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CORRESPONDENCE

ASSOCIATED FISHERIES OF MAINE
PO Box 287, South Berwick, ME 03908

October 6, 2020

Mr. Tom Nies, Executive Director
Mr. John Quinn, Chair
Mr. Terry Alexander, Groundfish Committee Chair
New England Fishery Management Council

VIA ELECTRONIC MAIL

Dear Tom/John/Terry:

Thank you for the July 6, 2020 letter to GARFO on behalf of the Council's position that GARFO "immediately issue a rule reverting the Redfish Exemption Area back to its FY 2019 state." Unfortunately, we learned today that GARFO has denied the Council's request. Rationale for this disappointing decision has not been provided but we expect to learn more in a forthcoming letter of response to the Council.

We hope the Council shares our concern that full access to the exemption area developed through extensive cooperative research is being denied. GARFO has committed to work with the groundfish sectors to make changes to the redfish exemption in the 2021 operations plans. Given that GARFO chose to significantly shrink the boundaries of this area less than one week before the start of the 2020 fishing year, without consulting the sectors that utilize this exemption, we frankly do not have faith in the exemption process.

Therefore, we write to ask the Council to convene the Groundfish Advisory Panel to work with the Council's groundfish staff to develop a universal exemption that could be implemented through Framework 61. The analytical work to support the exemption area has already been accomplished through the RedNet program, and the industry stands ready to address any concerns raised by GARFO about the 2019 exemption boundaries.

Sincerely,

M. Raymond
Maggie Raymond
Executive Director

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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

October 9, 2020

Michael Pentony, Regional Administrator
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930

Re: CLF Response to Council Staff's Draft Letter for Review regarding CLFs Petition for Rulemaking to End Overfishing and Rebuild Atlantic cod

Dear Mr. Pentony:

Conservation Law Foundation (CLF) submits this response to *Council Staff's Draft Letter for Review*[1] (Letter), regarding CLF's petition to the National Marine Fisheries Service (NMFS) for rulemaking to end overfishing and rebuild Atlantic cod (Petition). The Letter does not directly address, let alone confront the central problem: all of this management--whether characterized by CLF or the Council--has not worked and the Council again reveals the fundamental bankruptcy of both its efforts and commitment. Cod stocks remain perpetually overfished; neither stock is rebuilding even remotely on schedule; and the best available science demonstrates that persistent overfishing has occurred for decades.

We appreciate that the New England Council has prioritized commitments to address the conclusions of the Atlantic Cod Stock Structure Working Group and the 2023 research track assessments, and we commend the Council's recent decision to adopt a 100 percent at-sea monitoring target in Amendment 23. Those actions are good as far as they go but will not bear fruit for years to come. Moreover, these actions capture the Council's most fundamental orientation toward rebuilding cod: "someday."

The Council's persistent failures with cod and other flatfish stocks must be contrasted with the Pacific Fishery Management Council and its groundfish fishery's management of chronically overfished rockfish stocks, which were forecast to need rebuilding programs that stretched into the distant future. They took the actions they needed to: adopted 100 percent accountability at-sea and at the docks, closed the fishery, switched to gears that minimized rockfish bycatch, closed large areas of prime rockfish EFH to all bottom-tending fisheries, and established risk pools that allowed flexibility in fishing on non-rockfish stocks. Perhaps most important, the fishery took it upon themselves to do what was necessary and self-police to

[1] Available here: https://s3.amazonaws.com/nefmc.org/4e_Draft_NEFMC_to_GARFO_CLF_Petition-with-attachments_200924_085019.pdf. A final copy of this letter has not been made publicly available to our knowledge.

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eliminate incentives for cheating and misreporting. It worked and most of the rockfish stocks soared back to health.

The New England Council and its groundfish fishery seem incapable of reproducing those results and opt instead to defend their prior inadequate actions and squabble over characterizations of SSC reports and the impacts of climate change. CLF's Petition seeks Secretarial action to break this cycle and put into place the multiple conservation and management measures that will be necessary to actually recover these cod stocks and this fishery.

Perhaps our proposed remedies are not sufficient or not as surgical as they could be. Our Petition does not suggest that rebuilding cod will not be complicated or painless. But this is a management hole that the Council has dug for itself with NMFS's approval and NMFS is now obligated to take responsibility for returning this fishery to health. CLF would look forward to working with NMFS on remedial management actions, new rebuilding schedules, or any of the myriad other elements of successful program such as the Pacific groundfish fisheries have, but the Council has forfeited its right to manage this fishery. The MSA mandates have been ignored for too long and are still ignored in the Council's responsive Letter.

In the table below, we provide brief responses to the Council's Letter for your consideration. We also repeat our standing interest in having the opportunity to discuss this with you directly.

Sincerely,

Peter Shelley, Senior Attorney
Erica Fuller, Senior Attorney
Gareth Lawson, Senior Science Fellow
Allison Lorenc, Policy Analyst

This table was reproduced from the Council's draft letter as provided during the September/October 2020 meeting (we made no effort to correct typos). CLF's responses to each point are provided in bold.

	Original Petition
Page	Comment
ii	CLF misstates the MSA rebuilding requirements: "not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions,

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	or management measures under an international agreement in which the United States participates dictate otherwise." **CLF paraphrased the rebuilding requirements in the executive summary, with a footnote to the statutory provision. See full discussion Petition at 5.**
iii	NEFMC has consistently followed scientific advice since at least 1994. Since 2010, catch limits have been consistent with recommendations of the SSC. Challenges to those limits have been rejected on at least three occasions by two different US District Courts. Two different courts have upheld the Council's consideration of economic impacts while setting quotas. **CLF does not assert that catch limits have been inconsistent with majority SSC recommendations. We do assert that the Council's risk policiesconstraining the SSC have been inadequate. The history of past actions demonstrates a pattern of ineffective decision-making and agency approvals.**
v	There are technical issues with Figure 2. 1. SSBMSY and FMSY are shown as constant over the time period, but this is not accurate. These parameters change based on selectivity, recruitment, etc. In addition, this chart does not reflect both GOM cod models currently in use. These technical issues are not likely to modify the perception the stocks are in poor condition. 2. 2. The retro adjustment shown is only applied to the terminal year of an assessment. As a result, it can present a misleading indicator of stock trends at the end of the time series. **The graph shown in Figure 2 is plotted in the same manner as the NEFSC assessment reports. Those parameters change, but this is an instructive way of looking at the assessment results. The retrospective pattern adjustment is also plotted in the same manner as the NEFSC reports to highlight uncertainty in the model results and give an estimate of the magnitude of possible bias.**
vi	The statement on the rejection of the 2015 operational assessment is only partially accurate. The model was rejected for several reasons, not just due to the retro error. Most notably, the reviewers also said "The pattern and magnitude of predominantly positive aggregate survey residuals in the last decade also increased, indicating that the updated assessment does not fit survey trends well, and conflicts between information in fishery and survey age composition and survey trends increased."

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	This oversight does not change the fact that the GB cod assessment model was rejected for purposes of management advice.
viii	The measures proposed by CLF focus solely on rebuilding cod stocks without any consideration of the impacts on communities. It is not clear these approaches would be consistent with NS8. **National Standard 8 does not override National Standard 1 in the case of an overfished fishery. In any event, cod stocks have suffered 30 years of being subordinated to short term community interests, producing both collapsed cod stocks, vanquished cod fishermen, and commercially extinct cod fisheries.**
ix	CLF does not accurately characterize the court's ruling on CLF v. Pritzker. CLF challenged two separate provisions adopted by FW 50 and 48. First, they challenged the GOM cod ACL as too high. Second, they challenged that the carry-over allowance was illegal because it could lead to a catch limit that exceeded the ABC recommended by the SSC. On the first point, they lost. The court ruled "In such a situation, the National Standards actually encourage the Service and the Council to take cost into account, to the extent practicable... Considering cost to industry, then, was a reasonable decision. The ACL for Gulf of Maine cod must remain in place." The court affirmed the complaint about carry-over. The carry-over complaint was for all stocks, not just GOM cod. **CLF will not debate legal matters with the Council.**
2	In listing the National Standards, CLF conveniently leaves out NS8. On three occasions – two were lawsuits by CLF – courts have ruled the Council appropriately considered the needs of fishing communities when setting catch limits or rebuilding programs. This fact is ignored throughout the Petition. **See above.**
4	Several incorrect statements of ABC control rules on this page. 1. CLF misquotes the NS1 guidelines (NS1G) on ABC control rules – it does not say "control rules should become more conservative as biomass estimates decline." What the NS1G says is "The ABC control rule should consider reducing fishing mortality as stock size declines below Bmsy and as scientific uncertainty increases…" 2. CLF cites Oceana v. Lock in this discussion. The court upheld the A16 ABC

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	control rules, a fact CLF does not report. 3. The ABC control rules used on the multispecies plan were developed by the SSC. They replaced control rules that reduced the target F as biomass declined. See A16 page 78. **CLF paraphrased the nature of the ABC control rule based on its intended purpose on page 4 of the Petition. CLF has not challenged the ABC control rule in Amendment 16 as written. Rather, we note simply that it has not been followed.**
8	CLF mis-states the criteria for emergency action. There are three, not two: recent, unforeseen events, or recently discovered circumstances; presents serious conservation or management problems; can be addressed through emergency action where the benefits outweigh the value of advance notice, public comment and deliberative consideration of the impacts. **This comment is irrelevant. See Petition at pp. 8 and 57-58.**
8	There are court opinions that conflict with CLF's conclusion that the Council "has repeatedly failed to develop and submit the necessary measures to end overfishing and rebuild Atlantic cod." In the lawsuit on FW 50, the court decisions said: ""CLF notes that the Service's previous efforts have failed to prevent Gulf of Maine cod overfishing, that there is significant scientific uncertainty regarding this population, and that the model used by the Committee to arrive at the higher ABC is not the economic model the Committee typically uses. All of this is true. But the Committee – which is the scientific expert here – ran the numbers, accounted for the aforementioned scientific uncertainty, and determined that both models and both recommended ABCs would prevent overfishing...None of Plaintiff's concerns undermines that analysis. In addition, either recommendation represents a steep downward departure from previous fishing limits – which increases the likelihood that the new caps will prevent overfishing... The cod ACL thus comports with National Standard 1. " **CLF will not debate legal issues with the Council. The facts and circumstances presented in CLF's Petition speak for themselves.**
9	CLF refers to historic low levels of stock size. "historic", in this case, really means only back to 1982 - the start of the assessment time series - or 1962 -the start of the trawl survey. GOM cod catches in the late 50s - a period of few regulations - were not much higher than recent catches constrained by regulation. I suspect if we had a survey or assessment from the 50s, stock

	status may have been worse than they are now. **The focus of CLF's petition is on the need for Secretarial action now for the reasons set forth in the Petition and well understood by the agency's scientists and managers. The commenter's speculation about the 50s cod populations is pure, well, speculation.**
10	CLF highlights the decline for the groundfish stocks by 65 percent from 1977 to 1987, but ignores more recent increases of the complex. These increases are driven by a few stocks, however. **This comment does not address or shed light on the decline and current poor status of cod.**
10	CLF criticizes "short-term economic decisions that jeopardized the long-term future…" The MSA's NS8 requires the consideration of impacts on communities. On two occasions, CLF complaints that rebuilding programs or catch limits should not have taken this into account were rejected by a court (A13 and FW 50 lawsuits). **See prior responses.**
11	CLF incorrectly reports stock status as determined in 2002. You cannot compare that assessment to a more recent overfishing definition. NMFS corrected their determination in a letter to the Council. **The commenter's chronology here is confusing and irrelevant to the purposes and intent of the Petition. To the best of our knowledge based on the best available science CLF has reviewed, the statement that both GOM and GB cod were designated as overfished and subject to overfishing in 2002 remains true (both for the stock assessments as listed in the Petition and the report to Congress for that year).**
11	CLF incorrectly attributes the errors in the 2008 assessment solely to the treatment of 2007 survey data. The letter implies this was a careless mistake by the Council. While that was a contributor, analyses in the 2011 assessment document show that the over-estimate of biomass was largely caused by errors in estimating weights at age and other changes to the catch stream. These corrections accounted for 82% of the reduction in the estimate of 2007 biomass, with the survey issue accounting for the rest. **This comment is irrelevant for the purposes and intent of the Petition and**

	the current needed dramatic remedial action for the collapsed cod stocks. The Petition does not imply that the handling of the federal survey data was a careless mistake. In any event, in every assessment since 2002 the stocks have been determined to be overfished with overfishing occurring. The only exception was in 2008 for GOM cod, but that assessment was later determined to be erroneous (the stock was in fact overfished with overfishing occurring).
12	Note that Table 1 incorrectly reports the results of the 2002 assessment as overfishing occurring. It was not, and NMFS provided a letter stating that. **The Council may be confusing 2002 and 2000.**
13	CLF incorrectly states what FMSY is. First, it is not a fishing mortality rate target – it is a limit that is not supposed to be exceeded. Fishing above FMSY is considered overfishing under the MSA. As such, it is not associated with any particular stock size. FMSY is the fishing mortality rate that, over the long term, would give the maximum sustainable yield. Second, the Council's ABC control rule does not set 75% FMSY as the "proper fishing mortality for a healthy stock." The Council's ABC control rule explicitly recognizes that 75%FMSY may be adequate to achieve rebuilding objectives for an overfished stock: "If fishing at 75% of FMSY 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 (Frebuild)." **CLF agrees that the caption to Figure 5 is imprecise and refers loosely to FMSY as a target rather than a limit. This semantic mis-step does not negate the conclusion: relative to that FMSY limit the GOM cod stock has been subject to overfishing for the entirety of the time series.** **The relevant sentence provides context to the finding of the most recent assessment that F remains 9-13% higher than FMSY. In any event, in recent years, rebuilding analyses conclude that the stock cannot rebuild even with F=0. While F has been approaching the overfishing limit FMSY, it has not come down enough given the repeated failure to rebuild. More to the point, history here demonstrates that rebuilding these stocks with almost a sole focus on F rates, even accurate-at-sea F rates, is insufficient. But see Pacific rockfish rebuilding suite of measures.**
14	Figure 5 concludes that the M-ramp results would show a similar pattern. That is not really certain. Reference points have never been calculated under the

