



Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901
Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org
Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: March 29, 2018
To: Council
From: Jason Didden
Subject: MSB Issues, Tab 2

This Tab contains several memos and communications from the public, described below:

1st Memo, page 2: Mackerel Rebuilding Framework Action (Framework Meeting 1).

2nd Memo, page 11: 2018 Mackerel closure and Atlantic Herring interaction issue, possible emergency action, with related public comments (page 13) attached.

3rd Memo, page 19: Trimester 2 longfin squid closure timing issue, possible emergency action.



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MEMORANDUM

Date: March 29, 2018
To: Council
From: Jason Didden, Staff
Subject: Mackerel Action (Probably Framework); Framework Meeting 1

Introduction

A recent assessment found Atlantic mackerel (“mackerel” hereafter) to be overfished with overfishing occurring (official status change pending). The Magnuson–Stevens Fishery Conservation and Management Act (MSA) requires rebuilding to “be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem” and to “not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictate otherwise.” Current projections suggest that due to a strong incoming year class (hatched in 2015), mackerel can rebuild as soon as 2021, though recruitment at the end of a time series is typically one of the most uncertain outputs of assessments. Assuming a rebuilding action is implemented in early 2019, then 10 years would be 2028 and would be the standard maximum for a rebuilding plan. This framework action¹ will present alternatives with the purposes of rebuilding the mackerel stock with associated management measures (including 2019-2021 specifications), as well as setting the river herring/shad (RH/S) cap for the mackerel fishery. The goal of the first framework meeting is to identify a clear range of alternatives and identify preliminary preferred alternatives if possible.

Background

The mackerel stock was assessed in 2017 with 2016 as the terminal year of data. The summary report and reviewer reports have been posted to the Northeast Regional Stock Assessment Workshop (SAW) report webpage: <https://www.nefsc.noaa.gov/saw/reports.html>. The full assessment report should be posted there in April 2018. F_{40%} was recommended as

¹ The Mackerel, Squid, and Butterfish (MSB) Fishery Management Plan (FMP) allows that “any management measures currently included in the FMP” may be adjusted via a framework action unless they “require significant departures from previously contemplated measures.”

the proxy for F_{MSY} (fishing mortality at “maximum sustainable yield”) and was estimated to be 0.26². Fishing mortality (F) in 2016 was estimated to be 0.47, so overfishing was occurring in 2016. The 2016 spawning stock biomass (SSB) was estimated to be 43,519 metric tons (MT), or 22% of the SSB target so mackerel is “overfished” (below 50% of the target). The target is the SSB associated with the F_{MSY} proxy or “SSB_{msy_proxy},” and is estimated to be 196,894 MT. Once rebuilt, the MSY_{proxy} is estimated to be 41,334 MT (combined U.S. and Canadian catch). Landings in the early 1970s peaked at over 400,000 MT/year, but are believed to have been driven by recruitment not representative of current conditions.

The alternatives in this document seek to rebuild mackerel to SSB_{msy_proxy} as defined in the recent mackerel assessment (196,894 MT). The Council’s Ecosystem Approach to Fisheries Management (EAFM) Guidance Document states “It shall be the policy of the Council to support the maintenance of an adequate forage base in the Mid-Atlantic to ensure ecosystem productivity, structure and function and to support sustainable fishing communities” and “the Council could adopt biological reference points (overfishing levels or OFL) for forage stocks that are more conservative than the required MSA standard of F_{msy} .” Acknowledging that the science to evaluate the biological and socioeconomic tradeoffs of more precautionary management is lacking, the Council adopted a policy that it would promote data collection and development of analyses to get to the point where the Council could evaluate the relevant tradeoffs and “establish an optimal forage fish harvest policy.”

Views vary on the precaution inherent in using the recommended $F_{40\%}$ as a proxy for F_{MSY} (and for the resulting SSB_{msy_proxy} target). Clark 1993, Mace 1994, Gabriel and Mace 1999, and Legault and Brooks 2013 generally recommended $F_{40\%}$ for typical stocks. Clark 2002 notes that for typical stocks, fishing at $F_{40\%}$ would be expected to result in a target biomass that is 20%-35% of an unfished biomass. Pikitch et al 2012 recommended more conservative approaches for forage species to support predators, and this has spawned ongoing debate (e.g. Hilborn et al 2017 to the contrary). Staff notes that once the stock is rebuilt, the Council’s risk policy already produces catches less than catch at the F_{msy_proxy} , which should maintain biomass above the target SSB_{msy_proxy}. If the Council establishes an optimal forage fish harvest policy in the future then the mackerel biological reference points could be reconsidered.

Draft Alternatives for Consideration

Four rebuilding options are presented below. All are influenced strongly by the indications of 2015 being a good year class, and all projections have SSB increasing from 43,519 MT in 2016 to above 160,000 in 2019 MT based on the 2015 year class working into the population. The projections also assume generally typical recruitment occurs after 2015 (sampled from 1975-2016 observed/estimated recruitment).

² $F_{40\%}$ was selected as a proxy for F_{MSY} due to consistency with the Canadian reference point and ability to prevent stock collapse for stocks with similar life histories. $F_{40\%}$ produces 40% of the “spawning stock biomass per recruit” (equivalent to lifetime egg production) relative to an unfished condition.

