

ECOSYSTEM WORKGROUP REPORT ON THE CALIFORNIA CURRENT ECOSYSTEM  
AND INTEGRATED ECOSYSTEM ASSESSMENT (CCIEA) REPORT AND SCIENCE  
REVIEW TOPICS

The Ecosystem Workgroup (EWG) and the Ecosystem Advisory Subpanel (EAS) participated in a joint presentation of the 2018 California Current Ecosystem Status Report from Dr. Toby Garfield of the Southwest Fisheries Science Center (SWFSC) and Dr. Chris Harvey of the Northwest Fisheries Science Center (NWFSC). The EWG would like to thank Drs. Garfield and Harvey, the IEA team, and the other contributors for their efforts to provide another comprehensive and informative report. We are pleased to see the next iteration of the report, the attempts by the team to incorporate past requests and provide a very enlightening presentation. It is encouraging to see that the report has matured from a work in progress to something that mainly requires fine-tuning.

We offer the following minor points for the Centers' consideration for future ecosystem status reports:

- The EWG appreciates the addition of Section 3.4, an indicator for Harmful Algal Blooms (HABs) and notes that, while it was limited to areas along the Washington coast, the IEA team expressed an intent to expand this indicator to include future sites along the coasts of Oregon and California in future years. The EWG supports this intent and expects this proposed expansion will be very much appreciated, since the HAB impacts on fisheries along the coast vary geographically season by season and year by year and cannot be fully expressed by only the current sites.
- The EWG liked the addition of the krill size indicator and would like to know if the IEA will be exploring options for additional krill indicators north of California, or copepod indicators for the California coast south of the Trinidad line in future reports, which would be useful additions.
- In Figures 6.1.1 and 6.1.2, plotting fishing community reliance and social vulnerability would be more easily interpretable if the key were to use an approach similar to that in other indicators (e.g., 3.5.2, 4.3.1, 4.7.1,) whereby the northern ports appear in blue and southern ports appear in warmer colors (e.g., orange or yellow,) which would make them more distinguishable. This approach could also be applied to the information in Figure 6.3.1.
- The addition of information pertinent to stock spatial distribution and availability to ports is an intriguing use of trawl survey information and its potential uses. However, the EWG did have some concerns that this approach in its current presentation did not include discussion about the extensive Rockfish Conservation and Essential Fish Habitat Conservation Area closures along the shelf and their significant impacts to fish availability to the fleet.
- Given the importance of upwelling to our ecosystem, we particularly appreciate the Centers' efforts to update and improve on the upwelling index with the new Cumulative Upwelling Transport Index and Biologically Effective Upwelling Transport Index.
- We appreciate the addition of the J-SCOPE seasonal forecast to the other basin scale outlooks.

- Finally, we support the suggestion in Supplemental IEA Team Report 3 to minimize the ecosystem science review burden on the Scientific and Statistical Committee during odd-numbered years, when that committee is engaged in groundfish stock assessment review.

PFMC  
03/07/19\*