	Mramp model The Mramp model is using the M=0.2 reference points under the assumption the higher F is a temporary deviation and a lower M wil lreturn. If you are going to look at the results of this model over the entire time series, you should compare the output to Mramp reference points. **Where the Petition stated that a graph of M-ramp results would show a similar pattern, we referred to graphing the results relative to the reference points developed with M=0.2 for projections (as in the NEFSC assessment). These are the currently available reference points. We agreed with the commenter that reference points using the M=0.4 would be helpful. See Petition at 59.**
15	CLF would you have the reader believe that that changes in distribution is solely due to overfishing. Changes in spatial distribution may be partly due to climate change. **This assertion is incorrect. See Petition at e.g., 47:** **"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 populations."**
16	CLF claims measures have not been developed in response to low recruitment and truncated age structure. This ignores development of additional closures from 1996 through 2004, changes in mesh size to reduce capture of small fish, and targeted reductions in mortality. **The Council has perfected the dubious art of slow-walking fisheries management. Even if actions have been taken to address low recruitment and truncated aged structure, they are insufficient: recruitment remains near record lows and age structure is severely truncated. Further action is manifestly necessary.**
20	CLF is misleading on the retro issue and GOM cod. Prior to 2011, there was not a significant retro pattern for GOM cod. The GARM III assessment had only a minor retrospective pattern. The pattern first appeared in 2011/SAW 53, but was judged "moderate" and an adjustment was not applied. A change in the recruitment assumption was made for short-term projections that reduced recruitment at low stock sizes. In 2012/SAW 55, the retrospective pattern (M=0.2 model) increased but reversed direction in the terminal year: "While

	the retrospective pattern is larger than that observed in the SAW53 model, the directionality in the terminal year has shifted such that spawning stock biomass tended to be underestimated and fishing mortality overestimate(d). It appeared that the retrospective pattern was transient with a one year peel showing no bias. Both the SAW 55 WG and SARC 55 Panel agreed that no adjustment be made for retrospective pattern given that the retrospective pattern is small, it may be transient in nature and that SAW 53 made no retrospective adjustment." This panel also said "There was no indication that important sources of catches were not accounted for." In 2015, the pattern was characterized as "major" (M=0.2 model) but an adjustment was not made, consistent with the 2011 and 2012 assessment reports. Note that this assessment concluded "Population projections for Gulf of Maine Atlantic cod are reasonably well determined and projected biomass from the last assessment was within the confidence bounds of the biomass estimated in the current assessment." The 2017 update again concluded the retro error was major but did not make an adjustment. This was the first assessment report to suggest catch data might be a problem: "Other areas of uncertainty include the retrospective error in the M=0.2 model, residual patterns in the model fits to some of the survey series, stock structure, and the accuracy of fishery catch data." The 2019 assessment also found the pattern to be major but an adjustment was not applied by the review panel. The SSC, however, considered retro-adjusted projections when developing the ABC for this stock. **In the interest of brevity, the Petition did not recount a full history of the retrospective pattern analyses and it speaks for itself on the history of retrospective patterns in the assessments. Irrespective of earlier assessments and decisions therein, the magnitude of recent retrospective patterns (2015, 2017 & 2019) was sufficient to warrant adjustment under the guidelines used for other groundfish stocks. Despite the words of caution in the assessment reports and despite the fact that adjusted values are used in other groundfish stocks prior to 2019, adjustments were not used for catch advice.**
22	Paragraph 6: CLF incorrectly states the NS1G requires that an ABC control rule must produce progressively more conservative management actions as biomass estimated decline. This is inaccurate, as noted above – the NS1G says this should be considered. (Arguably the control rule does become more conservative, since catches decline with stock size.) **Yes, NS1 guidelines state that progressively more conservative management actions should be considered as biomass declines. More to**

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	the point, the MSA states that overfishing must be ended immediately and stocks must be rebuilt in a time period as short as possible taking into account certain factors.
23	CLF incorrectly states the ABC control rules unlawfully sanction overfishing up to 50 percent of the time. This is incorrect. The Council's ABC control rule sets the OFL with a median probability of overfishing. The ABC is always set below that amount. The Council routinely reports the probability of overfishing for its ABCs in its framework actions and it has never been at 50 percent since 2010. **The Letter is correct on this point, however, it fails to dispute the fact that the OFL is being set with only a median probability of preventing overfishing on perpetually overfished stocks and that the ABCs have never proven to be sufficient for achieving MSA minimum requirements for rebuilding and preventing overfishing immediately.**
24	CLF's summary of the FW 53 ABC decision is not consistent with the record. CLF is misconstruing the SSC's initial recommendation. The SSC explicitly called its first recommendation a provisional ABC. Because of the control rule guidance on rebuilding, "3. The SSC requests that the PDT produce estimates of incidental, non-target bycatch of GOM cod, including spatial patterns of bycatch, in time for the October 20, 2014 SSC meeting so that the SSC can consider adjusting the ABC in light of that information and providing additional advice." The SSC did not say rebuilding could occur with the ten year timeframe - they said "Based on this analysis, the SSC concluded that rebuilding this stock in 10 years is unlikely under current conditions...SSB would still be projected to increase, so an ABC of 386 mt would not compromise the ability of the stock to rebuild. However, catch projections to provide for rebuilding by 2024 would need to be re-estimated." Also, note this: "The control rule includes a provision for the ABC to be set based on an estimate of incidental non-target bycatch, with a reduction, when projections suggest that rebuilding is not possible within 10 years. Given the information at hand and the need to balance this provision with other components of the control rule associated with alternative scenarios put forward by the assessment, this recommendation is the best option the SSC can offer to achieve this policy objective." **CLF will not debate the Framework 53 ABC decision with the Council. The facts are:** - **Barely into the 2014 rebuilding plan, 75%FMSY was greater than**

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	Frebuild - **Whether "provisional" or otherwise, the SSC initially recommended an ABC based on Frebuild** - **The ABC approved was essentially based on 75%FMSY and Option A.** **These unreasonable Framework 53 decisions were the subject of an earlier petition from the Center for Biological Diversity that the agency rejected but promised to address if the situation did not improve. See Petition at 35. Rebuilding is not happening, and overfishing is continuing, and it is past time for the agency to keep its commitments to take action.**
25	On this page, CLF makes numerous misleading statements. First, CLF shifts seamlessly from arguing the FW 53 ABC would not rebuild fast enough to the claim NMFS "…did not determine or require that the ACLs end overfishing as the statute requires." Neither the 200 mt nor the 386 mt amounts are higher than the SSC's OFL of 514 mt. Neither was expected to result in overfishing. CLF is wrong - the selected ABC was expected to end overfishing, based on the best available science and the advice of the SSC. **Stock assessments consistently demonstrate that chronic overfishing was occurring.**
25	Next, CLF criticizes NMFS for basing its approval decision on the economic and social needs of fishing communities. Since the ABC was expected to end overfishing, this is appropriate. Two separate court decisions have affirmed this. **See prior responses.**
25	CLF complains Frebuild was not calculated. The PDT report explains Frebuild was not calculated if the stock cannot rebuild by the end of the period at F=0. **We are not aware of the PDT report mentioned and were unable to find a calculation for Frebuild.**
25	CLF selectively quotes the SSC concerns out of context. What the SSC said was "The operational assessment for Gulf of Maine cod suggests that the steep decline in biomass observed from 2009-2013 might have been arrested. In both the M=0.2 and M-ramp models, 2014 biomass was approximately the same, and in fact was marginally greater, than 2013 biomass. The SSC cautions that a two-year trend in a model with considerable uncertainties for a stock at very

	low biomass should not be overstated. However, the assessment provides the first encouraging sign for the stock in several years. The ABC recommendation of 500mt represents a 30% increase from the status quo ABC of 386mt. While offering this recommendation, the SSC 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. However, the SSC notes that the operational assessment does not account for effects of the 386mt ABC, given that it was implemented in 2015 and the terminal year of the assessment is 2014. Therefore, the apparent change in the stock trajectory might have been achieved by the previous ABC of 1,550mt for 2013 and 2014. The recent operational assessment is the first to provide insights into the effects of the 2013 and 2014 ABCs, given that the 2014 operational assessment did not include a full year of fishing under that ABC. Despite being an increase from the status quo ABC, the new ABC recommendation is 68% less than the 2013 and 2014 ABC. If the operational assessment is revealing positive effects of the 2013 and 2014 ABCs, then we can expect those effects to continue under the new recommendation. However, the SSC notes that the stock remains far away from its target biomass and sustained rebuilding over many years will be required to achieve the target. " **This comment perfectly reflects the Council's approach. Its obligation is not compliance with the SSC or SSC advice; it is compliance with the Magnuson-Stevens Act. If the SSC is giving the Council advice that does not produce the results the MSA requires, a responsible Council would address those flaws in its management system.**
25	CLF next criticizes the FW 57 ABC. The SSC calculated the FW 57 OFL/ABC differently than in previous years. This results in, arguably, a more cautious approach that CLF ignores. In previous years the M0.2 and M0.4 models were averaged (multi-model inference is the term they use). In the past the M0.4 projection assumed M returned to 0.2. In this year they did not. As a result, the OFL was 938 mt rather than 1,075 mt, and the ABC was 703 rather than 806. The SSC said: "It is important to note that the rho adjustment was not used in this case for the M=0.2 model. This departure from the standard rules of engagement were justified based on an examination of the CVs from this model, which indicated a very precise estimate (tight bounds on the CV). Given that the peer reviewers did not recommend using a rho adjusted value and because the procedure previously did not use the adjustment, the SSC felt comfortable proceeding with this approach. The SSC noted that inclusion of the rho adjustment would have had little impact on the catch advice. Additionally, the use of the ensemble approach offers a different mechanism

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	for accounting for scientific uncertainty." **This comment is irrelevant to the main point of the paragraph in the Petition.**
25	CLF once again shifts between ending overfishing and rebuilding time frames. **The intent of this comment is not apparent, or likely relevant.**
26	With its comments on the FW 59 ABC, CLF demonstrates that it does not understand what the SSC did. CLF ignores that the 2019 recommendation reflects a change in how the SSC developed its recommendation. For the first time, the retro adjusted M0.2 model projection results were used for the catch. This is important because previous comments are critical that the retro adjustment was not used, and here it was and they ignore that. Using the retro adjusted M0.2 results reduces the ABC by about 158 mt compared to what the earlier method would produce. It is also worth noting that contrary to an earlier CLF footnote, in this year the SSC averaged the 75%FMSY catch from each of the models - they did not use 75% of the averaged OFL. (This actually increases the ABC by about 9 mt). **CLF is aware that the SSC used the rho adjusted model for GOM cod in Framework 59, a welcome development for which the SSC is to be credited, and we acknowledge this change at the bottom of page 20 of the Petition. A rho adjusted model does not address the fact that GOM cod has a zero to one percent chance of rebuilding on time even under F=0 and that an incidental bycatch only fishery was warranted. This fact was pointed out by the SSC minority report in FW 59 and not addressed by the Council.** **The PDT provided the SSC with an estimate of catch that could have been used to set ABC for an incidental bycatch only fishery. Although there was debate about the accuracy of the estimate given uncertainties in the recreational catch and discard data, that did not preclude its use to provide a lower, more appropriate ABC.**
27	First, it is worth noting that the empirical approach to setting catch advice for GB cod was never reviewed and implemented by the Council, as required by the NSGs. It was developed by a review panel. While the first year this was done the assessment report specifically refers to the OFL calculation, in 2017 and 2019 the assessment report refers to "catch advice" for the calculation. The SSC's decision on the OFL reflected several factors. One was to be consistent

	with the way the approach is used for other stocks. Another was the realization that the approach did not make logical sense: if the assessment determines that overfishing status is unknown, how can an overfishing limit be set? In addition, as applied, ABCs would consistently reduce unless the survey trend increased by more than 25 percent. Finally, the basis for the advice - catch adjusts by a change in survey trends - reflects the fact the starting point - the average catch for the years 2012-2014, when this approach was first used - reflects scientific uncertainty that was taken into account in the years those catches were established. Note also that because it is based on catch - which should always be lower than an ABC - there is caution built into future advice. **Perhaps the empirical approach *should* have been reviewed, but that is hindsight, and regardless, it has been used for years. This comment reflects the SSC discussions on this topic. Petition at 27. Methodology changes do not justify removing the "crucial buffer" (Petition at n. 111) for scientific uncertainty that was previously included.** **Concerning the comment that the initial starting point catch based on the average catch for 2012-2014 "reflects scientific uncertainty that was taken into account in the years those catches were established," we note the statement made by the SSC in Appendix I to Framework 55: ". . . this approach [i.e., the original approach] is expected to result in a fishing mortality rate similar to the average of the last three years, a rate that so far has not led to rebuilding."** **We also note also that removing the uncertainty buffer was a concern expressed in a second SSC minority report for Framework 59:** **"A minority of SSC members were opposed to the process used for setting the ABC for Georges Bank cod. In the previous groundfish updates, the SSC took the output from the PlanBsmooth calculation as an OFL. We then took 75% of this value as the ABC. The intention was to approximate the groundfish control rule that uses 75% of Fmsy to set the ABC. 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."**
28	CLF notes accurately it is impossible to assess the stock's rebuilding progress. This same shortcoming makes it impossible to determine if rebuilding targets are still accurate.

	This "shortcoming" was self-induced by inadequate monitoring and accountability measures and, in any event, does not negate recent survey results (trending downward) or rebuilding analyses conducted during the last accepted model.
29	CLF is once again selectively quoting from a document. The FW 51 response if the conditions are met is: 1) Consider extending the rebuilding program to the maximum 10 years if a shorter time frame was initially adopted; 2) Review biomass reference points; and 3) Provide F-rebuild ACLs under 1 and 2 (directly above), in addition to those based on the rebuilding plan adopted in FW51. However since biomass reference points would be reviewed but not necessarily changed, F-rebuild ACLs under 2 (directly above) may also remain unchanged. The FW 51 document goes on to say:" This measure outlines the administrative steps that would be taken to review the GOM cod rebuilding plan, should the specified conditions be met, in order to investigate why rebuilding has not occurred as expected. These types of analyses would likely already be completed under the current biennial review process, and not necessarily only when the above conditions are met. However, the administrative steps are not explicitly identified in the current biennial review process. The basis for such a review would be an assessment benchmark or update. " PDT memos to the SSC provided much (if not all) of this information on 2015, 2017 and 2019. **See Petition at n. 122. To the extent PDT memos to the SSC in 2015, 2017, and 2019 provided such information on rebuilding, the Council did not translate that advice into effective conservation and management measures that ensured stocks rebuild by the statutory timeframes.**
30	CLF once again incorrectly the report's 2002 status determination for GOM cod. **It appears, again, the commenter is confusing 2000 for 2002.**
30	Note that in 2012, CLF supported continued overfishing of GOM cod in order to mitigate economic impacts. See CLF letter to Secretary Bryson, February 21, 2012: "CLF supports the New England Council's emergency action request and the general approach that the National Marine Fisheries Service (NMFS) has proposed in taking interim emergency action to respond to this unexpected and troubling new development." **CLF supported the Council's 2012 emergency action request to establish a**

	one-year 4,000 mt ABC due to the dire and abrupt economic circumstances imminently facing the industry in this unique context (errors in the 2008 assessment that led managers to believe GOM cod was rebuilding). Those circumstances have not occurred for years before and after 2012.
31	Note CLF admits there have been measureable improvements in slowing overfishing. This is relevant considering the Oceana v. Ross ruling (2019). **This is irrelevant. The MSA requires that managers "end overfishing immediately" on an overfished stock.**
31	CLF's recitation of the 2014 F estimate for GOM cod ignores that the 2014 stock assessment provided a lower estimate. The 2019 estimate includes recreational catch that is 20 percent higher than that used in the 2014 assessment. This is a result of changes to the MRIP system that were not known in 2014. **The point of this paragraph was to draw attention to the failure of the 2004 rebuilding plan. Far from rebuilding, SSB actually fell and overfishing continued. Note also that while the 2014 assessment provided a lower F estimate, for 2013 (the terminal year of the assessment) that was still more than 6 times greater than the overfishing threshold (FMSY) at the time.**
32	There are technical issues with Figure 11. First, the 2004 rebuilding program objectives were based on a very different understanding of stock productivity. Second, CLF does not plot the earlier biomass trajectories from several other assessments that were used to guide management actions. As an example, the 2008 GARM III assessment trajectory looks very different than the one shown here – but the same is also true for earlier assessments. **The issues raised are not technical. Figure 11, as described in the caption, speaks for itself.**
36	CLF cites 64 FR 42042 as evidence of "unreported discarding" in the groundfish fishery. The reference, however, makes it clear that the discarding was caused by a reduction on the GOM cod trip limit to 30 pounds that was implemented in May 1999, and revised in August 1999. The citation does not provide evidence of continued excessive discarding. **This was one of multiple citations provided for the excess discarding**

