

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON THE
PROCESS FOR REVIEW OF REFERENCE POINTS FOR MONITORED STOCKS

The Coastal Pelagic Species Advisory Subpanel (CPSAS) reviewed the materials included in the Briefing Book for Agenda Item C.4 (Attachments 1-4) and attended the Scientific and Statistical Committee's (SSC) discussion of this item.

The CPSAS appreciates the Council's in-depth consideration of a process for review of reference points for monitored stocks, with emphasis on anchovy management. The CPSAS points out that, originally, the Coastal Pelagic Species Management Team recommended assigning "monitored" status to coastal pelagic species finfish with relatively low harvest levels. In the case of the central subpopulation of northern anchovy (CSNA), the overfishing limit ([OFL] 100,000 mt in U.S. waters) was based on a long-term average maximum sustained yield (MSY) reference point from which 75 percent was subtracted to produce the acceptable biological catch/annual catch limit (ABC/ACL). A majority of the CPSAS notes that due to the extreme fluctuations in anchovy biomass, reference points were not intended to rely on a single stock assessment and that relatively low effort on CSNA, coupled with landings well below the ABC/ACL, support retaining the Monitored Stock status.

Since Amendment 8, the fishery has never exceeded the ABC/ACL and is an important component of California's historic wetfish industry.

Ongoing litigation regarding the 2017 Monitored Stocks ACL Final Rule could impact future management of CSNA. A majority of the CPSAS believes it should not form a basis for moving away from a long-term average MSY approach to CSNA management for the following reasons:

- The 2018 Integrated Ecosystem Assessment Report includes a graph (F1a_NMFS_Rpt1_2017IEA_Main_Rpt_Final_Mar2017BB), reporting observations from 2017 egg-larval surveys, and including the increase in relative abundance of anchovy in the Southern California Current. Dr. Parrish stated, "*The 2017 index appears to be in the range of that found in the highest years during the peak of the fishery in the 1980s and during the 2005-2006 anchovy population bubble when biomass was in excess of 1 MMT.*"
- Fishermen continue to see and report an increasing abundance of anchovy in both nearshore and offshore waters since at least 2015. Recent year Acoustic Trawl surveys have also shown an increase in anchovy in the areas they cover (off-shore waters). These observations, combined with the 2015 catch in Mexico of approx. 47,000mt – refute the *MacCall et al* study that estimated Biomass well below the amount actually harvested.
- Recent studies have found that forage species are affected much more by environmental conditions than by fishing. (*R. Hilborn et al. / Fisheries Research 191 (2017) 211–221*).

A majority of the CPSAS believes there is no biological point of concern regarding CSNA to warrant abandoning current management in the absence of adequate information. We recommend continuing the research necessary to accurately assess the dynamics of the stock.

A minority of the CPSAS supports moving to the use of annual abundance estimates to inform management of CSNA in the near term (rather than relying on a long-term average MSY value as the basis for CSNA's OFL). Given this stock's tendency to undergo wide natural fluctuations over short periods of time, along with its vital role as prey in the California Current Ecosystem, a minority of the CPSAS recommends that status and abundance of CSNA be reviewed annually (including consideration of any necessary correction factors) and, when necessary and appropriate, reference points and catch limits should be updated to be responsive to stock status and to ensure the prevention of overfishing. The conclusions of the recent review of the Acoustic Trawl survey provide an opportunity to utilize relative indices of abundance of CSNA and other currently monitored stocks directly in management, as well as in integrated stock assessments. Finally, a minority of the CPSAS supports the recommendations of the SSC regarding near-, mid-, and long-term activities and objectives for informing and updating CSNA management, as described under Item (3) in the SSC's Supplemental Statement on Agenda Item C4.

PFMC
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