The MSA typically allows up to a 10-year rebuilding timeline. In this case, a 10-year plan only provides slightly more ABC (2% more in 2019) than the 7-year timeline, so it would be hard to justify that 7 years wouldn't be as short as possible (with accounting for the various factors listed in the introduction) especially given the upward trend in possible catches. Accordingly, only timeframes up to 7 years are recommended by staff for further development.

The Council's current risk policy states that the SSC should provide Acceptable Biological Catches (ABCs) that are the lesser of rebuilding ABCs or standard risk policy (P*) ABCs. In the first two options below, the existing risk policy would be maintained, and the SSC would recommend a relatively low P* ABC even if the Council selects a 10-year rebuilding timeline. Accordingly, under the current risk policy, in May 2018 the SSC is likely to recommend a P*-based ABC that is similar to either Option 1 or Option 2 (but the SSC could also do something different based on its evaluation of the new mackerel assessment). In Option 3 or Option 4, the Council would amend its risk policy to indicate that in this case of mackerel rebuilding, the risk policy of the Council is changed to just use a 5-year (Option #3) or 7-year (Option #4) rebuilding timeline, and the catches below are those predicted to rebuild in 5 years or 7 years based on the recent assessment and associated projections. Staff would ask the SSC to provide contingent rebuilding ABCs for these options in case the Council chooses to change its risk policy.

Option #1: Mackerel Rebuilding, 10 year, no change to risk policy, lower P* will prevail, use 100% CV, atypical species (actually projected to rebuild in 3 years – 104% of SSB target in 2021)

Option #1 ABCs

2019- 17,430 MT (24% probability of overfishing, $F = .14$)
2020- 27,955 MT (29% probability of overfishing, $F = .19$)
2021- 29,740 MT (34% probability of overfishing, $F = .18$)

Option #2: Mackerel Rebuilding, 10 year, no change to risk policy, lower P* will prevail, use 60% CV, typical species (actually projected to rebuild in 3 years – 100% of SSB target in 2021)

Option #2 ABCs

2019- 22,577 MT (27% probability of overfishing, $F = .14$)
2020- 28,805 MT (33% probability of overfishing, $F = .14$)
2021- 34,167 MT (38% probability of overfishing, $F = .14$)

Option #3: Mackerel Rebuilding, 5 year, change risk policy to use this 5 year rebuilding plan at this time. (projected to rebuild in 5 years – 100% of SSB target in 2023). **Staff recommends**

Option #3 as a preliminary preferred alternative. In 2021, when setting specifications for 2022-2024, staff will use updated information, and hopefully an updated assessment, to make new projections. The Council could continue with any specifications that avoid overfishing, rebuild by the original 10-year deadline (2028), and are consistent with the SSC's recommendations given the Council's risk policy.

Option #3 ABCs

2019- 29,184 MT (rebuilding $F=.237$)
2020- 32,480 MT (rebuilding $F=.237$)
2021- 35,195 MT (rebuilding $F=.237$)

Option #4: Mackerel Rebuilding, 7 year, change risk policy to use this 7 year rebuilding plan at this time. (projected to rebuild in 7 years – 100% of SSB target in 2025). In 2021, when setting specifications for 2022-2024, staff will use updated information, and hopefully an updated assessment, to make new projections. The Council could continue with any specifications that avoid overfishing, rebuild by the original 10-year deadline (2028), and are consistent with the SSC’s recommendations given the Council’s risk policy.

Option #4 ABCs

2019- 30,868 MT (rebuilding F=.252)

2020- 34,016 MT (rebuilding F=.252)

2021- 36,551 MT (rebuilding F=.252)

As noted above, staff recommends Option #3 and recommends that the Council identify it as a preliminary preferred if the Council concurs. Option #3 is recommended by staff because it will allow the fishery to take advantage of the building biomass, but still rebuilds the fishery in a relatively short time given the various assumptions used in the projections. It would also allow the Council some flexibility to reconsider the rebuilding timeline when specifications are set in 2021 for 2022 and beyond.

For the 2nd (and final) framework meeting (August 2018), staff would develop and describe all of the various specifications and management measures needed for all options requested by the Council for 2019-2021. In this memo (see below), staff describes the current 2018 measures and how the ABCs in Option 3 could translate into the additional specifications and measures used in managing mackerel for 2019. The current measures are also described. Given the assessment and recent catches, some of the suggested approaches differ from past years. An FMAT is being formed and will analyze Options 1-4 and/or others identified by the Council for 2019-2021. The MSB AP is meeting April 13 and will provide additional input regarding this action. A meeting of the RH/S Advisory Panel will also be scheduled. Final action is anticipated in August 2018.