	discussed in the Petition, and widely acknowledged in the community.
43	CLF comments on the GOM "rolling closures" does not acknowledge closures specifically adopted for protecting cod spawning: the Whaleback closed area, etc. **Spawning protections for cod have been inadequate for decades, including specifically those most recently adopted in OHA2, many of which were identified by the Council's PDT but ignored as being too costly.**
43	CLF comments on OHA2 and its impact on the WGOM Closed Area and the Cashes Ledge area are not accurate. The changes to the WGOM closed area did not affect areas known to have spawning cod. The Cashes Ledge area protections were maintained or strengthened. **The relevant paragraph here discussed habitat suitable for juvenile and adult cod, not spawners. The Cashes Ledge closure was identified as evidence that closed areas can produce and support older, larger females.**
45	CLF comments on age structure are not accurate. One way to improve age structure is to reduce fishing mortality so that more fish survive to older ages. This was the goal of many actions and as CLF admits, there have been reductions in (though overfishing continues). Limiting recreational retention of cod also protects larger fish. Cod protection areas were designed to reduce mortality on aggregations of fish for spawning. **This comment illustrates the limitations of this Council. If it is primarily relying on fishing mortality reductions to rebuild age structure, it is incontestable that the approach is not working.**
45	CLF refers to the current understanding of stock structure as a "management paradigm." Until the completion of the recent Atlantic Cod Stock Structure review, this was the scientific understanding as well. The Council and the NEFSC are working to incorporate this new information into management and science. **This comment ignores the consequences of misaligning management units with true stock structure as described in the Petition on page 45.** **The recent Atlantic Cod Stock Structure review is not entirely new science. Some of the genetic analyses reviewed are relatively recent, and the consensus is new, but much of the information has been available and**

	ignored by the Council for some time. Notably, the Kerr et al (2014) analysis discussed multiple sub-populations and implications for overall stock productivity. The 2012 workshop report also summarizes the large body of scientific information available at that time.
45	CLF's comment that the two-stock model may over-estimate MSY ignores the corollary: that current rebuilding biomass targets may be too high. **The MSA and national standard guidelines expect realistic and credible rebuilding targets with accountability measures implemented in the fishery to achieve them. The current targets remain the best available science.**
47	CLF mischaracterizes the 2012 stock assessment workshop as failing to lead to management changes. The 2012 workshop did not complete its task and recommended follow-on analyses. **This comment is irrelevant. References to the 2012 workshop in the Petition were for historical context only.**
48	CLF cites the Pershing et al paper as evidence that climate change affects cod recruitment. That paper was refuted by the NEFSC and proves nothing. **The NEFSC's rebuttal to the original Pershing paper made some compelling points, as did the additional Swain et al rebuttal, and the Pershing response to those rebuttals.** **Both the NEFSC response and the Pershing response, as well as our Petition, agree that the best way forward is to explore impacts of climate change by incorporating their effects directly in the assessment models themselves (not after the fact the way Pershing had to). However, this exploration must be done by NMFS as the Council has not demonstrated a willingness to meaningfully confront the cod management crisis.**
52	CLF says the PDT "…recommended a more extensive suite of seasonal closures…" What the referenced memo actually says is "An alternative Sub-Option C <u>should be considered (emphasis added)</u> that will more fully protect block-months of spawning cod indicated by these analyses and also allowing fishing in block-months that do not have aggregations of spawning cod. " The decision document used at the December 2014 Council meeting does not refer to this as a PDT recommendation.

	The commenter is correct that the PDT did not refer to sub-option C specifically as a "recommendation" and instead stated that it "should be considered." Given the dire circumstances of Atlantic cod, it deserved meaningful consideration, which it did not get.
54	CLF refers to "current cod mortality closures." OHA2 redefined these closures and they are no longer considered mortality closures. **There is no point to this comment.**
	Supplement 1
	Comments on FW 59 Proposed Rule
4	CLF incorrectly conflates the probability of rebuilding with ending overfishing. All four of the steps in the Northeast Multispecies FMP ABC control rule are designed to end overfishing because they result in catches that are less than the OFL. **The challenge to Framework 59 filed on August 28, 2020 speaks for itself.**
5	CLF argues the ABC control rule adopted by Amendment 16 establishes 75%FMSY as the approach only for a healthy stock. The control rule clearly does not specify this, as it says it will be used for a rebuilding stock if Frebuild is higher than 75%FMSY **The commenter is correct and the Petition should be considered in light of this correction.**
6	CLF criticizes the SSC for its GB cod ABC. Without an analytic assessment, the PDT recommendation was based on an approach called the Plan B Smooth. In the past the SSC used this result as an OFL. However, for other stocks, a similar approach was used as an ABC. The SSC rectified this inconsistency. In addition, the discussion note the Plan B Smooth implicitly includes scientific uncertainty because it is based on past catches, and would always reduce catch limits unless the survey increased by more than 25 percent. **Addressed above.**

Northeast Sector Service Network
1 Blackburn Center, 2nd floor
Gloucester, MA 01930

October 9, 2020

Mr. John Quinn, Chairman
New England Fishery Management Council
50 Water Street
Newburyport, MA 01950

Dear John,

We greatly appreciate the Council decision, made during the June Council meeting, to send a letter to GARFO requesting the Sector Redfish Exemption for the 2020 fishing year be reverted back to its 2019 state. Until this week, we had been hopeful that GARFO would acknowledge the shortcomings in their analyses, interpretations, and non-collaborative decision making. Unfortunately, GARFO just announced this week during a Sector Manager call that they denied the request made by the Council and intend on proceeding with the same flawed process for reconsideration for the 2021 fishing year

This spring, NESSN submitted extensive comments to the 2020 Interim Final Sector Rule (see attached). In light of the ongoing actions by GARFO, NESSN continues to remain highly concerned with the unilateral decision making, lack of sincere collaboration and limited understanding of fishing operations as well as the history behind this exemption. This exemption plays a critical role to many within the groundfish fishery and the fishery cannot afford to have this discussion drawn out any longer.

Due to this late public notice made by GARFO, we are writing to request that the Council convene the Groundfish Committee to discuss inclusion of codifying the FY 2019 version of the Redfish Exemption as a universal exemption under FW 61. We are forced to make this extraordinary request, due to the timing of this latest GARFO announcement, which took place after the recent Groundfish Committee and Council meeting.

The members who are enrolled in NESSN Member sectors continue to make the majority of their revenue groundfish fishing. Up until these actions by GARFO, the Redfish Exemption provided numerous vessels opportunity to focus their fishing behavior on an underutilized species. It had been a positive example of how research can inform management and how collaborative engagement between industry and GARFO can foster positive advances under the sector management program. Now, the industry is at a point where codification via Framework 61 is the only way to return this exemption back to a state beneficial to all historical users of this exemption.

Thank you in advance for your time and consideration.

Sincerely,

William McCann
President, Northeast Sector Service Network

Attachment: NESSN May 27, 2020 Comments to the FY 2020 Sector Interim Final Rule
Cc: Jackie Odell, Executive Director, Northeast Seafood Coalition
Michael Pentony, Regional Administrator, Greater Atlantic Region Fisheries Office

Northeast Sector Service Network
1 Blackburn Center, 2nd floor
Gloucester, MA 01930

May 27, 2020

Michael Pentony
Regional Administrator
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
Gloucester, Ma 01930

Re: Comments to NOAA-NMFS-2020-0028

Dear Mike,

Please accept the following comments to the FY 2020 Allocation of Northeast Multispecies Annual Catch Entitlements and Modifications to Regulatory Exemption for Sectors Interim Final Rule.

As an initial matter, we are aware and mindful of the various challenges that prompted the Agency to issue this rule as an interim final rule. We agree this decision was necessary to ensure that the Groundfish Fishery could successfully begin operations at the start of the 2020 Fishing Year. However, any attempts to minimize and dismiss our comments and concerns highlighted here and previously under the guise of this decision ignores the underlying issues many of us in the Groundfish Sector program have been feeling and expressing for years. The Agency's inability to communicate and collaborate effectively with members of the Sector program on issues and improvements that could facilitate more efficient and effective Sector management. The frustrations we express here are not new nor are they an anomaly in the Sector system. They are yet another example of the failure of the Agency's treatment of the sector system which is not collaborative unless it is convenient for the Agency or furthers a larger policy objective selected by the Agency.

Gear Stowage Requirements for Redfish Exemption:

We support the gear stowage requirement modification to the redfish exemption.

Modifications to the existing Redfish Exemption Area:

We strongly disagree with the Agency's modification of the Redfish Exemption Area, and we are struggling to understand exactly what the Agency felt they were accomplishing when they embarked on this endeavor void of any communication or collaboration with the members of industry and sectors who rely on this exemption.

We urge the Agency to immediately reinstate the Redfish Exemption Area to its pre FY 2020 state, and instead focus on ensuring compliance with the exemption on a Sector by Sector basis and work collaboratively with the Sectors and their members who are actually using this exemption and have the expertise in redfish fishing to foster improvements and make adjustments accordingly.

The Redfish Exemption has gone through multiple iterations to get it to the point where it was finally a workable exemption that addresses not only the needs and concerns of the Agency but also the needs and concerns of industry. Leading into the 2015 fishing year, key industry members who were heavily involved in the REDNET research project worked collaboratively with their managers, industry representatives and key Agency staff to develop a redfish exemption area and thresholds for compliance. For many of us, this experience represented what the Sector program was envisioned and communicated to be, a collaboration of co-management designed to foster efficient and sustainable fishing. It also represents the ideal, not the norm in how the Sector system is operating. A key concern in previous iterations of the Redfish Exemption was the potential for vessels using smaller mesh to target other species combined with the documented mixing that occurs at times with species like pollock. This led to a carefully crafted set of thresholds that were agreed upon. These thresholds were the guideposts managers used to monitor their members fishing activity within the Exemption, and if they are not being met they serve as the basis for corrective action by the Sector. The Agency acknowledged that is exactly what happened in both 2018 and 2019. The Interim Final Rule states, *"In fishing years 2018 and 2019, several Sectors failed to meet the 50-percent redfish landings threshold for at least one month; no sectors exceeded the 5-percent groundfish discard threshold. We notified each sector by letter that they were out of compliance, one in April 2019 and the others in February 2020. All of the Sectors took steps to improve compliance with the thresholds and were able to restore compliance with the 50-percent threshold."* **Sectors took proactive steps to bring their members and their sector back into compliance. In short, the exemption as designed worked as intended.**[1]

The Agency in late January 2020 invited managers to begin a discussion on "ideas for potential revisions to the redfish exemption to improve performance against the monitoring thresholds, at sea operations etc."[2] In hindsight that meeting appears to be a token at best; the participants

[1] For context, the two sectors in NESSN that utilize the Redfish Exemption are II, Northeast Fishery Sector Inc. (NEFS 2) & VI, Northeast Fishery Sector Inc. (NEFS 6). In the fall of FY 2019 NEFS 2 began to see that fishing activity was beginning to get closer to the threshold level established for the Exemption, they took corrective action and by December of 2019 they were well above the threshold level. NEFS 2 updated NMFS of the corrective actions they were taking in their weekly trip issue report. NMFS officially notified NEFS 2 of their monthly threshold levels in February 2020. During FY 2018, NEFS 6 did not meet their 50% threshold for four out of the seven months when at least one redfish exemption trip was taken. In each of these four months the activity of one vessel conducting one redfish trip brought the overall catch threshold down. NEFS 6 actively worked with these members and in FY 2019 NEFS 6 did not have one month where their thresholds fell below 50%.; NMFS officially notified NEFS 6 in October of 2019 that their 2019 fishing year to date average threshold was 89%. Neither sector exceeded the 5% threshold for observed trips.

[2] Email from Kyle Molton, January 21, 2020 to David Leveille and Hank Soule.

offered numerous ideas about the exemption, none of which included any discussion about an area modification. Equally, the Agency staff tasked to work on this gave no indication that area modifications were under consideration. No other communication or discussion occurred after that meeting and sectors and their members were blindsided by the Agency with this modification days leading up to the start of the fishing year.

The interim final rule offers ambiguous and at times contradictory explanations for this decision and raised concerns that the Agency **did not** analyze data consistent with the exemption as written for FY 2015-2018. To better understand the Agency's action, we conducted an analysis of overall fishery data and Sector-specific data based on information provided by the Agency which confirmed concerns and raised questions about the approach the Agency applied to justify the modifications to the Redfish Exemption Area. Please note that the data we requested was finally received prior to the start of the holiday weekend. But even with the abbreviated timeframe afforded, we have been able to compile the following considerations before the comment period deadline.

- The Agency did not analyze activity consistent with the Redfish Exemption requirements. The interim Final Rule states, *"Under the exemption, vessels may fish with a 5.5 inch (14.0 cm) codend, are subject to standard at-sea monitoring coverage, and are required to fish in the Redfish Exemption Area. Sectors are further required to meet a 50-percent redfish catch threshold (50 percent of all groundfish catch on the small-mesh portion of trips must be redfish) and, on observed trips, discards of groundfish may not exceed 5 percent of groundfish catch on the small-mesh portion of the trip."* The interim Final Rule describes that the exemption program's performance was reviewed by examining VTRs and haul-level catch from observed trips and concluded that observed hauls with more than 50% redfish were rare or only occasionally observed in several statistical areas in the Redfish Exemption Area. This analysis combined observed hauls from all sectors for fishing years 2015-2018 by statistical area. The threshold for redfish catch in the exemption regulations is 50% of all groundfish catch on the small-mesh portion of the trip, which is not the same as the percent redfish by haul or statistical area. The Agency's analysis did not look at sector fishing activity consistent with the exemption.

- The Agency did not refine its data to trips in which the Redfish Exemption was used. A vessel using or considering using the Redfish Exemption on a sector trip must indicate its intention when they submit their Trip Start Hail. This notification serves as the "flag" that identifies whether a trip is a Redfish Trip and therefore subject to threshold monitoring requirements as well as exemption specific discard rate calculation. It should be noted, we have suggested multiple times alternative methods to identify a Redfish Exemption trip but they have never been taken up by the Agency. The Agency appears to have made no effort to limit its analysis of the Redfish Exemption to those trips actually utilizing the Redfish Exemption; this raises concerns which will be

discussed in more detail below. The Agency's analysis did not look at sector fishing activity consistent with the exemption.

