



**NORTHERN COMMITTEE  
FIFTEENTH REGULAR SESSION**  
Portland, WA, USA  
3 – 6 September 2019

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**SC15 SUMMARY REPORT TO NC15**

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WCPFC-NC15-2019/IP-02a

**SC Chair: Mr Ueta Jr. Faasili**

**12 – 20 August 2019  
Pohnpei, FSM**

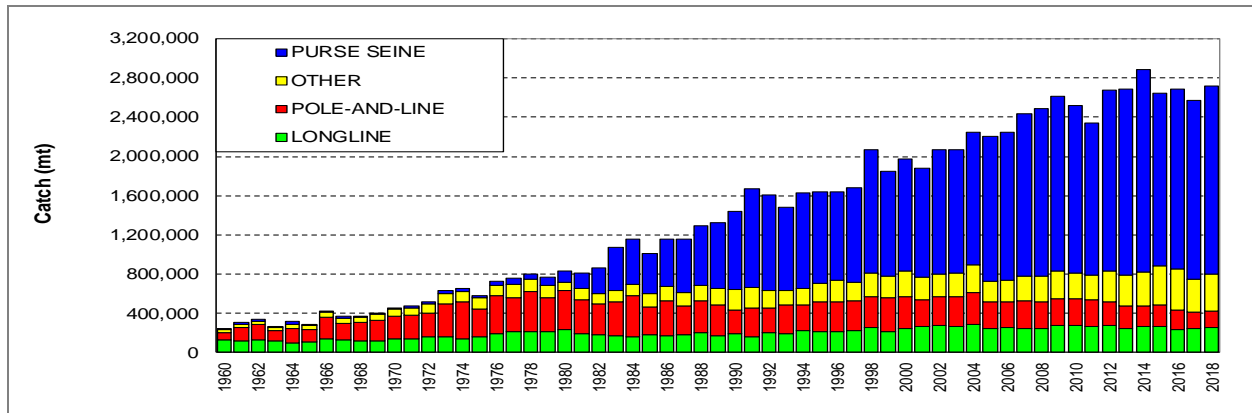


## REVIEW OF WCPO FISHERIES

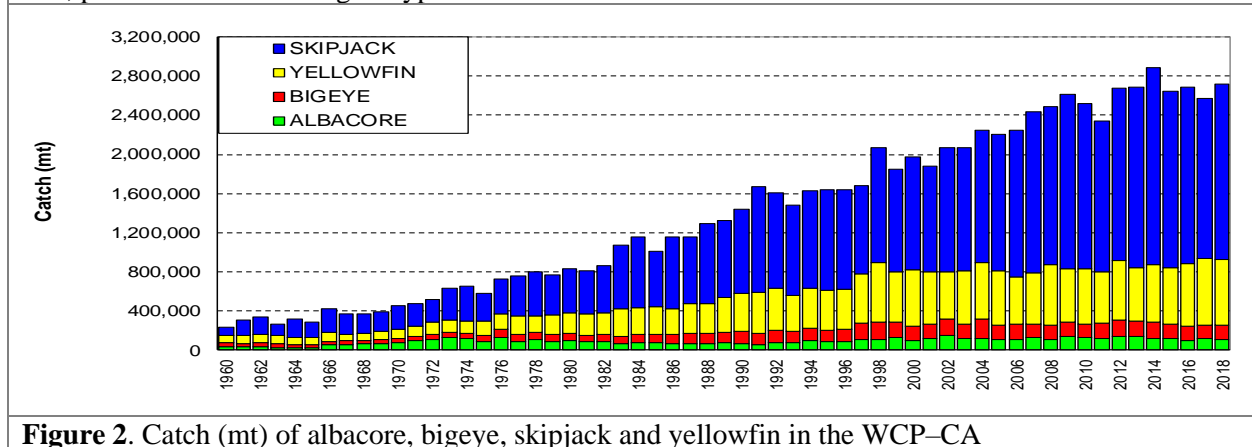
1. The provisional total WCP–CA tuna catch for 2018 was estimated at **2,716,396** mt (the second highest on record), which is 81% of the total Pacific Ocean catch of 3,373,512 mt, and 55% of the global tuna catch (the provisional estimate for 2018 is 4,930,621 mt).

