

GROUND FISH MANAGEMENT TEAM REPORT ON STOCK DEFINITIONS UPDATE

The Groundfish Management Team (GMT) received a briefing from Mr. John DeVore from the Pacific Fishery Management Council (PFMC or Council) staff and reviewed the materials in the briefing book on this agenda item. The GMT provides the below for additional consideration as the Council moves forward with this task.

The following sections are numbered and in the same order as in [Agenda Item G.5, Attachment 1, September 2022](#), but the GMT primarily focused on items #1-3 at this time. The GMT does provide some thoughts about what should happen after phase 1.

1. Adopt a Purpose and Need for Amendment 31

The GMT reviewed the draft purpose and need (P&N) statement in Attachment 1 and thinks it largely contains the needed pieces. **The GMT recommends prioritizing items #1-3 from [Agenda Item G.5, Attachment 1, September 2022](#) for Amendment 31.** This means that Amendment 31 would define areas for stock status determinations for the following species: 1) those assessed in 2021, 2) those to be assessed in 2023, consistent with the Council decision from June 2022, 3) those that are already assessed at a coastwide scale, and 4) those that have not been assessed but are managed at a coastwide scale. The species under those three categories are listed in Table 1 at the end of this report. **The GMT recommends exploring all other elements (e.g., Productivity and Susceptibility Analysis (PSA) and re-evaluation of stock complexes) in Attachment 1 after Amendment 31 for consideration of a subsequent amendment(s).** This would align with the Council's preferred phased approach. As such, the GMT recommends the following revisions to the P&N:

“With Amendment 31 to the Pacific Fishery Management Council’s (Council) Groundfish FMP, the Council intends to enhance the ability to attain sustainability objectives, especially those outlined in National Standard 1 of the Magnuson-Stevens Act. Appropriate specification of stocks *in need of conservation and management* at a geographic and stock complex level is a foundational aspect of sustainability, and instrumental in the Council’s ability to attain Optimum Yield objectives. With this Amendment, the Council intends to *identify a subset of species within the Groundfish FMP to define stock boundaries for status determination based on key biological, ecological, social, and economic information currently available to the Council.* ~~define a set of stocks that bring together information concerning the biological basis of groundfish populations of the West Coast, and the level at which conservation and management measures are needed, such as at a geographic or stock complex level.~~ It is the Council’s intent that, when this Amendment is completed, NMFS will ~~be able to~~ make *the necessary* status determinations concerning *the identified* groundfish ~~species managed under the groundfish FMP.~~”

2. Confirm the priority actions for Amendment 31

In June 2022, the Council decided to prioritize the species assessed in 2021 and proposed for assessment in 2023 to be formally defined for stock status determination areas in the Groundfish Fishery Management Plan (FMP) under Amendment 31. **As noted above, the GMT additionally**

recommends focusing on species that are currently assessed at a coastwide scale and species that have been assessed across the whole species range but currently have an area-based Overfishing Limit (OFL) in regulations (i.e., Pacific ocean perch). Table 1 presents the species the GMT is recommending to include in Amendment 31. The remaining species in the groundfish FMP could be defined in a subsequent amendment (e.g., under Phase 2).

3. Proposed timeline for Amendment 31 decisions

The GMT notes that the proposed timeline in Attachment 3 is intended such that Amendment 31 would be in place for the beginning of the 2025-26 biennial harvest specifications and management measures process, which begins in September 2023. We agree with the need to meet the proposed timeline to facilitate the 2025-26 biennial harvest specifications and management measures process, but this provides fewer than nine months to complete the necessary analysis and write ups. Clear direction from the Council at this and each subsequent Council meeting prior to June 2023, along with the associated benchmarks required to make adequate progress on this agenda item, will be necessary to successfully meet the proposed timeline of selecting the final preferred alternative (FPA) in June 2023.

Of the species being considered within Amendment 31, black rockfish and copper rockfish need to have a preliminary preferred alternative (PPA) identified at the November meeting at the latest. Additionally, at the November meeting, clear guidance will be needed to facilitate any needed analysis to support the development of PPAs at or before the March or April 2023 meetings identifying alternatives for stock status determination for nearshore species (i.e., vermilion and sunset rockfishes and quillback rockfish). Depending on the information available, the Council could select a PPA for vermilion and sunset rockfishes and quillback rockfish before the March or April 2023 meetings, such as at the November 2022 meeting.

Stock definitions are a policy decision based on best scientific information available (BSIA) and should employ the precautionary principle. Precaution may look like flexible and adaptable stock definitions in the face of uncertainty while minimizing potential harm to the resource and coastal communities in the near and long-term. The GMT does not currently have the expertise to suggest stock definitions for the Phase 1 species left blank in Table 1 (i.e., vermilion and sunset rockfishes, quillback rockfish, copper rockfish, and black rockfish) and is concerned that it is not feasible to gather all necessary information and expertise before November. However, in order for NMFS to make the necessary status determinations based on the 2021 and 2023 stock assessments, area(s) for stock status determinations need to be identified within Amendment 31 for these species.

Potential Phase 1 options for species left blank in Table 1 include (not exhaustive):

1. defining these stocks at a coastwide scale, which would allow the Council to define stocks for stock status and then utilize localized management measures to manage stocks at the spatial scales aligning with BSIA.
2. define these stocks using localized state boundaries that align with assessment area boundaries.

Each of the potential Phase 1 options should factor in advice provided by the Scientific and Statistical Committee. The GMT anticipates the potential need to re-evaluate the Phase 1 stock definitions within a subsequent phase to ensure alignment with decisions derived from in-depth analysis (e.g., see *After Phase 1* section below).

