



Chub Mackerel Fishery Performance Report

September 2020

The Mid-Atlantic Fishery Management Council's (Council's) Mackerel, Squid, and Butterfish Advisory Panel (AP) met via webinar on September 3, 2020 to review the Fishery Information Document and develop the following Fishery Performance Report. The primary purpose of this report is to contextualize catch histories for the Scientific and Statistical Committee (SSC) by providing information about fishing effort, market trends, environmental changes, and other factors. A series of discussion questions listed below were posed to the AP to generate discussion of observations in the chub mackerel fishery. Please note: Advisor comments described below are not necessarily consensus or majority statements.

Advisory Panel members present: Eleanor Bochenek, Gregory DiDomenico, Joseph Gordon, Jeff Kaelin, Meghan Lapp, Pam Lyons Gromen, Gerry O'Neill.

Others present: Julia Beaty (Council staff), Doug Christel (GARFO staff), Jason Didden (Council staff), Gavin Fay (SSC member), Zoe Goozner (Pew Charitable Trusts), Peter Hughes (Council member), Zack Greenberg (Pew Charitable Trusts), Paul Rago (SSC Chair), Eric Reid (NEFMC member and liaison to MAFMC), Jamie SB, Alissa Wilson

Discussion questions:

1. What factors have influenced recent catch (markets/economy, environment, regulations, other factors)?
2. Are the current fishery regulations appropriate? How could they be improved?
3. What would you recommend as research priorities?
4. What else is important for the Council to know?

Impact of *Illex* Squid Fishery

Two advisors familiar with the targeted commercial chub mackerel fishery said the vessels responsible for most chub mackerel landings have been focusing on *Illex* squid for the past three years. Any commercial chub mackerel landings from these vessels in recent years were incidental. The levels of targeted fishing effort seen in 2013, when commercial landings reached their peak, have not occurred since. However, if *Illex* are not available in 2021, chub mackerel landings could return to that level.

One advisor said notable amounts of chub mackerel are likely not caught in other commercial fisheries because high horsepower is needed to catch this fast-swimming species and, in this

region, most of the high horsepower vessels are those that participate in the *Illex* squid fishery and the winter Atlantic mackerel fishery.

One advisor said 2020 has been a good year for *Illex* squid, but not an extremely good year. Landings were starting to slow down before the *Illex* fishery closed. There may be some incidental catch of chub mackerel this year, but landings will likely not be very high.

Environmental Conditions

Two advisors called chub mackerel an “emerging stock” due to changing climate conditions. They also said increased recreational catches could indicate increased availability.

One advisor noted that chub mackerel can be found close to shore. For example, schools of chub mackerel could be seen chasing white bait in point Judith Harbor this year and they were also caught in floating fish traps in Narraganset Bay. Therefore, the statement in the Fishery Information Document which says they are found to depths of 250-300 meters should be modified to reflect that they are also found close inshore.

One advisor said that chub mackerel catches may be low in years with high *Illex* catches because *Illex* may push chub mackerel into other areas.

Management Issues

Three advisors expressed support for an increase in the chub mackerel catch limits as the current catch limits are based on one year of targeted fishing effort (2013) and the stock will likely continue to expand in this region due to changing climate conditions. Therefore, an incremental increase in the catch limits could allow for expanded fishing opportunities. For example, one advisor said the harvest in 2013 mostly came from two statistical areas in the Mid-Atlantic, but availability in other areas could increase in the future. Another advisor agreed and said availability could increase in New England, for example.

One advisor asked if the Council could evaluate the ecological value of the protections for other forage species implemented through the Unmanaged Forage Omnibus Amendment and if this could be weighed against the impacts of a potential increase in the chub mackerel total allowable landings limit beyond 4.50 million pounds. This advisor added that ecological considerations always seem to result in additional cuts to commercial harvest.

One advisor said, with other forage species such as Atlantic herring, Atlantic mackerel, and butterfish either overfished or trending down, chub mackerel could be especially important for some predators. This advisor added that the management measures for individual species often do not look at the bigger picture and consider ecological implications.

Research Priorities

One advisor asked what research would be needed for the Council to consider allowing an expansion of the chub mackerel fisheries.

Several advisors asked about an ongoing study funded by the Council to evaluate the importance of chub mackerel in the diets of highly migratory species (HMS) such as tunas and marlins. One advisor asked if information on spatial and temporal variations in diet would be provided in the final report, adding that there can be discrete pulses of chub mackerel availability. Both the commercial fishery and predators take advantage of these pulses and this is important to evaluate. For example, chub mackerel may be important prey for certain predators in discrete times of year and locations.

Another advisor agreed and said that if the fishery is allowed to expand, it should be done carefully in a way that considers the impacts to the structure and function of the ecosystem. This may be difficult to evaluate given that the fishery largely takes place in deep, offshore areas. He added that if the HMS diet study does not indicate that chub mackerel are eaten by the species examined, then it would be important to determine which other species are chub mackerel predators.

Another advisor said chub mackerel are both prey and a voracious predators of other forage species. If the Council considers the impacts of chub mackerel harvest on the stock status of HMS, then serious consideration should also be given to HMS management and how it has contributed to HMS stock status. Any conclusions about the impacts of chub mackerel harvest on HMS stock status should be supported by peer reviewed evidence.

One advisor called attention to the length frequency information provided by commercial dealers¹ and said it would be helpful to know if the SSC thinks industry should continue to collect these data. This is the most comprehensive length frequency data currently available for chub mackerel. The chair of the SSC responded and said this is an important data source which could be used to look for evidence of recruitment pulses and could possibly also be used to evaluate mortality rates on the population if enough data were available.

Other Issues

One advisor said chub mackerel are valuable as bait and as human food. Most markets for human consumption are in Europe and Africa.

It was noted that although a few AP members present on the call are associated with companies that have participated in the commercial chub mackerel fishery, other AP members who have more on the water experience harvesting chub mackerel were not present.

¹ Available at: https://www.mafmc.org/s/e_Characterization-of-the-Atlantic-Chub-Mackerel-fishery-1.pdf