

GROUND FISH MANAGEMENT TEAM REPORT ON INITIAL STOCK ASSESSMENT
 PLAN AND TERMS OF REFERENCE

Preliminary Recommendations of Species to be Assessed in 2025

The Groundfish Management Team’s (GMT) recommended list of species to assess in 2025 is shown in Table 1. These include a combination of the top-ranking species from the National Marine Fisheries Service’s (NMFS) assessment prioritization analysis ([Agenda Item F.3. Attachment 1, March 2024](#)) and lower-ranked species that the GMT identified as possibly being higher priority for assessment due to a range of factors. The GMT recognizes that the number of recommendations is likely to exceed age reading and assessor capacity, however, the GMT wanted to provide a comprehensive list at this time with the intention of further refinement in June 2024. **In general, the GMT recommends not assessing any nearshore rockfish species in 2025, because the stock definitions phase 2 may result in differences in who is responsible for how nearshore species are managed. This recommendation does not apply to quillback rockfish off California, as the GMT understands this is a species of concern and is unlikely to be removed from the FMP or delegated.**

Table 1. The GMT’s recommended species to be assessed in 2025, the possible assessment area, and level of GMT priority to be assessed in 2025 (high or low). The species are ordered by assessment type.

GMT Priority	Species	GMT recommendation of Assessment Type	Anticipated Assessment Area a/
Top	Sablefish	Benchmark	Coastwide
	Quillback rockfish off California	Benchmark	South of 42° N. lat.
	Rougheye/blackspotted rockfish	Benchmark	Coastwide
	Yellowtail rockfish	Benchmark (both) or Benchmark (south) and Update (north)	North of 40° N. lat. South of 40° N. lat.
	Chilipepper rockfish	Benchmark	Coastwide
	Widow rockfish	Update	Coastwide
Alternate	Aurora rockfish	Update or Benchmark	Coastwide
	Redbanded rockfish	Benchmark	Coastwide
Other	Canary rockfish	Catch-only Projection Update	Coastwide
	Shortspine Thornyhead	Catch-only Projection Update	Coastwide

a/ pending stock definitions action(s) prior to being assessed

Rationale for Selection of Species to be Assessed in 2025

Sablefish: Benchmark Assessment

Sablefish is a valuable groundfish species and, based on the stock status estimated in the most recent limited-update assessment conducted in 2023 and continued strong incoming recruitments, **the GMT recommends that sablefish be assessed in 2025 using a benchmark assessment.** Conducting a benchmark assessment in 2025 for sablefish can provide more informed estimates about recent strong recruitments due to additional observations by the fishery and survey to better inform future management while also providing the ability to address modeling issues and uncertainties identified by the 2019 Stock Assessment and Review (STAR) panel.

California quillback rockfish: Benchmark Assessment

The GMT recommends a benchmark assessment of California quillback rockfish to be conducted in 2025. This stock was identified as a high priority based on the results of the 2021 length-based data-moderate assessment and the subsequent overfished declaration. Having the opportunity to incorporate all available data, not just those specified in the Groundfish TOR for data moderate assessments, for an assessment would allow stakeholders to have increased confidence in the assessment results and any resulting management actions. A benchmark assessment would allow for the inclusion of additional data relative to the 2021 length-based data-moderate assessment, although the additional data available by 2025 that could support a benchmark assessment may continue to be relatively limited. Some of the additional data sources that could be evaluated for inclusion in a benchmark assessment are fishery-dependent catch-per-unit effort time series (recreational), fishery-independent indices of abundance and composition data from California Department of Wildlife (CDFW) and Marine Applied Research and Exploration (MARE) Remote Operated Vehicle (ROV) and the California Collaborative Fisheries Research Program (CCFRP), and any available ages to support the estimation of growth and annual recruitment deviations within the model.