Species	Catch (mt)	%
Skipjack	<b>1,795,048</b>	66
Yellowfin	<b>666,971</b>	25
Bigeye	<b>142,402</b>	5
Albacore	<b>108,974</b> (NP: 40,520; SP: 68,454)	4

Gear	Catch (mt)	%
purse seine	<b>1,910,725</b>	70
pole-and-line	170,038	6
longline	254,850	9
SP troll albacore	2,847	0.1
remainder	377,936	14



**Figure 1.** Catch (mt) of albacore, bigeye, skipjack and yellowfin in the WCP–CA, by longline, pole-and-line, purse seine and other gear types



**Figure 2.** Catch (mt) of albacore, bigeye, skipjack and yellowfin in the WCP–CA

## STOCK STATUS AND MANAGEMENT RECOMMENDATIONS

2. The following matrix summarizes management advices from stock assessments and other assessments related to Northern Committee issues. For the details, participants will refer to the Outcomes Document (NC15-IP-02).

Tunas	
Bigeye tuna	<p>a) No stock assessment was conducted in 2019, so SC14 management advice be maintained. The total bigeye catch of 145,402 mt in 2018 is a 13% increase from 2017.</p> <p>b) SC15 noted projections under recent fishery conditions:</p> <ul style="list-style-type: none"> <li>• projected median <math>F_{2020}/F_{MSY} = 0.62</math>, the risk of <math>F_{2020} &gt; F_{MSY} = 0\%</math>; and</li> <li>• projected median <math>SB_{2020}/SB_{F=0} = 0.41</math>; median <math>SB_{2020}/SB_{MSY} = 1.79</math> with the risk of <math>SB_{2020} &lt; LRP = 0\%</math>.</li> </ul> <p>c) SC15 reviewed progress of seven research recommendations from SC14 for bigeye growth, and classified as short-term (preferably before SC16) and long-term (preferably before the scheduled 2023 stock assessment).</p>
Yellowfin tuna	<p>a) No stock assessment was conducted in 2019, so management advice from SC13 be maintained. The total yellowfin catch of 666,971 mt in 2018 is a 2% decrease from 2017.</p> <p>b) SC15 noted projections under recent fishery conditions:</p> <ul style="list-style-type: none"> <li>• projected median <math>F_{2020}/F_{MSY} = 0.74</math>, the risk of <math>F_{2020} &gt; F_{MSY} = 3\%</math> and</li> <li>• projected median <math>SB_{2020}/SB_{F=0} = 0.32</math>; median <math>SB_{2020}/SB_{MSY} = 1.33</math> with the risk of <math>SB_{2020} &lt; LRP = 8\%</math>.</li> </ul> <p>c) SC15 identified three research items classified as short-term (preferably before SC16) and long-term (preferably before the scheduled 2023 stock assessment).</p>
Skipjack tuna	<p>a) A stock assessment was conducted in 2019; and the total provisional catch of 1,795,048 mt in 2018 is a 10% increase from 2017.</p> <p>b) SC15 agreed to use the 8-region model to describe the stock status of skipjack tuna; and the stock status was determined over an uncertainty grid of 54 models.</p> <p>c) SC15 noted:</p> <ul style="list-style-type: none"> <li>• median <math>SB_{\text{recent (2015-2018)}/SB_{F=0}} = 0.44</math> with a range of 0.37 to 0.53 (80% probability interval); and</li> <li>• median <math>F_{\text{recent (2014-2017)}/F_{MSY}} = 0.45</math>, with a range of 0.34 to 0.60 (80% probability interval).</li> <li>• The skipjack stock is not overfished, nor subject to overfishing. At the same time, it was also noted that F is continuously increasing for both adult and juvenile while the SB reached the historical lowest level.</li> </ul> <p>d) The trajectory of the median SB depletion has been under the interim TRP (<math>50\%SB_{F=0}</math>) since 2009. Therefore, SC15 recommends that the Commission take appropriate management action.</p> <p>e) In order to maintain the quality of stock assessments for this important stock SC15 recommended the five researches.</p>
South Pacific albacore	<p>a) No stock assessment was conducted in 2019, so SC14 management advice be maintained. The total provisional Pacific Ocean catch south of the Equator in 2018 was 80,820 mt, a 13% decrease from 2017.</p> <p>b) As the average stock status in 2016, <math>SB_{\text{latest}/SB_{F=0}} = 0.52</math>, with the probability of <math>SB_{\text{latest}/SB_{F=0}} &lt; 0.56</math> (interim TRP) is 63%. The stock is not overfished nor is overfishing occurring.</p>

