

GROUND FISH MANAGEMENT TEAM REPORT ON REBUILDING REVISION RULES

The Groundfish Management Team (GMT) appreciated receiving a presentation from Mr. John DeVore on the rebuilding revision rules management strategy evaluation (MSE). We also reviewed the briefing materials provided and appreciate the interaction with and responsiveness to our input of Ms. Chantel Wetzel and Dr. Andre Punt in preparing that MSE. We provide the following comments.

Range of Alternatives for Rebuilding Strategies

The strategies evaluated in the MSE and the alternatives based on those show the tradeoffs of various approaches. It is our understanding that the Scientific and Statistical Committee (SSC) is recommending some additional alternatives, including one that would amend the rebuilding plan every time it deviates from a fixed probability of achieving T_{Target} , as well as one that would freeze T_{Target} for most or all of the rebuilding period. Such alternatives are beneficial for providing contrast, and we support their inclusion in the analysis; however, we did not develop any additional scenarios for analysis beyond those.

The GMT notes that different life history strategies respond differently to the various rebuilding strategies ([Agenda Item D.10, Attachment 1](#), Tables 2-9). The Council may wish to consider different rebuilding rules for each life history style based on these results. This is similar to the philosophy behind different respective harvest control rules for flatfish, roundfish, and rockfish.

Flatfish show little difference in rebuilding time, spawning-potential ratio (SPR) updates, or reboots across the strategies. The main difference is that the fixed or risk averse rebuilding strategies result in less catch for the fleet over the course of rebuilding. The risk averse strategy is estimated to rebuild slightly more quickly than the others. There is no benefit to either rebuilding time or catch with more frequent assessments. Therefore, the Council may wish to focus on minimizing adverse effects to the fishery while still rebuilding in as quickly a time as possible.

Roundfish have higher catches and less average annual variation in catch with the status quo or flexible strategies. All strategies except the fixed strategy had one SPR change. The fixed strategy had no SPR changes over the course of rebuilding. Greater frequency of assessments showed no benefit in terms of rebuilding time or catch.

For medium-lived rockfish the fixed rebuilding strategy has the least number of SPR changes (0), as one would expect, but it provides the least catch. The flexible strategy had only one SPR change but provides the highest catch. None of the strategies resulted in changes to T_{Target} or failed rebuilding plans. Less frequent stock assessments resulted in more catch and less annual variation in catch over the rebuilding period, and a very slight (0.01) increase in rebuilding ratio (the ratio of actual rebuilding time to originally estimated rebuilding time).

Long-lived rockfish performed similarly to medium lived rockfish. The fixed rebuilding strategy had no SPR changes and the flexible had one SPR change; however, the flexible strategy had the highest catch. None of the strategies resulted in a failed rebuilding plan or changes to the T_{Target} .

Less frequent stock assessments resulted in more catch and less annual variation in catch over the rebuilding period and a very slight (0.01) increase in rebuilding ratio. The GMT notes that differences in catch at these low levels of annual harvest become more important due to restrictions on other target species from avoiding the rebuilding species.

The sensitivity analysis to frequency of assessments supports the recent Council decision to assess medium- and long-lived rockfishes less often (i.e. just doing catch updates to assess progress toward rebuilding). It results in fewer changes to SPR and more benefit to the fleet (i.e. more stability and overall catch) over the course of the rebuilding period. The GMT notes that the above comments are not an analysis of mechanisms for documenting the Council's upcoming recommendations for alternatives to rebuilding strategies. Some thoughts on potential mechanisms are offered below.

Considerations for documenting the Council's policies regarding when and how to revise rebuilding plans: A policy framework for revising rebuilding plans, not necessarily default rules

The results of the MSE are intended to be used to evaluate whether adequate progress toward rebuilding is occurring. The situation summary ([Agenda Item. D.10](#)) characterizes rebuilding revision rules as default policies for maintaining (or amending) rebuilding plans given a Scientific and Statistical Committee (SSC) recommendation that the results of any new assessment and/or rebuilding analysis represent a statistically insignificant (or significant) change in stock rebuilding expectations and do not necessarily compel a revision of the rebuilding plan. The GMT notes that this is similar to the default harvest controls implemented under Amendment 24, which was intended to provide efficiencies.

The Council could consider having their overarching policies for revising rebuilding plans described in the Fishery Management Plan (FMP), but neither the regulations or FMP would be modified to specify prescriptive rules for when a rebuilding plan is to be revised. The FMP would continue to provide general guidance in sections 4.6.3.4 indicating that the Council would consider new information available during the biennial specifications process, particularly new SSC analyses and recommendations to determine if a rebuilding trajectory that varies from the previously-predicted trajectory is significant (i.e. is progress toward rebuilding adequate). General guidance for the types of new information would be described in the "Terms of Reference for Rebuilding Analyses" (TOR) which is periodically updated to reflect new science. This allows for flexibility as policies, laws and guidelines evolve, but allows for official documentation of the "current policies" in the biennial terms of reference without requiring an amendment to the FMP or the regulations. The Council could provide guidance and could also request to have draft FMP and/or TOR language to consider for either the Preliminary Preferred Alternative selection (September 2015) or Final Preferred Alternative selection (November 2015).

PFMC
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