- We were provided data for four of the Northeast Fishery Sectors (NEFS), and we examined percent catch of redfish, cod, haddock, pollock, and white hake by sector, year, area, trip, and haul. Catch by species by area varied over time between fishing years 2015-2018 within and among sectors. These variations may be related to a range of factors including changes in ACLs, decisions affecting fishing behavior, seasonal distribution of stocks, and climate change. Our analysis agreed with the Agency review for statistical areas 465, 511 and 512. Overall effort was low in these areas and redfish catch was proportionately lower than other areas within the Exemption Area. Our analysis also agreed with the Agency review for statistical areas 513 and 515. These areas had consistent high redfish catch for all years and the majority of observed hauls between 2015-2018 had greater than 50% redfish. We did not make the same conclusions as the Agency about statistical areas 514, 521, 522, and portions of 513. The Interim Final Rule states that hauls occasionally achieved 50% or better redfish catch in statistical areas 521 and 522, and that haddock dominated the catch on many hauls. It further states that there were many hauls observed where cod approached or exceeded 50% of the catch. According to the data provided by GARFO, approximately 70% of the total catch in these areas was comprised of allocated groundfish stocks. Redfish catch was 22% and 26%, respectively for statistical areas 521 and 522 of total groundfish catch. Haddock catch was the same as redfish and cod catch in these statistical areas was 11% and 12%, respectively (Table 1). However, this % of catch by stock by trip included trips that were NOT fishing within the Redfish Exemption in those statistical areas. By including data from trips that may not have been fishing under the Redfish Exemption, it is not possible to accurately interpret the results as related to the Redfish Exemption threshold criteria or performance of the overall program. Similarly, for statistical areas 513 and 514, the combined catch of redfish, cod, haddock, pollock, and white hake only comprise 58% and 79%, respectively of the catch of all allocated groundfish. It is not clear from the data provided or the Agency's review whether or not vessels that fished under the Redfish Exemption in these statistical areas met the 50% redfish catch per trip threshold.

Table 1. NEFOP-ASM observed groundfish trawl trip fishing 4.9”-6” mesh landing greater than or equal to 1,000 pounds of allocated groundfish for Fishing Years 2015-2018.[3]

	Proportion Allocated Groundfish Mean					
	Cod	**Haddock**	**Pollock**	**Redfish**	**Hake**	**Total of 5 Species**
464	1%	4%	54%	32%	7%	98%
465	1%	37%	3%	7%	40%	88%
511	0%	28%	2%	4%	49%	83%
512	0%	30%	5%	5%	44%	84%
513	2%	16%	5%	30%	5%	58%
514	8%	19%	21%	28%	4%	79%
515	1%	8%	15%	69%	4%	96%
521	11%	23%	9%	22%	6%	71%
522	12%	26%	5%	26%	5%	74%
561	11%	27%	18%	5%	12%	73%

- By its own explanation, the Agency looked at observer data where mesh size ranged from 4.9 to 6.0 inches to accommodate the fact that observers are using a different method to measure the codend mesh size than prescribed in the regulations and onboard conditions. While we agree with the Agency’s approach to use a range of codend measurements from the observer data, we do not agree with an approach that did not further refine the data set to reflect those trips that actually were using the Redfish Exemption. Based on fishing behavior and gear regulations this approach may not be as problematic for statistical areas in the Gulf of Maine broad stock area (BSA) since there currently are no other mesh size exemptions. However, this approach has huge consequences for the decisions put forward by the Agency for the Georges Bank BSA, especially considering the rationales provided in the Interim Final Rule. As noted above, we focused our analysis on four Sectors. NEFS 2 and NEFS 6 represent Sectors in our Network that participated in the Redfish Exemption. However, NEFS 8 has never participated in the Redfish Exemption and did not have any activity in the Gulf of Maine statistical areas that were included in the Agency analysis, but over 200 hauls from NEFS 8 are included in the data provided. NEFS 9 has not had any activity at all in these areas since 2017. Some of the data provided appears to be for trips that were participating in the 6 inch exemption with Haddock Separator/Rhule Trawl on Georges Bank.

- We find it highly problematic that the Agency appears to be using trips participating in another exemption, and trips that had no connection to the Redfish Exemption to justify its decision to remove the portion of the previous Redfish Exemption area that occurred within the Georges Bank BSA. The Interim Final Rule states, *“In portions of the Redfish Exemption Area that overlap the Georges Bank BSA, we found significant haddock and cod catch; as a result, we are concerned that including any portion of Georges Bank in*

[3] summary_asm-nefop_areas_evaluated_non-confidential.xlsx

the Redfish Exemption Area may reduce the incentive for vessels to fish under the universal sector exemption allowing vessels to fish with a 6.0-inch (15.2-cm) mesh codend when using a haddock separator or Rhule trawl." Our analysis showed a distinction between codend mesh sizes used by sectors that were participating in the Redfish Exemption program and those that were not (Figure 1). Average codend mesh size for NEFS 2 and 6 in statistical areas 521, 522, and 561 were ~5.6 inches, whereas average size for NEFS 8 and 9 were 5.9 inches. This furthers our concerns that data from two distinct separate exemptions were used when analyzing the Redfish Exemption in the Georges Bank BSA.

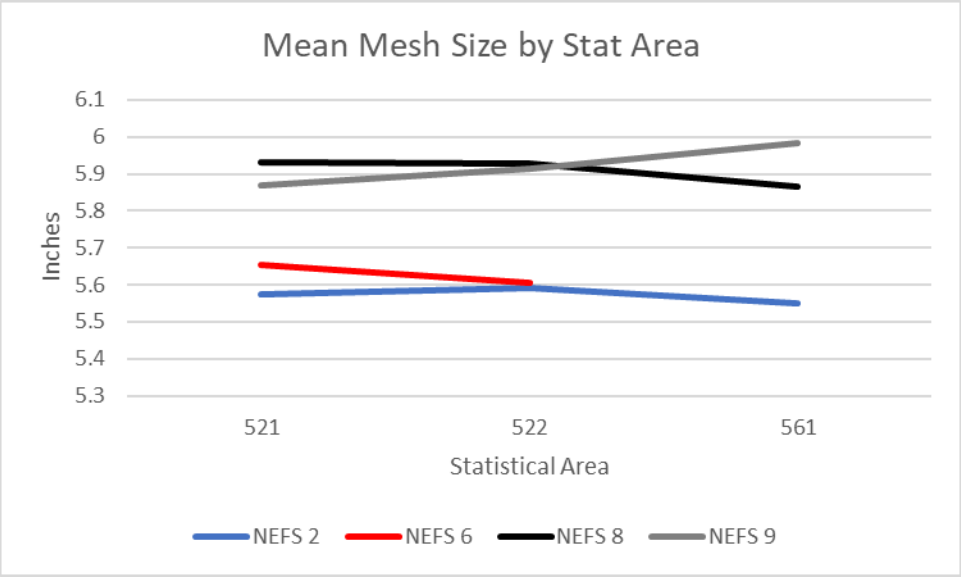

Figure 1. Mean codend mesh size by statistical areas in the Redfish Exemption outside of the Gulf of Maine BSA for Sectors NEFS 2, 6, 8, and 9 for Fishing Years 2015-2018.

- We appreciate the Agency's desire to incentivize use of the haddock targeting gear, but we truly believe it should be done with a clearer understanding of the exemption at hand. We will note, had any consideration been paid to the REDNET project and the data collected one would have known that a significant portion of tows within the project occurred in the Georges Bank BSA previously included in the Redfish Exemption area. While we are the first to acknowledge the need to evaluate, learn and adjust based on lessons learned and changes in fishing conditions we feel more consideration and understanding should have been paid not only to this specific element but to the entirety of the program developed in collaboration in earlier years. From our review of the analysis, all the consideration, knowledge and uniqueness of redfish fishing went out the window with the area instituted by the Agency.

We do not have any confidence in the analysis or rational put forward by the Agency with their area modification. We are confident that had a similar collaborative constructive approach

been pursued as seen previously with this exemption we could have worked collectively with the Agency, industry members knowledgeable about this exemption and other sectors to develop modifications we could be confident maintained the purpose of the Redfish Exemption.

We urge the Agency to immediately reinstate the Redfish Exemption Area to its pre FY 2020 state. We recommend the Agency work in coordination with the Sectors to ensure compliance with the exemption on a Sector by Sector basis and work collaboratively with the Sectors and their members who are using this exemption and have the expertise in the redfish fishery to foster improvements and make adjustments accordingly in subsequent fishing years.

Finally, we would like to highlight our concerns that the Agency seems consistently to be focused on management decisions in groundfish that limit the industry's ability to participate in the groundfish fishery. While we have highlighted what we consider flaws in the Agency's analysis, we will note that the Agency's justification for severely shrinking the Redfish Exemption Area is predominantly centered on catch of pollock and haddock, both of which, like redfish are considered underutilized. This decision appears even more ill-advised based on directive from the Executive Order to remove regulatory barriers and increase production in sustainable commercial fisheries across the nation.

We urge the Agency to follow a more appropriate course of action that would identify opportunities to help the groundfish fishery focus effort on more underutilized species through a final Sector action. We strongly encourage the Agency to do so in collaboration with those Sectors that are knowledgeable of the redfish fishery.

The members who are enrolled in the Sectors that are Members of NESSN represent a majority of businesses that continue to make the majority of their revenue groundfish fishing. We urge the Agency to listen to those active members of the groundfish fishery who have asked repeatedly for years for the Agency to work with us collaboratively and collectively for the betterment of the groundfish fishery.

Sincerely,

Elizabeth "Libby" Etrie,
Program Director, Northeast Sector Service Network
Mobile: (978) 491-1848
Email: Libby.Etrie@gmail.com

Cc: Jackie Odell, Executive Director, Northeast Seafood Coalition
Tom Nies, Executive Director, New England Fishery Management Council

October 21, 2020

Mike Pentony, Regional Administrator
GARFO
55 Great Republic Ave.
Gloucester, MA 01930

Dear Regional Administrator Pentony,

We the undesigned sector managers write concerning your email of October 16 announcing termination of monthly manager conference calls, and your concerns about the tone and productivity of those calls. While we will describe our dissatisfaction with the process used there, we want to acknowledge up front that we hear, understand, and agree with your attention to cordial communications.

We are disappointed with the decision to terminate the manager calls. We find they are useful for dissemination of information, reminders of upcoming deadlines and events, and for managers to share experiences with each other. They also provide managers opportunity to hear directly from GARFO internal staff members, such as lead coordinators the VMS and observer departments. For example, during last winter's McMurdo crisis and this year's COVID/observer dilemma, the conference calls were an efficient way to learn of the problems and keep abreast of GARFO's plans to work through them. We wish these opportunities had not been taken away, and hope you will reconsider your decision.

We are concerned with the manner in which the October 16 email addresses the perceived problems of teleconference tone and productivity. Though not specifically stated, the email inferred that the cause of the problems lies with an unnamed and unknown number of non-NMFS attendees. We believe it was unfair to collectively paint 'the managers' as a homogenous group acting in a combative, uncivil, and unproductive fashion.

We believe there were intermediate steps which could have been taken rather than to jettison the sector communications tool. For example, you or your groundfish lead staff are always welcome to telephone us individually to address any concerns you have with us directly.

Regarding the tone of some discussions, we believe the fishery management process, like any business, can be combative at times when interests collide. However we, like you, want our communications with our co-managers at GARFO to be effective. We are mindful of, and attentive to, your stated concerns about combativeness, civility, and productivity.

We have likely been remiss in not communicating this beforehand, but the tenor of some discussions may be a manifestation of managers' own perceptions of unproductivity. Over the last few years we have become increasingly frustrated with what we see as the lack of specificity and timeliness of information and data provided to sectors. Recent examples include operations plan guidance for electronic monitoring, timing and amounts of carryover ACE, and year-end reconciliation of catch.

We would appreciate more timely information and clear expectations of deliverables. We often operate in the fog – exemption requests which are submitted but not developed, sector reports which are filed and seem to vanish into the ether, process questions surrounding sector management which are posed and never answered. We will provide specifics upon request.

To be fair, GARFO must operate in a statutory environment we are largely spared from. And to be clear, we the managers agree we have a responsibility to strive to be civil and be respectful even in cases of extreme frustration.

In conclusion, we regret the process employed to address this issue. We are concerned that collaborative efforts to identify, define, and solve problems are devalued in favor of overarching actions that do not effectively get to a specific problem GARFO seeks to correct. We saw that here – terminating a practical, popular sector communications tool over what surely must be a more isolatable problem. We also saw that in this spring's surprise contraction of the redfish exempted fishing zone.

The sector managers and GARFO share a mutual desire for effective communications and fishery management. To that end, we request you rescind your decision to terminate sector manager calls. In return we heed your concerns about tone and productivity, and will do our part to improve them.

With our regards,

Holly Budensee, Manager
Mooncusser Sector

John Haran, Manager
Northeast Fishery Sectors X and XIII

Mary Hudson, Manager
Maine Coast Community Sector

David Leveille, Manager
Northeast Fishery Sectors II and VI

Paula Lynch, Manager
Northeast Fishery Sector XII

Linda McCann, Manager
Northeast Fishery Sector VIII

Amy Morris, Manager
Fixed Gear Sector

Dan Salerno, Manager
Northeast Fishery Sectors V and XI

Hank Soule, Manager
Sustainable Harvest Sectors I, II, and III

cc: New England Fishery Management Council

New England Fishery Management Council
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
John F. Quinn, J.D., Ph.D., Chairman | Thomas A. Nies, *Executive Director*

October 29, 2020

Ms. Kelly Denit
Director, Office of Sustainable Fisheries
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
1315 East-West Highway, Room 14743
Silver Spring, MD 20910

Dear Ms. Denit:

At its October 2020 Council meeting, the New England Fishery Management Council identified actions that are responsive to Executive Order 13921, *Promoting American Seafood Competitiveness and Economic Growth*. Our recommendations are provided in Enclosure (1).

The Council notes that many of our routine actions also address the objectives of the Executive Order. We constantly strive to achieve the optimum yield from our fisheries, consistent with the provisions of the Magnuson-Stevens Act and other applicable law. The Council recently determined the issues we will address in 2021. The Greater Atlantic Regional Office and Northeast Fisheries Science Center are key partners whose support will be critical as we tackle our priorities. Since there aren't any additional resources provided to the Council or the agency in order to implement EO 13921, we want to emphasize that we do not want its implementation to reduce the agency's support for our planned activities.

