

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON PACIFIC SARDINE TEMPERATURE PARAMETER REVIEW

The Coastal Pelagic Species Advisory Subpanel (CPSAS) received a briefing from Ms. Lorna Wargo on the Coastal Pelagic Species Management Team (CPSMT) analyses and recommendations regarding sardine harvest parameters. The CPSAS commends the CPSMT for their work and supports the conclusions of the CPSMT report.

Achieving optimum yield requires balance between fishery opportunities, economic stability, and ecosystem and forage needs. The recommendations included in the CPSMT report help to maintain the goals and objectives of the CPS Fishery Management Plan, namely to:

1. Promote efficiency and profitability in the fishery, including stability of catch
2. Achieve optimum yield
3. Provide adequate forage for dependent species
4. Prevent overfishing

The CPSAS concurs with the CPSMT recommendation to use Harvest Policy Scenario K, outlined in Tables 2 and 3 of, Agenda Item I.1.c CPSMT Report. Although the CPSAS has concerns regarding the truncated time series available under California Cooperative Oceanic Fisheries Investigations (CalCOFI) (because there is lack of data on historic biomass), the CPSAS unanimously supports transitioning to the use of a 3-year average of the CalCOFI index. The CPSAS also concurs with the Harvest Parameters Workshop recommendation to conduct periodic review of the environmental proxy.

Integral to the use of the CalCOFI index is the adoption of FRACTION values that are consistent with Amendment 8. We support the CPSMT conclusion that an harvest control rule change to the CalCOFI index and FRACTION range of 10-20 best represent the sea surface temperature data and new knowledge regarding stock productivity. This option preserves current policy by permitting harvest rates to take advantage of periods when biomass and productivity are high, but restricts harvests when biomass and productivity are low.

The CPSAS notes that under Amendment 13 sardine management became even more precautionary, with the addition of the overfishing limit and acceptable biological catch control rules in addition to the harvest guideline control rule. Under Amendment 13, the lowest control rule prevails to determine annual management measures. The reanalysis conducted during the harvest parameters workshop, with the addition of recent data, produced a higher stochastic E_{msy} . The higher productivity (E_{msy} of 0.18 vs. 0.12) means that the depletion level (biomass remaining after accounting for the fishery) is significantly higher (above 70 percent) compared to the 64 percent depletion from Amendment 8 Option J.

In conclusion, the CPSAS supports the CPSMT recommended policy option, Scenario K, as the best option to preserve balance between fishing opportunity and ecosystem needs.