

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON FISHERY ECOSYSTEM PLAN INITIATIVES: SCOPING AND SELECTION

The Scientific and Statistical Committee Ecosystem Based Management Subcommittee (SSCES) Chair reported to the Science and Statistical Committee (SSC) on its review of the Ecosystem Workgroup Report ([Agenda Item I.2.a. Ad Hoc Ecosystem Workgroup Report 1, September 2017](#)). The SSC has noted that the choice of initiative is a policy decision by the Council. However, initiatives also include a scientific or analytical component that may involve review by the SSC. The SSC provides the following comments on the three initiatives under consideration by the Council at this meeting.

Cross-Fishery Management Plan (FMP) Climate Shift Initiative (A.2.8)

This initiative would build an understanding of climate science, develop management approaches for responding to climate change and climate variability, and evaluate potential impacts of climate change and climate variability on fishing communities. Activities associated with this include a webinar series to build understanding followed by two workshops. The first workshop would address productivity changes and management responses. The second workshop would address fishing community impacts. The range of topics covered by the workshops may be overly ambitious because the issues are complex. Approaches to dealing with climate change may also be quite different from approaches to dealing with climate variability and should be clearly distinguished when that is the case. It may be worthwhile to plan a meeting (or meetings) concerned with scoping the issues associated with climate change, with the goal of identifying a set of carefully defined issues that can be addressed individually. Several issues that seemed reasonably distinct to the SSCES included:

- 1) How to modify harvest control rules and reference points to account for projected climate change. Management strategy evaluation (MSE) will likely be necessary to address this issue appropriately, which may involve a 2-4 year process even if the technical expertise is available. There are only a few examples in the scientific literature of MSEs used to address climate change impacts, and none as yet are being used for management.
- 2) Assess whether Council management policies create impediments to adaptation by fishermen, the fishing industry, and fishing communities to both shorter term climate variation and longer term climate change. Climate variation is variability that is driven by inter-annual and decadal processes, such as the El Niño and Pacific Decadal Oscillation, while climate change refers to directional change in climate due to increased greenhouse gas concentrations in the atmosphere and (as used here) associated changes in ocean chemistry. Effective adaptation strategies for climate change may be quite different than strategies for climate variability, and these should be distinguished. This topic is strongly linked to the Fishing Community initiative.
- 3) Develop a set of indicators to monitor economic and social conditions in fishing communities. These indicators would be designed to evaluate potential impacts of climate change on fishing communities. This topic is also strongly linked to the Fishing Community initiative.

Effects of Fisheries Management on Fishing Communities Initiative (A.2.7)

This initiative would evaluate how different fisheries management systems, including Federal, state, and tribal, interact to affect how fishing fleets operate in fishing communities. Although state- and tribal-managed fisheries are mentioned in the description of this initiative, this initiative should emphasize importance of these fisheries to participants in Federally-managed fisheries across all FMPs. Again, the SSC is concerned that the list of potential topics in this initiative is too broad in scope. A scoping workshop should be held to identify a more limited set of issues, each of which can be individually addressed.

The SSC also discussed the potential utility of the "Models of Fisheries Participation Choices under a Variable Climate" research project presented to the ecosystem subcommittee earlier in the day. This is a 4-year project funded by the National Science Foundation involving economists, social scientists, and quantitative modelers from the Northwest Fisheries Science Center and several academic institutions. This project will model connectivity between state-, Federally-, and potentially tribal-managed fisheries that arises due to cross-participation by fishermen. The project would be a valuable component to this initiative, and potentially to initiative A.2.8, when coupled bioeconomic models will be developed during the third and fourth year of the project. The Council may want to request that the analysts provide the Council an initial briefing on the project, and look for ways to incorporate this research in the fishing community initiative.

Human Recruitment to the Fisheries Initiative (A.2.6)

This initiative would evaluate whether there are obstacles for new participants to enter the fishing industry and would develop proposals to support young or new fisheries participants becoming established members of fishing communities. The SSC regards this initiative as being more specific in focus than the other two initiatives. In addition, there are concrete actions that the Council can take if a problem is identified such as the adaptive management provisions of the West Coast Groundfish Trawl Catch Share Program. The Council may consider collaborating with one or more regional Sea Grant programs if it decides to move forward with this initiative. This topic may be of interest to Sea Grant, and regional Sea Grant programs have long-standing connections with local communities that would be useful for outreach activities.

The membership of an advisory group working on this issue will need to be carefully considered. If the goal is to get the perspective of potential entrants into the fishery, membership should not be limited to those already active in the Council process. The advisory group should include individuals who are considering or recently became active in west coast fishing businesses. Outreach in fishing communities may be needed for contacting appropriate individuals.

PFMC
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