

GROUND FISH MANAGEMENT TEAM REPORT ON AMENDMENT 31 GROUND FISH STOCK DEFINITIONS

The Groundfish Management Team (GMT) received a briefing from Pacific Fishery Management Council (Council) staff Todd Phillips and National Marine Fisheries Service (NMFS) staff Gretchen Hanshaw on the Range of Alternatives Analysis for Proposed Amendment 31 to the Pacific Groundfish Fishery Management Plan (analytical document) at the team’s January meeting in Portland, OR, and reviewed the briefing book items. The GMT attended the Scientific and Statistical Committee’s (SSC) discussion on the item and engaged in robust discussions of our own. The GMT provides the following recommendations and considerations for the Council.

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Action Alternatives

In its deliberations, the GMT considered management implications for all 12 priority species and their proposed alternatives described in the analytical document (Table 1; [Agenda Item F.7 Attachment 1, March 2023](#)). In the absence of clear scientific guidance within Appendix 1 of Attachment 1 or in past SSC reports, the GMT is generally supportive of those alternatives whose outcome maintains current harvest management (i.e., routine and accountability measures) as laid out in the 2023-24 Harvest Specifications and Management Measures, as this Fishery Management Plan (FMP) amendment is intended to be implemented by early 2024. The GMT notes that while this action is to ensure the priority species are officially defined in the FMP as *stocks* before developing management measures for the 2025-26 biennium, stock definition decisions would be made mid-biennium of the 2023-24 management cycle. **The GMT recommends that the Project**

Team further explore the management implications of a mid-biennium decision and what that means for 2024 management measures.

Table 1. Priority groundfish species for this action under Amendment 31 and the year of the most recent assessment. Source: Agenda Item F.7 Attachment 1, March 2023

Assessment Year	
2021	2023
Dover sole	Black rockfish
Lingcod	Canary rockfish
Quillback rockfish	Copper rockfish ^{a/}
Pacific spiny dogfish	Petrале sole
Squarespot rockfish	Rex sole
Vermilion/Sunset rockfish	Shortspine thornyhead

^{a/} Copper rockfish was assessed coastwide in 2021 via four assessment areas (Southern California, Northern California, Oregon, and Washington). The portion of the species in California waters is being reassessed in 2023.

I. Species with Only One Alternative

For those species with only one proposed alternative, the GMT agreed with the analytical document and **recommends the Council select as Preliminary Preferred Alternative (PPA) Alternative 1 (i.e., single stock) for canary rockfish, Dover sole, Pacific spiny dogfish, petrale sole, rex sole, sablefish, and shortspine thornyhead and Alternative 2 (i.e., two stocks separated at 40° 10' N. lat.) for lingcod (Table 2).**

Table 2. GMT recommended action alternative for priority species with only one alternative, to be selected for PPA.

Priority Species	Alternative	Stock Area(s) Delineation
Canary rockfish	1	Single Stock
Dover sole	1	Single Stock
Pacific spiny dogfish	1	Single Stock
Petrале sole	1	Single Stock
Rex sole	1	Single Stock
Sablefish	1	Single Stock
Shortspine thornyhead	1	Single Stock
Lingcod	2	N. of 40° 10' N. lat. stock and S. 40° 10' N. lat. stock

II. Species With Multiple Alternatives

For the species with more than one alternative (Table 3), the GMT grouped our comments by the way they are currently managed in the fishery and, to an extent, how they are managed within the rockfish complexes. As the GMT, part of our role is to articulate any foreseeable management implications that may arise from these alternatives. The GMT acknowledges that management complexity should not be considered the primary factor when defining stocks, so we do not provide

recommendations for those species where scientific information, as described in the next paragraph, is less definitive and thus alternative selection is more of a Council policy decision.