Rougheye/blackspotted rockfish: Benchmark Assessment

The GMT recommends a benchmark assessment of rougheye/blackspotted rockfish in 2025. Rougheye/blackspotted rockfish was last assessed in 2013 and identified by the GMT during the last cycle as a species for assessment consideration in 2023 based on the time since the last assessment and that recent removals have been approaching the annual catch limits (ACL) for this stock. However, feedback from the Washington Department of Fish and Wildlife (WDFW) indicated that only a limited number of otoliths had been aged, leaving a large number of collected otoliths to be read. This, combined with the challenges in ageing rougheye/blackspotted rockfish, lead the GMT to propose delaying an assessment of this stock until 2025; anticipating this would provide the needed time to complete adequate age reads. There continues to be a substantial number of otoliths available to be read to support the next assessment, and feedback from the Northwest Fisheries Science Center (NWFSC) about anticipated ageing ability (i.e., difficulty in reading the otoliths to determine age) and age reading capacity for rougheye/blackspotted can better inform whether a 2025 benchmark assessment is viable.

Yellowtail rockfish: Benchmark Assessment south of 40° 10' N. lat., either Benchmark or Update north of 40° 10' N. lat.

Yellowtail rockfish was last assessed in 2017. At that time, only yellowtail rockfish north of 40° 10' N. lat. resulted in a Scientific and Statistical Committee (SSC)-endorsed benchmark assessment (i.e., the model for the population south of 40° 10' N. lat. was withdrawn by the stock assessment team due to model uncertainty). Current mortality of yellowtail rockfish north of 40°

10' N. lat. between 2018-2022, on average, is approximately 53 percent of the Overfishing Limit (OFL). However, effort may be moving onto the shelf due to other Council actions, which could result in increased catches, especially south of 40° 10' N. lat. where changes in the Non-Trawl RCA could allow additional access to areas where yellowtail rockfish are commonly encountered. **The GMT recommends a benchmark assessment of yellowtail rockfish south of 40° 10' N. lat. and either a benchmark or an update assessment for yellowtail rockfish north of 40° 10' N. lat.**

Chilipepper rockfish: Benchmark Assessment

Chilipepper rockfish was most recently assessed in 2015 as an update of the 2007 benchmark assessment. However, in 2017 a historical catch-only update was conducted to correct for errors in historical catch estimates between 1916 and 2016. Chilipepper rockfish is a commercially important species for trawl, and an increase in fixed gear mortality has been observed. Similar to widow rockfish mentioned below, it is expected that the actions taken to protect quillback rockfish will continue to concentrate targeted effort on midwater rockfish like chilipepper rockfish. Because of the importance to commercial fisheries, there has been a large volume of fishery-dependent data collected since the last assessment. **The GMT recommends a benchmark assessment in 2025 because of the importance to the fishery, the need for accurate estimates of sustainable harvest limits as effort increases, time since it was last assessed, and collection of new data.**

Widow rockfish: Update Assessment

With the concentrated effort that is occurring in California on shelf rockfish species, gaining a better understanding of the population dynamics of widow rockfish might be beneficial. The SSC notes that there are no new data sources that could be used in the widow rockfish assessment, and therefore, it could be an update assessment. Widow rockfish was on the catch-only update list in the [Agenda Item F.3.a, Supplemental GMT Report 1, June 2022](#), but **since then there has been more development in the fishery, and due to the economic importance to the fishery, the GMT recommends that an update assessment be done in 2025.**

Aurora rockfish: Benchmark or Update Assessment

Aurora rockfish was last assessed in 2013. Aurora rockfish was previously identified by the GMT for assessment consideration in 2025 given the time since the last assessment and the extended time series from the NWFSC West Coast Groundfish Bottom Trawl (WCGBT) survey and composition data that could be used to inform a future assessment. To the GMT's knowledge, the data streams for a future assessment of aurora rockfish remain consistent with the data included in the 2013 assessment (i.e., no new survey or emerging fisheries). **Should the Council wish to assess aurora rockfish in 2025, the GMT recommendation would depend on SSC guidance on whether updating the 2013 assessment is appropriate given the time since that assessment was conducted.**

Redbanded rockfish: Benchmark Assessment

Redbanded rockfish has not been formally assessed and current harvest specifications are based on a category-3 assessment conducted in 2010. In addition, mortality has approached the ACL contribution north of 40°10' N. lat. every year since 2017. This species also has a higher productivity susceptibility analysis score (2.02), indicating that it is more vulnerable to fishing. **Should the Council wish to assess redbanded rockfish in 2025, the GMT would recommend a benchmark assessment**, but the team sees redbanded rockfish as a lower priority in 2025 relative to the other species mentioned in this report.

