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REFERENCE DOCUMENT FOR REVIEW OF CMM 2005-03 (North Pacific albacore)

WCPFC13-2016-18
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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 key findings and recommendations of the Scientific Committee (SC10 and SC12) and Northern Committee (NC12) of relevance to the discussions in support of the review of the CMM for North Pacific albacore (CMM 2005-03). The summary reports are available on the meeting page and they provide the context and discussion in support of the recommendations.

B. Scientific Committee Recommendations

North Pacific albacore (*Thunnus alalunga*)

Stock status and trends

2. SC12 noted that no stock assessments were conducted for these species in 2016. Therefore, the stock status descriptions from SC10 are still current. Updated information on North Pacific albacore catches is available in the ISC Plenary Report (SC12-GN-IP-02: *Report of the 16th Meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean*) but was not compiled for and reviewed by SC12. (*SC12 Para 346*)

3. SC10 noted that ISC provided the following conclusions on the stock status of North Pacific albacore. (*SC10 Para 362*)

> Because the F for 2010–2012 relative to most candidate reference points, except F_{MED} and $F_{50\%}$, are below 1.0, North Pacific albacore is not experiencing overfishing (Table NP-ALB1). Although no biomass-based reference points have been developed for this stock, there is little evidence from this assessment that fishing has reduced SSB below reasonable candidate biomass-based reference points, so the Albacore Working Group concludes that the stock is likely not in an overfished condition at present. The ISC concludes that the North Pacific albacore stock is healthy and that current productivity is sufficient to sustain recent exploitation, assuming average historical recruitment continues.

Table NP-ALB1: Potential reference points and estimated F-ratios using current F ($F_{2010–2012}$) and $F_{2002–2004}$ (reference years for North Pacific albacore CMMs adopted by IATTC and WCPFC) to assess current stock status, associated spawning biomass and equilibrium yield for North Pacific albacore when exploited at $F_{2010–2012}$. Median SSB and yield are shown for $F_{SSB–ATHL}$ as this simulation-based reference point is based on a non-equilibrium concept.

Reference point	$F_{2002-2004}/F_{RP}$	$F_{2010-2012}/F_{RP}$	$SSB_{2010-2012}$ (mt)	Equilibrium Yield (mt)
$F_{SSB-ATHL}$	0.85	0.72	100,344	90,256
F_{MSY}	0.76	0.52	49,680	105,571
$F_{0.1}$	0.56	0.51	73,380	93,939
F_{MED}	1.34	1.30	156,291	74,640
$F_{10\%}$	0.71	0.63	22,867	96,590
$F_{20\%}$	0.80	0.71	54,530	105,418
$F_{30\%}$	0.92	0.81	86,192	99,612
$F_{40\%}$	1.07	0.94	117,855	89,568
$F_{50\%}$	1.29	1.13	149,517	77,429

Management advice and implications

4. SC12 noted that no management advice has been provided since SC10. Therefore, the advice from SC10 should be maintained, pending a new assessment or other new information. (*SC12 Para 347*)

5. SC10 noted the following conservation advice from ISC. (*SC10 Para 363*)

> The current exploitation level ($F_{2010–2012}$) is estimated to be below that of $F_{2002–2004}$, which led to the implementation of conservation and management measures (CMMs) for the North Pacific albacore stock in the EPO (IATTC Resolution C-05-02 supplemented by Resolution C-13-03) and the WCNPO (WCPFC CMM 2005-03). Assuming average historical recruitment and fishing at a constant current *F*, median female *SSB* is expected to remain relatively stable between the 25th and median historical percentiles over both the short- and long-term, with a 13% probability that female *SSB* falls below the *SSB-ATHL* threshold during a 25-year projection period. In contrast, if a low recruitment scenario is assumed, then median female SSB declines under both harvest scenarios (constant $F_{2010–2012}$, constant $F_{2002–2004}$) and the probability that it falls below the *SSB-ATHL* threshold in the 25-year projection period increases to 65% as calculated by the Albacore Working Group and noted above. The high recruitment scenario is more optimistic, with median future *SSB* increasing above the historical median *SSB* and the estimated probability of falling below the *SSB-ATHL* threshold is correspondingly low at 3%.

6. SC members continue to encourage the development of reference points for northern stocks, including North Pacific albacore fishery, that are consistent with the reference points being developed for other WCPFC fisheries. (*SC10 Para 364*)

C. Northern Committee Recommendations

7. Summary of CCMs' reports on North Pacific albacore fisheries in accordance with CMM 2005-03 is in WCPFC13-2016-IP08 (*Updated information on North Pacific albacore fishing effort*). While the CMM requests CCMs to take measures for their fishing effort limitation, NC12 also requested members to report how they are implementing their fishing effort limits. (*NC12 Paras 50-57*)

8. NC12 agreed that it is not necessary to modify the CMM 2005-03 this year. It also noted that ISC is scheduled to conduct a stock assessment of North Pacific albacore in 2017 and agreed to review the CMM based on the information to be provided by ISC. (*NC12 Para 58*)

9. NC12 noted the progress of MSE-related activities for North Pacific albacore. The 2nd ISC MSE workshop was held 24-25 May 2016 in Yokohama, Japan. Key messages related with MSE process include: (*NC12 Paras 59-66*)

- A set of six management objectives and performance indicators for each objective were developed;
- A simulation period of 30 years (two generations of albacore) would be used to evaluate management objectives;
- An ongoing workshop is needed to educate managers, stakeholders and scientists on the MSE and obtain input to the process;
- The next workshop will focus on acceptable risk and how it is used in the evaluation of management objectives;
- An MSE analyst is expected to be in place by fall 2016 (supported by the USA) and will take over leading the North Pacific albacore MSE process;
- The proposed set of management objectives are expected to be revised/changed as information from simulation testing is evaluated, which is a normal part of MSE process; and
- NC12 noted that Canada offered the 3rd ISC MSE workshop in Vancouver and reminded that the next stock assessment for North Pacific albacore is scheduled in 2017.