SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON CALIFORNIA CURRENT ECOSYSTEM AND INTEGRATED ECOSYSTEM ASSESSMENT REPORT AND SCIENCE REVIEW TOPICS

The Scientific and Statistical Committee (SSC) received a presentation by Drs. Chris Harvey (Northwest Fisheries Science Center) and Toby Garfield (Southwest Fisheries Science Center) on the 2018 California Current Integrated Ecosystem Assessment (CCIEA) California Current Ecosystem Status Report (Agenda Item F.1.a, NMFS Report 1, March 2018). This is the sixth CCIEA Status Report prepared for the Council. The report is a concise source of information on trends in climate and oceanographic, biological, social, and economic indicators. The report is an important contribution to the Council process that provides an ecosystem perspective on West Coast fish stocks, fisheries, and coastal communities.

The SSC appreciates the CCIEA team's continued responsiveness to suggestions by the Council and SSC on previous reports and continuing efforts to augment and improve the Status Report with additional information useful to the Council. The 2018 Status Report includes new indicators of biomass and recruitment trends for highly migratory species. It also includes new community-level indices of recreational fishery engagement and reliance that had been requested by the SSC Ecosystem-based Management Subcommittee (SSCES) to complement commercial fishery reliance and engagement indices.

The 2018 Status Report indicates that the California Current Ecosystem returned to more neutral or average oceanographic and ecological conditions. However there are apparent lingering effects of unfavorable conditions in and before 2017. Most notably low catches of juvenile salmon from surface trawl transects off WA and OR designed to sample salmon in their first year at sea, and other information on the stream and ocean conditions experienced by salmon in recent years, suggest poor returns of Columbia River basin Coho and Chinook salmon in 2018 are likely.

The SSC emphasizes that interpretation of many of the indicators in the report requires an understanding of the uncertainty and natural variability that is associated with the indicator. Without that context, there is a risk of overconfidence in the predictive power of the indicators. Interpretation of indicators also requires that the broader context of the indicators be considered.

The SSCES has regularly met with members of the CCIEA at the September Council meeting to review selected indicators proposed for inclusion in the annual ecosystem Status Report. Last year, the SSC recommended that science topics to be reviewed at the September SSCES be proposed each year at the March Council meeting, which would allow for input from advisory bodies and management entities and Council guidance on the list of topics to be reviewed by the SSCES. The SSC discussed proposals from the CCIEA team of five topics for potential review (Agenda Item F.1.a, NMFS Report 3, March 2018) and recommends that three of the five proposed topics be reviewed at the September meeting. The SSC also identified a fourth topic (recreational engagement and reliance indices) that was not included in the original list. The four topics recommended for review in September are:

1. Using the J-SCOPE approach for short-term forecasts of ocean conditions and species distribution
2. Developing effective indicators of shifts in groundfish distributions
3. Development of a new forage community composition indicator
4. Community-level recreational fishery engagement and reliance indices

The new recreational fishery engagement and reliance indices included in the 2018 Status Report have not yet been reviewed by the SSC, and the SSC recommends they be reviewed at the September SSCES meeting.

The SSC does not have the expertise in physical oceanography necessary to undertake a technical review of the proposed new upwelling index. However, once the new upwelling index has been peer reviewed, the SSCES would be interested in reviewing applications of the index that provide information about the relationship between the new finer-scale upwelling index and ecological outcomes of interest to the Council, for example effects on rockfish recruitment.
The final topic included in the list of topics for review at the September meeting was an analysis of drivers of albacore distribution and availability to fisheries in the California Current. While this information may be useful to include in future status reports, the SSC recommends that these methods be reviewed by the SSC highly migratory species (HMS) subcommittee rather than the SSCES.

The SSCES recommends holding a one-day meeting in September prior to the SSC meeting which will allow 1.5 to 2 hours to review each of the four topics. The reviews by the SSCES are high level reviews focused on determining whether and how new indices and analyses should be included in future Status Reports. They do not constitute in-depth technical reviews that would lead to an endorsement by the SSC that these indices or methods constitute best available science to support specific management decisions.

PFMC
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