



SC15 Summary Report to NC15

(For details, refer to NC15-IP-02 (SC15 Outcomes Document))

SungKwon Soh
WCPFC Secretariat

Scientific Committee

Fifteenth Regular Session



Chair: Mr Ueta Faasili (Samoa)
Pohnpei, FSM
12 – 20 August 2019

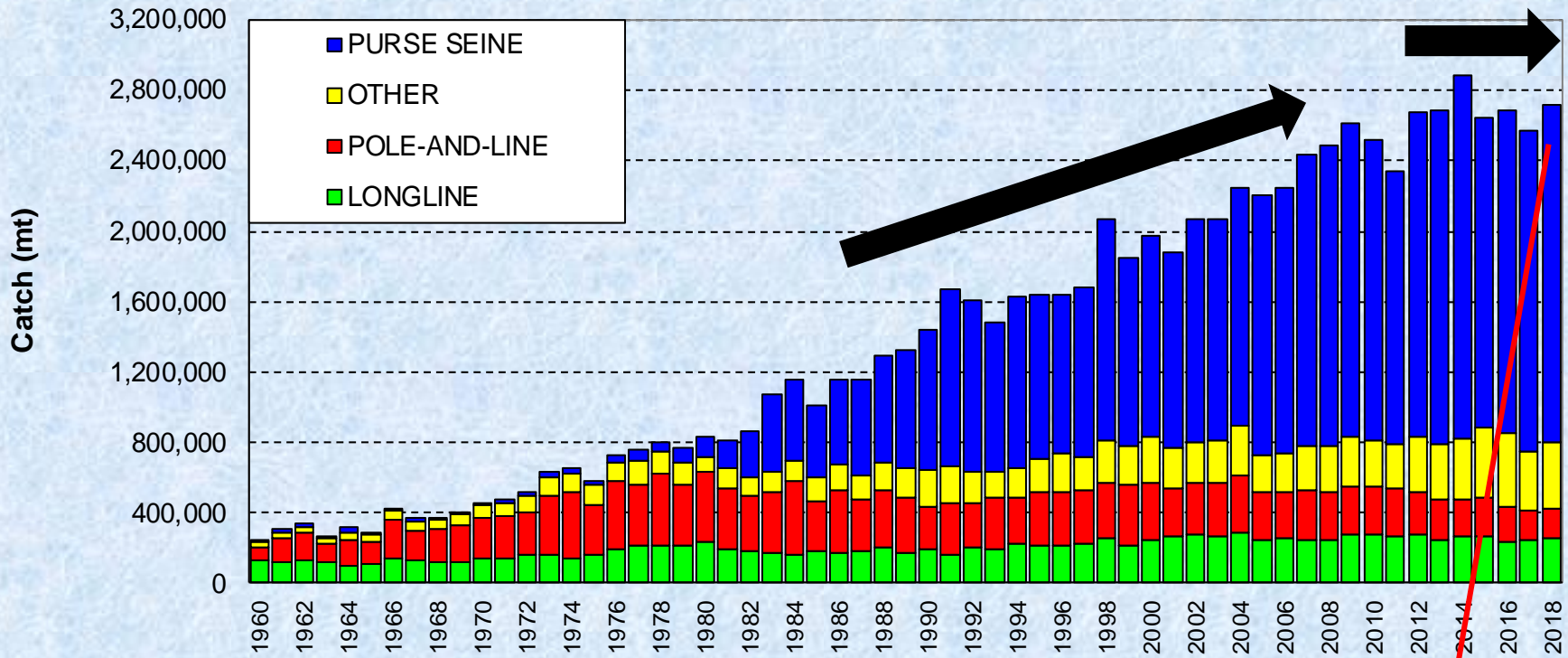
WCPO Tuna Catch

The provisional total CA tuna catch for 2018

- **2,716,396** mt – the second highest on record
- 81% of the total Pacific Ocean catch of 3,373,512 mt
- 55% of the global tuna catch of 4,930,621 mt

By Species	Catch	%	By Gear	Catch	%
SKJ	1,795,048	66	purse seine	1,910,725	70
YFT	666,971	25	pole-and-line	170,038	6
BET	142,402	5	longline	254,850	9
ALB	108,974	4	SP troll albacore	2,847	0.1
	NP:40,520 SP: 68,454		remainder	377,936	14

