

COASTAL PELAGIC ADVISORY SUBPANEL REPORT ON PACIFIC SARDINE STOCK
ASSESSMENT AND MANAGEMENT FOR 2013, INCLUDING PRELIMINARY EFP
PROPOSALS AND TRIBAL SET-ASIDE

West Coast Vancouver Island Survey

The Coastal Pelagic Species Advisory Subpanel (CPSAS) recommends that the Council approve West Coast Vancouver Island (WCVI) Survey for use in future stock assessments, as appropriate. The subpanel further encourages continuation of the WCVI survey using the 2011/2012 methodology.

Exempted Fishing Permit Notice of Intent

The CPSAS unanimously supports an Exempted Fishing Permit (EFP) set aside of 3,000 mt for Pacific Northwest industry-supported research, to be deducted from the harvest guideline (HG) before it is allocated to fishing periods. The CPSAS would also like to recommend that any EFP set aside not utilized be re-allocated to the third period directed fishery.

Pacific Sardine Management for 2013

The CPSAS participated in a joint meeting with the CPSMT and the Scientific and Statistical Committee (SSC) where Dr. Kevin Hill presented the 2012 sardine stock assessment for use in the 2013 fishery. We thank the Stock Assessment Team for the enormous amount of work that went into completing this stock assessment update.

The CPSAS highlights the inconsistencies between the acoustic trawl methodology (ATM), the aerial survey, and the Pacific Northwest landings data. Although the aerial and acoustic surveys in Washington and northern Oregon were conducted generally in the same time and area, each recorded widely different quantitative values for sardine biomass. The 2012 aerial survey estimated a biomass of 906,680 mt for the Pacific Northwest.

In contrast, the biomass estimated from the acoustic trawl survey for Washington-Oregon was estimated to be only 13,335 mt. This estimate is significantly lower than actual landings (48,653 mt) made in the fishery during the summer fishing period. Given this discrepancy, the CPSAS questions whether the acoustic trawl data accurately assesses the full biomass. Possible deficiencies in the current acoustic trawl methodology include inability to survey the nearshore biomass, issues of vessel avoidance, and the placement of transducers, which appears to miss sardines in the upper 10 meters of the water column.

Of additional concern, is the fact that the acoustic surveys are currently assigned a catchability coefficient (q) of 1, which assumes this survey method 'sees' the entire biomass in the transects. The subpanel recommends the use of side-scanning sonar in these surveys, to further study vessel avoidance and number of sardine schools in proximity to the research vessel. In the absence of this option, we recommend sonar equipped fishing vessels to accompany the research vessel.

Sardine variability and dynamic swings in abundance are well documented over time. We appreciate the efforts of the stock assessment team (STAT) and Southwest Fisheries Science Center (SWFSC) to acknowledge these problems and work to resolve them in future surveys and stock assessments. Although this update is unable to make substantial changes to resolve the conflicts this year, as stipulated in the *Terms of Reference*, we are concerned that present survey methods do not accurately estimate the existing sardine biomass.

Based on the update assessment (model X6e) for management of the 2013 sardine fishery (Agenda Item G.3.b, Supplemental Assessment Report 2) the age 1+ biomass estimate from this assessment is 659,539 mt. The harvest control rule produces a harvest guideline (HG) of 66,495 mt, with allocation to continue as in 2012 and as appears below in the supplemental CPSMT Report, Table 2, with the exception noted below.

The CPSAS recommends that the incidental landing allowance in other CPS fisheries in 2013 be raised to no more than 40 percent Pacific sardine by weight, to account for the possibility of mixed-fish catches in the Pacific mackerel fishery, particularly in summer months. The CPSAS recommends that if the directed seasonal allocation and set-asides are reached, the retention of Pacific sardine be prohibited for the remainder of that sardine season.

Table 2. Preliminary allocation scheme for 2013 Pacific Sardine ACT

| HG = 66,495 mt; Tribal Set-aside = 9,000 mt; Potential EFP set-aside = 3,000 mt Adjusted HG = 54,495 mt | | | | |
|--|-----------------|-----------------|-----------------|--------|
| | Jan 1- Jun 30 | Jul 1- Sep 14 | Sep 15 – Dec 31 | Total |
| Seasonal Allocation (mt) | 19,073 (35%) | 21,798 (40%) | 13,624 (25%) | 54,495 |
| Incidental Set-Aside (mt) | 1,000 | 1,000 | 1,000 | 3,000 |
| Adjusted (Directed) Allocation (mt) | 18,073 | 20,798 | 12,624 | 51,495 |

The CPSAS commends the effective in-season actions taken by the National Marine Fisheries Service (NMFS) to deal with surpluses or shortages in the directed and incidental seasonal allocations.

PFMC
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