

GROUND FISH MANAGEMENT TEAM REPORT ON ADOPT FINAL STOCK ASSESSMENTS

Members of the Groundfish Management Team (GMT) attended each stock assessment review (STAR) panel and the August 2019 review by the Groundfish Sub-Committee of the Scientific and Statistical Committee. The GMT believes that all assessments are sound for use in management, that none have major technical deficiencies, and that they are improvements from past assessments.

Catch-only projections and update assessments

The GMT would like to thank the Northwest and Southwest Fisheries Science Centers for conducting a vast number of catch-only projections for important stocks, such as lingcod, darkblotched, canary, blackgill, and China rockfish. These stocks can constrain individual sectors that receive small allocations, despite low attainment for the fishery as a whole. Catch-only projections for these stocks increase annual catch limits (ACLs) and can provide benefit to constrained sectors by replacing the full ACL removal assumption with the realized catches in the 10-year projections from stock assessments. This can result in higher overfishing limits (OFLs), allowable biological catches, and ACLs by explicitly accounting for years when actual removals have been below the ACL.

The GMT is also appreciative of the update assessments of petrale sole and widow rockfish, which are high attainment stocks of economic importance. Specifically, the widow rockfish update assessment resulted in relatively large increases to the ACL for both 2021 and 2022, which is mainly attributed to strong recruitment events entering the fishery. We continue to stress that regular full or update assessments be completed for similarly important stocks to better reflect dynamic recruitment events.

Uncertainty in survey data collection

The West Coast Groundfish Bottom Trawl Survey conducted by the National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center is one of the most informative datasets available for the assessment of groundfish stocks. The length of this time series and the consistency in sampling over time has created a powerful dataset for West Coast groundfish stocks. Continued efforts to support and facilitate the continuation of this survey in future years is critical for further improvement in the understanding and assessment of stocks off the West Coast.

However, no dataset is perfect, and the GMT would like to acknowledge the uncertainty of and limitations to this fishery-independent dataset. This survey samples only a subset of fish populations, reflecting both the inability of trawl gear to equally access all habitats and the complications of the differing behavior of fish (e.g., some species are able to outswim trawl gear). The portion of the population being observed by the survey given the gear, fish behavior, and the area sampled ultimately translates to uncertainty in survey catchability. Research (e.g., longer and faster hauls and shallow water hauls) to better understand and quantify catchability is essential for

improving both bottom trawl survey estimates and the interpretation of these data in calculating the scale of fish populations.

The GMT also highly supports the continued development of additional survey methods to sample areas that are not well-sampled by trawl gear (e.g., rocky habitat and water shallower than 30 fathoms) in order to provide more comprehensive data for future stock assessments. A number of other West Coast fishery-independent surveys provide a more holistic understanding of groundfish species and life stages that are not commonly observed by the trawl survey. These additional fishery-independent time series include the hook-and-line survey that targets rockfish species, the rockfish recruitment and ecosystem assessment survey that captures pelagic juvenile rockfish, continued testing of remotely operated vehicles, and the California Cooperative Oceanic Fisheries Investigation survey that samples larvae. Extending these survey types to cover additional areas off the West Coast could better inform abundance estimates of groundfish stocks and further reduce uncertainty in population estimates.

Characterization of uncertainty in assessments

Continued long-term data collections by the states and NMFS have provided critical information regarding fishery behavior (e.g., selectivity over time) and informed the estimation of key biological parameters (e.g., growth, natural mortality, and annual recruitment) in West Coast groundfish stock assessments. These datasets have allowed stock assessments to estimate parameters internally rather than fixing them as constants, resulting in more explicit accounting of the inherent uncertainty in population estimates. The GMT supports this improved characterization of uncertainty, because it allows for a more informed understanding and accounting of the potential risk associated with alternative harvest strategies.

Review of discrepancies in data limited assessments

There are numerous data-limited stock assessment approaches. The cabezon stock assessment review panel included discussion of the fairly considerable difference in the OFL estimates produced by two alternative data-limited estimation methods (DB-SRA and Simple Stock Synthesis). This incongruity reflected the methods' distinct assumptions regarding stock productivity. Given that data-limited stock assessments inform OFLs for numerous groundfish stocks, the GMT supports further study and comparison of different types of data-limited approaches and understands that this may be a topic of review in a future data-limited estimation methodology workshop.

PFMC
09/15/19