

JOINT COASTAL PELAGIC SPECIES MANAGEMENT TEAM AND
COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT: ON
SHIFTING SARDINE FISHERY START DATE

Since the mid 1980's the Pacific sardine fishing year has followed the calendar year, opening January 1 in southern California. (The Monterey fishery opened with a third of the quota in August). The annual cycle for surveys, assessments and management actions has been scheduled around this fishery start date. In recent years, with the addition of new and expanded surveys (NW Aerial, Acoustic), field researchers and the stock assessment team (STAT) have experienced conflicts, as both surveys and stock assessments must be rushed to accommodate the current January 1 fishery season start date. Initially raised by the CPSAS, the topic of an alternate, July 1, start date for the sardine fishery has become a recurring discussion point for the CPSAS and the CPSMT. To facilitate discussion and consideration of changing the start date, this report provides the rationale, pros and cons, and potential impacts to Council scheduling of an alternate start date for the sardine fishery. This report reflects the research priorities and the suite of surveys for CPS at present, yet acknowledges that because surveys are contingent on continued funding and research priorities the challenges described herein might not exist under different circumstances.

The present schedule imposes substantial challenges in terms of survey data availability relative to the timing of stock assessments. Timing has always been tight with respect to receipt of the spring DEPM estimate (usually by late August). The addition of two summer surveys (NW Aerial & Acoustic) has significantly exacerbated this problem. The aerial survey can run until September 15 and the STAR panel is normally held the first week of October. Therefore survey data must be provided to the Stock Assessment Team (STAT) by mid September. This provides little time for a thorough review of survey data and results prior to delivery to the STAT.

The challenges of the present schedule also apply to the stock assessment itself. There is limited time to review the stock assessment prior to the STAR panel convening, or in alternate years, the update meeting. The status quo schedule may also preclude use of summer survey data if data products are not received on time. The Scientific and Statistical Committee (SSC) noted in its November 2012 report on 2013 sardine fishery management measures (Agenda Item G.3.c) that the current tight scheduling between receipt of data and assessment deadlines imposes multiple challenges for the STAT. The SSC indicated that changing the fishing year start could lessen this problem.

Alternative Fishery Start Dates and Impacts

Discussion and suggestions for alternative start dates have largely centered on July 1. Other start dates are possible and were discussed briefly. An April 1 start date was suggested for consideration but was not examined in this white paper as this date (or any date falling outside the current allocation periods) would require a more in-depth evaluation of Amendment 11 to determine whether or not the change affects the allocation scheme analysis.

A July 1 sardine fishery start date matches the fishery start date for Pacific mackerel. Aligning the start dates for the two fisheries may allow assessments for these two species to be consolidated (although there has been discussion about changing Pacific mackerel to monitored status). Both efficiencies and substantial cost-savings could potentially be gained through the use of the same CIE representative and by convening one STAR panel with the attendant reductions in travel and meeting expenses. STAR panel meetings, if scheduled in conjunction with Pacific mackerel, could occur in late February or March. Another option would be to hold only the sardine STAR panel in late February or March, keeping the mackerel assessment in April as presently scheduled. This latter option may not achieve the potential cost savings described above but would allow for sardine management action at the April Council meeting. In either case, the STAT would be able to begin assessment analyses by October and would have ample time to produce a report by February.

Although a July 1 start improves timing for delivery of survey data and for conducting the stock assessment, it delays when survey data are used. Use of spring DEPM, summer SaKe (Sardine-Hake) and aerial survey data would be delayed, so all survey data would be six months to one year old by the July start date. However, the assessment would still include fishery size composition data collected through December and catches projected through the June of the assessment year. Under status quo, summer survey estimates are as close to real time as possible. However, if the assessment is conducted in the springtime and approved for a July 1 opener, controversy may ensue if the DEPM survey (conducted that same spring but not included in the assessment) shows signs of a major boom or bust, contradicting the assessment. The same could be argued for the July 1 opener and a drastically different outcome from surveys conducted that same summer.

Under the current strategy to address fish allocated but not harvested in a particular allocation period through “inseason rollovers”, any rollover that now occurs following the January-June fishing period would be lost with a July 1 start date (since it would be at the end of the fishing year). Any unharvested amount that may remain on December 31 would be rolled into the January-June fishing period. Rollovers from the current second fishing period to the third fishing period would be unchanged (just the name of the fishing period would change).

Impact to Council schedule

Changing the start date from January 1 to July 1 shifts Council action on sardine management measures. Currently, Council action occurs at the November meeting. There are several scheduling scenarios with the goal of allowing sufficient time to hold a STAR Panel, take Council action, and for NMFS to issue regulations. The most likely scenario for a July 1 start date would be to schedule a STAR Panel review for February, with Council action at the April meeting. This could be in conjunction with Pacific mackerel management, or other CPS stocks that have a new stock assessment to consider (Option 1, Table 2). This schedule should allow sufficient time for NMFS to process and issue the necessary regulations prior to a July 1 fishery opener. Typically, the consideration for full assessments requires three hours on the Council agenda; less time is needed for review of update assessments. The Council’s April agenda is typically salmon-heavy, although adding a 3-hour CPS agenda item would likely not pose a major scheduling dilemma. A second scenario would follow the schedule just described for sardine only, retaining the present assessment and adoption of management measures schedule for mackerel (Option 2, Table 2).