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

Sincerely,

Thomas A. Nies

Thomas A. Nies
Executive Director

Enclosure: (1)
cc: Michael Pentony, GARFO

Council(s)	Priority Number	Action type (e.g. Changes to Regulations, Orders, Guidance Documents, Other Similar Agency Actions)	Relevant CFR Citation under Title 50 (if applicable)	Description of recommended action(s)	Rationale of how the recommended action(s) reduces burdens on domestic fishing and increases production within sustainable fisheries	Proposal for initiating each recommended action(s) within 1 year of the date of this order (i.e., by May 7, 2021)
NEFMC	1	Other Similar Agency Action	N/A	Recommend creating a seafood marketing branch in NMFS- that encourages Americans to buy/cook American caught seafood.	A national-level program that emphasizes the sustainable products produced by the U.S. fishing industry would increase demand and help reduce the seafood trade deficit.	NMFS to coordinate development of a national seafood marketing effort, partnering with industry.
NEFMC	2	Other Similar Agency Action	N/A	Recommend establishing federal policy that imports of seafood, including HMS products, should meet or exceed the same standards of harvest, for example in terms of the gear used and impacts on protected species, and sustainability as fish landed in the U.S.	U.S. seafood products have higher harvest standard as a result if the MSA and other applicable law. These standards impose a cost on the fishery. Products from countries with lower standards have a price advantage as a result. Insisting on similar standards would make U.S. products more competitive in the marketplace and would also promote sustainable practices worldwide. This would be in addition to MMPA (section 101(a)(2) import provisions.	NMFS convene a working group to identify the steps necessary to implement this policy.
NEFMC (GARFO)	3	Order	50 CFR 648.59(b)(3)(ii)	Develop tools/website to allow online exchange of Atlantic Sea Scallop fishery access area trips	Currently, each exchange of an access area trip must be requested on an individual form. The agency response can take as long as 15 days. An online process would simplify submission and should speed the agency's approval process. This will increase the flexibility of scallop fishermen to maximize their fishing opportunities. Note that a similar program that allows LAGC IFQ vessels to transfer quota is already in place and transfers occur essentially in real time.	GARFO to hire contractor by May 1, 2021 to make necessary changes to IT system. No regulatory action needed.
NEFMC	4	Order		Modify LAGC closure noticing	Closures of the LAGC fishery must be announced by Federal Register Notice. Because of the time needed to prepare, submit, and approve these notices, the closures must be based on a forecast. The risk is that the forecast may be in error. Usually this leads to an under-harvest, but it could also lead to an over-harvest. Developing a notice process that shortens the forecast period will reduce these errors.	GARFO to identify ways to modify the notice process. If possible, these should be adopted through agency action. If Council action is needed, this could be considered addressed in an annual framework action/.

From: egoethel@comcast.net [mailto:egoethel@comcast.net]
Sent: Tuesday, November 03, 2020 3:21 PM
To: Tom Nies <tnies@nefmc.org>; Jamie Cournane <jcournane@nefmc.org>
Subject: Groundfish paradigm shift

Hello Tom and Jamie,
The attached article was sent to me via an email chain from Ray Hilborn. I thought that you might find it interesting. From my perspective it appears to be a really clear take on the problems with the Groundfish Industry in New England and provides a clear solution.
I would appreciate it if you would pass this on to Council members and staff.
Thank you,
David

August, 2020

Groundfishing in New England

New Truths.
New Rules.
New Game.

OceanVest, LLC

Gloucester has one of the strongest international brand names in fisheries. In 2023, we will be celebrating 400 years as America's oldest fishing port. Its future as a thriving fishing community, however, requires new vision, new behaviors, and new thinking.

As we all rethink risks, vulnerabilities, community, and global interconnectedness in the year 2020, now is an opportune time to take a fresh look at how Gloucester can be a leader in fisheries and a leading port in the sustainable use of the ocean's vast, but limited and ever changing, resources. The pandemic has shined a spotlight on both key vulnerabilities—complex and global supply chains, inadequate demand; and visible opportunities—direct boat to consumer seafood sales and alternative and available protein sources in lieu of meat products requiring significant plant processing.

The insights presented in this document don't come from just one source. They are derived from: observations, conversations, the development of fisheries programs and exhibits from 2012–2017 when I was Executive Director of Maritime Gloucester; and stakeholder discussions with diverse fishing interests, most recently focus group meetings in 2019 sponsored by the Gloucester Fishing Community Preservation Fund and the National Fish and Wildlife Foundation. And data, including fishery landing data, both historical and current, and marketplace trend and seafood consumption information. While many of these observations are relevant broadly to fisheries management everywhere, they are fundamentally focused on groundfishing in the Northeast—the Gulf of Maine and Georges Bank. This document is solely the responsibility of Oceanvest, LLC who welcomes comments, discussion, and leadership. None of this is easy.

Thomas Balf
Oceanvest, LLC
August 2020

NEW TRUTHS.

Have you ever presented facts to someone who then doubles down on their beliefs that run counter to the evidence? We all have. This is certainly true when talking about the state of commercial fishing in the northeast. Everyone has an opinion. Everyone has a world view. Here's 8 evidence-based findings about what's going on in one port.

Truth #1 Groundfish are Abundant in the Gulf of Maine and Georges Bank

Groundfish spawning stock biomass in the Gulf of Maine is at its highest in ten years, and has more than doubled since 1985.

Groundfish quota (what a fishermen is allowed to catch based on conservative estimates of fish abundance) for 13 species of groundfish has increased three-fold in the last 7 years.

Truth #2 We Have Both an Aging Fleet and Aging Fishermen

A decade ago, there were 64 vessels in the Gloucester Groundfishing "Sector" and a few others who fished for groundfish on their own. Today, there are less than half of that. The average age of a fishermen (we will call them fishers throughout this document) is approaching 60.

Most current and retired fishers discouraged their children from pursuing a fishing career, so we missed a generation. There are only two active groundfish captains in the port younger than 40, and only a handful of millennials who fish and aspire to be a captain and fishing boat owner.

The average age of a Gloucester groundfish trawler (original construction date) isn't much younger. In the last 30 years, only two brand new fishing vessels have been built and added to the Gloucester fleet. That's typical for most northeast fishing ports.

Truth #3 Getting Started in Fishing is Now an Expensive Venture

Unlike the past, it's not just about hard work, skills, and entrepreneurship to become a fishing boat owner/captain.

Today, one needs a commercial fishing boat, a permit, and the "quota," which is generally specific to a fish species, to land fish. This all takes financial resources in order to gain access to the opportunity. For an older, small vessel, with limited permit/quota, you're probably talking mid-six figures. For a larger vessel, you're talking high six figures. Minimum. Probably seven.

Luckily, Gloucester has access. Present and past Gloucester fishing owners and the Gloucester Fishing Community Preservation Fund still ensure access to the fisheries through the ownership of a significant number of permits collectively holding significant quota for select groundfish in the Gulf of Maine and Georges Bank. Fishers—with a vessel and a permit—can participate in the Gloucester Groundfish Sector and access this quota at subsidized pricing. Permit banks are an essential way to support and sustain community fishing ports.

Truth #4 The Costs of Doing Business Are Changing, but Fish Prices at the Dock are Not

While costs of fuel, materials, bait, supplies, crew, technology, monitoring, and reporting have increased, the average price paid for fish at the dock has barely changed in the last 25 years, when adjusted for inflation.

In 1918, the average price paid for haddock was about five cents. Adjusted for 2020 value, that's 85 cents. According to NOAA landing data, the value of haddock/pound in Massachusetts was 91 cents in 2019. The "average" price paid last year at the dock for haddock, pollock, redfish, cusk, hake, cod ranged from $.53 cents for redfish to $2.26 for codfish, with an average price for these groundfish of $1.05/pound.

Truth #5 Vertically Integrated Seafood Companies are Coming (Back)

The East Coast groundfish fishery—traditionally dominated by small, independently owned and operated fishers, now has its first large, well-financed, vertically integrated company—Blue Harvest Fisheries—in the fin fish business. We have not seen this business model for some time, but Gloucester's own Gorton's and Frank E. Davis companies dominated the fishery at the turn of the 19th and 20th century when they owned their own boats, did their own processing, and marketed their products world wide. Such large vertically integrated companies dominate the U.S. west coast and European fisheries because they control the entire supply chain, from harvest to sales, and have extensive capital to apply to fishing operations, including building markets and meeting large customer demands for volume and quality.

Truth #6 Fisheries Management is Driven by Science

Science has always been critically important in fisheries management, but the advent of the catch share regulatory management approach has placed science front and center. Stock assessments (How many fish are in the ocean?) are the fulcrum which dictates whether stocks, of a particular species, are going up or down on the fishing lever. Other key strategies, according to the New England Mid-Atlantic Geographic Strategic Plan 2020–2023, include the promotion of ecosystem-based fisheries management; the assessment of all prioritized stocks; modernization of the fishery information collection systems; and protection of critical habitats.

Science informing policy is a good thing. Who can dispute that? And the use of the precautionary principal is understandable given the uncertainty of the science. But two things should be recognized: (1) there will be no holy grail—science will never get it exactly right, there are too many complex and changing variables, so relying solely on the science to get it perfectly right is a false hope; and (2) science has a crucial role to play in providing, within its limits, risk assurances that supports private/public sector investment rather than doing what science can also do, which is to answer one question with more questions and sustain uncertainty which will limit institutional and community investment and reduce consumer purchasing confidence.

Truth #7 Domestic Seafood Consumption Continues to be Flat

Americans eat an average of 16 pounds of fish/year and that number has stayed generally flat for a decade. Compare that with 93 pounds of chicken per year.

Most seafood caught in the Northeast—and the United States—is exported, and Boston/Logan Airport is one of our nation's top seafood exporters. A majority of lobsters, fish, and shellfish end up in another country to be processed or eaten. Some is returned, value-added. Export value is roughly 2/3 that of the value of imported seafood.

And a majority of the seafood eaten in the Northeast—and the United States—is imported (It's not 90% as commonly reported, but it is likely around 60%). For comparison, only 1/3 of our vegetables and 1/2 of our fruit are imported.

Truth #8 Covid 19 Has Shown the Vulnerabilities with Complex, Global Supply Chains

The pandemic has exposed the vulnerabilities of our seafood supply system. In addition to logistical and demand challenges with a global supply system, the pandemic has cast a light on the fact that 90% of shellfish and 75% of all seafood in America is consumed in restaurants! The decline in seafood sales has led to dark times for many fishermen and dealers; however, this challenge has also spurred innovative direct-to-consumer sales models in fishing ports and towns across the country. It should also spark a renewed effort to build the U.S. domestic market for home consumption of U.S. seafood.

NEW RULES.

Regulations. It's easy to point fingers at federal and state regulations, and there is no doubt that these regulations are burdensome and imperfect, especially on small, independently owned and operated fishers who sought freedom on the water and a self-regulating business lifestyle. But regulations are not the only rules. Understanding relevant standards and principles –as evidenced by consuming habits and preferences—ARE the new rules. And they are every bit as important as the external regulations imposed on fishers.

Rule #1 Embrace Ocean Conservation and Stewardship, and Be Known for It

Sustainable fishing or regenerative fishing. Call it what you want, but fish harvesting and marine protection must go hand in hand in the eye of the consuming and investing public. While the devil is in the details, the fishing community should embrace this ethos and stand on this principle, even when disagreeing vigorously with a particular regulation.

From an economic standpoint, the fishing industry lacks economic clout on the grand scale of things (seafood harvesting is a small fraction of 1% of our nation's GDP), but people—consumers and politicians—want to support fishers and all that they stand for. Give them a value, a principle to support.

Compliance with some of the toughest and most stringent fishery regulations in the world—which is what we have in the northeast—is not leadership. Never will be.

Sustainable standards are here for the long haul. Meeting applicable market- and consumer-driven sustainable standards are now a cost of doing business. For example, Acadian redfish, haddock and pollock caught in the Gulf of Maine and Georges Bank meet Marine Stewardship Council (MSC) Fisheries Standards. With the new MSC certification, both consumers and fishermen can be confident that the catch is sustainable. While MSC is not the holy grail, third-party sustainable fishing standards are here to stay.

Rule #2 Change the Arc of History: In Cod We Can No Longer Trust

The science around the abundance and behavior of the iconic cod in the Gulf of Maine is disputable and uncertain. So move away from codfish. Literally.

Fishers must (and they are) avoid harvesting cod using better gear technology, different fishing techniques, and by focusing on harvesting the abundant groundfish. It's called precision fishing—catching the targeted species and avoiding the species or age groups you seek to avoid—and it's the future.

Of course, the challenge with cod is that even if fishermen move away from cod, the government's quota and biomass modeling estimates for cod are so low (and the fishermen say so wrong) that the low quota (only 2% of the total allowable catch for all groundfish) continues to play a critical role in driving the management of the 12 other groundfish species, including potential for across the board additional monitoring requirements.

Recreational fishers, consumers, and tourists must be part of this story. Let's declare that the allure of cod is over. There's plenty of fish in the sea. Eat haddock! In fact, in 2020—2020, including during the pandemic, it is "in haddock we trust" that has maintained strong landings and a solid price.

Rule #3 Support the Advancement of Fishing Science, Data, and Technology

Fishermen that understand and invest in technology will be better positioned in this marketplace. This includes precision fishing, "storied" fish, collaboration with researchers, and real time communication with supply chain partners.

Vessels need to be smart—safety, fuel efficiency, fish handling, ergonomics, replaceable gear, monitoring—and they need to be designed into the vessel's core architecture and operating systems.

Stock assessments will likely be imperfect, but science-based fisheries data coupled with adaptive management frameworks has to be the future. With more and better data generated by fishermen (called fishery dependent data), better predictive models of fish populations, biomass, distribution, and migratory behaviors should emerge. This is especially important given that the ocean is changing (temperature, salinity, currents), based on studies of the Gulf of Maine and Georges Bank. Under changing ocean conditions, fisheries data regarding spatial and temporal coverage in the vast areas of the northern Atlantic Ocean is even more important. Government does not have the resources to do it alone, and nor should they rely principally on annual surveys or historical data. The new rules must usher in a new era of data integration to support accountability, stock assessments, precision fishing, and adaptive management.

That said, monitoring is here to stay if you're a fisher. The key question is how can, and will, the data be used.

Rule #4 It's All About the Fish

In a global marketplace, and Logan International Airport 30 miles away, dealers, restaurant chefs, and consumers demand reliable, high quality, and available fish. If not from Gloucester, fresh, quality groundfish comes in daily from Iceland, Norway and other countries.

It's not enough to say locally caught; the fish quality needs to be as good or better than the fish coming in from other fishing communities and nations. So, how the fish is handled by fishermen and at the dock is essential to demonstrating that locally caught fish is the highest quality fish. And new technologies at the market will likely, in the future, confirm freshness and quality with new imaging technologies.

Rule #5 It's Not All About the Fish: The Story Matters

Who caught it? Where did they catch it? How did they catch it? When did they catch it? How was it handled? "Storied Fish."

The technology is available to provide this information across the supply chain, although we need to streamline and integrate the many traceability systems that are currently used.

Will a part of the seafood future be laboratory grown fish protein fillets? An "alternative" tuna already exists! What then? Support lab to table? Create a story with a fisher, a boat, captain and crew, a community.

Rule #6 Larger Boats are the Future

It's already happening , but only larger boats (>65 feet but don't get hung up on the exact length) can harvest the volume, generate the margins, pay a good salary to crew, and access capital to invest in their business. For example, a new, state-of-the art vessel is likely to cost $3–5 million.

From Alaska to Britain, and all ports in-between, larger boats harvest 60-80% of the available quota.

The 80/20 rule will apply with 20% of the boats capturing 80% of the fish. It's already true in New England if you look at groundfish landings from the past few years.

Rule #7 Its' Not All About Big Boats– Small Boats Matter

For every larger boat, there can and should be 3–4 small, day boats. They contribute to the 20% not caught by the large boats. Yet, they are more important than the 20% would suggest. First, there's the numbers. If one assumes as much as a $300 million groundfish fishery out there—$60 million in landing revenue from small boats? 60+ boats catching groundfish? 180+ jobs? Small boat captains will have to work hard as hell, but a good living can currently be made. Second, it is the smaller boats that build the brand, sustain the heritage, and connect to the community through the independent ownership of many vessels. Without the smaller boats, a fishing port is just another efficiently exploited resource that pursues maximum economic yield. A fishing community should be more than that. Everyone agrees, including large boat owners.

