ECOSYSTEM ADVISORY SUBPANEL REPORT ON THE CALIFORNIA CURRENT ECOSYSTEM AND INTEGRATED ECOSYSTEM ASSESSMENT (IEA) REPORT AND SCIENCE REVIEW TOPICS

The Ecosystem Advisory Subpanel (EAS) met with Dr. Chris Harvey and Dr. Toby Garfield on March 4 to hear their presentation of the 2020 California Current Integrated Ecosystem Assessment (CCIEA) California Current Ecosystem Status Report. The EAS continues to appreciate the extensive work of the CCIEA team to produce the report and especially the increased inclusion of human dimensions and novel indices into the report. We felt this was the most informative best CCIEA to date. As a testament to the utility of the past report, EAS members have shared previous years' CCIEA reports with their communities, including boat captains and scientists alike.

We appreciated the improved upwelling indexes (CUTI and BEUTI) and the indices of habitat compression along the coast as they better encompassed the marine environment while also highlighting the spatial variability along the California Current Ecosystem (CCE). We found that the regional presentation of CUTI and BEUTI provided context to the differential spatial drivers of fisheries production. Further, habitat compression is both an important aspect to understanding the function of the CCE while also helping to inform some of the increased challenges that face the fishing community. For example, whale entanglements from fishing gear are driven in part by regional variability in oceanographic drivers, rather than just fishing practice, and that is an important point to communicate. Clarifying the indices of habitat compression to make it more intuitive would be helpful. These indices are of sufficient value that they should be applied along the entire extent of the CCE.

The EAS values the continued development of the human dimensions component of the report. An additional improvement would be to depict fishing portfolios in relation to information reflecting viability and vulnerability of specific ports. Ideally this would be displayed visually overlaying total catch per port by fishery on a map demonstrating spatial distribution of landings.

We appreciate the great challenge that the CCIEA team faces when it comes to communicating the results of such a cross-discipline endeavor (in only 20 pages), and encourage further approaches that communicate connections between FMP, ecological indicators, and human dimensions across regional and CCE scales. The "stoplight" table (Table 4.3.2) is a superb example of a cross cutting display that meets this challenge of combining multiple data sets and how they impact a particular stock. Further inclusion of similar tables for other regions and topics could increase the use of the report. In addition, we suggest a figure that allows direct comparison of ecological indicators to fish stocks and communities (including Social Vulnerability Index and Commercial Fishing Reliance scores) to inform future management scenarios.

The EAS requests time with the CCIEA team during the September meeting to discuss visualization strategies and provide guidance on which available data sets could be included in the 2021 report.

In summary, we re-iterate that this is a continually improving document and we appreciate the impressive effort that the CCIEA team has put into the 2020 report.