



Chub Mackerel Fishery Performance Report

September 2021

The Mid-Atlantic Fishery Management Council's (Council's) Mackerel, Squid, and Butterfish Advisory Panel met via webinar on September 1, 2021 to review the 2021 Chub Mackerel Fishery Information Document and develop the following Fishery Performance Report. Dr. Walt Golet also presented preliminary findings on research funded by the Council to assess the importance of chub mackerel in the diets of tunas and marlins in the Mid-Atlantic.

The primary purpose of this Fishery Performance Report is to contextualize catch histories for the Scientific and Statistical Committee by providing information about fishing effort, market trends, environmental changes, and other factors.

Please note: Advisor comments described below are not consensus or majority statements.

Advisory Panel members present: Katie Almeida, Stefan Axelsson, Eleanor Bochenek, Gregory DiDomenico, Zack Greenberg, Meghan Lapp, Pam Lyons Gromen, Gerry O'Neill.

Others present: Julia Beaty (Council staff), Alan Bianchi (NC DMF), Doug Christel (GARFO staff), Jason Didden (Council staff), Gavin Fay (SSC member), James Fletcher, Walt Golet (University of Maine and Gulf of Maine Research Institute), Peter Hughes (Council member), Eric Reid (NEFMC member and liaison to MAFMC), 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?

Summary of Advisor Comments

Management Issues

Advisors did not recommend any changes to the chub mackerel management measures for 2022.

One participant on the webinar who is a member of other Advisory Panels strongly advised against consideration of a recreational minimum size limit as this will only create discards and anglers should keep what they catch. Consideration of a minimum size limit felt like the Council is "cutting and pasting" old ideas without attempting to find real solutions.

Recreational Chub Mackerel Fishery

Marine Recreational Information Program (MRIP) data show increasing recreational chub mackerel harvest from Maine through North Carolina over the past five years. One advisor asked if similar trends are shown in the South Atlantic recreational harvest estimates. Staff said there was no estimated recreational chub mackerel harvest in South Carolina through the east Coast of Florida during 2018-2020.

Another advisor reminded the group that the 2020 MRIP estimates include imputed data to address data gaps resulting from suspension of the Access Point Angler Intercept Survey (APAIS) from the late spring through much of the summer in 2020 due to COVID-19. This creates uncertainty in the 2020 data. This advisor said, for this reason, it will be important to see how the 2021 estimates compare to the 2020 estimates.

Relationship Between Chub Mackerel and Illex Availability

Dr. Walt Golet summarized his findings on the diets of yellowfin and bigeye tuna and white and blue marlin. Among other findings, his results suggest that *Illex* squid can be important in the diets of yellowfin and bigeye tuna, and to a lesser extent in the diets of marlins. One advisor noted that the commercial landings data and input from fishermen show that chub mackerel landings are low when availability of *Illex* is high and asked if something similar is happening in the diets of tunas and marlins. For example, do both the fisheries and diet trends suggest that chub mackerel are not as prevalent when *Illex* are abundant?

Dr. Golet emphasized that his results are a snapshot of tuna and marlin diets in 2018 and 2019 and that diets can change over time. Commercial fishery landings in 2018 and 2019 suggest that those were years with high availability of *Illex*.

Another advisor asked if any active commercial fishermen on the call could clarify if the inverse relationship between *Illex* squid and chub mackerel landings is because chub mackerel are not available in years of high *Illex* availability, or if this pattern is due to fishermen targeting *Illex*. One advisor who is an active commercial fisherman clarified that he does see chub mackerel during years of high *Illex* availability, but that chub mackerel tend to be found closer to shore than *Illex*.

Chub Mackerel Distribution

Two advisors and one other participant on the webinar noted that chub mackerel can be abundant close to shore based on their own observations while fishing, observations of landings at a processing facility, or fishing reports and other anecdotal observations. One advisor said the Fishery Information Document should be revised in future years to make it more clear that chub mackerel can be found close to shore, as well as offshore.

Research Priorities

One advisor said that although Dr. Golet's research represents a snapshot of 2018 and 2019, it does not suggest that further research is needed into the role of chub mackerel in the diets of tunas and marlins. Given the sample sizes obtained by Dr. Golet and difficulties in obtaining additional marlin samples, additional research would not be worthwhile and would likely not provide different conclusions. This advisor stated that Dr. Golet's research used a rigorous methodology and came to a clear conclusion that chub mackerel account for an exceptionally small component of the diet of tunas and marlins. This should conclude the issue.

Another advisor said they did not disagree, but noted that some of Dr. Golet's findings on the importance of *Illex* squid and bullet and frigate mackerel could warrant further exploration as those are species of interest to the Council. This advisor said this study was an important step towards better understanding the diets of tunas and marlins more broadly and considering the forage base from an ecosystem level.

A third advisor said they also agreed that Dr. Golet's findings do not suggest additional research is needed on the importance of chub mackerel as prey for tunas and marlins. The research suggest that these predators eat what is most available.

One advisor did not support the Council funding further research into the importance of *Illex* squid in the diets of tunas and marlins. This could be addressed in other ways, such as through the next research track assessment for *Illex*. This advisor noted that fishing mortality on *Illex* is low, the season is short, and the fishery is constrained, regardless of the size of the quota.