**COMMISSION**
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# REFERENCE DOCUMENT FOR REVIEW OF CMM 2015-02 (South Pacific Albacore Tuna)

**WCPFC13-2016-17**
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**Paper prepared by the Secretariat**

## A. Introduction

1. The purpose of this paper is to provide a quick reference guide to the recommendations of the Scientific Committee (SC) and as applicable the Technical and Compliance Committee (TCC) of relevance to the discussions in support of the review of the CMM for South Pacific Albacore (CMM 2015-02). It lists the recommendations drawn from the summary reports of SC11 and SC12. The Summary Reports of those meetings are part of the meeting documentation and readily available for access and they provide the context and discussion in support of the recommendations.

## B. Scientific Committee Recommendations

### *Catch in the WCP Convention Area*

2. The WCP–CA albacore catch includes catches of north and south Pacific albacore in the WCP–CA, which comprised 81% of the total Pacific Ocean albacore catch of 149,289 mt in 2015. The south Pacific albacore catch in 2015 (68,594 mt) was about 12,000 mt lower than in 2014 and nearly 20,000 mt lower than the record catch in 2010 of 87,292 mt.

### *Stock status and trends*

3. SC12 noted that no stock assessment was conducted for South Pacific albacore tuna in 2016. Therefore, the stock status description from SC11 is still current. SC12 also noted that (*SC12 Paras 333-337*):

a) The total south Pacific albacore catch in 2015 was 68,594 mt, 16% lower than both the catch in 2014 and the average catch for 2010-14.
b) Longline south Pacific albacore catch in 2015 was 17% lower than that in 2014, while troll catch in 2015 was 16% higher than that in 2014.
c) Considering an update of trends in South Pacific albacore fisheries (SC12-SA-WP-06: *Trends in the South Pacific albacore longline and troll fisheries*), there had been some small reductions in southern longline effort in 2014 compared to 2013, but 2015 effort levels are currently considered uncertain. Status quo projections were calculated, assuming current

southern longline and troll fishery effort would continue into the future at levels equal to those seen in 2014 (based on the information available to SPC as at 2nd June 2016). Potential future spawning biomass levels relative to unfished levels were examined, and the probability that the south Pacific albacore stock may fall below the biomass LRP was calculated.

d) If 2014 fishing effort levels continue into the future, the stock is predicted to continue to decline on average, falling to a projected spawning biomass depletion of $SB_{2033}/SB_{F=0} = 0.32$ in 2033. The risk of falling below the LRP was estimated to be 19%. Furthermore, the CPUE was estimated to decline by 14% from 2013 levels.

4. SC11 reviewed the 2015 stock assessment and descriptions on the stock status are listed below (*SC11 Paras 316-320*):

a) The estimated MSY of 76,800 mt is lower than in the 2012 assessment (2012 MSY = 99,085 mt). Aside from general improvements to the stock assessment, this was also influenced by 1) exclusion of catches from outside the southern part of the WCPFC Convention area; and 2) a reduction in the assumed value of natural mortality. Based on the range of MSY estimates (range: 62,260-129,814 mt), current catch is likely at or slightly less than the MSY.

b) Fishing mortality has generally been increasing through time, with $F_{current}$ (2009-12 average) is estimated to be 0.39 times the fishing mortality that will support the *MSY* ($F_{current}/F_{MSY} = 0.39$). Across the grid $F_{current}/F_{MSY}$ ranged from 0.13 – 0.62. This indicates that overfishing is not occurring, but fishing mortality on adults is approaching the assumed level of natural mortality.

c) The fishery impact by sub-tropical longline fisheries has increased continuously since 2000.

d) The latest (2013) estimates of spawning biomass are above both the level that will support the MSY ($SB_{latest}/SB_{MSY} = 2.86$ for the base case and range 1.74 – 7.03 across the grid) and the adopted LRP of $0.2SB_{F=0}$ ($SB_{latest}/SB_{F=0} = 0.40$ for the base case and range 0.30-0.60 across the grid). It is important to note that $SB_{MSY}$ is lower than the LRP ($0.14\ SB_{F=0}$) due to the combination of the selectivity of the fisheries and maturity of the species.

e) For the first time SC considered an index of economic conditions in the south Pacific albacore fishery (SC11-MI-WP-03: *Trends in economic conditions in the southern longline fishery*). This index, which integrates fish prices, catch rates, and fishing prices, estimates a strong declining trend in economic conditions, reaching an historical low in 2013. While there was a slight recovery in 2014, conditions are still well below the average primarily due to high fishing costs and continued low catch rates. Domestic vessels from some longline fleets have reduced their fishing effort (i.e., tied up for periods of time) in response to these conditions.

***Management advice and implications***

5. SC12 noted that no management advice has been provided since SC11. Therefore, the advice from SC11 should be maintained. (*SC12 Paras 338-340*)

a) SC12 also noted that the results of the indicator analyses supported the stock status results for South Pacific albacore that were obtained from the 2015 assessment.

b) Based on the indicator analysis, SC12 also advised that there is a 19% chance that the south Pacific albacore stock will fall below the LRP by 2033 if 2014 fishing effort levels continue, and that overall decreases in vulnerable biomass (a proxy for longline CPUE) of 14% would also be likely to occur.

c) SC12 recommends that the Commission note the information presented on economic conditions in the south Pacific longline fishery. Information in SC12-ST-WP-04 (*Analyses and projections of economic conditions in WCPO fisheries*) indicated that declining catch rates are contributing to declines in economic conditions that are likely to undermine profitability in the fishery.

6. SC11 provided the following management advice and implications (*SC11 Paras 321-325*):
    a) The South Pacific albacore spawning stock is currently above both the level that will support the MSY and the adopted spawning biomass LRP, and overfishing is not occurring (F less than $F_{MSY}$).
    b) While overfishing is not occurring, further increases in effort will yield little or no increase in long-term catches and result in further reduced catch rates.
    c) Decline in abundance of albacore is a key driver in the reduced economic conditions experienced by many PICT domestic longline fleets. Further, reductions in prices are also impacting some distant water fleets.
    d) For several years, SC has noted that any increases in catch or effort in sub-tropical longline fisheries are likely to lead to declines in catch rates in some regions (10ºS-30ºS), especially for longline catches of adult albacore, with associated impacts on vessel profitability.
    e) Despite the fact that the stock is not overfished and overfishing is not occurring, SC11 reiterates the advice that longline fishing mortality and longline catch be reduced to avoid further decline in the vulnerable biomass so that economically viable catch rates can be maintained.