Current Measures

The current overall ABC is 19,898 MT. 8,889 MT (45%) is set aside to cover Canadian catches (this was set before Canada increased its quota to 10,000 MT). This leaves 11,009 MT for the U.S. ABC/ACL. This is split 6.2% recreational (683 MT) and 93.8% commercial (10,327 MT). As mentioned previously by the MSB Monitoring Committee, recreational catches have been exceeding their allocation but are difficult to control federally. 10% of the commercial allocation is set aside as a management uncertainty buffer for an annual catch target (ACT) of 9,294 MT. 1.26% of the ACT is set aside for discards, leaving 9,177 MT for landings or “domestic annual harvest (DAH)” (20.2 million pounds). The directed fishery closes at 95% of the DAH, and then a 20,000 pound trip limit is implemented for limited access permits. Incidental permits have a 20,000 pound trip limit regardless of fishery closure status. Limited access permits consist of 3 categories, Tier 1 with no initial trip limits, Tier 2 with 1 135,000-pound initial trip limit, and Tier 3 with a 100,000-pound initial trip limit. To restrict Tier 3 participants to their historical participation levels, they become restricted to a 20,000 pound trip limit if they catch 7% of the DAH – this is a limit for them and not a set-aside. Additional details can be found at

<https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/msb/index.html#el111022>. At

100% of the DAH possession is prohibited in federal waters. The current regulations suggest that encountering any mackerel after 100% of the DAH has been caught could be a violation, but preliminary research by GARFO indicates that a past regulation “clean-up” may have inadvertently changed the intent of this regulation, and the correct intent is to prohibit possession (GARFO can issue a regulatory correction). This will be discussed more at the April 2018 Council meeting. See also the separate memo on mackerel-herring issues later in this briefing book section. The RH/S cap can also close the directed mackerel fishery as has occurred in 2018.

Illustration of 2019 Mackerel Management Measures Under Option #3

**Option #3 total ABC for 2019 = 29,184 MT. (From previous page)

U.S. ABC

The Mackerel, Squid, and Butterfish Fishery Management Plan requires Canadian catch to be deducted from the total ABC. The 2017 Canadian quota was 10,000 MT, a 2,000 MT increase from 2016. From 2012-2017 (2017 preliminary) the median proportion of catch from Canada was 51.8% of catch. 2012 was chosen as the starting point to evaluate catch proportions because 2011 was an unusually low year for U.S. catches. Canadian quotas have been increasing in recent years, and if the U.S. increases ABCs then it seems likely that Canada will follow suit. Accordingly, staff recommends setting aside half (50%) of each year’s ABC for Canadian catch. This may create some normative pressure for Canada to limit their quota increases – there is currently no formal resource sharing agreement. This approach would leave 14,592 MT for the U.S. ABC.

**Option #3 total U.S. ABC for 2019 = 14,592 MT = Annual Catch Limit (ACL)

Recreational and Commercial Allocations

Currently the recreational fishery is allocated 6.2%, which would be 905 MT. The total median recreational catch 2013-2017 has been 1,209 MT (range of 767 MT to 1,611 MT). However only 8%-26% comes from federal waters and could be impacted by federal regulations. Closing federal waters could drive more recreational catch into state waters and not impact total catch. Given the lack of control over this fishery, staff recommends moving from a percentage allocation to a deduction of 1,209 MT for total recreational catch to avoid substantial ACL overages. The higher than assumed recreational catch has not caused overall ACL overages in recent years due to the low commercial catches.

**Option #3 Recreational Allocation = 1,209 MT and Commercial Allocation = 13,383 MT

Annual Catch Target (ACT) and Domestic Annual Harvest (DAH, i.e. landings)

There is currently a 10% management uncertainty buffer, which would amount to 1,338 MT, or almost 3 million pounds. This buffer has been maintained primarily to address the uncertain ability of NMFS to close this fishery at an exact amount, given the fishery can produce over 4,000 MT of mackerel a week during a good season (e.g. 2006). Uncertainty in discards and possible misreporting (especially in the herring fishery) may also contribute to management

uncertainty but probably to a lesser degree. Because of other measures described below, staff recommends this buffer be reduced to 3%, or 401 MT (about 885,000 pounds) in 2019, leaving 12,982 for the Annual Catch Target (ACT). DAH (landings) is the ACT minus expected discards. 2012-2016 discards accounted for 0.37% of catch, leaving 12,933 MT for DAH.

**Option #3 Commercial Annual Catch Target (ACT) = 12,982 MT, landings or Domestic Annual Harvest (DAH, i.e. landings) = 12,933 MT.

Within-year DAH Usage

The possibility of a total mackerel closure in 2018 is causing substantial concern about possible effects on the herring fishery. As such, staff recommends that trip limits between 20,000 pounds and 40,000 pounds trip be considered for implementation for limited access permits at 85% and 80% of the DAH respectively, or 10,993 MT and 10,347 MT. Trips above 20,000 pounds accounted for 81% of landings 2015-2017 and trips above 40,000 pounds accounted for 79% of landings. The trip limits should slow the fishery down early enough to avoid the requirement for such a high management uncertainty buffer, allow some quota to last longer in the year, and minimize mackerel discarding during herring fishing. There would be 2,328 MT of quota in a 40,000 pound trip limit option (enough for 128 trips at 40,000 pounds). Or there would be 1,682 MT of quota in a 20,000 pound trip limit option (enough for 185 trips at 20,000 pounds).

To further control landings, staff also suggests consideration of lowering the trip limit for incidental permits to 5,000 pounds once the above 85% or 80% trigger is hit.

