

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON  
CONSIDERATION TO SCHEDULE EMERGENCY ACTION FOR CHANGES TO THE  
2014-2015 PACIFIC SARDINE FISHERY

The Scientific and Statistical Committee (SSC) discussed the Status Determination Criteria (SDC) adopted to define overfishing, approaching overfishing, overfished, and approaching overfished for the Pacific sardine stock within the Coastal Pelagic Species Fishery Management Plan (CPS FMP). The SSC reviewed each definition in sections 4.3 and 4.4 of the CPS FMP, considered each in the context of the adopted reference points and the best available scientific information, and prepared Table 1 to address each determination.

With respect to the definition of overfishing, the existing National Standard 1 (NS1) guidelines state that each FMP must describe which of two possible methods will be used to determine an overfishing status. The two alternatives available for determining overfishing are: 1) Fishing mortality rate exceeds the Maximum Fishing Mortality Threshold (MFMT), and: 2) the catch exceeds the overfishing limit (OFL). In operational terms, the CPS FMP uses method 2, such that overfishing is defined as occurring when catch exceeds the adopted OFL. Thus, by the definition of overfishing in the NS1 guidelines, overfishing is not currently occurring for Pacific sardine, as the 2014-2015 catch (18,935 mt, estimates provided by CPS Management Team) has not exceeded the adopted 2014-2015 OFL (39,210 mt).

Had the errors in the 2014 assessment been addressed in early 2014 and an OFL adopted based on the revised model, the recommended OFL would have likely been 29,256 mt. The SSC does not find this alternative OFL calculation to be appropriate to apply in order to address the question of whether overfishing is currently taking place. The SSC does not recalculate OFLs for any FMP species based on new assessment updates or information, since the consequences of mid-stream recalculation of previously-adopted OFLs would disrupt the process. However, this does not preclude taking action to reduce catches in situations in which updated information has been made available to the Council.

The SSC evaluated the question of whether the Pacific sardine stock is “approaching overfishing” by referencing section 4.3 in the CPS FMP, which reads “...overfishing is approached whenever projections indicate that fishing mortality or exploitation rates will exceed the OFL level within two years.” The SSC notes that the term “approaching overfishing” as defined in the CPS FMP is not clearly defined and should be revisited. The SSC’s calculation of the current exploitation rate is based on the best available estimate of the current (2014-2015) sardine catch (18,935 mt), and the best available science regarding the status of the stock (the 2014 age 1+ biomass from the 2015 update assessment; 150,335 mt). This provides an estimated exploitation rate for the 2014-2015 fishing year to date of 12.6 percent. The adopted target exploitation rate for the 2014-2015 fishing season, based on application of the 2014 harvest control rule was 12.2 percent. Consequently, the stock is approaching overfishing in the 2014-2015 fishing season. Final estimation of exploitation rates will depend on a number of additional factors, including catches in U.S. waters during the remainder of the fishing year, catches of the northern sardine subpopulation caught in Mexico, and the fraction of observed U.S. catches that

are estimated to represent fish from the southern subpopulation caught in the U.S. The current U.S. catches represent the best estimate for the total (U.S. + Mexico) catch for the northern subpopulation, given the stock assessment team’s description of the current temperature regime.

With respect to the question of whether the stock is overfished, the SSC finds that the current biomass estimated by the 2015 update assessment (96,688 mt as of July 1, 2015) is greater than the adopted Minimum Stock Size Threshold (MSST) for this stock (50,000 mt), therefore, the stock is not overfished.

With respect to the question of whether the stock is approaching an overfished condition, the SSC reiterates the stock assessment finding that the total stock biomass of Pacific sardine is declining as a result of poor recruitment. The best available stock projection at this time is from the 2015 update assessment (96,688 metric tons as of July 1, 2015). If poor recruitment conditions persist, it is plausible that the stock could reach an overfished condition within two years.

The SSC briefly discussed the “projections” of sardine recruitment presented on slide 14 of the supplemental PowerPoint attachment from Oceana (Agenda Item B.1.b, Supplemental Open Public Comment 10). The SSC observes that these projections are not included in the stock assessment or Stock Assessment Review Panel report, and the SSC was not provided with their scientific basis.

**Table 1: Pacific sardine management quantities for 2014-2015**

<b>State</b>	<b>Finding</b>	<b>Rationale</b>
Overfishing?	N	2014-15 catch (18,935) < 2014 OFL (39,210)
Approaching overfishing?	Y?	2014-15 Emsy (12.6%) > target Emsy (12.2%)
Overfished?	N	Current 1+ biomass (96,688) > MSST (50,000)
Approaching overfished?	Unknown	No stock assessment projections available

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