

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON SARDINE HARVEST FRACTION

The Coastal Pelagic Species Advisory Subpanel (CPSAS) received a briefing from Ms. Lorna Wargo on the Coastal Pelagic Species Management Team (CPSMT) Report (Agenda Item E.2.b), including further analyses regarding sardine harvest fraction. The CPSAS commends the CPSMT for their additional work. This report thoroughly and clearly laid out the similarities and differences among the alternatives. This analysis also is included in the draft Environmental Assessment (EA), *Incorporating the Use of a New Temperature Index into the Calculation of the Pacific Sardine Harvest Guideline Formula*.

The CPSAS continues to support selection of Alternative 2b – a FRACTION range of 10-20 percent using the new CalCOFI temperature index, as recommended by the CPSMT and CPSAS in March and September.

We support alternative 2b for the following reasons identified in the CPSMT Report (Agenda Item E.2.b):

- “...Amendment 13 implemented an additional policy that specifies the lowest HCR be used for annual management, effectively overriding FRACTION’s lower bound at lower SSTs. The result was that sardine management post-Amendment 13 became more precautionary, particularly in cooler and low biomass conditions.”
- The CPSMT recommends adopting sub-alternative 2b with FRACTION range 10-20 percent because it:
 - Better adheres to the goals and policies adopted under Amendments 8 and 13.
 - Best reflects the range of actual observed temperatures and best aligns with CalCOFI temperatures and the temperature vs. Emsy relationship. This fraction range is comparable to the 5-15 percent relationship using the SIO temperature index.
 - Provides the most flexibility for adaptive management under a broad range of sardine resource and environmental conditions.
 - The lower bound of 10 percent, couched in current policy to select the lowest HCR output, is not substantially different from a lower bound at 5 percent because it defaults to the acceptable biological catch (ABC) control rule in low temperature conditions.
- There is no significant difference in biological performance measures among all the Alternative 2 sub-options in Table A-1. However, the 10-20 percent fraction range provides for more harvest opportunity when biomass and productivity are high, and still restricts harvest when biomass is low, “...thereby preserving current harvest policy.”

The CPSAS also notes the recommendation of the Quinault Indian Nation supporting Alternative 2b as consistent with their treaty rights. (Agenda Item E.2.b, Supplemental Tribal Report).

It is important to consider that the harvest control rule effectively accelerates reduction of the fishing rate as biomass declines. In addition, the overlay of the ABC control rule on the harvest guideline (HG) control rule during low temperature/low biomass years further constrains harvest to protect the stock. Council harvest policy since implementation of Amendment 8 has emphasized biomass over catch, acknowledging the importance of sardines in the ecosystem.

As the CPSAS stated in our March and September, 2014 reports, decisions regarding fisheries management require balance. Alternative 2b best achieves the goals and objectives of the CPS Fishery Management Plan, namely to:

- Promote efficiency and profitability in the fishery, including stability of catch
- Achieve optimum yield
- Provide adequate forage for dependent species
- Prevent overfishing

In conclusion, the CPSAS strongly supports the CPSMT recommendation of Alternative 2b as the best option to preserve balance between fishing opportunity and ecosystem needs. The CPSAS recommends that the Council adopt Alternative 2b as the final preferred alternative.

PFMC
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