COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON CENTRAL SUBPOPULATION OF NORTHERN ANCHOVY NEARSHORE ESTIMATION METHODOLOGY, FREQUENCY OF OVERFISHING LIMIT REVIEWS, AND ACCOUNTABILITY MEASURES

For this agenda item, the Coastal Pelagic Species Advisory Subpanel (CPSAS) reviewed the Report of the Joint Meeting of Representatives of the Scientific and Statistical Committee (SSC) CPS Subcommittee, the Coastal Pelagic Species Management Team (CPSMT), and the CPSAS (Agenda Item D.4, Attachment 1), and the Further Updated Analysis of the Implications of Different Choices for the Frequency of Updates to OFLs and ABCs for the CSNA by Dr. André Punt (Agenda Item D.4, Supplemental Attachment 2). The CPSAS also attended the SSC meeting to hear presentations from Greg Krutzikowsky from the CPSMT and Dr. André Punt from the SSC, regarding the outcome from the October 3-4 meeting convened to discuss these topics.

The CPSAS thanks Dr. Punt for his all his modeling work and Greg Krutzikowsky for leading the management team compilation of a flowchart.

A majority of the CPSAS would appreciate the Council's consideration of the following points and recommendations:

- A key objective of the October meeting was to achieve consistency in light of the variable population dynamics of central subpopulation of northern anchovy (CSNA). As the meeting report noted, an ideal management scheme would implement changes when necessary, but not more frequently than necessary. The frequency of changes should be balanced by the objectives of limiting both conservation risk and disruption to the fishery.

- The model assumes that the acceptable biological catch (ABC) is taken every year, but the model report acknowledges that this is unrealistic, given the history of the fishery over the last 30 years. In reality, the fishery has not achieved the catch limit since 1982, and annual landings have averaged less than 10,000 mt per year since that time. **The report and model analysis clearly state that performance metrics overestimate risk, and the analyses should be interpreted in a relative rather than absolute sense.**

- The model shows that **there is almost no difference in results among the three choices for Y, the frequency for conducting stock assessments (4, 8, 16 years**).

- The model also illustrates that if ABC is updated every year, the estimate would be heavily influenced by the error associated with a single survey, and ABC would likely vary wildly with little predictive value for the next season's fishery. This would be disruptive to the industry.

The CPSAS can support the flowchart developed and analyzed at the October meeting as helpful information to provide guidance for conducting stock assessments and updates to overfishing limits (OFL) and ABC, but a majority cannot support a rigid prescription at this time, e.g. 8-8-4, 8-8-2, 8-4-2, etc.

The anchovy fishery is very important to California's wetfish industry. This fishery takes less than one percent of total anchovy eaten by other marine life, according to food habit studies including Koehn et al. 2016 (September 2018 Agenda Item G.2.b, Richard Parrish Public Comment). The fishery needs to maintain consistent access – stability – to keep boats on the water and processors' doors open, especially when other CPS are not available.

In light of the record number of anchovy eggs documented in the 2019 spring California Cooperative Oceanic Fisheries Investigations survey, CSNA are acknowledged to be abundant. There is time in 2020 to implement nearshore survey(s) to obtain real minimum biomass estimates conducted in tandem with the acoustic trawl (AT) survey to feed into the 2021 benchmark stock assessment. Industry has committed to assisting in expanded nearshore surveys – acoustic and aerial – in 2020 for use in a model-based stock assessment in 2021, if funding is available. The October meeting also identified several other data sources that can be reviewed at least every other year, or perhaps even annually, to assess trends in abundance.

Recommendations:

- Continue the stepwise process to gather the information required for a benchmark CSNA assessment in 2021.
- Support the use of industry vessels as the preferred method to conduct nearshore acoustic and aerial surveys in conjunction with offshore AT surveys to provide the nearshore estimate needed for CPS biomass estimates.
- Provide sufficient flexibility to achieve the objective of the October workshop: <u>implement changes when necessary, but not more frequently than necessary.</u>

A minority of the CPSAS agrees with the statement regarding nearshore abundance methodology, and the use of industry vessels, and offers the following additional recommendations for the Council's consideration under this agenda item.

- *An appropriate interval for updating OFLs and ABCs*: Review short-term biomass estimates at least once every two years; if the review shows that short-term biomass is less than long-term biomass, update both OFL and ABC at that time (while reviews would happen at least once every two years, updates to OFL and ABC may be less frequent). A minority of the CPSAS suggests that this review-and-update process should be included in the CPS fishery management plan.
- *Stock status triggers that would lead to accountability measures*: Any level of decline between long-term and short-term biomass should trigger updates to OFL and ABC.

The entire CPSAS appreciates the time and effort put forth by the October CSNA meeting participants.

PFMC
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