COASTAL PELAGIC SPECIES MANAGEMENT TEAM REPORT ON CENTRAL
SUBPOPULATION OF NORTHERN ANCHOVY ASSESSMENT AND HARVEST
SPECIFICATIONS

The Coastal Pelagic Species Management Team (CPSMT), Coastal Pelagic Species Advisory Subpanel and the Scientific and Statistical Committee (SSC) jointly received a presentation from Dr. Peter Kuriyama of the National Marine Fisheries Service Southwest Fisheries Science Center (SWFSC) on the benchmark assessment for the central subpopulation of northern anchovy (CSNA, Agenda Item D.1, Attachment 1). Dr. Andre Punt also presented information about the Stock Assessment Review (STAR) panel report (Agenda Item D.1, Attachment 2). The CPSMT appreciates the efforts made by the stock assessment team (STAT) to provide the benchmark assessment and by members on the STAR panel that reviewed the first draft of the assessment in December 2021.

The framework/flowchart developed for CSNA by the Pacific Fishery Management Council (Council) and provided in Council Operating Procedure (COP) 9 calls for utilizing a 10-year average of biomass estimates from a benchmark stock assessment to set the overfishing limit (OFL) and the default Acceptable Biological Catch (ABC_d). The current assessment was not able to provide the full ten years of biomass estimates to be averaged because the index of abundance used in the assessment, based on the SWFSC acoustic-trawl surveys, began in 2015. For future assessments the full ten years of estimates should be available. Nevertheless, the work done at the STAR panel in request 33 and methods used by the SSC provide the information needed to manage fisheries for this stock and set harvest specifications. The CPSMT also notes that although not explicitly stated in COP 9, both the long-term biomass (B_{LT}) and the short-term biomass (B_{ST}) parameters utilize age-1+ biomass. The modeling work utilized age-1+ biomass for the CSNA framework approved by the Council (see reports under Agenda Item D.4 in the November 2019 briefing book and Agenda Item H.3 in June 2021).

The CPSMT recognizes the SSC's calculations of the OFL and ABC utilize the best scientific information available to implement the harvest control rules in the CPS Fishery Management Plan and the CSNA framework in COP 9. The 10-year average biomass provided by the SSC for the entire stock is 603,025 metric tons (mt). To calculate the portion of the stock in U.S. waters the DISTRIBUTION term of 82 percent is applied resulting in a B_{LT} of 494,480 mt. The E_{MSY} (labeled F_{MSY} in CSNA assessment report) value from the assessment is 0.493, and the ABC buffer, or Q parameter, is 0.25. The management values for OFL and ABC are calculated as follows:

$$OFL = E_{MSY} * B_{LT} = 0.493 * 494,480 = 243,779 \text{ mt}$$

$$ABC_d = Q * OFL = 0.25 * 243,779 = 60,945 \text{ mt}$$

The acoustic-trawl survey results provided in National Oceanic and Atmospheric Administration Tech Memos do not routinely provide age-1+ biomass estimates for CSNA or other stocks, and the report for the 2021 survey is not yet available. The CPSMT agrees with the SSC that using estimated stock biomass from the assessment is the best available method for calculating B_{ST}. The

ABC reduction trigger will not be implemented at this time based on the B_{ST} but will be checked again in June 2024. The CPSMT understands that the survey and STAT have determined a method that will allow the age-1+ biomass for CSNA to be included with future survey results, which will facilitate the next check on the trigger.

The CPSMT recommends that the Council adopt the assessment, and the OFL and ABC_d recommended by the SSC shown in Table 1 below. The CPSMT also recommends that the ACL be set to 60,945 mt. The CSNA biomass has been trending upward and the most recent Integrated Ecosystem Assessment, presented at the March 2022 Council meeting, also indicates that reproduction of marine mammal and seabird predators has been generally good. Ecosystem indicators and trends appear favorable for CSNA, and the CPSMT has not identified any considerations that warrant an ACL lower than the ABC.

Table 1. Management quantities for the central subpopulation of northern anchovy (CSNA) based on the 2022 assessment of the stock and the Council Operating Procedure 9 including the 10-year average biomass of age-1+ fish, the overfishing limit (OFL) and the default acceptable biological catch (ABC_d).

E_{MSY}	0.493
10-year average CSNA age-1+ biomass	603,025 mt
OFL	243,779 mt
ABC_d	60,945 mt
ACL	60,945 mt

PFMC
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