

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON PACIFIC SARDINE HARVEST FRACTION

The Coastal Pelagic Species Advisory Subpanel (CPSAS), in joint session with the Coastal Pelagic Species Management Team (CPSMT), received a briefing from Ms. Lorna Wargo on CPSMT analyses regarding sardine harvest fraction. The CPSAS commends the CPSMT for their work in producing a preliminary 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 the harvest Fraction range of 10-20 percent using the new California Cooperative Oceanic Fisheries Investigations (CalCOFI) temperature index, as first recommended by the CPSMT in March. This is represented by Alternative 3a in the preliminary draft EA.

We support Alternative 3a for the following reasons, as set forth in the draft EA (direct excerpts highlighted with quotation marks):

- “sardine management post-Amendment 13 became more precautionary, particularly in cooler and low biomass conditions.”
- This added precaution is also illustrated by depletion levels. The policy initially approved by the Council under Amendment 8 produced a depletion of 64 percent. All the alternatives shown in Section 4, Table 1 of the draft EA (page 18) provide depletion rates ranging from 75 to 78 percent.
- “...a FRACTION that ranges from 10-20 percent also better reflects the mid-range of actual measured temperatures, and aligns with CalCOFI temperatures and the temperature vs. Emsy relationship.” This is comparable to the 5-15 percent relationship using the SIO temperature index. 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.”
- There is no significant difference in biological performance measures among all the alternatives in Table 1.
- The lower bound [at 10 percent fraction] “still limits fishing to only a 5% effective harvest rate (Figure 3).”

It is important to consider CUTOFF in the harvest control rule, which effectively accelerates reduction of the fishing rate as biomass declines. In addition, the overlay of the acceptable biological catch (ABC) rule on the harvest guideline (HG) control rule during low temperature/low biomass years would further constrain harvest opportunity to protect the stock.

As the CPSAS noted in our March 2014 supplemental report to the Council, decisions regarding fisheries management require a balance. Alternative 3a achieves the goals and objectives of the CPS Fishery Management Plan, namely to:

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

In conclusion, the CPSAS supports the CPSMT recommendation of Alternative 3a as the best option to preserve balance between fishing opportunity and ecosystem needs. The CPSAS recommends that the Council adopt alternative 3a as the preliminary preferred alternative.

PFMC
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