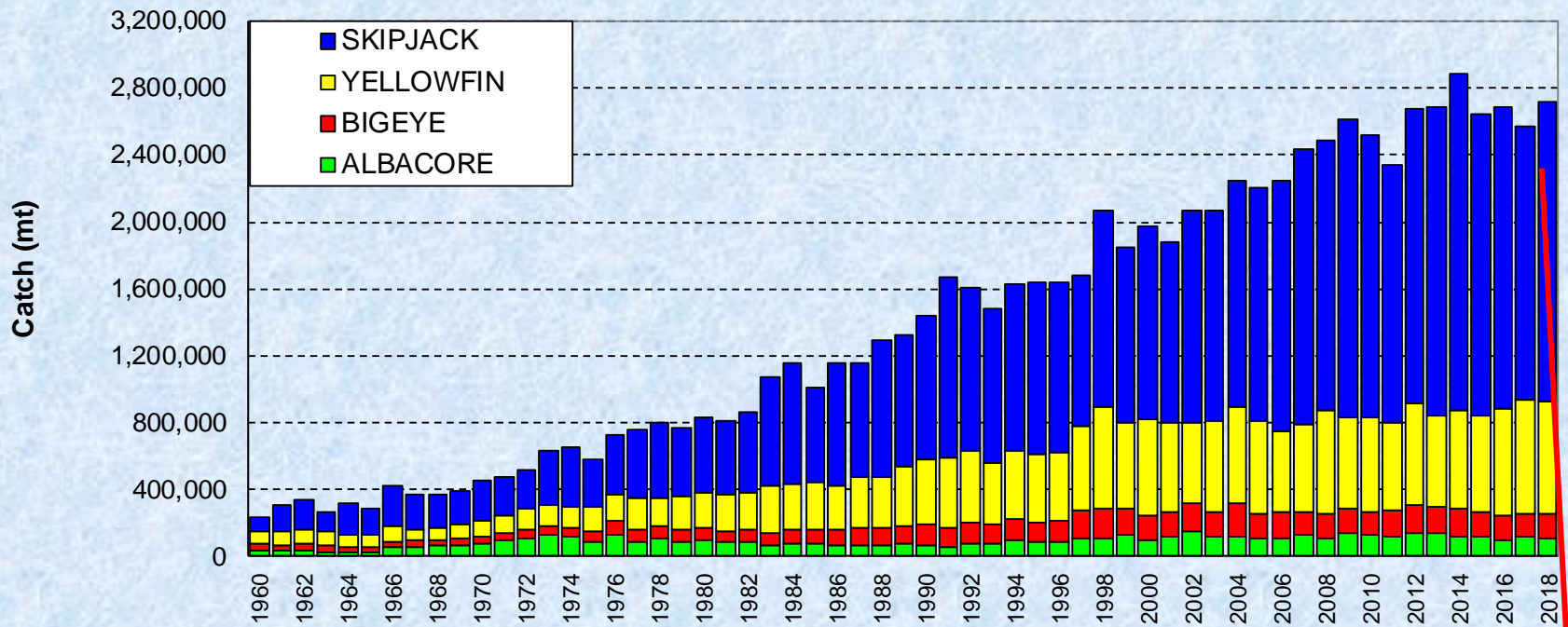
2018 WCPO Tuna Catch by Gear



2018 Provisional estimates

- Total Catch – 2,716,396 mt (↑ second highest...)
- Purse seine – 1,910,725 mt (70% ↑ ; second highest...)
- Longline – 254,850 mt (9% → ; ALB ↓ ; BET ↑)
- Pole-and-line – 170,038 mt (6% → ; amongst lowest since mid-1960s)
- Other (mainly ID/PH artisanal) – (14% ↓)

2018 WCPO Tuna Catch by Species



2018 Provisional estimates

SKJ : 1,795,048 mt (66%; ↑ 5th highest...)

YFT : 666,971 mt (25%; 2nd highest after 2017 RECORD catch; due to PS & Indo.)

BET : 142,402 mt (5% ; ↑ ... but lower than 10-year average)

ALB : 108,974 mt (4%; ↓ ... amongst lowest in 20 years)

- ALB (S Pac) : 68,454 mt (↓ ... but missing EPO catch for one fleet, so ~80,000 mt)
- ALB (N Pac) : 56,417 mt (provisional...)

Stock Status / Management Advice (BET)

1. **No stock assessment** in 2019, so SC14 management advice be maintained. The total catch of 145,402 mt in 2018 is a 13% increase from 2017.
2. Projections under recent fishery conditions:
 - projected median $F_{2020}/F_{MSY} = 0.62$;
 - projected median $SB_{2020}/SB_{F=0} = 0.41$;
 - Projected median $SB_{2020}/SB_{MSY} = 1.79$
3. SC15 reviewed the progress of seven bigeye growth researches recommended by SC14 and classified as short-term and long-term.

Stock Status / Management Advice (YFT)

1. No stock assessment in 2019, so SC13 management advice be maintained. The total catch of 666,971 mt in 2018 is a 2% decrease from 2017.
2. Projections under recent fishery conditions:
 - projected median $F_{2020}/F_{MSY} = 0.74$
 - projected median $SB_{2020}/SB_{F=0} = 0.32$;
 - Projected median $SB_{2020}/SB_{MSY} = 1.33$.
3. SC15 identified three research items classified as short-term and long-term.

