

GROUND FISH MANAGEMENT TEAM REPORT ON STOCK DEFINITIONS

The Groundfish Management Team (GMT) received an overview of this topic from Mr. John DeVore from Pacific Fishery Management Council (Council) staff on our February 23 webinar. We reviewed the National Marine Fisheries Service (NMFS) Report ([Agenda Item E.3.a, NMFS Report 1, March 2022](#)) and Supplemental Attachment 1 ([Agenda Item E.3. Supplemental Attachment 1, March 2022](#)) and were able to have some additional discussions with NMFS staff to inform our discussion and this report.

I. Definition of the term “Stock”

A key part of the GMT discussion was on the definition of the term “stock”. We identified several places where that term “stock” is used in different contexts in the overall Council management process. Possible variations of how a “stock” may be defined, or aspects that may define a stock, include:

- Management unit
- Biological/Genetic information
- Geographic boundaries
- Political boundaries (e.g., state borders)
- Assessment unit
- Status determination unit

Having agreement, and a clear definition by NMFS and the Council, on what the term “stock” means in this context will help establish a foundation for all advisory bodies and parties involved in addressing issues related to stock definitions as we move forward.

II. NMFS Report Options

The GMT had a lengthy discussion on the pros and cons of the two options outlined in [E.3.a, NMFS Report 1](#) and [Supplemental Attachment 1](#), described below.

A. Option 1

Option 1 has consideration of stock definitions and re-examining stock complexes on a separate stand-alone trajectory, rather than trying to incorporate into the 2023-2024 biennial process. That timeline would allow for a deliberate, holistic, and more thorough process to complete all of the steps needed for all groundfish stocks, including quillback rockfish. It would also allow time to incorporate re-examining the current stock complexes to determine if they are still appropriate, as per National Standard 1 Guideline. This longer timeline would also allow more time for public input as well as coordination with the Scientific and Statistical Committee (SSC), Science Centers, and the West Coast Region.

However, creating a new stand-alone pathway for this could potentially cause delays in other groundfish items that are already in the works, should this get prioritized over them, as this item would likely warrant urgency for NMFS and Council staff, as well as GMT members.

Additionally, the Council is in the process of planning for stocks that will be assessed in 2023 to inform the 2025-26 biennial process.

B. Option 2

Option 2 incorporates defining stocks into the 2023-24 biennial process and is a faster and more determined timeline. However, given where the Council is in the 2023-24 biennial process, there may not be enough time and workload capacity to incorporate this into the process without delaying the analysis, final decision making, and rulemaking. The GMT also has concerns that the rushed process, on top of all of the other moving pieces and parts of the biennial process, could lead to errors or omissions that would require additional work later on to rectify. This shorter timeline would also not allow for a comprehensive re-examination of existing stock complexes, requiring additional analysis and Council time at a later date.

C. GMT Recommendation

Based on the above, **the GMT recommends the Council choose Option 1 as the pathway to move forward on the stock definition issue.** The GMT has concerns that trying to incorporate this into the current biennial cycle would be too quick to allow for a holistic examination of how stocks are defined, and would not allow time to address the related issue of stock complexes. Additionally, it has the potential to cause delays to the overall biennial analysis, decision making, and rulemaking. Regardless of the option chosen, the Council can continue to recommend management measures in 2023-24 to reduce fishing pressure on stocks of concern, such as quillback rockfish off California.

D. Next Steps

If Option 1 is chosen by the Council, there are several next steps that would need to be discussed, and at least preliminarily decided on, under later agenda items at this meeting. Under Agenda Item E.6. Workload and New Management Measures Prioritization, the Council will need to provide guidance on how this item should be prioritized, in relation to the other already prioritized groundfish items ([Agenda Item E.6.a, GMT Report 1, March 2022](#)). Then under the Future Meeting Agenda Planning Item (Agenda Item C.7), the Council will need to identify at which upcoming meetings stock definitions will be addressed. Finally, the Council will need to identify who is going to be tasked with doing the work and analysis (discussed more below), i.e., the GMT or a new ad hoc workgroup. Who will be doing the work may influence when this item can come before the Council again? If the Council were to decide to create an ad hoc workgroup, that discussion should happen under Agenda Item C.6. Council Operating Procedures and Memberships. The GMT notes that given the potential scope of stock definitions and re-examining stock complexes, we do not have all of the expertise that will be needed, and additional expertise will be necessary (such as that from the SSC and the Science Centers).

E. Additional Items for Consideration

If the Option 1 pathway is selected, the Council may want to consider the implications when selecting stocks to be assessed in 2023 (under Agenda Item E.8). In the absence of a fishery management plan (FMP) amendment defining management units prior to the conclusion of the 2023 assessment cycle (e.g., the November 2023 Council meeting), and if there is a stock that had multiple assessment units across the West Coast (e.g., assessments conducted on a state basis),

there could be similar issues as experienced in 2021 where NMFS would not make new status determinations. This issue could potentially be handled in a couple different ways. First, similar to the 2021 assessment cycle the Council could opt to move forward with implementing the new scientific advice from area-based assessments into the 2025-26 harvest specification process, prior to receiving approved status determinations from NMFS. A second option could be to implement a fast-tracked limited species-specific FMP amendment, similar to Option 2, defining management units for these select stocks.

III. Example Implications-Quillback Rockfish

[E.3 Supplemental Attachment 1](#) seeks Council guidance on pathways forward for defining stocks in the FMP. Under Option 1, quillback rockfish could be managed under the default harvest control rule to determine the species-specific annual catch limit (ACL) contributions and remain in the Nearshore Rockfish complexes for the 2023-24 management cycle. The Council would then need to rescind its November 2021 motion to remove quillback rockfish from the Nearshore complexes, and the GMT would develop and analyze 2023-24 harvest specifications with quillback rockfish in the complexes.