Catch-Only Projection Updates for 2025

Shortspine Thornyhead: Catch-Only Projection Update

The GMT anticipates that shortspine thornyhead will be highly attained into the future, however there might be a benefit to doing a catch-only update that includes 2023 and 2024 data because the savings, even though they are minimal, will still allow for some relief for fisheries that are being constrained. Depending on whether the Council takes action within the harvest specifications and new management measures cycle there may be different benefits to different sectors that would happen as a result of the catch-only update. **The GMT recommends a catch-only projection update for shortspine thornyhead**, pending Council action on 2025-26 management measures in June, after which the GMT seeks guidance from the Science Centers on the feasibility in requesting a catch-only projection update following the June Council meeting.

Canary Rockfish: Catch-Only Projection Update

Canary rockfish is likely to be highly attained in 2025-26, and a catch-only update would inform 2027-28 and beyond harvest limits that are based on lower catch values in 2023 and 2024 than what was assumed in the 2023 assessment, thereby potentially alleviating fishery constraints to some extent. **The GMT recommends a catch-only projection update for canary rockfish in 2025.**

Tentative Guidance for Species to Assess in 2027

The GMT provides guidance on species that should be considered for assessments in 2027 in Table 2.

Table 2. The GMT's recommended species to be considered for assessments in 2027, the possible assessment area, and potential assessment type.

Species	GMT recommendation	Anticipated Assessment Area a/
Pacific spiny dogfish	Benchmark	Coastwide
Vermilion/sunset rockfish	TBD	Multiple Areas
Petrale sole	TBD	Coastwide
Yelloweye rockfish	Benchmark	Coastwide

a/ pending stock definitions action(s) prior to being assessed

Pacific spiny dogfish: Benchmark Assessment

The 2021 assessment of Pacific spiny dogfish had a high level of uncertainty around the proportion of the biomass observed by the NWFSC WCGBT survey during the summer months when survey sampling occurs. Additionally, the assessment estimated the stock to be near the management target of 40 percent of unfished biomass with the stock projected to slowly decline over the projection period based on the default harvest level for elasmobranchs (i.e., spawning potential ratio of 0.45). The 2021 assessment noted some areas for improvement in the survey catchability and research needs associated with movement. There is current research being done collaboratively by Oregon Department of Fish and Wildlife and Oregon State University which involves Pacific spiny dogfish tagging that could better inform seasonal movement of the population and could better inform the portion of the population observed by the NWFSC WCGBT survey. If this research is concluded in time for a 2027 assessment, that data would hopefully be able to be used to inform a benchmark assessment.

Vermilion/sunset rockfish: Assessment type TBD

Vermilion/sunset rockfish was last assessed in 2021. Issues still remain regarding the range of these species and identifying the break between where vermilion and sunset rockfishes no longer co-occur. To the GMT's knowledge, efforts have been undertaken to further delineate the areas of overlap between these cryptic species, however at this time no published reliable information exists. Initial indications seem to suggest that visual identification continues to be difficult in all surveys and genetic information is needed to accurately delineate the two species. The GMT supports including vermilion/sunset rockfish for consideration in 2027 and hopes additional work or data to help clarify these two species range and encounter rates in the fisheries will occur.

Petrale sole: Assessment type TBD

Petrale sole is an important species for the Individual Fishing Quota program and was last assessed in 2023. Given the ACL reductions in 2025-26, the GMT would anticipate high attainment of the stock in various sectors. Additionally, the stock was estimated to be in the precautionary zone in 2026. An assessment in 2027 may provide additional information as to the trend and health of the stock. The type of assessment that should be conducted would depend on how assessment priorities change in the interim and realized attainment in the fisheries.