At 98% of the DAH (12,675 MT) a 5,000 pound trip limit would be implemented to cover remaining incidental catches. Landings after 98% of the DAH at 5,000 pounds would be expected to be relatively low and there would still be a 3% management uncertainty buffer to cover any ACT overages. The system described above would be somewhat experimental and would likely need future adjusting related to achieving but not exceeding the ACT. Any ACL overages would have to be paid back the following year but should not be substantial given the stepped limits described above.

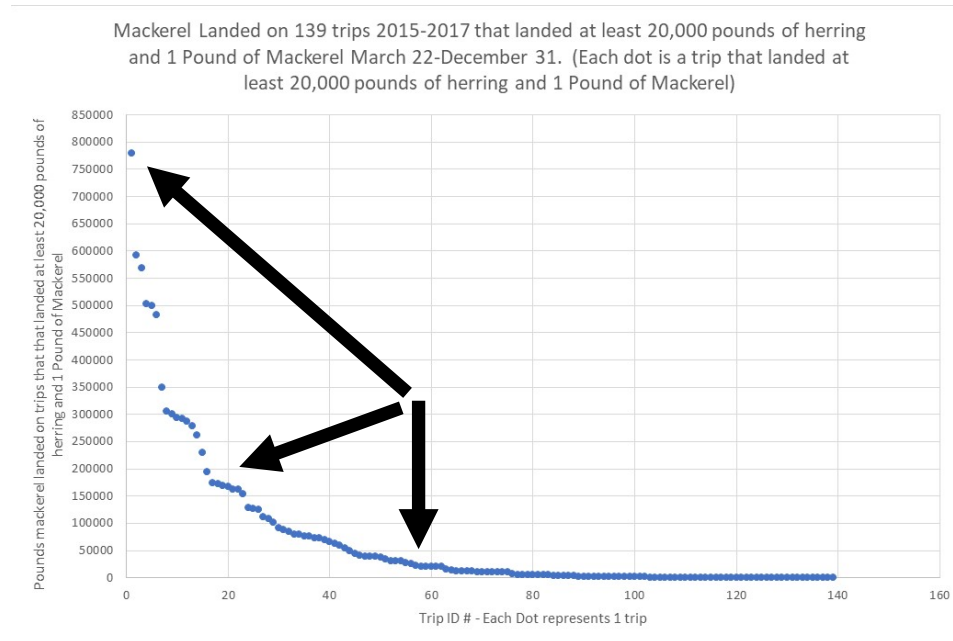
Recent history may provide a rough idea of how 2018 may proceed for the mackerel fishery, and how the above stepped system may perform. There is also another memo in this tab that considers 2018 issues more directly.

For data reported through 03/21/2018, 89% of the mackerel quota had been landed. The fishery was closed on February 27, 2018 due to the RH/S cap being reached. Based on 2018 landings to date and 2015-2017 landings later in each year, and setting all trips that were over 20,000 pounds to 20,000 pounds, one would expect the mackerel fishery to reach 100% of its quota (and go to a zero possession limit in federal waters) at some point in November. At the current 20,000 pound trip limit, an additional 500 MT of DAH might avoid any 2018 total closure based on 2015-2017 average monthly landings (or 250 MT if the trip limit in November and December was 5,000 pounds). Alternatively, having a 5,000 pound trip limit instead of a zero trip limit starting in November would be predicted to cause less than a 250 MT ACT overage, which could be absorbed by the current 1,033 MT management uncertainty buffer. However, it is somewhat

difficult to accurately predict performance since there has never been a 20,000 trip limit in effect for mackerel. In addition, recent small-scale directed fishing in November-December by incidental permit holders within the 20,000 pound trip limit complicates predicting landings for the remainder of 2018 because they will be unaffected by the current directed fishery closure until 100% of the quota is landed.

The interaction between herring and mackerel landings can also be examined. For all landings 2015-2017, trips with more than 20,000 pounds of mackerel only accounted for 7.5% of all herring landings. The figure below illustrates how much mackerel has been caught on the 139 trips 2015-2017 that reported at least 20,000 pounds of herring and 1 pound of mackerel from March 22-December 31 over those years. Most herring trips with at least 20,000 pounds of herring landed little or no mackerel. 57 did have more than 20,000 pounds of mackerel (see arrows in the figure below) and could have had regulatory discarding issues with a 20,000 pound trip limit, though some of those trips may not have occurred if a mackerel trip limit of 20,000 pounds had been in place.

Figure 1. Mackerel landings on herring trips.