The GMT offers specific recommendations for black, quillback, and squarespot rockfishes based on biological information (Appendix 1 of [Agenda Item F.7 Attachment 1, March 2023](#)), on scientific considerations provided by the SSC (including [Agenda Item F.7, SSC Supplemental Report 1, March 2023](#)), and on management implications of the alternatives described below. For all species, we highlight alternatives we think will likely result in management measures that most closely match those adopted in the 2023-24 biennium, and therefore minimize additional management complexity. For the species where the biological information and SSC advice do not clearly point to a specific alternative, we do not provide a strong recommendation.

Table 3. Action alternatives for select priority species with more than one alternative. Bolded = GMT PPA recommendation; italics = Closest to current management.

Priority Species	Alternative	Stock Area(s) Delineation
Black rockfish	1	Single Stock
	3	Washington stock, Oregon stock & California stock
Quillback rockfish	1	Single Stock
	3	Washington stock, Oregon stock & California stock
Copper rockfish	1	Single Stock
	2a	Washington & Oregon stock & California stock
	<i>3</i>	<i>Washington stock, Oregon stock & California stock</i>
	4 ^{a/}	Washington stock, Oregon stock, Northern California [north of 34° 27' N. lat.] stock, and Southern California [south of 34° 27' N. lat.] stock
Squarespot rockfish	1	Single Stock
	3	Washington stock, Oregon stock & California stock
Vermilion/Sunset rockfish	1	Single Stock
	2	N. of 40° 10' N. lat. stock, S. 40° 10' N. lat. stock
	<i>3</i>	<i>Washington stock, Oregon stock & California stock</i>
	3a	Washington & Oregon stock, Northern California [north of 34° 27' N. lat.] stock, and Southern California [south of 34° 27' N. lat.] stock
	4	Washington stock, Oregon stock, Northern California [north of 34° 27' N. lat.] stock, and Southern California [south of 34° 27' N. lat.] stock

^{a/} The SSC recommended Alternative 4 be added to the Range of Alternatives for copper rockfish off California ([Agenda Item F.7.a, Supplemental SSC Report 1, March 2023](#)).

i. Nearshore rockfish fishery/complex

The GMT sees merit in selecting alternatives for nearshore species that maintain the ability to set state-specific harvest targets/shares. Additionally, the GMT expects that, for the nearshore species in Table 3, allocative implications are likely to arise if a species is defined as a single stock that is

currently managed with state shares/allocations. Potential future allocative schemes could diverge from the current approach of setting state shares/allocations based on state-specific stock assessment sub-area outputs. This is because there is not a defined process of allocating harvest targets/shares of a single stock to the individual states, which could result in inconsistent allocative decisions each time a stock is assessed. Maintaining the ability to set state-specific harvest targets/shares is important given that nearshore rockfish species have been historically and are currently managed differently off all three states.

Furthermore, the lack of available nearshore rocky reef habitat in southern Washington potentially limits spatial connectivity between populations associated with rocky habitat off the coast of Oregon and Washington, which may support splitting stocks at this state border for the nearshore species being considered under Amendment 31.

Black rockfish

Alternative 3 most closely aligns with current management, as black rockfish has been and is currently managed under state-specific OFLs/ABCs/ACLs¹ off Washington, Oregon, and California for the last 3+ biennia (starting in the 2017-18 management cycle). Black rockfish is also managed within a complex off Oregon (i.e., black/blue/deacon rockfish complex), and harvest specifications (OFL/ABC/ACL contributions) and management measures have been designed specifically for that complex. Any other alternative would require deviating from current management and possibly re-configuring a complex to better align with a new stock definition, which is not within the scope of Amendment 31. Therefore, and in addition to the nearshore species-specific scientific information described above, the **GMT recommends the Council select as PPA Alternative 3 to define black rockfish as three stocks separated at state boundaries.**

Quillback rockfish

Quillback rockfish is managed within the minor nearshore rockfish complex north and south of 40° 10' N. lat. with state-specific shares. Given the alignment of Alternative 3 with current management and the SSC recommendation found in [Agenda Item F.7, SSC Supplemental Report 1, March 2023](#), the **GMT recommends the Council select as PPA Alternative 3 to define quillback rockfish as three stocks separated at state boundaries.**