Small boats also meet certain fishing port needs. They can help retain older fishing captains who wish to continue to fish but may no longer wish to go far off-shore. They offer new entrants a cost-effective way to get into the game. Smaller vessels are also in a good position to create "storied fish" and to differentiate themselves, their vessel, and their fishing technique for high quality, fresh fish or new artisanal products. And, finally, the volume of smaller vessels adds significantly to the fishing port economy multiplier effect by supporting enterprises providing boat repair, dockage, marine and fishing equipment, gas, ice, and other supply chain needs.

Smaller vessels will need to collaborate and cooperate with each other and with dealers in new ways, however, to financially survive and access capital to re-invest in their boats and crew. The New Game may require new behaviors and new rules for engagement and collaboration among these small boats.

NEW GAME.

The Fishing System—from harvest to consumer's table—is a human-centered ecosystem all its own. Some elements show little change, like the first boat into port sets the price. Other elements—a truly global seafood system—are all 21st century. At the risk of minimizing fisheries' economic, community, or cultural importance by calling this section "New Game," we simply wish to suggest that the sum of the New Truths + New Rules cannot succeed, in the long term, unless there are structural changes and investment in a new system. A new game, with new approaches, new feedback loops, new behaviors, and new goals. Maybe we should call the following suggestions Game Changers.

1. We Need to Focus on the Opportunity

Based on the current groundfish quotas for what's called the Northeast Multispecies Fishery (e.g., groundfish), we are only harvesting 4% of Eastern Georges Bank haddock, 10% of Georges Bank Haddock, 42% of Gulf of Maine Haddock, and 10% of the pollock quota according to 2019 data. The quotas for many fish have increased in 2020, and represent tens of thousands of metric tons of fish.

Experts estimate that more than $200 million of groundfish is left in the ocean, each year. That's an opportunity.

2. We need to Invest in New Boats

That opportunity cannot be seized, nor can precision or sustainable fishing truly occur, without significant investment in state-of-the-art 21st century fishing boats.

While boats must be built in the United States, in accordance with the Jones Act, we should look to other leading fishing nations for benchmark information and guidance where new boats are being designed and used, and work with lenders and investors so they understand the opportunities and return on investment.

3. We need to Convince a Doubting Public that there is a Future Career for the Next Generation

Young men and women have been told, for at least a generation, to avoid a ground fishing career (Not so true for lobstering or scalloping). Yet, crew aboard the larger trawlers can make a six figure annual income. A captain can make much more.

But the Future of Work must look different. Changes must be made to the act of fishing to attract the next generation. Few—if any—young people are willing to work on a large, multi-day trawler under the current conditions. Issues of ergonomics, safety, fish handling systems, and work culture must be addressed to attract 20 somethings to a punishing, but rewarding on-the-water career.

The cost of entry must be lowered or subsidized to ensure that young people that are ready and able to captain their own boat can successfully acquire a boat, permit and the capital to fish.

We must welcome young, skilled fishermen from other lands—as we did years ago—so that a young man or woman fisher from Iceland, Norway, Canada, Finland, Britain, Ireland, Scotland, or elsewhere—may find their way to our shore and contribute to our sustainable fishery. Their knowledge, skills, experience and work ethic are needed at this juncture of our decline.

And just as Kendall Square in Cambridge Massachusetts is home to a diversity of researchers, computer professionals, technicians, financiers, and construction workers, a thriving fishing port should reflect diverse skills, competencies, and interests of young professionals who are attracted to a "blue economy" career. Imagine a young fishermen, marine biotechnology researcher, fisheries policy analyst, IT expert, diesel mechanic, and educator all contributing equally to a thriving fishing port.

4. Think About The Whole Fish

What comes around, goes around. Literally and figuratively. Back in the early 90s, the concept of "eco-industrial" models was developed and promoted by Massachusetts-based consulting giant Arthur D. Little and a group of Europeans led by Austrian Fritjof Capra. The systems concept was simple. One person's industrial waste could be another's raw material. Save money. Make money. Minimize environmental impact. American eco entrepreneur Paul Hawken further promoted it in his transformative 1993 book "The Ecology of Commerce." Today, the concept has caught hold in the fisheries and seafood industry—in Iceland—which is promoting it and implementing it as the "Ocean Cluster" model. The concept has boots on the ground in Portland, Maine and New Bedford, among other fishing ports.

Waste or byproduct from fishing or seafood processing, which can be 50-70% of the primary product, can be used for—you name it, collagen chitin, enzymes, fish leather, oils, bait, animal feed. And the "value add" thinking has gone from fish gurry slop to utilization of these waste materials based on cellular analysis and understanding. Think vitamins, minerals, nutraceuticals. Assuming the fishery is worth $300 million and 50% of it is waste and that waste can be refined further for new byproduct materials that generate revenue. . . . The new game is about the whole fish.

5. Fix the Seafood Supply Chain—Pricing System Must Change

The supply chain is broken. Seafood is among the highest priced proteins at the retail level, and yet the landed price has changed little over the last 25 years.

The ex-vessel (landing) pricing system must change to ensure that fishermen—especially the small, day boats that can't generate the volume—get fair value for their efforts so that they can make a livable wage. The emerging field of behavioral economics may offer some innovative pricing solutions.

There is a need for the buyers to alter their ex-vessel pricing approach and to work with fishers who can provide high quality and reliable volumes of fish to develop forward-facing contracts that ensure a consistent, fair price for high quality, wild caught fish.

A new collaborative "community" seafood supply model will no doubt involve contracts and agreements, accountability measures, and trust that differs from the current system built on competition, mistrust, and daily landing price.

6. Support Derivative Values of Fishing

Fishermen as researchers. Fishermen as conservationists. We should "value" those behaviors and actions.

As we increasingly think about the parallels between locally harvested seafood and the growth of—and support for—locally produced agriculture, we should also think about how we support farmers with financial mechanisms like subsidies, crop insurance, and tax incentives. Similar financial mechanisms should be available to permitted fishers to support cash flow and revenue, and provide certainty to lenders and investors to provide capital to the fishing sectors.

We should also look to the timber industry and the land conservation movement to develop new rules and techniques for finding derivative values from fishing permits and rewarding fishers now for harvesting low carbon impact protein, protecting habitats, or sustaining other ecosystem values that can be supported by varied fishing approaches and techniques. Not only is this a good and appropriate idea, it beats the current model which is all about making your case for mitigation monies when someone proposes an alternative ocean use or hard times arrive. Let's be innovative and proactive.

7. Domestic Consumers Need to Diversify Their Seafood Tastes and Eat More Seafood

We've already spoken about cod, but we need to diversify our culinary tastes—just as we have for artisanal beer, cheese, and distilled spirits—to purchase and prepare a much wide variety of seafood. The success of our re-emergent oyster industry in New England bodes well. We're not talking only about "underutilized species" like dogfish or redfish. We're talking about pollock or hake or whiting. Delicious white fish that can compete with cod or haddock for flavor and texture.

Along with the types of fish we eat, we also need to create more seafood products that contribute to the diversity of culinary experiences and can add value within the fishing community. Our favorite example is high quality tinned seafood. All the canning operations in New England closed many years ago, and yet tinned seafood is a delicacy in many countries and is experiencing a renaissance in this country. Yet 98% of canned seafood in this country is imported.

8. Finfish Isn't What You Think It Is, and We Need More of It!

The fishing industry needs financing—"finfish." Financing to build new boats. Financing to employ a crew to seize available opportunities. Financing to feed people and meet new market demands. Financing to support new training and apprentice programs. These are big ticket, structural changes that are especially challenging during these difficult economic times created by the Covid 19 pandemic and economic down-turn.

For a fishing cluster or vertically integrated community model (where all the elements of a vertically integrated company are in play, but the system is designed to promote collaboration and stability among small, independent business owners in a port) to work, we must have a supply and demand system with more certainty, and less risk, to meet lending and investment criteria. Otherwise, only large, vertically integrated companies with significant resources will fish.

We need new funds and innovative investment strategies to support this changing game. Investors need to see the opportunity. Fishers need to be willing to act and adapt. Lenders need certainty and risk controls to ensure future revenue. And the regulatory agencies need to recognize that while economic uncertainty is not their purview, their power and role in setting and controlling annual fishing limits must consider business risk and investment. Let's collectively attack this issue and come at developing a sustainable fisheries from a risk management perspective that truly supports the big picture.

Readers are welcome to share this PDF with all interested parties. It should be noted that while few examples were included in this document, there are many individuals, organizations, and enterprises doing great work that could have been used as examples. Perhaps that's the next piece—"stories" from the new rule writers and the new game changers. If you wish to comment on this document or add to the conversation, go to www.linkedin.com/in/oceanvest and share your opinion or contact me directly. We welcome comments that contribute to a rigorous discourse and the charting of new ocean paths.

Tom Balf
OceanVest, LLC
tbalf@ocean-vest.com
978-204-1475

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

November 4, 2020

Thomas A. Nies
Executive Director
New England Fishery Management Council
50 Water Street Mill 2
Newburyport, MA 01950

Dear Tom:

We recently completed groundfish year-end accounting for the 2019 fishing year, and the final report is attached to this letter. In fishing year 2019, catch exceeded the total annual catch limit (ACL) of one stock, Atlantic halibut.

Atlantic Halibut
In fishing year 2019, catch exceeded the total ACL of 100 mt for Atlantic halibut by 2.9 percent, or 2.9 mt, but not the U.S. ABC of 104 mt. Therefore, the overage was not greater than the management uncertainty buffer, and as such, the halibut accountability measure is not triggered. Table 1 summarizes the Atlantic halibut ACL overage. Fishing years 2015 and 2018 had similar overages, where the ACL was exceeded, but not beyond the management uncertainty buffer.

Table 1. Fishing year 2019 Atlantic Halibut ACL and Catch

	Total ACL	Groundfish Fishery Sub-ACL	State Waters Sub-Component	Other Sub-Component
ACL or sub-ACL (mt)	100	75	21	4
Catch (mt)	102.9	79.8	21.6	1.5
Percent Caught	102.9%	106.4%	102.8%	38.4%

Regulations at 50 CFR 600.310(g)(7) state "If catch exceeds the ACL for a given stock or stock complex more than once in the last four years, the system of ACLs and AMs should be reevaluated, and modified if necessary, to improve its performance and effectiveness." Given that the Atlantic halibut ACL has been exceeded in three out of the last five years (2015, 2018, and 2019), we urge the Council to consider whether modified measures may be necessary to avoid additional overages in the future.

Scallop sub-ACLs
The scallop fishery exceeded two of its groundfish sub-ACLs in fishing year 2019: Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder and northern windowpane flounder.

These overages are shown in Table 2, below. The total ACL was not exceeded for either of these stocks, nor were the scallop fishery's sub-ACLs exceeded by more than 50 percent, and therefore, no AMs have been triggered. The other two stocks with scallop sub-ACLs (Georges Bank [GB] yellowtail flounder and southern windowpane flounder) did not have overages in fishing year 2019.

Table 2. Groundfish catch as a percentage of the sub-ACL for each groundfish stock allocated to the scallop fishery.

Stock	Scallop Fishery sub-ACL (mt)	Catch (mt)	Catch as a Percent of the Scallop Fishery sub-ACL
GB yellowtail flounder	1.8	1.7	96.0%
SNE/MA yellowtail flounder	2	2.1	112.6%
Northern windowpane flounder	18	25.4	140.9%
Southern windowpane flounder	158	57.7	36.5%

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

Final Year-End Results for Fishing Year 2019

- 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 2017 through FY 2019 GOM cod and haddock recreational catch evaluation

- Table 11: Sector carryover

- 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.

NMFS Greater Atlantic Regional Fisheries Office

11/3/2020

Table 1: FY 2019 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	36.9	34.0	35.0	3.5					78.1	61.4
GOM Cod	59.6	60.1	80.3	53.3	36.3				61.4	17.1
GB Haddock	9.6	9.9	10.1	0.1		0.0			0.8	4.2
GOM Haddock	35.2	34.6	43.1	13.7	13.3	0.1			164.6	23.7
GB Yellowtail Flounder	4.7	3.1	3.2	-			96.0	1.5	NA	NA
SNE Yellowtail Flounder	10.4	6.3	7.0	3.2			112.6		2.3	11.0
CC/GOM Yellowtail Flounder	47.2	36.7	37.4	23.9					83.5	104.1
Plaice	56.8	57.3	58.2	14.2					38.6	56.3
Witch Flounder	87.3	89.5	91.6	12.7					51.1	78.0
GB Winter Flounder	41.9	39.6	41.3	-					NA	189.7
GOM Winter Flounder	34.3	16.6	16.9	9.9					126.6	47.7
SNE/MA Winter Flounder	42.2	27.8	30.4	11.8					12.4	130.7
Redfish	44.3	45.2	45.4	0.7					4.3	0.5
White Hake	74.7	75.5	75.8	32.3					1.7	80.4
Pollock	9.3	8.3	8.3	6.3					50.0	70.3
Northern Windowpane	79.0	34.5	NA	NA			140.9		8.4	689.5
Southern Windowpane	76.6	61.7	NA	NA			36.5		56.9	111.8
Ocean Pout	54.8	19.8	NA	NA					17.1	202.6
Halibut	102.9	106.4	NA	NA					102.8	38.4
Wolffish	3.1	3.0	NA	NA					6.3	7.7

Source: NMFS Greater Atlantic Regional Fisheries Office
October 20, 2020, run date of September 17, 2020

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 and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 2: FY 2019 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[1]	Common Pool[1]	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	1,741	1,568	1,514	54					18	155
GOM Cod	666	610	350	11	220				47	9
GB Haddock	55,249	53,276	52,432	844		811			581	581
GOM Haddock	11,803	11,506	8,216	96	3,194	116			91	91
GB Yellowtail Flounder	103	99.8	96.9	2.9			1.8	2.0	NA	0.0
SNE Yellowtail Flounder	66	45	36	9			2		2	17
CC/GOM Yellowtail Flounder	490	398	377	21					51	41
Plaice	1,532	1,467	1,436	31					32	32
Witch Flounder	948	854	831	23					40	55
GB Winter Flounder	786	774	742	32					NA	12
GOM Winter Flounder	428	355	337	18					67	7
SNE/MA Winter Flounder	700	518	444	74					73	109
Redfish	11,208	10,972	10,915	57					118	118
White Hake	2,794	2,735	2,714	21					29	29
Pollock	38,204	37,400	37,152	248					402	402
Northern Windowpane	86	63	NA	63			18		2	3
Southern Windowpane	457	53	NA	53			158		28	218
Ocean Pout	120	94	NA	94					3	23
Halibut	100	75	NA	75					21	4
Wolffish	84	82	NA	82					1	1

[1]To account for an overage of the 2017 ACL for GOM cod, the sector and common pool sub-ACLs for GOM cod were reduced in Framework 58.
[2]The Southern New England/Mid Atlantic and Georges Bank yellowtail flounder sub-ACLs for the scallops fishery were reduced by 13.1 mt and 15.2 mt, respectively, and the groundfish sub-ACLs were increased by the same amount, by mid-year transfers from the scallops fishery to the groundfish fishery.
Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
October 20, 2020

