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**Consideration of data to use in the 2014 stock assessments for bigeye, yellowfin, and skipjack tunas**

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**Shelton Harley and Peter Williams<sup>1</sup>**

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<sup>1</sup> Oceanic Fisheries Programme, Secretariat of the Pacific Community

# Consideration of data to use in the 2014 stock assessments for bigeye, yellowfin, and skipjack tunas

Shelton Harley and Peter Williams

Oceanic Fisheries Programme, Secretariat of the Pacific Community

## Executive Summary

This paper proposes that the 2014 stock assessments for bigeye, yellowfin, and skipjack tunas being undertaken using data through to the end of 2012 rather than through to the end of 2013 as would normally be the case. Then reasons for this are three-fold:

1. WCFPC members usually provided their aggregate catch/effort and size data by the 30<sup>th</sup> April deadline, but in some cases have acknowledged the data for the most recent year provided are provisional. It is often the case that more complete data, particularly for distant-water longline fleets, are provided after the SC meetings. Significant changes to the most recent year's data has occurred on several occasions after the SC in recent years and therefore left the assessment potentially vulnerable to bias;
2. In recent years, the first 'cut-off' for finalizing the previous year's data for the assessments, has not been possible until the second week of July; and
3. As this is within 15 days of the due date for the submission of Working Papers to the Scientific Committee and subsequently the assessment documents are often rushed and sometimes late, giving the Committee insufficient time to review the documents prior to the SC.

By finalizing the data for the assessment later this year it would allow the assessment work to begin in late 2013, the bigeye review tasks to be undertaken using the data that would be used for the 2014 assessment, allow the Pre-Assessment Workshop to have a more thorough review of the model and its data, and for the timely submission of the assessment Working Papers to the SC.

More complete data for 2013 would still be available for inclusion in any projection analyses that are undertaken after the SC to support the Commission's consideration of management measures.

## 1. Introduction

The typical practice in stock assessments undertaken for the key tuna species by SPC is to use data up until the most recent year, for example if the assessment was conducted for SC8 in 2012 it would use data through until the end of 2011. In this way the assessments were based on the most up to date data.

However, the problem with this is that while the official date for data submission was 30 April, some members were late in their submissions and many members only provided provisional data. By the time more complete data were submitted, entered into the database, and corrections made to the purse seine species composition, it was typically the start of the second week of July and less than 15 days until the due date for the submission of working papers to the SC. For example, this year, the 2012 annual catch estimates for the Philippines and Indonesia were revised and confirmed only after annual catch estimates workshops held in late May 2013 and late June 2013, respectively.

This tight squeeze on the assessment time frame typically meant that any assessment development work was undertaken without the final data and the assessment documents were often submitted late – or with revisions.

A further concern is that even the data used in these assessments has often subsequently been identified to have problems. For example the 2011 bigeye tuna assessment 'missed' about 5,000 mt of longline catch due to the dispute over attribution between Kiribati and China, and the south Pacific albacore assessment had a

similar level of 'double-counted' catch due to miss-communication between the Solomon Islands and China over charter catch attribution. Further, we even find that data submitted by members for the most recent years is often updated upon resubmission the following year. For example, in the 2011 bigeye assessment the final year catch estimates were essentially unchanged for the major longline fleets, but for some of them the first submission had over 80% of the catch occurring during the first half of the year – as this reflected the logsheet coverage that they had at the time to distribute their annual catch estimate. Finally, the reliance on observer estimates of species composition of purse seine catches is an issue as there is currently a lag in receiving and entering these data meaning that the most recent year's observer data will be incomplete and may not be representative for estimating that year's catch breakdown, and estimates determined in the following year (with more complete observer data) may be different.

We feel that the data-related impacts on delays / rushes in completing the stock assessments, combined with the increasingly common 'discovery' of data problems later in the year after the assessment is completed, outweighs the benefits of having an assessment that uses [what was at the time] the data for the most recent year.

Therefore we propose that the 2014 stock assessments for bigeye, yellowfin, and skipjack tunas be undertaken using data through to the end of 2012 rather than through to the end of 2013 as would normally be the case. By finalizing the data for the assessment later this year it would allow the assessment work to begin in late 2013, the bigeye review tasks to be undertaken using the data that would be used for the assessment, allow the Pre-Assessment Workshop to have a more thorough review of the model and its data, and allow for the timely submission of the assessment Working Papers to the SC.

More complete data for 2013 would still be available for inclusion in any projection analyses that are undertaken after the SC to support the Commissions consideration of management measures.