River Herring and Shad (RH/S) Cap

The current RH/S cap is 82 MT, with a mackerel DAH of 9,177 MT. To maintain a consistent incentive for the fishery to avoid RH/S, staff recommends the RH/S cap continue to be scaled down or up with the DAH. Also, if the DAH is above 10,000 MT, the trigger previously used for DAH's above 10,000 MT could be used. Under Option #3, the DAH (12,933 MT) is 40.9% higher than the current DAH (9,177 MT), so the scaled RH/S cap would be 116 MT. With the trigger, when landings are below 10,000 MT an 89 MT RH/S cap would apply (same as 2015) and only if landings surpass 10,000 MT would the RH/S cap be increased to 116 MT. The current RH/S cap of 82 MT scales to 89 MT as 9,177 MT scales to 10,000 MT (both ending

numbers are 8.5% higher than the starting numbers) and the same applies for scaling up to Option 3's DAH (both ending numbers are 40.9% higher than the starting numbers). The trigger is designed to maintain a strong incentive to avoid RH/S even at low landings levels. Based on past performance, some RH/S cap closures would continue to be expected. Since the cap is independent of RH/S abundance, if RH/S decline in abundance it will be easier to stay within the cap, and if they increase in abundance it will be more difficult to stay within the cap. There are no paybacks for exceeding the cap (the cap has no absolute biological basis). The cap does create an incentive to avoid RH/S because the full mackerel quota can only be harvested if RH/S bycatch rates are relatively low compared to 2005-2012 bycatch rates. The table below summarizes the performance of mackerel's RH/S cap 2015-2018.

Table 1. Mackerel Fishery River Herring/Shad Catch Cap Performance, 2015-2018¹

Catch Cap	Year	Permit Count	Trip Count	RHS Catch Rate ²	Est. RHS (mt)	Herring (mt)	Mackerel (mt)	Total catch (mt)	Observed Trips	CV ⁴	Coverage Percent
RHS Mackerel	2015	13	55	0.1%	12	3,564	4,591	8,739	4	0.23	7%
	2016	13	55	0.1%	13	5,684	4,599	10,436	13	0.68	24%
	2017	17	71	0.3%	39	6,360	5,822	12,396	17	0.38	24%
	2018 ¹	12	57	0.9%	109	3,891	7,944	12,130	4	0.34	7%

¹ - 2018 data are preliminary.

² - RHS catch rate used to extrapolate RHS catch. Phased-in transition rates using some data from the previous year are used when < 5 observed trips occur.

³ - Coefficient of Variation (CV) of in-season observed trips.

Bibliography

Clark, W. G. 1993. The effect of recruitment variability on the choice of a target level of spawning biomass per recruit. Pages 233–246 in G. Kruse, R. J. Marasco, C. Pautzke, and T. J. Quinn II, editors. Proceedings of the international symposium on management strategies for exploited fish populations. University of Alaska, Alaska Sea Grant College Program Report 93-02, Fairbanks.

Clark, W. G. 2002. F35% Revisited Ten Years Later. *North American Journal of Fisheries Management* 22:251–257, 2002.

Gabriel W.L., and P.M., Mace. 1999. A review of biological reference points in the context of the precautionary approach. In Proceedings of the 5th annual NMFS National Stock Assessment Workshop. NOAA Tech Memo. NMFS-F/SPO-40.

Hilborn, R., Amoroso, R.O., Bogazzi, E., Jensen, O.P., Parma, A.M., Szuwalski, C., Walters, C.J., 2017. When does fishing forage species affect their predators? *Fish. Res.*

Legault, C. M., and Brooks, E. N. 2013. Can stock–recruitment points determine which spawning potential ratio is the best proxy for maximum sustainable yield reference points? – *ICES Journal of Marine Science*, 70: 1075–1080.

Mace, P. M. 1994. Relationships between common bi-ological reference points used as thresholds and targets of fisheries management strategies. *Canadian Journal of Fisheries and Aquatic Sciences* 51:110–122.

Northeast Fisheries Science Center (NEFSC). 2018. 64th Northeast Regional Stock Assessment Workshop (64th SAW) Assessment Summary Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 18-03; 27 p. Available from: <http://www.nefsc.noaa.gov/publications/>

Pikitch, E., Boersma, P.D., Boyd, I.L., Conover, D.O., Cury, P., Essington, T., Heppell, S.S., Houde, E.D., Mangel, M., Pauly, D., Plagányi, É., Sainsbury, K., and Steneck, R.S. 2012. *Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs*. Lenfest Ocean Program. Washington, DC. 108 pp.



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MEMORANDUM

Date: March 29, 2018
To: Council
From: Jason Didden
Subject: Atlantic Mackerel-Atlantic Herring Issue (2018)

The possibility of a total mackerel closure in 2018 is causing substantial concern about possible effects on the herring fishery. The current regulations suggest that encountering any mackerel after 100% of the quota has been caught could be a violation, but preliminary research by GARFO indicates that a past regulation “clean-up” may have inadvertently changed the intent of this regulation, and the correct intent is to only prohibit possession (GARFO can issue a simple regulatory correction to fix this).

This correction would not totally address whether operationally the herring fishery can occur without being able to possess any mackerel, and other analyses in this tab indicate that there is mixed catch. Comments from some herring fishery participants (attached following this memo) indicate that their fishery cannot operate without allowing some incidental mackerel retention.

Based on 2015-2017 landings, and setting all post March 21 trips (after the last quota update) that were over 20,000 pounds to 20,000 pounds, we expect the mackerel fishery to reach 100% of its quota (and go to a zero possession limit in federal waters) at some point in November 2018 (if the 2018 fishery operates in a manner similar to recent years).