Proposed timeline for Amendment 31:

- Nov. 2022: PPA for stocks to be assessed in 2023
- Mar. or Apr. 2023: PPA for all stocks considered under Amendment 31
- June 2023: Amendment 31 FPA

After Phase 1

Currently, there is scientific information that may inform how stocks should be defined for status determination, but the GMT does not have the expertise to synthesize this information to develop and formalize criteria to determine stock delineations. The GMT envisions a gathering of experts (e.g., geneticists, managers, social scientists, economists, and assessors) to develop a suite of criteria using the best scientific information available. This group should also determine how decisions should be made in the absence of available scientific information and how to incorporate new relevant scientific information as it becomes available. We propose that the Council would convene a multi-day workshop/think tank to answer the following questions and address the issues below:

- What scientific information should be considered and how should that information be weighted if there are conflicting signals among the available information?
- What criteria do we use when we lack genetic, adult or larval movement, or other scientific information to delineate a stock?
- If an area for stock determination is set at the coastwide level for a species and there are distinct local dynamics (i.e., increasing and decreasing stock trends), what tools does the Council have to manage on a finer scale than coastwide to address localized population trends? What management actions would be implemented if a portion of the species was assessed to be below minimum stock size threshold (MSST), but the species was above MSST on a coastwide level? Alternatively, what management actions would be implemented if the species was below the MSST at a coastwide total, but that result was primarily driven by a single area along the coast?
- Some species have multiple assessed areas that utilize a combination of assessment types (i.e., category 1 or 2 stock assessments that are used to estimate stock status combined with category 3 stock assessment(s) that are not used to estimate stock status). Such species' assessments may not inform a coastwide stock status determination. What scientific and policy factors should be considered when identifying areas for stock status determinations for such species?
- How to add flexibility into the Fishery Management Plan (FMP), to align with National Standards guidelines, to account for ecological and socio-economic changes that may happen if there are range shifts, contractions, or expansions of stocks due to climate change. What criteria should the Council use to identify permanent range shifts, contractions, or expansions that may lead to redefinition of stocks?

The criteria established would be captured in an FMP amendment and would be used by the GMT to define the stock definitions for Phase 2 species (which will likely include those species on the list for assessment in 2025 as well as others) and whether the species included in Phase 1 would need to be re-defined based on the new criteria. Depending on the workload associated with developing the criteria, Phase 2 could include determining groundfish stocks in need of

conservation and management, updating productivity and susceptibility scores to reflect current fishery conditions, and evaluation of stocks within stock complexes. However, that determination and a reasonable timeline of the items #4-7 in [Agenda Item G.5, Attachment 1, September 2022](#) would need to be created after the workshop/think tank.

GMT Recommendations:

- 1. Prioritize and focus on items #1-3 in Attachment 1 for Amendment 31.**
- 2. Explore all other elements listed in Attachment 1 (e.g., Productivity and Susceptibility Analysis and re-evaluation of stock complexes) in a subsequent amendment(s).**
- 3. Prioritize for Amendment 31 species that (Table 1):**
 - a. were assessed in 2021,**
 - b. are scheduled to be assessed in 2023,**
 - c. are assessed at a coastwide scale,**
 - d. have not been assessed but are managed at a coastwide scale, and**
 - e. have been assessed across the whole species range but currently have an area-based OFL in regulations.**
- 4. Select a PPA that defines stock boundaries for species under Amendment 31 based on Table 1 recommendations.**

Table 1. GMT-recommended priority species for Amendment 31 and associated recommendations for PPA stock definitions. PPA stock definition recommendations that are left blank were species for which the GMT feels further discussion is warranted before making a recommendation.

Category	Species (Complex)	Recommended PPA Stock Definition
Assessed in 2021	Dover sole	Coastwide
	Lingcod	North of 40° 10' N. lat. South of 40° 10' N. lat.
	Pacific spiny dogfish	Coastwide
	Quillback rockfish (Nearshore)	
	Sablefish	Coastwide
	Squarespot rockfish (Shelf)	Coastwide ¹
	Vermilion and sunset rockfishes (Shelf)	
Scheduled to be assessed in 2023	Black rockfish	
	Canary rockfish	Coastwide
	Copper rockfish (Nearshore)	
	Petrale sole	Coastwide
	Rex sole (Other Flatfish)	Coastwide
	Shortspine thornyhead	Coastwide
Assessed coastwide or un-assessed but currently managed coastwide (not including others listed above)	Arrowtooth flounder	Coastwide
	Big skate	Coastwide
	California scorpionfish	Coastwide
	Darkblotched rockfish	Coastwide
	English sole	Coastwide
	Longnose skate	Coastwide
	Longspine thornyhead	Coastwide
	Widow rockfish	Coastwide
	Pacific cod	Coastwide
	Splitnose rockfish	Coastwide
	Starry flounder	Coastwide
	Leopard shark (Other Fish)	Coastwide
	Butter sole (Other Flatfish)	Coastwide
	Curlfin sole (Other Flatfish)	Coastwide
	Flathead sole (Other Flatfish)	Coastwide
	Pacific sanddab (Other Flatfish)	Coastwide
	Rock sole (Other Flatfish)	Coastwide
Sand sole (Other Flatfish)	Coastwide	
YELLOWEYE ROCKFISH	Coastwide	
Assessed across species range but area-based OFL (not including others listed above)	Pacific ocean perch	Coastwide ¹

¹Species that do not have ranges covering the whole West Coast but could be potentially managed on a coastwide basis.