Under Option 2 the Council would define stocks and stock complexes as part of the 2023-24 harvest specifications. The Council could recommend managing quillback rockfish as three separate stocks off Washington, Oregon and California. If this stock definition for quillback rockfish was selected, NMFS would reassess the 2021 status determination for quillback rockfish starting the two-year clock for a rebuilding plan which would be implemented in the 2025-26 specifications.

IV. Further Considerations

In [E.3.a, NMFS Report 1](#), NMFS poses four topics the Council should consider in moving forward. Below, the GMT provides some preliminary input on the four topic areas. We anticipate having additional input as the process proceeds.

A. Whether species are predominantly harvested in federal waters

Data to inform this topic could be available on recreational fisheries from RecFIN and/or the state management agencies. Data from commercial fisheries is available in PacFIN, from state fish tickets, and from the West Coast Groundfish Observer Program. However, the data may not be stratified to federal versus state waters, depending on how the data was collected and reported.

In cases where the data are not stratified by state versus federal waters, depth (if known) could possibly serve as a proxy, depending on location.

Additional information should be available from fisheries independent data such as the various state and federal surveys. However, not all surveys are able to sample in areas where rockfish reside or in shallow, more nearshore waters. A third source of information would be to conduct a literature review by species to see where they have been documented. While the GMT has access and expertise in some of these data sources, other expertise will be needed to supplement what the GMT is able to do.

B. Whether some species may be more appropriately categorized as ecosystem component species, rather than stocks in need of conservation and management

When stock complexes were discussed previously, some species that were previously managed under the Groundfish FMP were designated as ecosystem component species (e.g., finescale codling). There may be some additional species that could be considered for designation as ecosystem component species. Examining commercial and recreational catch data, as well as survey data could help inform this decision. As in the topic above, a literature review could also inform this topic. Based on previous discussion, species that come to mind initially are dusky rockfish and possibly some of the dwarf rockfish that occur off of Southern California. While the GMT can provide information on this, we will likely need some additional expertise to supplement what the GMT is able to do.

C. A further evaluation of whether the current stock complex compositions are meeting the intent of the stock complex guidance at § [600.310\(d\)\(2\)](#)

The GMT did a preliminary evaluation of the current stocks within complexes in November 2021 ([Agenda Item E.3.a, GMT Report 2.](#)). To supplement and expand on that evaluation, additional expertise will likely need to be brought in, specifically to inform the biology and life history. Information on geographic range can be gleaned from fisheries catch and discard data as well as the variety of fishery independent data such as the NMFS trawl survey.

Updating the stock vulnerability analysis has also been identified as part of this evaluation. This will mean updating the Productivity and Susceptibility analysis, last conducted in 2011. Specifically, the GMT can help to inform the susceptibility portion of that analysis, to better reflect the current state of fisheries and species-specific susceptibility scores. To accomplish that the GMT will need assistance from Dr. Jason Cope and possibly Dr. Ian Taylor from the NMFS Northwest Fisheries Science Center, as they were key contributors to that original analysis and programming.

The GMT, with help from others, can provide the data to inform the evaluation and justification of stock complexes, however it will be up to the Council to start scoping the issue and develop the justification for stock complex compositions.

D. How the overfished stock status units (assessments) align with the overfishing stock status units (OFLs).

For stocks that are managed in complexes, some stocks are assessed while some are not. For those that are assessed, harvest specifications are able to be determined. Currently those species' harvest specifications (OFL and ACL contribution) are added to those of other species in the complex. Although some individual species are given a species-specific OFL/ACL contributions some individual species are given a species-specific OFL/ACL contributions within complexes, those are not used to determine if overfishing is occurring. In other words, the individual species total mortality is not currently managed to stay within the species-specific OFL/ACL contribution. Rather, total mortality of all species within the complex are managed to the complex total OFL/ACL. The policy of managing to the complex OFL/ACL may be a relic of when stocks in complexes were not regularly assessed. Now that more stocks within complexes are being assessed (including data moderate and data poor assessments), consideration should be given to

whether it is more appropriate to manage certain species to their species-specific OFL/ACLs rather than incorporating them at the complex level. This would apply to Category 1 and Category 2 stocks but not Category 3 stocks.

If the Council manages to the species-specific harvest specifications, the Council should consider the purpose that stock complexes serve. Option 1 would give everyone involved in the process more time to review the current stock complexes and possibly recommend how to restructure complexes. The review of stock complexes would include identifying indicator and inflator stocks as well as biology/life history to better align species that could be managed together in updated complexes.

V. Implications for Future Assessment Cycles

The GMT is unsure how this process will impact future assessment cycles. What process or procedures will need to be put in place and when? What if during the assessment process, the assessment team has new biological data (e.g., genetics) that indicates multiple distinct stocks along the coast while the FMP includes management units that do not align with the new scientific information? It is the GMT's understanding that an FMP amendment would be needed to re-align the management units, but it is unclear whether that would have to happen before the subsequent biennial harvest specifications cycle begins or concurrently. The GMT is also unclear about how stocks that fall within both federal and state jurisdiction will be managed in the future and how ACLs will be partitioned among those areas. The GMT has concerns that this could delay the already lengthy and precarious harvest specifications cycle and schedule. Specifics on how to front load future stock boundary changes prior to when specifications and management measures are developed will need to be outlined and agreed upon. Additionally, when stocks are declared overfished they are typically removed from complexes. However, it is unclear if stocks should be reintegrated into complexes once they are rebuilt. Questions such as this should also be analyzed as part of this process.

PFMC
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