For landings after March 21 in those years, only 7% of total herring landings occurred on trips that also landed more than 5,000 pounds of mackerel, so it appears that a 5,000 pound trip limit would cover most herring landings. If the mackerel trip limit went to 5,000 pounds in November and December, one would expect approximately a 250 MT landings quota overage (again based on 2015-2017 landings), which could be absorbed by the current 1,033 MT management uncertainty buffer. Early fall landings are relatively low and should not cause a substantial ACL overage if the fishery reached 100% of the quota somewhat earlier than expected (i.e. before November 1) and then still went to a 5,000 pound trip limit. Preliminary analyses of portside sampling data from the State of Maine also support that a trip limit of 5,000 pounds would cover most herring trips in Areas 1A and 1B. As described in attached public comments, there is also concern that a zero-possession limit would heavily impact mid to late season small-scale participants.

Measures considered for a mackerel framework (see other memo in this briefing book section) should address the issue for future years but cannot in 2018. The criteria for NMFS to take emergency action, which could affect 2018, are (Policy Directive 01-101-07):

Emergency Criteria

The phrase “an emergency exists involving any fishery” is defined as a situation that:

1. Results from recent, unforeseen events or recently discovered circumstances; and
2. Presents serious conservation or management problems in the fishery; and
3. Can be addressed through emergency regulations for which the immediate benefits outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants to the same extent as would be expected under the normal rulemaking process.

The understanding of the potential impact to the Atlantic herring fishery of a 100% mackerel closure is recent (this is the first closure in modern management) and unforeseen based on the impact analyses in the last mackerel specifications Environmental Assessment. The relatively high landings in early 2018 were also a recent circumstance. Given the substantial interaction between mackerel and herring, serious management problems seem likely. Given the mackerel ACL would not be expected to be exceeded with the 5,000 pound trip limit discussed above and would facilitate operation of the herring fishery, it would appear the benefits of emergency action could outweigh the value of using the normal rulemaking process (preserving economic opportunity is included in the list of justifications for emergency actions).

Depending on the Council’s preference, a possible emergency action request could be to change the mackerel trip limit to 5,000 pounds on November 1, or when the mackerel quota reaches 100% if that occurs sooner than November 1. There is also a possibility of using an in-season action by NMFS to accomplish the same goal, and this will be discussed further at the April 2018 Council meeting.

5 public comments received for briefing book (i.e. by 3/28/18)

1. Michael Pratt, F/V PERFECT C's

March 26, 2018

Council Meeting Public Comment: Atlantic Mackerel and Squid Issues

Dear Dr. Moore,

My name is Michael Pratt, and I am a full-time commercial fisherman, and the owner and operator of the 42' F/V PERFECT C's out of Marshfield, MA.

Thank you, and the other council members for giving me the opportunity to share my concerns.

One hundred percent of my income is from commercial fishing. Over the last seven years, approximately 75% of my earnings are from hook and line fishing for mackerel. From May 1st through the end of December, the only species we target are mackerel. We work hard to provide a steady daily supply of sushi grade mackerel to a large number of small markets. Generally, September through December are my most profitable months, this is due to the availability of mackerel in near shore waters and the fat content of the mackerels flesh.

The potential early closure of the mackerel fishery would have a devastating affect on me, my crew, and, also those that I do business with.

My vessel has undergone significant changes to be outfitted exclusively for mackerel. Specifically, the boat has modified fish holds that are capable of holding large amounts of refrigerated seawater, a deck-mounted diesel driven RSW system, and a deck-mounted Trans-Vac fish pump. In addition to this, the boat has an array of electronic jigging machines. The downfall to this system is that the equipment is custom and specific for our mackerel fishery, thus making the vessel impractical to use in other fisheries.

One important highlight of the hook and line mackerel fishery is that it is such a clean and sustainable fishery. This is something I am proud to be part of and truly support. We have zero by-catch, zero discard, and zero impact on the seabed. The National Marine Fisheries Service Observer data taken from my vessels dedicated mackerel trips will support this important fact. The latest observed trip on my vessel is recorded under trip id N25042.

My vessel profitably operates on mackerel for a full fishing year on less pounds than a large mid-water trawler lands per trip. We target quality before quantity and we command a higher return price because of that.

There are a lot of conversations about the 2015 year-class supporting the whole fishery. Undoubtedly, the 2015 year-class is huge, and it is for that reason that it is the target for the majority of the high capacity fleet. The fish of this year class have been too small for us to work on, due to the fact that most of our markets want only fish over 300 grams. My point is that there are definitely other older strong year classes of fish available other than 2015. But because of the sheer amount available in the 2015 year-class, they become the most efficient target for the mid-water trawl fleet. It alarms me to think that these may be the only fish sampled and included in the data used to make stock assessments.

Managing a pelagic fishery is very complicated, let alone a fishery like this that has taken a 90% total allowable catch reduction (TAC) over the last eight years. With all of the technology available to the fleet, such as electronic monitoring and electronic catch reporting, we should have been able to avoid a handful of boats landing a years worth of quota in only 8 weeks. It seems quite possible that if the fishery was not closed because of the river herring allowance being reached, we would have exceeded the mackerel TAC with a few more fishing days. This could have potentially ruined the herring fishery for the remainder of 2018, and would have also had a huge impact on the lobster industry as well. The removal of so much forage from one area so quickly leads to the problem known as localized depletion.