	<p>c) However, from projections, the stock biomass is expected to decline from the 2016 level of 0.52 to 0.39 by 2035; the risk of the stock biomass breaching the LRP in 2035 is expected to be 23%; and the longline-vulnerable biomass (the longline CPUE proxy) is expected to decrease by 36% relative to 2013 levels.</p> <p>d) Given the stock assessment in 2018 and SC15 projections, SC15 advises that WCPFC develop comprehensive binding SP albacore management measures which will result in the stock reaching the TRP within the 20-year time horizon. SC15 advises WCPFC16 may consider establishing a CMM to further reduce total catch or effort in order to reverse the projected decline in the vulnerable biomass.</p>
<b>Northern Stocks</b>	
North Pacific albacore	SC15 noted that no management advice has been provided since SC13. Therefore, the advice from SC13 be maintained.
Pacific bluefin tuna	<p>a) SC15 noted that the total PBF catch by ISC members in 2018 was 10,148 mt, a 31% decrease from 2017 and a 25% decrease from the 2013-2017 average.</p> <p>b) SC15 advises the Commission to note the current very low level of SB (3.3% <math>B_0</math>), the current level of overfishing, and that the projections are strongly influenced by the inclusion of a relatively high but uncertain recruitment in 2016. SC15 also noted the management advice of ISC19.</p>
North Pacific swordfish	SC15 noted that no stock assessments were conducted in 2019. Therefore, the stock status and management advice from SC14 are still current.
<b>Sharks and Billfish</b>	
Oceanic whitetip shark	<p>a) A stock assessment was conducted in 2019.</p> <ul style="list-style-type: none"> <li>• The median <math>SB_{\text{recent}}(2013-2015)/SB_0 = 0.04</math> with a range of 0.03 to 0.05 (80% probability interval);</li> <li>• the median <math>SB_{\text{recent}}/SB_{\text{MSY}} = 0.09</math> (range: 0.05–0.17);</li> <li>• the median <math>F_{\text{recent}}/F_{\text{MSY}} = 3.94</math>, with a range of 2.67 to 5.89 (80% probability interval), and</li> <li>• no model runs were shown for <math>F_{\text{recent}}/F_{\text{MSY}} &lt; 1</math>.</li> <li>• The key conclusions are that overfishing is occurring and the stock is in an overfished state relative to MSY and depletion-based reference points for tunas.</li> </ul> <p>b) Despite the data limitations going into the assessment and the wide range of uncertainties considered, all the feasible grid model runs indicate that the WCPO oceanic whitetip shark stock continues to be overfished and overfishing is occurring relative to commonly used depletion and MSY-based reference points.</p> <p>c) Noting that there are existing CMMs directed at oceanic whitetip, SC15 recommended that further efforts to mitigate catch and improve handling and release practices are required to further reduce F and improve stock status.</p> <p>d) Noting that no LRPs have been adopted for oceanic whitetip sharks, as well as other WCPO shark species, SC15 recommends that WCPFC16 consider identifying appropriate LRPs for WCPO sharks.</p>
Southwest Pacific striped marlin	<p>a) A stock assessment was conducted in 2019.</p> <ul style="list-style-type: none"> <li>• The median <math>(SB_{\text{recent}}/SB_{F=0}) = 0.198</math>, with a probable range of 0.093 to 0.464 (80% probable range), and the probability of <math>(SB_{\text{recent}}/SB_{F=0} &lt; 0.2)</math> was roughly 50.33%;</li> <li>• The median <math>(SB_{\text{recent}}/SB_{\text{MSY}}) = 0.737</math> with a probable range of 0.334 to 1.635 (80% probable range), and the probability of <math>(SB_{\text{recent}}/SB_{\text{MSY}} &lt; 1)</math> was roughly 68.66%;</li> </ul>

