ECOSYSTEM ADVISORY SUBPANEL REPORT ON THE FISHERY ECOSYSTEM PLAN INITIATIVE 4 - PROGRESS REVIEW

The Ecosystem Advisory Subpanel (EAS) met to discuss the Fishery Ecosystem Plan Initiative 4 Progress Review put forth by the Ecosystem Workgroup (EWG) (Agenda Item H.2.a, EWG Report 1, March 2024). We appreciate the EWG's continued work on this important initiative and would like to offer the following comments on the pathways for the application of risk tables, choice of species for risk tables, use of the term "risk table," need for external activities to advance the initiative, and criteria for the completion of this initiative.

Risk table application pathways

The EAS supports the EWG recommendation to consider using the risk tables to set harvest specifications as the next step in the risk assessment process. The EAS had a lengthy discussion about the four pathways identified by the Scientific and Statistical Committee's (SSC) Ecosystem-Based Management and Groundfish Subcommittees (EBM-GFSC) for informing acceptable biological catch (ABC) specification and the flexibility of these four pathways. The EAS agrees with the EWG's recommendation for prioritizing Pathways 1 (informing the choice of scientific uncertainty [sigma]) and 3 (informing how sigma and/or P* might vary over the course of a projection interval between assessments). However, the EAS notes that the suitability of the different pathways will vary depending on the assessment cycle and the fishery management plan (FMP).

In the case of groundfish, the EAS concurs with the EWG's opinion that Pathway 2 (adjusting P* alone) is not sufficiently flexible, particularly when P* is set at the maximum level (i.e., 0.45 for groundfish as specified in the Pacific Coast Groundfish FMP) as is the case for the 2025 and 2026 biennial harvest specifications. While the risk table in Appendix C of Agenda Item F.1.a, EWG Report 1 from September 2023 includes situations for when conditions are above or better than normal as well as below, Pathway 2 could only allow for adjustments to the ABC in an upward direction when the default P* is below the maximum level. The EAS also supports the EWG's identified next step of working with Science Center ecosystem and stock assessment scientists to develop a methodological framework for using a risk table to inform the selection of a scientific uncertainty value (sigma).

Choice of FMPs for risk table application

The EAS would like to see the risk table methodology applied to other FMPs. In lieu of using a risk table for setting harvest specifications, we see merit in evaluating the use of a risk table via a retrospective analysis to review how past harvest levels could have been affected as a means of evaluating the risk table approach for a particular stock. As specified in our previous report from March 2023, Agenda Item H.2.a, Supplemental EAS Report 1, the EAS is concerned that restricting the exploration of risk tables to groundfish will not reveal the range of implications of this methodology; therefore, we support efforts to translate the salmon stoplight tables into risk tables and applying risk tables to stocks in other FMPs as suggested in Agenda Item H.1.b, Supplemental SSC Report 1 and Agenda Item H.3.a, Supplemental HC Report 1.

Use of the term "risk table"

During our discussion of risk tables, we noted that the term "risk table" has negative connotations for fishermen. Specifically, the word "risk" in a fisheries management context implies that additional restrictions will be imposed to manage risk and, because fisheries are already constrained to address risk (e.g., of overfishing or increasing bycatch), some view "risk tables" as tools to further reduce catch limits. While the term "risk table" is used by the North Pacific Fishery Management Council and may be widely recognized within the broader council scientific community, the EAS is sensitive to stakeholder perception, especially when stakeholder acceptance of a new management tool would greatly facilitate its effectiveness. Therefore, the EAS suggests the Council consider renaming risk tables (e.g., "Climate Adaptive Fisheries Evaluation" or CAFE).

Identifying initiative completion

The EAS appreciates the inclusion of criteria to determine when the initiative is complete. According to the EWG's March 2023 workplan, the Council would finish the initiative and make any needed near-term adjustments to its advisory body schedules for considering ecosystem and climate information in September 2024. It stated this initiative would be complete when the Council has:

- adopted and implemented an ongoing process for choosing new species to be subject to ecosystem and climate information products, and
- ensured that advisory bodies have future opportunities and processes for conferring with ecosystem scientists on the potential contents of those reports.

However, we believe that to be most effective, the process should take at least one a species from associated indicator selection, through developing an indicator-informed species risk assessment table, to fishery management application before it is deemed to be complete.

External Activities to Advance Initiative 4

We received a report from The Nature Conservancy on their planning of a series of workshops to help the Council actualize Initiative 4. The Nature Conservancy encouraged us to provide feedback on how the workshops can help the Council advance Initiative 4 and better incorporate climate science into fisheries management.

The EAS identified that focused workshops with a smaller group of participants could facilitate moving the initiative forward in a way that bi-annual meetings with ecosystem agendas cannot. The EAS agreed that these workshops could support and improve the efficacy of Initiative 4 by providing a dedicated space outside of the Council meeting schedule to advance our understanding of managing climate effects on Council-managed species and fisheries.

The EWG has provided the Council with potential Next Steps for Initiative 4 in their Supplemental Report 1. The Council could identify one of these topics as a priority for an external workshop. The EAS discussed a number of additional topics or projects that could also benefit from this type of engagement:

• understanding the capabilities of the Ecosystem Status Report as it relates to understanding the risk table tool and identifying additional tools that may be beneficial in future analyses,

- broadening the application of risk tables to fishery management plans other than groundfish and completing the risk table with a focused but diverse group of participants,
- understanding and revising the ecosystem and climate information on-ramp process,
- identifying mechanisms other than risk tables for including ecosystem and climate information into the harvest setting process within and outside the groundfish FMP, and
- Identifying the process and timeline for Initiative 2.6 (Supporting Fishery and Fishing Community Resilience Initiative) and Initiative 2.8 (Assess Flexibility in Fisheries Management Process).

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