Impact to federal rule-making

Scheduling Council action at the April meeting should give the NMFS Southwest Region sufficient time to work on rulemaking.

Impact to state/tribal rule-making

A change in the sardine fishery start date would not require any rule making action by Washington or California. Each state's regulations for the Pacific sardine fishery directly reference or conform to federal regulations. In Oregon, the change in fishery start date would add some additional workload and change the current schedule for annual rulemaking by the Oregon Fish and Wildlife Commission. However, if Council considers final action at its March, April, or June meetings, the impacts to Oregon rulemaking can be accommodated.

The Quinault Indian Nation would experience negligible rule-making impacts by a change in the fishery start date. No other tribes are currently participating in the Pacific sardine fishery.

Implementation of July 1 Start Date

Assessment

In the first year of implementation, shifting to a July 1 start date would create a one-time six month period (i.e. January through June) which would not be covered by an assessment. However, this transition period could be dealt with using a projection of the existing model updated with the most recent landings.

Council Process

A season start date change could be implemented via a two-meeting Council process, with rulemaking by NMFS. This approach could potentially be used to address the "extension" January 1-June 30 period during transition.

PFMC
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Table 1. **Pros and cons of changing sardine season start date to July 1st.**

| PROS | CONS |
|---|---|
| <p>Costs:</p> <p>Standardizing sardine and P. mackerel seasons and concurrent assessments increases efficiency and reduces costs over separate assessments, STAR panels, etc.</p> | <p>Requires Council and NMFS time to implement</p> |
| <p>Assessments:</p> <p>Less risk for errors with opportunity for more time to accomplish assessment.</p> <p>Allows the stock assessment authors more time to prepare and analyze data, conduct necessary sensitivity modeling, prepare the assessment report, and conduct more thorough internal reviews prior to release.</p> | |
| <p>Surveys:</p> <p>Provides more time for surveys to be conducted and for data analysis.</p> <p>Allows for a potential fall survey, e.g. modified spotter pilot juvenile recruit index or similar.</p> | <p>Delays DEPM spring survey data use in current year of assessment; delays summer SaKe survey and aerial survey data until following year (spring) assessment, so most data would be six months to one year old.</p> |
| <p>Management:</p> <p>Reduced risk of errors in the assessment that could be detrimental to the resource and/or fishery.</p> <p>If the SSC approves (and the Council adopts) a Harvest Control Rule (HCR) which includes the CalCOFI Annual SST the index would be available (it would not with a January 1 start date).</p> <p>Aligning start dates and concurrent assessments may facilitate future transition to a species assemblage approach.</p> | <p>Results from a spring-time assessment may be challenged if indications from surveys contradict assessment results.</p> <p>Potentially increase need to for federal emergency rule actions</p> |

Table 2. Timeline Comparing January 1 and July 1 Fishery Year Start Dates

| January 1 Start Date (Status Quo) | | | Year | July 1 Start Date | | |
|---|--|--|-----------|---|--|--|
| Fishery | Survey | Data/Assessment/Management | | Fishery | Survey | Data/Assessment/Management |
| Directed Sardine Fishery 1 st Period Allocation - 35% | | | January | Directed Sardine Fishery 3 rd Period Allocation - 35% | | |
| | | | February | | | Option 1: <i>STAR Panel - Sardine and Mackerel</i> Option 2: <i>STAR Panel - Sardine</i> |
| | | | March | | | |
| | NMFS Spring DEPM/ATM survey off California | STAR Panel: Mackerel | April | | NMFS Spring DEPM/ATM survey off California | Option 2: <i>STAR Panel - Mackerel</i> Option 1: <i>Council Action - Sardine and Mackerel Management Measures</i> |
| | | | May | | | |
| | | Council Action: Mackerel management measures Deliver Spring ATM Survey results to STAT | June | | | Option 2: <i>Council Action - Mackerel Management Measures</i> Deliver Spring ATM Survey results to STAT. |
| Directed Sardine Fishery 2 nd Period Allocation - 40% Mackerel Fishery Opens | NWSS Aerial Survey NMFS Acoustic Survey | | July | Directed Sardine Fishery 1 st Period Allocation -40 % Mackerel Fishery Opens | NWSS Aerial Survey NMFS Acoustic Survey | |
| | NWSS Aerial Survey NMFS Acoustic Survey | Deliver Spring DEPM results to STAT. | August | Deliver Spring DEPM results to STAT. | NWSS Aerial Survey NMFS Acoustic Survey | Deliver Spring DEPM results to STAT. |
| Directed Sardine Fishery 3 rd Period Allocation -25 % | | Deliver Summer Aerial Survey and Summer Acoustic Survey Results Conduct stock assessment modeling and produce draft report. | September | Directed Sardine Fishery 2 nd Period Allocation - 25% | Aerial Survey (ends Sept 15) | |
| | | STAR Panel: Sardine Revise stock assessment report for briefing book (1 week window) | October | | | Deliver Summer Aerial Survey and Summer Acoustic Survey Results to STAT |
| | | Council Action: Sardine Management Measures | November | | | |
| | | | December | | | |