Table 3: FY 2019 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	641.7	532.4	530.5	1.9					14.1	95.2
GOM Cod	396.8	366.4	280.9	5.8	79.8				28.9	1.5
GB Haddock	5323.4	5294.1	5293.5	0.6		0.2			4.8	24.3
GOM Haddock	4152.3	3980.8	3544.4	13.1	423.2	0.1			149.8	21.6
GB Yellowtail Flounder	4.8	3.1	3.1	-			1.7	0.0	-	0.0
SNE/MA Yellowtail Flounder	6.9	2.8	2.5	0.3			2.1		0.0	1.9
CC/GOM Yellowtail Flounder	231.4	146.2	141.1	5.1					42.6	42.7
Plaice	870.9	840.6	836.1	4.5					12.3	18.0
Witch Flounder	827.3	764.0	761.0	2.9					20.4	42.9
GB Winter Flounder	329.0	306.2	306.2	-					-	22.8
GOM Winter Flounder	146.9	58.7	56.9	1.8					84.8	3.3
SNE/MA Winter Flounder	295.4	143.8	135.1	8.7					9.1	142.5
Redfish	4963.0	4957.3	4956.9	0.4					5.1	0.6
White Hake	2088.0	2064.2	2057.4	6.8					0.5	23.3
Pollock	3569.6	3085.6	3070.1	15.6					201.2	282.7
Northern Windowpane	68.0	21.8	21.7	0.0			25.4		0.2	20.7
Southern Windowpane	350.0	32.7	30.0	2.7			57.7		15.9	243.6
Ocean Pout	65.7	18.6	18.4	0.2					0.5	46.6
Halibut	102.9	79.8	76.6	3.2					21.6	1.5
Wolffish	2.6	2.4	2.4	0.0					0.1	0.1

[1]Based on scallop fishing year April 2019 through March 2020

Values in metric tons of live weight
Sector and common pool include estimate of missing dealer reports

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
October 20, 2020, run date of September 17, 2020

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 and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 4: FY 2019 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	621.1	524.5	522.8	1.7					13.1	83.5
GOM Cod	325.5	296.3	268.7	4.4	23.3				28.5	0.6
GB Haddock	5080.7	5070.9	5070.3	0.6		0.2			0.1	9.6
GOM Haddock	3922.4	3767.2	3452.5	13.0	301.6	0.1			147.6	7.6
GB Yellowtail Flounder	2.9	2.9	2.9	-			-	-	-	-
SNE/MA Yellowtail Flounder	2.7	2.6	2.4	0.3			-		0.0	0.0
CC/GOM Yellowtail Flounder	174.1	131.3	127.0	4.3					42.3	0.4
Plaice	802.2	791.1	787.0	4.1					10.9	0.1
Witch Flounder	745.7	726.0	723.1	2.9					19.4	0.4
GB Winter Flounder	306.0	305.3	305.3	-					-	0.7
GOM Winter Flounder	141.8	57.0	55.3	1.7					84.3	0.4
SNE/MA Winter Flounder	153.4	141.2	132.6	8.6					8.8	3.3
Redfish	4919.9	4915.7	4915.3	0.4					4.0	0.2
White Hake	2056.1	2054.6	2047.8	6.8					0.2	1.3
Pollock	3209.8	3011.9	2996.3	15.6					116.9	81.0
Northern Windowpane	-	-	-	-			-		-	-
Southern Windowpane	10.7	0.0	-	0.0			-		10.7	0.0
Ocean Pout	-	-	-	-					-	-
Halibut	54.0	32.7	29.5	3.2					20.3	1.0
Wolffish	-	-	-	-					-	-

Values in metric tons of live weight
Sector and common pool include estimate of missing dealer reports

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
October 20, 2020, run date of September 17, 2020

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 and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 5: FY 2019 Northeast Multispecies Estimated 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	20.6	7.9	7.7	0.2					1.0	11.7
GOM Cod	71.3	70.1	12.2	1.4	56.5				0.3	0.9
GB Haddock	242.7	223.2	223.2	0.0		-			4.7	14.7
GOM Haddock	229.8	213.7	91.9	0.1	121.6	-			2.2	14.0
GB Yellowtail Flounder	1.9	0.1	0.1	-			1.7	0.0	-	0.0
SNE/MA Yellowtail Flounder	4.2	0.2	0.2	0.0			2.1		0.0	1.8
CC/GOM Yellowtail Flounder	57.3	14.8	14.0	0.8					0.2	42.3
Plaice	68.7	49.4	49.1	0.4					1.4	17.9
Witch Flounder	81.5	37.9	37.9	0.1					1.1	42.5
GB Winter Flounder	23.0	0.9	0.9	-					-	22.1
GOM Winter Flounder	5.1	1.7	1.7	0.1					0.5	2.9
SNE/MA Winter Flounder	142.0	2.6	2.5	0.2					0.2	139.1
Redfish	43.1	41.5	41.5	0.0					1.1	0.4
White Hake	31.9	9.6	9.6	-					0.3	22.0
Pollock	359.8	73.8	73.7	0.0					84.3	201.7
Northern Windowpane	68.0	21.8	21.7	0.0			25.4		0.2	20.7
Southern Windowpane	339.3	32.7	30.0	2.7			57.7		5.2	243.6
Ocean Pout	65.7	18.6	18.4	0.2					0.5	46.6
Halibut	48.9	47.1	47.1	0.0					1.2	0.5
Wolffish	2.6	2.4	2.4	0.0					0.1	0.1

Values in metric tons of live weight
Sector and common pool include estimate of missing dealer reports

Source: NMFS Greater Atlantic Regional Fisheries Office
October 20, 2020, run date of September 17, 2020

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 and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Table 6: FY 2019 Northeast Multispecies Estimated State Water Sub-Component Catch Detail (mt)

Stock	Total			Commercial			Recreational		
	Catch	Landings	Discard	Total Catch	Landings[1]	Discard[1]	Total Catch	Landings	Discard
	A+B+C+D	A+C	B+D	A+B	A	B	C+D	C	D
GB Cod	14.1	13.1	1.0	3.1	2.9	0.2	11.0	10.2	0.8
GOM Cod	28.9	28.5	0.3	28.9	28.5	0.3	-*	-*	-*
GB Haddock	4.8	0.1	4.7	4.8	0.1	4.7			
GOM Haddock	149.8	147.6	2.2	149.8	147.6	2.2	-*	-*	-*
GB Yellowtail Flounder	-	-	-	-	-	-			
SNE/MA Yellowtail Flounder	0.0	0.0	0.0	0.0	0.0	0.0			
CC/GOM Yellowtail Flounder	42.6	42.3	0.2	42.6	42.3	0.2			
Plaice	12.3	10.9	1.4	12.3	10.9	1.4			
Witch Flounder	20.4	19.4	1.1	20.4	19.4	1.1			
GB Winter Flounder	-	-	-	-	-	-			
GOM Winter Flounder	84.8	84.3	0.5	67.1	67.1	0.0	17.7	17.3	0.5
SNE/MA Winter Flounder	9.1	8.8	0.2	8.9	8.7	0.1	0.2	0.1	0.1
Redfish	5.1	4.0	1.1	5.1	4.0	1.1			
White Hake	0.5	0.2	0.3	0.5	0.2	0.3			
Pollock	201.2	116.9	84.3	3.1	0.7	2.4	198.1	116.2	81.9
Northern Windowpane	0.2	-	0.2	0.2	-	0.2			
Southern Windowpane	15.9	10.7	5.2	15.9	10.7	5.2			
Ocean Pout	0.5	-	0.5	0.5	-	0.5			
Halibut	21.6	20.3	1.2	21.6	20.3	1.2			
Wolffish	0.1	-	0.1	0.1	-	0.1			

*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.

[1]January through April 2020 commercial catches are estimated.

State discard rate estimates based on discard rates on federal trips

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office

October 20, 2020, run date of October 16, 2020

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Table 7: FY 2019 Northeast Multispecies Other Sub-Component Catch Detail (mt)

Stock	Total	SCALLOP[1]	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB[2]	MACKEREL	MENHADEN	MONKFISH	REDCRAB	RESEARCH
GB Cod	95.2	3.7	0.0	-	0.0	0.3	0.0	-	0.2	-	0.3
GOM Cod	1.5	0.2	-	-	0.1	0.1	0.0	-	-	-	0.5
GB Haddock	24.3	7.2	0.3	-	0.1*	-	0.2	-	0.1	-	9.4
GOM Haddock	21.6	-	-	-	1.5*	0.0	0.0	-	-	-	7.2
GB Yellowtail Flounder	0.0	-*	-	-	0.0*	-	0.0	-	-	-	-
SNE Yellowtail Flounder	1.9	-*	0.2	-	0.0	-	0.0	-	0.0	-	0.0
CC/GOM Yellowtail Flounder	42.7	10.8	-	-	5.7	0.1	0.0	-	0.0	-	0.3
American Plaice	18.0	11.2	0.1	-	0.1	-	0.2	-	0.0	-	0.1
Witch Flounder	42.9	23.9	1.0	0.0	0.2	0.0	0.4	-	0.0	0.0	0.2
GB Winter Flounder	22.8	22.7	-	-	0.0	-	0.0	-	-	-	-
GOM Winter Flounder	3.3	1.3	-	-	0.2	0.0	-	-	-	-	0.2
SNE Winter Flounder	142.5	39.0	5.4	-	1.0	0.0	2.4	-	0.1	-	0.4
Redfish	0.6	0.0	-	-	0.0	-	0.0	-	-	-	0.1
White Hake	23.3	1.9	0.1	0.0	0.3	0.0	0.5	-	0.0	0.0	1.2
Pollock	282.7	-	-	-	0.0	-	0.0	-	0.0	-	0.2
Northern Windowpane	20.7	-*	-	-	0.4	-	0.0	-	0.0	-	0.0
Southern Windowpane	243.6	-*	39.3	-	0.8	-	2.7	-	0.5	-	0.0
Ocean Pout	46.6	3.7	0.2	-	0.6	-	1.1	-	0.0	-	0.0
Halibut	1.5	0.5	-	-	-	0.8	-	-	0.0	-	0.0
Wolffish	0.1	0.1	-	-	-	-	0.0	-	-	-	0.0

Values in metric tons of live weight

[1]Based on scallop fishing year April 2019 through March 2020

[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.

*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
October 20, 2020, run date of Sept 17, 2020

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. Differences with previous reports are due to corrections made to the database.

Table 7: FY 2019 Northeast Multispecies Other Sub-Component Catch Detail (mt)

Stock	Total	SCUP	SHRIMP	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	95.2	0.0	0.0	1.1	0.1	0.0	-	0.0	0.6	88.9
GOM Cod	1.5	-	-	0.0	0.2	0.0	-	0.1	0.4	-*
GB Haddock	24.3	0.2	0.0	5.2	0.4	0.2	-	0.0	1.2	
GOM Haddock	21.6	-	-	0.3	5.3	0.0	-	2.3	4.9	-*
GB Yellowtail Flounder	0.0	-	-*	0.0*	0.0	-	-	-	0.0*	
SNE Yellowtail Flounder	1.9	0.1	0.0	1.1	0.1	0.0	-	0.0	0.3	
CC/GOM Yellowtail Flounder	42.7	-	-	2.1	15.9	0.9	-	3.1	3.7	
American Plaice	18.0	0.1	0.0	4.8	0.4	0.2	-	0.0	0.9	
Witch Flounder	42.9	0.7	0.1	12.0	0.9	0.4	0.0	0.1	3.1	
GB Winter Flounder	22.8	-	-	0.0	0.0	-	-	-	0.0	
GOM Winter Flounder	3.3	-	-	0.0	0.6	0.0	-	0.3	0.5	0.2
SNE Winter Flounder	142.5	3.4	0.5	66.4	4.8	2.9	-	0.0	16.0	0.2
Redfish	0.6	0.0	0.0	0.3	0.0	0.0	-	0.0	0.1	
White Hake	23.3	0.1	0.1	14.9	1.2	0.5	0.0	0.1	2.5	
Pollock	282.7	-	0.0	0.9	0.1	0.0	-	0.0	0.3	281.3
Northern Windowpane	20.7	-	-	17.3	1.5	0.2	-	0.2	1.0	
Southern Windowpane	243.6	27.5	0.5	101.8	7.6	6.0	-	0.0	56.8	
Ocean Pout	46.6	0.1	0.2	31.9	2.4	1.0	-	0.1	5.3	
Halibut	1.5	-	-	0.0	0.1	-	-	-	0.0	
Wolffish	0.1	-	-	0.0	-	0.0	-	-	0.0	

Values in metric tons of live weight

*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
October 20, 2020, run date of Sept 17, 2020

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 2019 Northeast Multispecies Other Sub-Component Landings Detail (mt)

Stock	Total	SCALLOP[1]	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB	MACKEREL	MENHADEN	MONKFISH	REDCRAB	RESEARCH
GB Cod	83.5	0.1	0.0	-	-	0.3	-	-	0.1	-	0.3
GOM Cod	0.6	-	-	-	-	0.1	-	-	-	-	0.5
GB Haddock	9.6	0.0	0.0	-	.0*	-	-	-	0.1	-	9.4
GOM Haddock	7.6	-	-	-	-*	0.0	-	-	-	-	7.2
GB Yellowtail Flounder	-	-*	-	-	-	-	-	-	-	-	-
SNE Yellowtail Flounder	0.0	-*	0.0	-	-	-	-	-	0.0	-	0.0
CC/GOM Yellowtail Flounder	0.4	-	-	-	-	0.1	-	-	-	-	0.3
American Plaice	0.1	-	0.0	-	-	-	-	-	-	-	0.1
Witch Flounder	0.4	0.2	0.0	-	-	0.0	-	-	-	-	0.1
GB Winter Flounder	0.7	0.7	-	-	-	-	-	-	-	-	-
GOM Winter Flounder	0.4	-	-	-	-	0.0	-	-	-	-	0.2
SNE Winter Flounder	3.3	0.6	0.6	-	-	0.0	-	-	0.0	-	0.3
Redfish	0.2	-	-	-	-	-	-	-	-	-	0.1
White Hake	1.3	-	0.0	-	-	0.0	-	-	-	-	1.2
Pollock	81.0	-	-	-	-	-	-	-	-	-	0.2
Northern Windowpane	-	-*	-	-	-	-	-	-	-	-	-
Southern Windowpane	0.0	-*	-	-	-	-	-	-	-	-	-
Ocean Pout	-	-	-	-	-	-	-	-	-	-	-
Halibut	1.0	-	-	-	-	0.8	-	-	0.0	-	0.0
Wolffish	-	-	-	-	-	-	-	-	-	-	-

Values in metric tons of live weight

[1]Based on scallop fishing year April 2018 through March 2019

*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

October 20, 2020, run date of Sept 17, 2020

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 2019 Northeast Multispecies Other Sub-Component Landings Detail (mt)