Yelloweye rockfish: Benchmark Assessment

In an effort to potentially reduce workload in 2025 the GMT recommends that the Council wait to do a full benchmark assessment of yelloweye rockfish in 2027. Yelloweye rockfish is currently projected to be rebuilt in 2028. Conducting an assessment in 2027 rather than 2025 would have an increased probability of estimating the stock rebuilt assuming the population dynamics are generally following the most recent projections. If a benchmark or update assessment was conducted in 2025 and the population was still estimated to be below the management target, then an update or a benchmark would need to be conducted in subsequent years aligning with the rebuilding timeline. With the assumption that yelloweye rockfish will rebuild in the coming years the Council can then consider whether further opening the Non-Trawl RCA could be prioritized off the workload prioritization table.

Other Stock Assessment Items for Consideration

There continues to be interest in assessing Pacific cod. However, Pacific cod off the U.S. West Coast is at the southern end of the range for that species, with the bulk of the species' distribution off British Columbia and Alaska. Therefore, coordinating a regional or transboundary assessment may be the most appropriate assessment option. The GMT recognizes that the workload to create the needed partnerships, coordinate efforts, and agreements across management agencies to conduct a transboundary assessment of Pacific cod would be significant. However, the importance of Pacific cod to both Tribal and recreational fisheries along the northern U.S. west coast justifies the need for this effort.

Terms of Reference

Summary of Terms of Reference (TOR) Recommendations:

- **The GMT recommends that the groundfish assessment TOR include language that requires the STAR Panel Chair to communicate with the GMT and GAP advisors to provide guidance on whether the advisors should write the management issues**

section¹ of the STAR Panel report with subsequent STAR Panel review or whether the STAR Panel will write the section with subsequent GMT and GAP advisor review.

- **The GMT also recommends that the ToR clarify that the GMT and GAP be provided the opportunity to review the management issues section before the report is finalized.**
- **The GMT recommends the following criteria/guidelines for inclusion in the TOR text:**
 - Requests to revise the catch assumptions that differ from the GMT provided values must differ by an amount such that they would have a demonstrable impact in how the fishery is managed compared to the GMT estimates. The requestors must provide rationale for the differences and details on how the values were derived in writing to the GMT, who will review such requests to determine if the difference is sufficient to have a demonstrable impact.
 - Requested revisions to the catch assumptions in the first two years of the projection period need to be submitted in writing two weeks before the September Council meeting to the staff officer for GMT review assuming that the stock assessment will be in the advanced briefing book (roughly four weeks before).
 - If the revisions are approved by the GMT, they will only be used if the STAT can conduct the revised projections and provide them to the SSC at least two weeks in advance of the November Council meeting for SSC review.
- **The GMT recommends several language revisions to the TOR (see below).**

The GMT reviewed the draft groundfish assessment TOR and groundfish methodology review TOR that are in the briefing book materials. We do not have any comments on the groundfish methodology review TOR and understand that there are no proposed revisions to the management team responsibilities in that TOR.

The GMT recommends that the groundfish assessment TOR include language that requires the STAR Panel Chair to communicate with the GMT and GAP advisors to provide guidance on whether the advisors should write the management issues section¹ of the STAR Panel report with subsequent STAR Panel review or whether the STAR Panel will write the section with subsequent GMT and GAP advisor review. The GMT discussed that there may be benefits to maintaining the flexibility to utilize either approach, depending on the situation, but there has been confusion in recent STAR Panels as a result of lack of communication between the STAR Panel and the GMT advisor. **The GMT also recommends that the TOR clarify that the GMT and GAP be provided the opportunity to review the management issues section before the report is finalized.** In the past, the GMT has not always had a chance to review what was written by the STAR Panel.

