGOM cod catch overall. The Council is concerned that the catch data for November (when Area C would be open) demonstrates that cod made up the highest percentage (32.98%) of groundfish catch and nearly one third of total groundfish catch. That is more than double the percentage of catch comprised of yellowtail flounder (15.72%) and ten percentage points higher than American plaice (23.02%), the next two highest contributors to the total groundfish catch. The Council acknowledges that this

catch is from the larger geographic area of Statistical Area 514 but finds the proportion of cod caught to be particularly concerning when coupled with the proportion of Industry-Based Survey tows in Area C that caught spawning cod.

Thank you for the opportunity to provide comments, and please contact me if you have questions.

Sincerely,

Cate O'Keefe
Executive Director