	<ul style="list-style-type: none"> <li>• The median (<math>F_{\text{recent}}/F_{\text{MSY}} = 0.911</math> with an 80% probability interval of 0.313 to 1.891, and the probability of (<math>F_{\text{recent}}/F_{\text{MSY}} &gt; 1</math>) was roughly 44.3%.</li> <li>• Based on the adopted uncertainty grid, the southwest Pacific striped marlin assessment results indicate that the stock is likely overfished, and close to undergoing overfishing according to MSY-based reference points.</li> </ul> <p>b) SC15 noted that recent catches are approximately half the MSY, and that recent F is slightly less than the <math>F_{\text{MSY}}</math>. SC15 recommended that WCPFC16 consider measures to reduce the overall catch of this stock, including through the expansion of the geographical scope of CMM 2006-04, in order to cover the distribution range of the stock.</p> <p>c) SC15 recommended five research activities in order to progress the assessment of Southwestern Pacific striped marlin.</p>
North Pacific striped marlin	<p>a) SC15 noted that the assessment results are sensitive to the growth assumption and highlighted the sharp decline in the stock biomass in the mid-1990s. SC15 also noted that F has generally remained above <math>F_{\text{MSY}}</math> and the stock biomass continues to remain well below <math>SB_{\text{MSY}}</math>.</p> <p>b) SC15 recommends that WCPFC16 consider identifying appropriate LRP for this species and further reduction in catch that will be required to rebuild the stock to MSY levels and the NC14 rebuilding target.</p>

### MANAGEMENT ISSUES THEME

3. Under the MI theme, the following topics were considered:
- a) SC15 reviewed TRPs for yellowfin and bigeye tuna and recommended that the choice of a TRP can be based on a combination of biological, ecological and socioeconomic considerations;
  - b) For the review of alternative catch trajectories to achieve the SP albacore interim TRP within no later than 20 years, SC15 noted that the resulting stock trajectories from catch (and effort) reductions have different consequences for the associated fisheries and related management actions;
  - c) For the review of the performance of the interim skipjack tuna TRP, SC15 provided advices to SPC for the technical approaches and analyses; and the outputs for consideration by WCPFC16;
  - d) SC15 reviewed the progress of developing the MSE framework for skipjack and SP albacore;
  - e) SC15 noted the work undertaken by ISC on the development of an MSE framework for NP albacore (SC15-MI-IP-10) and brings this to the attention of WCPFC16;
  - f) SC15 also reviewed the effectiveness of CMM 2018-01, including the likely outcomes in relation to the stated objectives of this measure; and
  - g) Finally, the session reviewed the research progress on FAD tracking and the preliminary analyses of acoustic data from echo-sounder buoys deployed on FADs.

## FUTURE WORK PROGRAMME AND BUDGET

4. SC15 recommended the following SC work programmes and budget to the Commission. SC15 agreed that SPC will conduct stock assessments for bigeye and yellowfin tuna in 2020.

Project Title	Essential	Priority	2020	2021	2022
SPC-OFP Scientific Services	Yes	ongoing	924,524	943,015	961,875
SPC Additional resourcing	Yes	ongoing	166,480	168,145	169,827
Project 35b - WCPFC Tuna Tissue Bank	Yes		99,195	101,180	103,204
Project 42 - Pacific Tuna Tagging Program	Yes		645,000	730,000	730,000
Project 60 - PS Species Composition	No	ongoing	40,000	40,000	
Project 68 - Seabird mortality	No	ongoing			75,000
Project 88 - Acoustic FAD analyses	No	High 2	30,000	15,000	
Project 90 - length weight conversion	No	ongoing	30,000	20,000	
Project 97 - SRP 2021-2025		High 1	46,000		
Project 98 - Radiocarbon aging WS		High 1	35,000		
Project 99 - SWP MLS population biology		High 1	33,000		
Project 100 - Close-kin mark-recapture		High 1	7,500		
Project 101 - MC simulations - shark mitigation		High 1	40,000		
Project 102 - Population projections for OCS		High 1	35,000		
Project 103 - LRPs for WCPO elasmobranchs		High 1	25,000		
Project Budget (WCPFC budget only)			1,232,175	1,074,325	1,078,030
<b>Total budget with SPC services</b>			<b>2,156,700</b>	<b>2,017,340</b>	<b>2,039,905</b>

## ADMINISTRATION ISSUES

5. SC15 recommended the current SC Chair U. Faasili continue for his second term, and recommended T. Halafihi (Tonga) as SC Vice Chair.

6. SC15 recommended to the Commission that SC16 would be held in Apia, Samoa during 11– 20 August, 2020. Tonga offered to host in 2021, and Palau offered to serve as host in 2021 should circumstances prevent Tonga from hosting.