Agenda Item E.2
Situation Summary
November 2014

SARDINE HARVEST FRACTION FINAL PREFERRED ALTERNATIVE

The current sardine harvest guideline (HG) control rule includes a harvest fraction parameter that is based on the SST as measured at the Scripps Institution of Oceanography (SIO) pier. However, a 2013 panel of experts made a recommendation, subsequently endorsed by the Scientific and Statistical Committee and the Council, to use the California Cooperative Oceanic Fisheries Investigations (CalCOFI) temperature index, as well as a revised F_{msy} relationship, for use in calculating the OFL. The Council adopted the technical change of using the CalCOFI temperature index, rather than the SIO temperature recordings, for the best estimate of a temperature-productivity relationship, used to calculate the annual overfishing limit (OFL) and acceptable biological catch (ABC) for Pacific sardine. The new temperature index and new temperature-productivity relationship were used for establishing the OFL starting with the April 2014 meeting, when the Council established harvest specifications and management measures for the fishing year beginning July 1, 2014.

The HG control rule will continue to use the SIO temperature and temperature-productivity relationship, and a 5-15 percent harvest fraction range, until the Council takes action to change the control rule. In changing the HG control rule, the Council can adopt the change to the CalCOFI index and temperature-productivity relationship, and consider four options for a harvest fraction range: 5-15 percent, 5-20 percent, 0-20 percent, and 10-20 percent. National Marine Fisheries Service (NMFS) staff, Council staff, and the CPSMT prepared a draft Environmental Assessment (EA) with alternatives for Council consideration, included as Agenda Item E.2.a, Attachment 1.

At its September 2014 meeting, the Council considered a preliminary draft Environmental Assessment (EA), and requested more information regarding comparisons between possible changes in the HG control rule to the status quo/No Action alternative. To this end, the CPSMT developed additional tables, which are included in Agenda Item E.2.b, CPSMT Report. These include Table 1 (retrospective SIO and CalCOFI HGs), Table A-2 (hypothetical scenarios based on varying temperatures and biomasses), Table A-5 (hypothetical retrospective HGs), and a new 'no action alternative' column in Table A-1 (fishery performance measures).

It is important to note that there are three major variables that are different between the HG control rule alternatives and status quo, making direct comparisons to the status quo difficult: the temperature index (SIO to CalCOFI), a different set of years used to inform the temperature-productivity relationship, and a different operating model. However, the CPSMT's retrospective analysis of harvest scenarios, in addition to hypothetical scenarios under varying temperatures and biomass levels, help to compare the alternatives with status quo.

The CPSMT also included a "harvest rate" (HR) in its report. The HR is the effective harvest rate, which is different from the FRACTION term. The HR is simply the HG allowed as directed

harvest, divided by the total 1+ stock biomass. The HR gives a more accurate indication of what actual percent of the stock would be harvested in any given year.

This action is being taken under the framework management approach described in the CPS FMP. As a full rulemaking action it requires at least two Council meetings, public notice, and comment. The November 2014 Council meeting represents the third Council meeting. In order for the Council to use the new harvest fraction parameters for the following fishing year (July 1, 2015 through June 30, 2016), the Council must take final action (selection of a final preferred alternative) at the November 2014 meeting. After final Council action, the process will consist of transmittal of the action to NMFS, regulatory deeming, and proposed and final rulemaking. The Council is scheduled to set Pacific sardine harvest specifications and management measures at its April 2015 meeting.

At this, meeting the Council should adopt a Final Preferred Alternative regarding the temperature index and temperature-productivity relationship, and should select a harvest fraction range to accompany the FPA.

Council Action:

Adopt Final Preferred Alternative for the Pacific Sardine temperature index, temperature-productivity relationship, and accompanying harvest fraction range.

Reference Materials:

1. Agenda Item E.2.a, Attachment 1: Draft Environmental Assessment for incorporating best available science into harvest management control rules for Pacific sardine.
2. Agenda Item E.2.b, CPSMT Report.
3. Agenda Item E.2.c, Public Comment (***full document with signatories electronic only***).

Agenda Order:

a. Agenda Item Overview — Kerry Griffin/Lorna Wargo
b. Reports and Comments of Advisory Bodies and Management Entities
c. Public Comment
d. **Council Action**: **Adopt Final Preferred Alternative for the Pacific Sardine Harvest Fraction Parameter.**

PFMC
10/27/14