GROUNDFISH MANAGEMENT TEAM REPORT ON STOCK ASSESSMENT PRIORITIZATION AND TERMS OF REFERENCE

The Groundfish Management Team (GMT) received an update on the stock assessment priority rankings from Dr. Jim Hastie and Ms. Stacey Miller from the National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center. We note that the priority rankings are designed to be informative, not prescriptive, and that the Council and advisory bodies, will have the chance to provide additional input before decisions are finalized. At this meeting, we primarily focused our discussion on the candidate stocks for full (i.e., benchmark) assessments.

Changes to the Stock Assessment Prioritization Process

Several changes have been made to the prioritization process for this cycle. The Non-catch Value factor, which was difficult to quantify, has been dropped from the analysis. An Ecosystem Importance factor, informed by <u>ECOPATH</u> analysis, has been added. The calculation of relative factor scores has been modified to provide better contrast among the target species. The GMT notes that these updates to the process have required a good deal of work, and thank Dr. Hastie and his team (Ms. Miller, Ms. Kristan Blackhart, and Dr. Kristen Marshall) for their efforts to improve the process.

Candidate Stocks for Full Assessments

The GMT understands that the maximum number of full assessment units for the 2019 assessment cycle is likely to be eight, which can be reviewed in four Stock Assessment Review (STAR) panels. However, assessments of some nearshore species could require the development of multiple models (such as state-specific assessments), and thus would need more than one "unit" of assessment and review effort. As an example, if cabezon were chosen for assessment, it may have multiple area stratifications; therefore no other species' assessments would likely be able to be reviewed at that STAR panel, reducing the total possible number of additional species to be assessed to seven. The following stocks emerged from the prioritization workbook (Agenda Item H.4. Supplemental REVISED Attachment 4) as likely candidates.

Species the GMT supports as candidates for assessment in 2019:

- Sablefish
- Cowcod
- Cabezon (likely multiple area assessments)
- Longnose skate
- Big skate
- Pacific cod
- Gopher rockfish (or gopher and black-and-yellow rockfish as a "complex")

The species on this list likely represent eight assessment "units", given the expectation that the cabezon assessment will be a multiple-area assessment to be reviewed in a single STAR panel. The GMT notes that the Washington Department of Fish and Wildlife is concerned that there may not be sufficient data for a full cabezon assessment of the stock off of Washington. This concern applies to other nearshore species, as well.

The GMT recommends that Pacific cod be considered for a 2019 assessment, as this stock is a primary target in the treaty bottom trawl fishery, is sporadically landed in other fisheries, and has never been assessed on the U.S. West Coast. Additionally, with the recent large decline estimated for the stock in the Gulf of Alaska, it seems prudent to estimate the status of the West Coast Pacific cod stock. The GMT discussed the benefit of conducting a transboundary Pacific cod assessment, which could be a more likely approach if the assessment is postponed until 2021. However, waiting until 2021 to assess Pacific cod does not insure that a transboundary assessment will be contemplated. The GMT recommends consideration for an assessment in the upcoming cycle due to its economic contribution to West Coast groundfish fisheries.

The GMT recommends a 2019 big skate assessment since this species has never been assessed on the West Coast, and is a high attainment stock. A skate-specific STAR Panel, focused on longnose and big skate, would be efficient for the reviewers, since similar data sources will be used. There are concerns with speciating historical skate catches that have been landed in unspecified skate market categories. However, the GMT understands that a historical catch reconstruction workshop focused on skates is proposed for fall 2018, and could resolve these concerns to accommodate longnose and big skate assessments in 2019.

Species the GMT supports for assessment in 2021:

- Vermilion rockfish (likely to be an assessment of vermilion and sunset rockfish as a "complex" south of Pt. Conception and a separate area model north of Pt. Conception)
- Brown rockfish
- Copper rockfish
- Quillback rockfish
- Bank rockfish
- Dover sole
- Black rockfish

Since vermilion and sunset rockfish have never been assessed, and since these species contribute to high recreational catches in California, the need for these assessments has become increasingly important. However, a vermilion/sunset rockfish assessment would likely benefit from data mining and preparation that will take more time than is available this year, particularly given that the higher priority cabezon and gopher/black-and-yellow rockfish assessments will require substantial data inputs from California. Therefore, deferring this assessment to 2021 may increase the quality of input data. Note that if this stock/complex is assessed in two areas, it may require a dedicated STAR Panel for review.

Other species among the top candidates for assessment may also be better assessed in the 2021 cycle, mainly due to the lead time required for age reading, data assembly, and preliminary analysis. These species include brown, copper, quillback, and bank rockfish. The SSC also considered Dover sole, but did not see a critical need for assessment at this time. The GMT concurs. Black rockfish was assessed recently (2015), and there are no new sources of data warranting a full assessment at this time. New information for black rockfish and other nearshore species may be available in future cycles from anticipated remotely operated vehicle (ROV) studies and hydro-acoustic surveys in some areas. As mentioned above, there is not likely to be a significant amount of new information to inform assessments for Washington nearshore stocks in 2021.

Update Assessments and Catch-Only Updates

The GMT recommends the Council consider update assessments for widow rockfish and petrale sole in 2019. Update assessments provide better evaluation of the status of these important and highly utilized stocks than catch-only updates, since all data sources are refreshed; however, they are more time consuming to develop than catch-only updates.

The GMT notes that there are several stocks that catch-only updates could provide valuable information to inform future harvest specifications. The GMT will provide recommendations for catch-only updates in June, and notes these can be done more expeditiously, do not require a STAR panel review, and do not have to be balanced with full and update assessment priorities.

Terms of Reference

The GMT also discussed revisions to the terms of reference (TOR) for stock assessments (Agenda Item H.4, Attachment 3, March 2018), rebuilding analyses (Agenda Item H.4, Attachment 4, March 2018), and methodology reviews (Agenda Item H.4, Attachment 5, March 2018).

In the TOR for stock assessments, the GMT recommends adding clarification on the Team's input on future catch streams. It is general practice for the GMT STAR Panel representative to communicate the GMT's request for future catch streams that we want examined with the stock assessment authors. However, in a couple of recent assessments, there has been a mismatch between what the GMT and the assessment team think are being provided. This has led to delays in having biennial harvest specifications ready by the November Council meeting.

The GMT's intent when providing future catch streams has been to include two years between the assessment and the biennial harvest specifications going into place, as well as the ten-year projection, which starts at the first year of the biennium. In some recent assessments, the assessment team has only used the GMT's catch stream for the ten-year projection, but assumed full attainment of the annual catch limit (ACL) for the two in-between years, regardless of the GMT's recommended catch streams. For some species, assuming full attainment is appropriate. However, for species that have low attainment (both in current fisheries and in the GMT's future catch stream projections), assuming full ACL attainment in those two in-between years does not seem appropriate, and may impact the overfishing level, ACL, and depletion estimates for the ten-year projections. Therefore, clarification may be beneficial, and the GMT will provide specific language to clarify our role and how this communication happens in the TOR language for the June Council meeting.

The GMT would also like the stock assessment TOR be updated to specify that all assessments not subject to a mop-up panel review be finalized and posted on the Council website by the November Council meeting. Those assessments needing further review at the mop-up panel need to be posted as soon after the November meeting as practicable.

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