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For a thriving New England

CLF Massachusetts
62 Summer Street
Boston MA 02110
P: 617.350.0990
F: 617.350.4030
www.clf.org

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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.

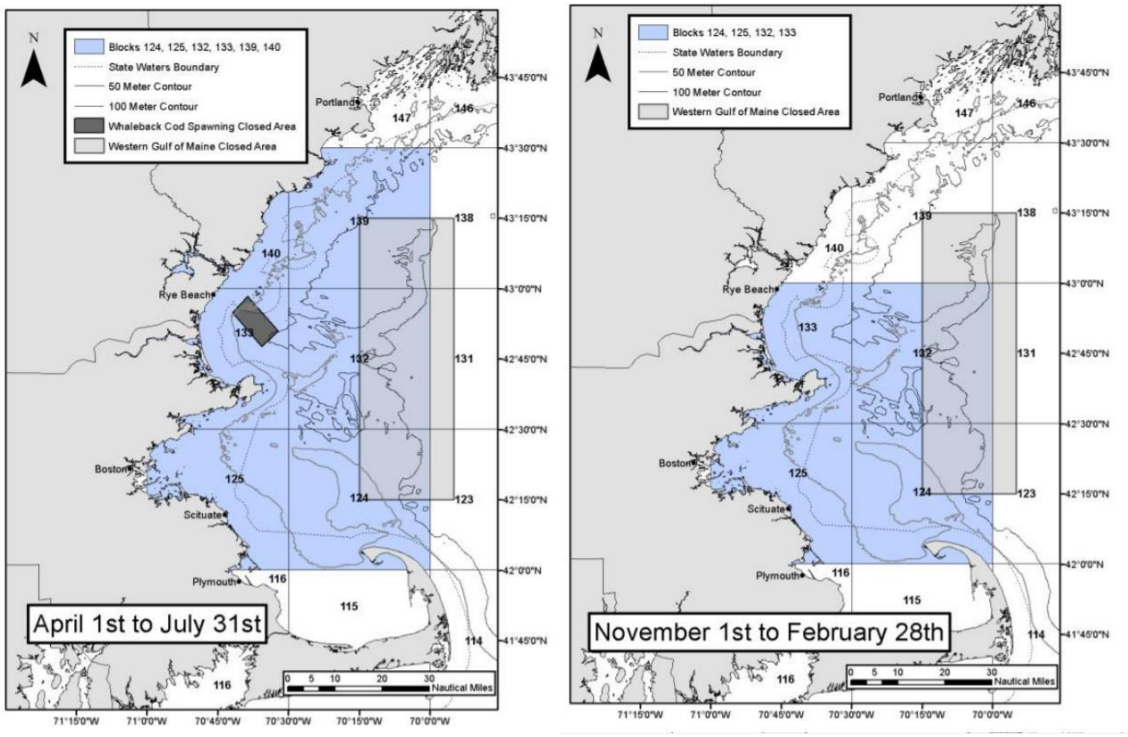

Figure 1: PDT recommendation for seasonal cod spawning closures in the Western Gulf of Maine (shaded in blue) compared to then-current (2014) closures.[17]

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

Allison Lorenc
Policy Analyst
Conservation Law Foundation

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