As a fisherman I am naturally skeptical of scientific stock assessments. Recently, I learned that managers believe that the recreational fleet may have landed up to 6 million pounds of mackerel last year, and that there is a substantial shore fishery in Massachusetts. I am not aware of any significant shore fisheries in any states. I also believe the data that indicates the recreational sector is responsible for a 6 million pound harvest needs to be examined. I can only account for what I see, and at present, it is a large healthy biomass of all sized mackerel that continue to return year after year. I hope the council and other managers will be able to find a solution to the problem we are facing, something that will satisfy the large and small boat mackerel fisherman. My livelihood depends on this.

The businesses I provide fresh mackerel to count on a steady supply of quality fish. If I am prevented from landing mackerel, they will find a steady supply somewhere else, possibly using farmed fish or buying from Canada. Either way, once I lose my customers, it could be permanent. I have not had a chance to catch my first mackerel for the 2018 season yet, and I am hearing a lot of discussions about setting quota aside to cover dead discards in other fisheries. I really hope managers will make sure that the small amounts of quota I depend on are available to me before setting aside allocations that allow for dead discarded mackerel in other fisheries.

Thank you again for your time and for giving me a voice. Please feel free to contact me directly to discuss this further.

Sincerely,

Michael Pratt

F/V PERFECT C's

781-760-0718

Michaelpratt1@verizon.net

2. Ethan Chase, FV Western Sea

To those concerned on the Mid Atlantic Council, And New England Fisheries Management Council.

All of us on the Herring Seiner FV Western Sea and our fellow seining boats would like to express our concern about the dwindling Mackerel quota.

Herring Seiners catch less than 1% by-catch, including Mackerel and other species. We need to have an incidental by-catch set aside portion of quota for Herring seiners only. If there is no Mackerel quota left and we catch a few we fear our fishery being closed due to the Mackerel quota being at 100% during our short Herring season.

We would like you all to please address our concerns to the Mid Atlantic Counsel who controls the Mackerel Quota.

Thank you for all your work preserving our fishery and the families it supports.

Sincerely, Glenn Robbins, Shaun Rockett, Jeff Mclean, Ethan Chase, Andrew Banow, Neal Herrick, Steven Little, Jason Parent, Paul Judkins, Shane Percy, Ryan Anderson, Glen Lawrence, Ben Banow, Glenn Hall, Cindy Hall, and many more including all of our beloved family members.

This has great effect on all the Herring Seiners, multitudes of bait dealers and all the New England lobsterman. Some of our dealers include Corea Co op, Superior Bait, Capt R Herring, Atwood Lobster, Channel Fish, Coffin Bait, Inland, Robertson Bait, Double Eagle and many, many others.

FV Western Sea
17 Alden Lane
Eliot Maine
03903

3. Barry Matthews FV Ocean Venture

Good Afternoon,

As a herring seiner, I would like to bring to your attention my concerns in regard to the decreasing mackerel quota and subsequent closure of this fishery. As you know if the mackerel fishery reaches 100% it triggers a premature closure of the herring fishery. The by-catch for herring seiners is less than 1% which includes mackerel.

For years the herring harvesters whether it be an A permit, B permit, etc. have been categorized under the same laws and regulations.

I think this is one of many reasons why this has been a mistake, seiners and midwater trawlers fish differently, in different areas, at different times of the year, so they need to have different set asides. Also, hook boats that go out of Massachusetts and target mackerel in the summer could reach their quota and close our fishery. This is why I feel we need a separate set aside for Seiners for our summer fishery. The Lobster fishery highly depends on herring for a source of bait in the summer and a premature closure in the fishery would be disastrous.

Thank you for your attention on this matter.

Barry Matthews FV Ocean Venture. 21 Sophie Ln., Hampden, ME 04444

4. Mark Bichrest and individuals connected to FV Ruth & Pat

To those concerned on the New England Fisheries Management Council.

All of us on the Herring Seiner FV Ruth & Pat and our fellow seining boats would like to express our concern about the dwindling Mackerel quota.

Herring Seiners catch less than 1% by-catch, including Mackerel and other species. We need to have an incidental by-catch set aside portion of quota for Herring seiners only. If there is no Mackerel quota left and we catch a few we fear our fishery being closed due to the Mackerel quota being at 100% during our short Herring season.

We would like you all to please address our concerns to the Mid Atlantic Council who controls the Mackerel Quota.

Thank you for all your work preserving our fishery and the families it supports. Mark Bichrest, Jennie Bichrest, Emily Morse, Robbie Bichrest, Brandon Wyman, Kyle McPherson, Buck Alexander, Josh Morse and many more including all of our beloved family members.

FV Ruth & Pat

PO Box 276

Sebasco Estates

ME 04079

5. Christian Berardi, F/V Kathryn T

3/27/18

April 2018 Council Meeting Public Comment: Atlantic Mackerel and Squid Issues:

Dear Dr. Moore,

I would first like to thank you and the other council members for the opportunity to comment and for your time to hear my concerns.

My name is Christian Berardi. I am a commercial fisherman and the owner/operator of the F/V Kathryn T out of Green Harbor, MA. I am writing you to introduce myself and to make my presence known in the Atlantic Mackerel fishery as well as express the impact the fishery has on my business.