The groundfish assessment TOR specifies that the GMT is tasked with providing catch assumptions for the first two projection years for groundfish stock assessments, in addition to removal assumptions for all other future years. The “first two years” are generally the current year (i.e., the year in which the assessment is being conducted) and the following year. In the 2023 assessment cycle, two separate state requests to revise GMT provided catch assumptions for these years were brought forward at the September meeting. The timing of the requests did not leave enough time for sufficient review or opportunity for further clarification to be provided. There may be similar situations in future assessment cycles, and providing guidance on when revision requests

¹ I.e., the section formally called “Management, Data, or Fishery Issues raised by the GMT or GAP Representatives During the STAR Panel Meeting”

would be considered and the required justification for GMT review would aid in process efficiencies. **The GMT recommends the following criteria/guidelines for inclusion in the TOR text:**

1. Requests to revise the catch assumptions that differ from the GMT provided values must differ by an amount such that they would have a demonstrable impact in how the fishery is managed compared to the GMT estimates. The requestors must provide rationale for the differences and details on how the values were derived in writing to the GMT, who will review such requests to determine if the difference is sufficient to have a demonstrable impact.
2. Requested revisions to the catch assumptions in the first two years of the projection period need to be submitted in writing two weeks before the September Council meeting to the staff officer for GMT review assuming that the stock assessment will be in the advanced briefing book (roughly four weeks before).
3. If the revisions are approved by the GMT, they will only be used if the STAT can conduct the revised projections and provide them to the SSC at least two weeks in advance of the November Council meeting for SSC review.

The GMT also identified three sentences in the draft TOR ([Agenda Item F.3, Supplemental Attachment 5](#)) for which we recommend revisions to increase clarity and better reflect the appropriate process for GMT involvement in stock assessments.

1. "The GMT ~~advisor~~^{member} for a given assessment is responsible for assembling the first two years of catch streams for projections and providing ~~assessing~~ them to the STATs, as well as addressing and fielding questions from the STATs about regulatory history or management actions.

The GMT recommends not adding “the first two years of” in this sentence. Historically, the GMT has provided catch streams for projections of all future years in the time series. We read this drafted revision to imply that the GMT can only provide catch assumptions for the first two years but not for all other future years. For the first two years, we typically provide removal assumptions that are below the ACL for many stocks that are not highly attained. For most stocks, we typically assume full ACL removal in all other future years, but the GMT should maintain the ability to determine whether that is an appropriate assumption for an assessed stock and, in the instances where it is not, provide future removal assumptions that diverge from full ACL attainment. We appreciate and agree with all other revisions to this sentence.

2. "The GMT should work with state data stewards ~~to obtain~~^{for} approved catch histories." ([page 25, Attachment 5](#))

The GMT recommends not making this revision and keeping the word “for”, because the team has concerns that the revision may substantively change the role of the GMT in state data incorporation. Historically, state data stewards provide catch histories directly to the STAT, and the GMT thinks this should continue to be the case. However, the GMT does request that the GMT representative is consistently involved in the transfer of state data from the state data stewards to the STAT to verify that all appropriate data sources are used and catch histories are correct based on our expertise in the management history. The team thinks the original language of this sentence already addresses that request.

3. "Any additional requests from the remainder of the GMT, GAP, or other outside sources should be conveyed through the GMT representative ~~to avoid communication issues, and formally requested~~ in writing to the STAT through Council staff." ([page 26, Attachment 5](#))

The GMT reads the current sentence to imply that GMT requests to the STAT should be conveyed in writing through Council staff. However, historically, the GMT representative has communicated directly with the STAT through email or other forms of communication to convey any requests from the team. We think this is a productive and efficient way to continue incorporating our requests for changes. We agree with the intent of this paragraph that requests from all other sources outside of the GMT and GAP should be conveyed to the STAT in writing through Council staff to avoid confusion and to ensure that requests are well documented. Requests for changes to removal assumptions should still be approved by the GMT before being incorporated by the STAT. **The GMT recommends that the following language replace the existing sentence to better clarify these distinctions:**

“Any requests from the GMT or GAP should be conveyed to the STAT through their respective GMT and GAP representatives for the STAR Panel and should include Council staff for awareness of the request. Requests from any other outside sources should be conveyed in writing through Council staff.”

PFMC
03/07/24