Copper rockfish

Copper rockfish is also managed within the minor nearshore rockfish complex north and south of 40° 10' N. lat. with state-specific shares. When considering management implications of the proposed alternatives, Alternative 3 (i.e., three stocks separated at state boundaries) for copper rockfish appears to allow for management measures most similar to current management. While the SSC indicates that copper rockfish should not be defined as a single stock, they did not provide a recommendation among any of the other alternatives ([Agenda Item F.7.a, Supplemental SSC Report 1, March 2023](#)). Therefore, there does not appear to be a strong scientific rationale to support making a GMT recommendation between the remaining alternatives, except that the lack of rocky reef habitat in southern Washington does not support combining Washington and Oregon into a single stock (i.e., Alternative 2a). However, the GMT notes that Alternative 4 is likely to

¹ OFL = Overfishing Limit; ABC = Acceptable Biological Catch; ACL = Annual Catch Limit

create the greatest additional management complexity and burden, compared to current management practices.

ii. Shelf rockfish fishery/complex

Squarespot rockfish

The 2021 squarespot rockfish assessment reported the status off the “West Coast”. Currently, the species is treated as one stock due to lack of genetic structure. The GMT does not foresee the need based on management implications to consider any alternative other than defining squarespot rockfish as a single stock, and defining it as a single stock would account for any potential population movement northward under future changing ocean conditions. **The GMT recommends the Council select Alternative 1 as PPA to define squarespot rockfish as a single stock.**

Vermilion/sunset rockfish

Vermilion/sunset rockfish is important to both trawl and non-trawl fisheries with complicated allocation schemes and management measures, including but not limited to quota shares and an at-sea set-aside for the shelf rockfish complex north of 40° 10’ N. lat. Considering alternatives other than Alternative 1 (i.e., a single stock) or Alternative 3 (i.e., three separate state-specific stocks) at this time could further increase the management complexities of vermilion/sunset rockfish within all sectors of the West Coast groundfish fishery. The alternative that is the closest in alignment to current management is Alternative 3, which defines vermilion/sunset rockfish as three stocks separated by state boundaries.

Considerations for Future Phases

Tribal allocations/set asides of groundfish are generally a fixed percentage of the coastwide ACL (or the northern portion thereof) or as a harvest guideline based on the coastwide ACL. Before taking final action on this item, consideration should be given, and analysis conducted to understand any potential impacts of the range of alternatives to tribal set-asides. Additionally, the species for which there are formal trawl/non-trawl allocations, quota shares, and at-sea set-asides will need further analysis on the adjustments that may be needed to the allocation framework of such species as a result of defining stocks in a way that diverges from current management.

Process

While not relevant to the Council’s action under this agenda item, the iterative process proposed in Figure 8, [Agenda Item F.7 Attachment 1, March 2023](#), to incorporate new information informing stock definitions and to formally define stocks for status determination may need further refinement and clarification as we move forward, particularly recognizing that we are likely to begin defining other species in the near future.

Summary of GMT Recommendations

Based on the alternatives listed in Tables 2 and 3 above, the GMT recommends:

- **the Project Team further explore the management implications of a mid-biennium decision and what that means for 2024 management measures.**
- **the Council select as PPA:**
 - **Alternative 1 (i.e., single stock) for canary rockfish, Dover sole, Pacific spiny dogfish, petrale sole, rex sole, sablefish, shortspine thornyhead, and squarespot rockfish**
 - **Alternative 2 (i.e., two stocks separated at 40° 10' N. lat.) for lingcod**
 - **Alternative 3 (i.e., three stocks separated at all state boundaries) for black and quillback rockfishes**

The GMT also sees merit in selecting as PPA Alternative 3 (i.e., three stocks separated at all state boundaries) for copper and vermilion/sunset rockfishes, but we view those as largely Council policy calls and do not provide a strong recommendation for those species at this time.

PFMC
03/07/23