Stock Status / Management Advice (SKJ)

1. A stock assessment was conducted in 2019; and the total catch of 1,795,048 mt in 2018 is a 10% increase from 2017.
2. SC15 noted management quantities:
 - median $SB_{\text{recent (2015-2018)}}/SB_{F=0} = 0.44 < \text{interim TRP}$
 - median $F_{\text{recent (2014-2017)}}/F_{\text{MSY}} = 0.45$
3. F is continuously increasing for both adult and juvenile while the SB reached the historical lowest level.
4. The trajectory of the median SB $<$ interim TRP ($50\%SB_{F=0}$) since 2009. Therefore, SC15 recommends that the Commission take appropriate management action.

Stock Status / Management Advice (SPALB)

1. No stock assessment in 2019, so SC14 management advice be maintained. The total catch in 2018 was 80,820 mt, a 13% decrease from 2017.
2. In 2016, $SB_{\text{latest}}/SB_{F=0} = 0.52$, with $P(SB_{\text{latest}}/SB_{F=0} < 0.56 = \text{interim TRP})$ is 63%.
3. The stock is not overfished nor is overfishing occurring. However, from projections, the stock biomass is expected to decline from the 2016 level of 0.52 to 0.39 by 2035.
4. Given the stock assessment in 2018 and SC15 projections, SC15 advises that WCPFC develop comprehensive measures which will result in the stock reaching the TRP within the 20-year time horizon.

Stock Status / Management Advice (SC15 Response to Northern Stocks)

NP ALB	Management advice from SC13 be maintained.
PBF	<ol style="list-style-type: none">1. The total PBF catch in 2018 was 10,148 mt, a 31% decrease from 2017.2. SC15 noted the current very low level of SB (3.3% B_0), the current level of overfishing, and that the projections are strongly influenced by the inclusion of a relatively high but uncertain recruitment in 2016.
NP SWO	Management advice from SC14 be maintained.

Stock Status / Management Advice (OCS)

1. A stock assessment was conducted in 2019:
 - median $SB_{\text{recent (2013-2015)}}/SB_0 = 0.04$;
 - median $SB_{\text{recent}}/SB_{\text{MSY}} = 0.09$;
 - median $F_{\text{recent}}/F_{\text{MSY}} = 3.94$; and
 - **Overfishing is occurring and the stock is in an overfished state** relative to MSY and depletion-based RPs for tunas.
2. Despite the data limitations and the wide range of uncertainties, all the feasible grid model runs indicate that the WCPO OCS stock continues to be overfished and overfishing is occurring.
3. Together with CMM 2011-04 (OCS), SC15 recommended that **further efforts to mitigate catch and improve handling and release practices are required to further reduce F.**

Stock Status / Management Advice (SWP MLS)

1. A stock assessment was conducted in 2019.
 - median ($SB_{\text{recent}}/SB_{F=0}$) = 0.198; median ($SB_{\text{recent}}/SB_{\text{MSY}}$) = 0.737;
 - median ($F_{\text{recent}}/F_{\text{MSY}}$) = 0.911.
2. The stock is likely overfished, and close to undergoing overfishing.
3. Recent catches are approximately half the MSY, and that recent F is slightly less than the F_{MSY} .
 - SC15 recommended that WCPFC16 consider measures to reduce the overall catch of this stock, including the expansion of the geographical scope of the CMM 2006-04 to cover the distribution range of the stock.
4. SC15 recommended five research activities in order to progress the assessment of Southwestern Pacific striped marlin.

Stock Status / Management Advice (NP MLS)

1. 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 F_{MSY} and the stock biomass continues to remain well below SB_{MSY} .
2. SC15 recommends that WCPFC16 consider identifying appropriate LRP and further reduction in catch to rebuild the stock.

Management Issues

1. SC15 reviewed candidate TRPs for YFT and BET and recommended that the choice of a TRP can be based on a combination of biological, ecological and socioeconomic considerations;
2. For the review of alternative catch trajectories to achieve the SP albacore interim TRP within 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;
3. For the review of the interim TRP for SKJ, SC15 provided advices to SPC for the technical approaches and analyses; and the outputs will be reported to WCPFC16;

Management Issues

4. SC15 reviewed the progress of developing the MSE framework for skipjack and SP albacore;
5. SC15 noted the work undertaken by ISC on the development of an MSE framework for NP albacore;
6. SC15 also reviewed the effectiveness of CMM 2018-01, including the likely outcomes in relation to the stated objectives of this measure; and
7. Finally, the session reviewed the research progress on 1) FAD tracking to improve FAD management, and 2) the preliminary analyses of FAD acoustic data which have the potential to be used for mitigation measures, understanding of fishery dynamics, and independent data on tuna biomass .

SC Work Plan and Budget

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
Total budget with SPC services			2,156,700	2,017,340	2,039,905

1. Twelve (12) projects were proposed in addition to SPC's services.
2. Key stock assessments for 2020 will be BET and YFT.

Administration

1. SC Officers

- Chair for 2020-2021: Ueta Faasili (Samoa)
- Vice-Chair for 2020-2021: T. Halafihi (Tonga)

2. 16th Scientific Committee

- Apia, Samoa
- 11– 20 August, 2020.

3. Next Meeting

- Tonga offered to host for 2021

Thank you~~~