Stock	Total	SCUP	SHRIMP	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	83.5	0.0	-	-	0.0	-	-	-	0.3	82.5
GOM Cod	0.6	-	-	-	-	-	-	-	0.0	-*
GB Haddock	9.6	0.0	-	0.0	-	-	-	-	0.1	
GOM Haddock	7.6	-	-	-	-	-	-	-	0.4	-*
GB Yellowtail Flounder	-	-	-	-	-	-	-	-	-	
SNE Yellowtail Flounder	0.0	-	-	0.0	-	-	-	-	0.0	
CC/GOM Yellowtail Flounder	0.4	-	-	-	-	-	-	-	-	
American Plaice	0.1	-	-	0.0	-	-	-	-	0.0	
Witch Flounder	0.4	-	-	0.0	-	-	-	-	0.0	
GB Winter Flounder	0.7	-	-	-	-	-	-	-	-	
GOM Winter Flounder	0.4	-	-	-	-	-	-	-	-	0.2
SNE Winter Flounder	3.3	0.0	-	0.3	0.1	-	-	-	1.2	0.2
Redfish	0.2	0.0	-	0.0	0.0	-	-	-	0.0	
White Hake	1.3	0.0	-	0.0	0.0	-	-	-	0.0	
Pollock	81.0	-	-	0.0	-	-	-	-	0.1	80.7
Northern Windowpane	-	-	-	-	-	-	-	-	-	
Southern Windowpane	0.0	-	-	-	-	-	-	-	0.0	
Ocean Pout	-	-	-	-	-	-	-	-	-	
Halibut	1.0	-	-	0.0	0.1	-	-	-	0.0	
Wolffish	-	-	-	-	-	-	-	-	-	

Values in metric tons of live weight

*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
October 20, 2020, run date of Sept 17, 2020

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 2019 Northeast Multispecies Other Sub-Component Estimated Discards Detail (mt)

Stock	Total	SCALLOP[1]	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB[2]	MACKEREL	MENHADEN	MONKFISH	REDCRAB	RESEARCH
GB Cod	11.7	3.6	0.0	-	0.0	NA	0.0	-	0.2	-	0.0
GOM Cod	0.9	0.2	-	-	0.1	NA	0.0	-	-	-	0.0
GB Haddock	14.7	7.2	0.2	-	.1*	NA	0.2	-	0.0	-	0.0
GOM Haddock	14.0	-	-	-	1.5*	NA	0.0	-	-	-	0.0
GB Yellowtail Flounder	0.0	-*	-	-	0.0*	NA	0.0	-	-	-	-
SNE Yellowtail Flounder	1.8	-*	0.2	-	0.0	NA	0.0	-	0.0	-	0.0
CC/GOM Yellowtail Flounder	42.3	10.8	-	-	5.7	NA	0.0	-	0.0	-	0.0
American Plaice	17.9	11.2	0.1	-	0.1	NA	0.2	-	0.0	-	0.0
Witch Flounder	42.5	23.7	0.9	0.0	0.2	NA	0.4	-	0.0	0.0	0.0
GB Winter Flounder	22.1	22.0	-	-	0.0	NA	0.0	-	-	-	-
GOM Winter Flounder	2.9	1.3	-	-	0.2	NA	-	-	-	-	0.0
SNE Winter Flounder	139.1	38.3	4.8	-	1.0	NA	2.4	-	0.1	-	0.0
Redfish	0.4	0.0	-	-	0.0	NA	0.0	-	-	-	0.0
White Hake	22.0	1.9	0.1	0.0	0.3	NA	0.5	-	0.0	0.0	0.0
Pollock	201.7	-	-	-	0.0	NA	0.0	-	0.0	-	0.0
Northern Windowpane	20.7	-*	-	-	0.4	NA	0.0	-	0.0	-	0.0
Southern Windowpane	243.6	-*	39.3	-	0.8	NA	2.7	-	0.5	-	0.0
Ocean Pout	46.6	3.7	0.2	-	0.6	NA	1.1	-	0.0	-	0.0
Halibut	0.5	0.5	-	-	-	NA	-	-	-	-	-
Wolffish	0.1	0.1	-	-	-	NA	0.0	-	-	-	0.0

Values in metric tons of live weight

[1]Based on scallop fishing year April 2018 through March 2019

[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.

*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

October 20, 2020, run date of Sept 17, 2020

These criteria are used by the Greater Atlantic Regional Fisheries Office 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. Differences with previous reports are due to corrections made to the database.

Table 9: FY 2019 Northeast Multispecies Other Sub-Component Estimated Discards Detail (mt)

Stock	Total	SCUP	SHRIMP	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	11.7	0.0	0.0	1.1	0.1	0.0	-	0.0	0.3	6.4
GOM Cod	0.9	-	-	0.0	0.2	0.0	-	0.1	0.4	-*
GB Haddock	14.7	0.2	0.0	5.2	0.4	0.2	-	0.0	1.1	
GOM Haddock	14.0	-	-	0.3	5.3	0.0	-	2.3	4.5	-*
GB Yellowtail Flounder	0.0	-	-	0.0*	0.0*	-	-	-	0.0*	
SNE Yellowtail Flounder	1.8	0.1	0.0	1.1	0.1	0.0	-	0.0	0.3	
CC/GOM Yellowtail Flounder	42.3	-	-	2.1	15.9	0.9	-	3.1	3.7	
American Plaice	17.9	0.1	0.0	4.8	0.4	0.2	-	0.0	0.9	
Witch Flounder	42.5	0.7	0.1	12.0	0.9	0.4	0.0	0.1	3.1	
GB Winter Flounder	22.1	-	-	0.0	0.0	-	-	-	0.0	
GOM Winter Flounder	2.9	-	-	0.0	0.6	0.0	-	0.3	0.5	-
SNE Winter Flounder	139.1	3.4	0.5	66.1	4.8	2.9	-	0.0	14.8	0.0
Redfish	0.4	-	0.0	0.3	0.0	0.0	-	0.0	0.1	
White Hake	22.0	0.1	0.1	14.8	1.1	0.5	0.0	0.1	2.4	
Pollock	201.7	-	0.0	0.9	0.1	0.0	-	0.0	0.2	200.5
Northern Windowpane	20.7	-	-	17.3	1.5	0.2	-	0.2	1.0	
Southern Windowpane	243.6	27.5	0.5	101.8	7.6	6.0	-	0.0	56.8	
Ocean Pout	46.6	0.1	0.2	31.9	2.4	1.0	-	0.1	5.3	
Halibut	0.5	-	-	-	-	-	-	-	-	
Wolffish	0.1	-	-	0.0	-	0.0	-	-	0.0	

Values in metric tons of live weight

*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

October 20, 2020, run date of Sept 17, 2020

These criteria are used by the Greater Atlantic Regional Fisheries Office 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. Differences with previous reports are due to corrections made to the database.

Table 10: FY 2017 - 2019 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	2017	245.4	26.6	218.8	157	156.3
	2018	146.9	4.3	142.6	220	66.8
	2019	79.8	23.3	56.5	220	36.3
	Average	**157.4**	**18.1**	**139.3**	**199**	**79.1**
GOM Haddock	2017	795.0	533.7	261.3	1,160	68.5
	2018	595.0	423.9	171.1	3,358	17.7
	2019	423.2	301.6	121.6	3,194	13.3
	Average	**604.4**	**419.7**	**184.7**	**2,571**	**23.5**

Recreational estimates based on Marine Recreational Information Program (MRIP) data.
Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
October 20, 2020

These data are the best available to NOAA's National Marine Fisheries Service (NMFS).

Table 11: FY 2019 Northeast Multispecies Sector Carryover (mt)

Stock**	FY 2019 Available Annual Catch Entitlement (ACE)				Available Carryover from FY 2019 to FY 2020	
	FY 2019 Initial ACE	FY 2018 Carryover	FY 2019 Total ACE	Total ACE as a Percent of Initial ACE	*de minimis*	Maximum
	A	B	C = A + B	C / A	D	E
GB Cod	1,513	83	1,596	105.5	10	57
GOM Cod	349	28	377	108.0	3	29
GB Haddock	52,432	2,865	55,297	105.5	1,194	5,241
GOM Haddock	8,215	687	8,902	108.4	116	812
GB Yellowtail Flounder	96.9	NA*	96.9	100.0	NA*	NA*
SNE/MA Yellowtail Flounder	36	2	38	105.5	0	1
CC/GOM Yellowtail Flounder	376	21	397	105.6	7	36
Plaice	1,436	77	1,513	105.4	28	137
Witch Flounder	831	35	865	104.2	12	65
GB Winter Flounder	742	24	766	103.2	5	16
GOM Winter Flounder	336	19	355	105.7	3	15
SNE Winter Flounder	444	27	471	106.1	5	28
Redfish	10,915	577	11,492	105.3	110	591
White Hake	2,714	144	2,858	105.3	18	106
Pollock	37,151	1,968	39,119	105.3	233	1,263

This table shows sector carryover as has been calculated since fishing year 2013, in accordance with the regulations at 50 CFR 648.87(b)(1)(i)(C) as of September 2, 2020.
*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 and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Source: NMFS Greater Atlantic Regional Fisheries Office

Run Date: October 6, 2020

Table 12: FY 2019 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	34.9	34.9	36.1	0.0					NA	NA
Eastern GB Haddock	4.8	4.8	4.8	0.0		NA			NA	NA
GB Yellowtail Flounder	4.6	3.1	3.2	0.0			96.0	1.5	NA	NA

Values in percent live weight (%)
Includes estimate of missing dealer reports
Source: NMFS Greater Atlantic Regional Fisheries Office
August 12, 2020

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

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. Differences with previous reports are due to corrections made to the database.

Table 13: FY 2019 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	189	189	183	6						
Eastern GB Haddock	15,000	15,000	14,762	238						
GB Yellowtail Flounder	106.0	99.8	96.9	2.9			1.8	2.0		0.0

[1]The Georges Bank yellowtail flounder sub-ACL for the scallops fishery was reduced by 15.2 mt, and the groundfish sub-ACL was increased by the same amount, by a mid-year transfer from the scallops fishery to the groundfish fishery.

Values in live weight

Source: NMFS Greater Atlantic Regional Fisheries Office
September 2, 2020

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

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. Differences with previous reports are due to corrections made to the database.

Table 14: FY 2019 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	66.0	65.9	65.9	-					-	0.0
Eastern GB Haddock	715.8	715.7	715.7	-		-			-	0.1
GB Yellowtail Flounder	4.8	3.1	3.1	-			1.7	0.0	-	0.0

Values in live weight
Includes estimate of missing dealer reports
August 12, 2020

Table 15: FY 2019 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	
	Sector	Common Pool	Sector	Common Pool	Sector	Common Pool	Sector	Common Pool
Eastern U.S./Canada Area	30	0	149	0	858	0	21	0
Western U.S./Canada Area	43	0	399	0	2,189	0	89	0
Total	47	0	434	0	2,327	0	90	0

[1]Area based on area fished. Totals don't sum due to multi-area trips
Data display "NA" due to data confidentiality.

Source: NMFS Greater Atlantic Regional Fisheries Office
August 12, 2020

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

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. Differences with previous reports are due to corrections made to the database.

Table 16: FY 2019 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	63.0	63.0	63.0	-					-	-
Eastern GB Haddock	667.0	667.0	667.0	-		-			-	-
GB Yellowtail Flounder	2.9	2.9	2.9	-			-	-	-	-

Values in live weight
Includes estimate of missing dealer reports
Source: NMFS Greater Atlantic Regional Fisheries Office
August 12, 2020

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

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. Differences with previous reports are due to corrections made to the database.

Table 17: FY 2019 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	2.9	2.9	2.9	-					-	0.0
Eastern GB Haddock	48.8	48.7	48.7	-		-			-	0.1
GB Yellowtail Flounder	1.9	0.1	0.1	-			1.7	0.0	-	0.0

Values in live weight
Includes estimate of missing dealer reports
Source: NMFS Greater Atlantic Regional Fisheries Office
August 12, 2020

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

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. Differences with previous reports are due to corrections made to the database.

November 20, 2020

Jon Hare, Director
Northeast Fishery Science Center
166 Water Street
Woods Hole, MA, 02543

Michael Pentony, Regional Administrator
Greater Atlantic Regional Fisheries Office
55 Great Republic Dr.
Gloucester, MA 01930

Dear John and Mike,

We, the undersigned sector managers, write to address our concerns with the direction the audit model electronic monitoring program has taken recently. We have worked with your staffs over the past several years to develop and implement an EM program that replaces the need for human observers for ACE accounting. However, in recent months we have seen increasing 'mission creep' from the NEFSC regarding the purpose and subsequent logistics of EM.

While all hope that the EM program can provide better data for stock assessments and other purposes, the purpose of EM in the groundfish fishery is to quantify discarded groundfish stocks, not for other purposes. Secondary benefits outside of documenting groundfish discards should not drive program design and increase costs. Examples of mission creep include:

- Insisting cameras have a view of the water on all rails for marine mammal interactions.
- Requests to change data for incidental take species after data submission, and subsequent time spent in back and forth between NMFS and reviewers on opinions of identification of items like turtle species, bird parts, and pieces of bone.
- Encroaching on issues of privacy through the documentation of non-fishing events during video review, such as presence of a firearm.

Further, we are concerned with NMFS' increasing review standards that will inevitably result in increased monitoring costs with little or no measurable gain – what has been described as "allowing perfect to be the enemy of the good."

- Increased documentation of events that are outside ACE accounting, such as haul period events for things like gear repair, cameras out of sync, or water droplets on the corner of a camera.
- Insisting cameras be dedicated to stern views that account for 1-2% or less of ACE discards (with risk of trip failure if that one camera malfunctions, even temporarily).

The NEFSC's secondary review standards, to the best of our knowledge, remain unpublished.

Finally, in fishing year 2021 (just six months away), groundfish sectors interested in using the audit model EM program for catch accounting will contract directly with EM service

providers. Absent taxpayer funding, monitoring costs will become the responsibility of the fleet. These contracts and costs will be negotiated between service providers and sectors based on current understanding of how the EM program operates. Changes to the program initiated by NMFS that go beyond the purpose of ACE accounting may increase the cost of EM to the fleet, and may conflict with the contractual terms between sector and provider.

Significant post-contractual changes such as adding cameras not required for ACE accounting (costs of hardware and additional video storage), continually changing views for "better angles" (cost of technician travel and labor) or inserting new at-sea handling protocols (additional crew labor) after the contract has been finalized, vessel monitoring plans approved are not supportable.

In conclusion, we request the NOAA realign its audit-model EM program objectives with those of the ASM program it is intended to replace: To collect accurate information on catch composition used to estimate total groundfish discards by sectors, gear type, and stock area.

We request the NOAA consider the burdens introduced to the program attempting to account for a *de minimis* fraction of ACE discards (which are already a fraction of total catch) that might be missed because of an imperfect camera angle or a few water droplets. This pursuit of perfection is impeding development and expansion of the audit-model catch accounting system, and will stymie our efforts to encourage vessels to consider what we hope will prove an effective monitoring option.

Mary Hudson
Maine Coast Community Sector

David Leveille
Northeast Fishery Sectors II and VI

Amy Morris
Fixed Gear Sector

Dan Salerno
Northeast Fishery Sectors V and XI

Hank Soule
Sustainable Harvest Sectors I and III

cc: John Quinn, New England Fishery Management Council
Melissa Sanderson, Cape Cod Commercial Fishermen's Alliance
Chris McGuire, The Nature Conservancy
Amanda Barney, TEEM Fish