SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON FINAL APPROVAL OF AERIAL SURVEY METHODOLOGY

The Scientific and Statistical Committee (SSC) reviewed a proposal for a Southern California Coastal Pelagic Species (CPS) Aerial Survey (Agenda Item D.2.a, CDFW Report, June 2017) and the methodology review panel report (Agenda Item D.2, Attachment 1, June 2017) from the recent review panel meeting. Mr. Kirk Lynn, California Department of Fish and Wildlife (CDFW), was available to answer questions regarding the proposal, and Dr. André Punt presented the methodology review panel report. The survey has been operational since 2012 and includes areas in the Southern California Bight not covered by the acoustic-trawl method (ATM) survey, providing data on several coastal pelagic species. Agenda Item D.2.a, CDFW Report is a revised version of the proposal reviewed at that meeting, with responses to a number of review recommendations.

Two projects were put forward in the proposal: Project 1 involves a nearshore [minimum] estimate of absolute abundance, or index of abundance, based on density. Project 2 pertains to an inshore correction factor for the ATM survey. Project 2 requires either A) the assumption that the proportion of the population visible to the aerial survey is identical between the nearshore and offshore areas, which is unfounded, or B) data adequate to estimate the proportion visible to the aerial survey in each area, which currently are not, nor likely soon to be, available.

Project 1 is ready to provide information for possible use in stock assessments for Pacific sardine or northern anchovy once the variance calculation captures all important areas of uncertainty. Expanding the survey north of the Southern California Bight would provide better coverage of the inshore populations, and both the variance calculation and expansion of the survey could be reviewed during a stock assessment review panel. Extrapolation of the biomass estimate outside of the surveyed area, however, would require a new methodology review.

The SSC recommends focusing sampling effort on the latitudes consistent with the distribution of the northern sub-population of sardine during the period of the survey. Previously conducted summer surveys have not met that criterion. The methodology review panel report, which the SSC endorses, provides additional recommendations.

There are additional issues that will need to be addressed in combining the ATM and aerial surveys within an assessment. The SSC encourages the survey team to work with Southwest Fisheries Science Center assessment scientists to ensure that the methods used in combining the surveys are based upon well-supported assumptions.

The SSC commends the Southern California CPS Survey team for their efforts and progress towards providing information useful for CPS assessments.

PFMC 06/09/17