

COASTAL PELAGIC SPECIES MANAGEMENT TEAM STATEMENT ON  
PACIFIC SARDINE AND PACIFIC MACKEREL MANAGEMENT

Pacific Sardine

The Coastal Pelagic Species Management Team (CPSMT), along with the Coastal Pelagic Species Advisory Subpanel, received an overview of the assessment for Pacific sardine from Dr. Kevin Hill. The CPSMT agrees that the base model forwarded by the Stock Assessment Review Panel and endorsed by the Scientific and Statistical Committee represents the best available science to inform management of the West Coast sardine fishery. Based upon the 832,706 mt age 1+ biomass from the assessment, the Council's harvest control rule produces an acceptable biological catch (ABC) for the 2008 fishery of 89,093 mt. This ABC is 42% less than the 2007 ABC/harvest guideline (HG) adopted by the Council.

The CPSMT recognizes that there are substantial differences in the presentation of uncertainty in the Coastal Pelagic Species (CPS) models as compared to groundfish decision tables the Council receives to select appropriate harvest values. Due to the dynamic annual fluctuations in CPS like sardines, forward projections to evaluate impacts of different catches are not practicable, so the CPSMT cannot characterize the biological risk associated with adopting harvest levels different than the base model. The CPSMT notes that the uncertainty associated with forward projections is precisely the reason sardine assessments are conducted annually.

The base model uses alternative values of natural mortality (M) as one axis to bracket the uncertainty around the point estimate of biomass. The CPSMT deliberated whether the range of biomass values resulting from the profile across different values of M represent alternate states of nature to be incorporated in the Council's selection of a sardine ABC, or rather a within-model evaluation of uncertainty. The CPSMT recognizes that, as with all models, other areas of uncertainty exist (e.g., stock structure, changes in geographic spawning area), but that such uncertainties are largely qualitative and difficult to quantify.

In view of the distinct possibility that each seasonal allocation of the annual HG could be reached prematurely, the CPSMT recommends that incidental catch set asides be established for each allocation period (as set forth in Table 1), and an incidental catch allowance be established for sardines caught in other fisheries once the seasonal allocation is reached. Without the incidental catch set aside, a greater potential exists for shutting down other fisheries that catch sardines incidentally. The CPSMT recommends an incidental catch structure based on a California Department of Fish and Game (CDFG) analysis of 2001-2006 incidental sardine catches off California (Agenda Item G.1.c, Supplemental CDFG Report) is presented in Table 1 for the 2008 HG of 89,093 mt. Incidental sardine catches from the Pacific Northwest (PNW) are minimal (< 5mt) and not included in Table 1. If the incidental set aside is not fully attained or is exceeded in a given allocation period, the CPSMT recommends that NMFS adjust the directed harvest allocation to account for the discrepancy in the following allocation period as an automatic action.

**TABLE 1. Seasonal set asides based on a 10% annual incidental harvest of the Pacific sardine HG.**

	Jan 1- June 30	July 1- Sept 14	Sept 15 – Dec 31	Total
Seasonal Allocation (mt)	31,183	35,637	22,273	89,093
Set Aside %	5.2%	1.2%	3.6%	10%
Set Aside (mt)	4,632	1,070	3,208	8,910
Adjusted Allocation (mt)	26,550	34,568	19,065	80,083

If the directed commercial sardine harvest is attained and other CPS fisheries achieve their incidental set aside, the CPSMT expectation is that retention of sardines would be prohibited. However, some level of incidental discard mortality would continue to occur. If the combined directed and incidental sardine HG is set at the ABC, this continuing discard mortality, as well as mortality occurring in the directed fisheries, would represent overfishing. This risk of overfishing could also be mitigated by setting an HG at some level below the ABC. The CPSMT also notes that sardine catches in the live bait fishery will be counted toward the ABC.

The CPSMT recommends additional research to fully evaluate stock structure, differential growth and migration rates of subpopulations, and the contribution of PNW sardine to the spawning biomass as a whole. The CPSMT recommends the Council encourage NMFS to continue to fund comprehensive coastwide annual CPS research, including the survey off the PNW, and encourage similar cooperative surveys in Canada and Mexico. The CPSMT also recommends that NMFS continues to fund the observer program. The CPSMT continues to believe strongly that coordinated international management of CPS fisheries is essential to avoid the potential for coastwide overfishing. Moreover, the CPSMT also agrees that inclusion of complete Mexican catch statistics is vital to the CPS assessment process. The CPSMT encourages the Council and NMFS and the State Department to continue working to achieve timely receipt of research data from Mexico.

Pacific Mackerel

On November 7, 2007 the Coastal CPSMT reviewed the Pacific Mackerel Stock Assessment Review (STAR) Panel Meeting Report (Agenda Item G.1.b, Attachment 3, November 2007), a summary by Tom Barnes, and the Scientific and Statistical Committee’s (SSC) report on Pacific Mackerel Management (Agenda Item G.1, Situation Summary, November 2007). The CPSMT agrees with the recommendations of the STAR Panel and also notes that the 2008 HG has already been set by the Council for 2007/2008 management cycle using the Age Structured Assessment Program (ASAP) model. An assessment update using the ASAP model will be conducted in May 2008. The CPSMT concurs with the STAR Panel and the SSC that the use of the Stock Synthesis 2 (SS2) model would be preferred for the next new assessment set for May 2009 (establishing HGs for the 2009/2010 fishery season) but further refinement and review of the model is needed prior to its use.

PFMC  
11/08/07