## COASTAL PELAGIC SPECIES ADVISORY SUBPANEL (CPSAS) REPORT ON STOCK ASSESSMENT TERMS OF REFERENCE – FINAL ACTION

The CPSAS reviewed the Draft Terms of Reference (TOR) for Groundfish and Coastal Pelagic Species (CPS) (Agenda Item I.4 Attachment 1). We commend the authors for a thoughtful list of recommendations and modifications that clarify the TOR's rules and intent. The CPSAS does not have specific recommendations for modifications to the TOR itself.

In our TOR review, the CPSAS concluded that the TOR and the scientific process could allow the Stock Assessment Team (STAT) to examine data sources other than the acoustic-trawl methodology (ATM) and the present data streams. Potentially, this could augment the strength of the stock assessments. Presumably, this would only be warranted if those sources were unimpeachable and would meaningfully inform the stock assessment.

The CPS complex of species are comprised of prey animals that are targeted by a vast array of predators that attack in the ocean and dive bomb from the sky. These include whales, sea lions, tuna, and pelicans to name a few. CPS species must be constantly evasive to survive.

In 2018, we have seen a spike of bycatch sardines and Pacific mackerel on the fish tickets in the Pacific hake fishery. This in itself may not be indicate any changes in biomass. However, the sardines appear to be caught at depths, and in temperature ranges, which are considered unsuitable for the species. This is anecdotal information from ATM survey crew members.

These 2018 Northwest sardines are large fish nearly identical to those that were prevalent at the start of the last fishery expansion into the Northwest. The Pacific mackerel assessment has been supported by "party boat" non-targeted catch from the California recreational fishery. For this species both the catch quantity and biology in the hake fishery may be informative to the stock assessment.

There are non-CPS fisheries biological data for both species that could be gathered at the dock. This could be informative on age structure or potential reproductive activity. Other information that may be useful is depth of catch, water temperatures, geographical location, and stomach contents. How these CPS fish caught in the hake fishery compare to the fish caught in the ATM survey or the party boat survey should be of interest.

There are other surveys being done such as the biannual hake survey and a coastal forage fish survey. Anecdotally, CPSAS members have heard that there is some level of CPS landed in these surveys. The hake survey uses mid water gear that is similar to the hake fishers. We believe if there is CPS data from these other surveys it should also be evaluated and compared to the CPS data that can be captured in both the hake fishery and the ATM survey.

Thank you.

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