As a young fisherman and a newer participant in the fishing industry, the mackerel fishery provides one of the only open access opportunities left. This has been instrumental in my ability to build my business to what it is today, 6 years later. The fishery accounts for 70-100% of my income depending on the year and also allows for a fishing season, which extends from May through December. On top of this I've had the opportunity to develop a secondary business as a bait dealer to the local lobstermen and tackle shops solely because of this open access fishery.

My crew and I fish from a small 38' day trip vessel using hook and line methods, specifically auto-jigging machines. This presents us with the unique opportunity to easily target specific size classes of mackerel as well as reduce by-catch to virtually zero.

Although we are a small vessel, we land a quantity of mackerel from May to December that has fostered new niche markets as well as a sustainable fishing business for a new entrant like me. Last year for example, two thirds of the fish were 300+ gram food grade mackerel sold through a local fish processor. We have been able to build a high-end mackerel market because of the methods we employ as well as the consistent supply we can provide by fishing eight months of the year.

The other third of the mackerel landed was sold as bait to lobstermen and small tackle shops. Our supply of mackerel provides flexibility to the local lobster industry to get fresh bait on demand instead of frozen scheduled deliveries as is typical in our area. We also provide local tackle shops with quality bait for their recreational fishing clientele, which include the numerous tourists that visit our area during the summer months.

As I've expressed in the comments above, the Atlantic Mackerel fishery is vital to my business. Specifically, the small vessel fishery, of which I am a part, has created unique opportunities for me as well as other members of the local fishing industry on both the commercial and recreational sides.

I am aware there are potential issues that may arise for the fishery this year regarding the current level of mackerel landings as well as river herring by-catch. I hope, during your efforts to explore the impacts of any future decisions you and your council make regarding this fishery, that you will take into account not just the impact on the herring fishery or mid-water fleet but also on the small boat fleet such as mine and other commercial fisherman in my situation. If we lose access to this resource it will have a ruinous effect on me, my crew, my partner businesses, and on the market we have worked so hard to build for this valuable and sustainable approach to the mackerel fishery.

I know that you and your team have a difficult job and must weigh the impact on the numerous stakeholders that are affected by any decision you make. I appreciate the forum you have provided to express my comments. I would also welcome you or anyone else involved in the decision making process regarding the mackerel fishery to reach out to me to discuss changes or solutions in the future or if you would like me to provide any documentation and/or helpful information regarding my specific methods or contribution to the fishery.

Sincerely,

Christian Berardi,

F/V Kathryn T

Green Harbor, MA



Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901
Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org
Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: March 29, 2018
To: Council
From: Jason Didden
Subject: Trimester 2 longfin squid closure timing issue

In 2017 the Council voted to reduce the Trimester 2 (May-August) post-closure trip limit from 2,500 pounds to 250 pounds via the Squid Amendment. This was selected as preferred because the Council decided additional post-closure control of the longfin squid fishery was needed during Trimester 2 given several recent substantial Trimester 2 quota overages caused by post-closure landings.

The Environmental Assessment document for this action took staff longer than expected to complete and implementation is expected in the fall of 2018. One potential option to consider regarding Trimester 2 of 2018 is to request that NMFS implement the Council's preferred alternative under emergency rulemaking for 2018 if Trimester 2 closes.

In 2016, after the Trimester 2 closure, longfin squid trips between 250 pounds and 2,500 pounds accounted for 3.4 million pounds yielding \$4.1 million. So potentially \$4.1 million could be a forgone opportunity in years of high longfin squid abundance during Trimester 2 under this alternative. In 2016, 129 federal permit holders made landings between 250 pounds and 2,500 pounds from June 27 to August 31- these are the type of participants most likely to be affected. Their average longfin squid landings value from those trips was \$31,444 while, while their total landings value for 2016 averaged \$649,473. Therefore, the affected landings accounted for 5% of these vessels' average total landings value in 2016. There was not a closure in 2017.

There may be a compensating factor regarding this issue and limiting effort in Trimester 2. Effort versus *landings per unit of effort* correlations developed for the Squid Amendment strongly suggest that limiting longfin squid effort in April-September will lead to higher *landings per unit of effort* in the following October-March.

The criteria for NMFS to take emergency action are (Policy Directive 01-101-07):

Emergency Criteria

The phrase “an emergency exists involving any fishery” is defined as a situation that:

1. Results from recent, unforeseen events or recently discovered circumstances; and
2. Presents serious conservation or management problems in the fishery; and
3. Can be addressed through emergency regulations for which the immediate benefits outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants to the same extent as would be expected under the normal rulemaking process.

The longer than expected time to submit the Environmental Assessment document for this action was unforeseen. Given the substantial recent overages serious management problems with conservation implications seem possible. Given the current timing of the Amendment, it would appear the benefits of emergency action could outweigh the value of using the normal rulemaking process. While there is no overfishing definition for longfin squid, substantial Trimester 2 overages could potentially damage the fishery resource.

Depending on the Council’s preference, a possible emergency action request could be to change the longfin squid post-closure trip limit from 2,500 pounds to 250 pounds for Trimester 2 of 2018.