SC14 Summary Report to NC14

SungKwon Soh

WCPFC Secretariat

Chair: Mr Ueta Faasili (Samoa)
Busan, Korea
8 – 16 August 2018

WCPO Tuna Catch

The provisional total CA tuna catch for 2017

- 2,539,950 mt – the lowest catch for six years; around 340,000 mt below the record catch in 2014 (2,883,204 mt)
- 78% of the total Pacific Ocean catch of 3,239,704 mt
- 54% of the global tuna catch (the provisional estimate for 2017 is 4,715,836 mt)

WCPO Tuna Catch

Species	Catch	%
SKJ	**1,624,162**	64
YFT	**670,890**	26
BET	**126,929**	5
ALB	**117,969** NP:25,678 SP: 92,291	5

Gear	Catch	%
purse seine	**1,812,474**	71
pole-and-line	**151,232**	6
longline	**240,387**	10
SP troll albacore	**2,508**	0.1
remainder	**333,349**	13

WCPO Tuna Catch

- **Skipjack tuna** – the lowest since 2011, nearly 375,000 mt less than the record in 2014 (2,000,608 mt)
- **Yellowfin tuna** – the highest recorded, more than 35,000 mt higher than the previous record catch of 2016
- **Bigeye tuna** – the lowest since 2016 and mainly due to continued low longline catches
- **Albacore tuna** – the lowest since 2016 and mainly due to continued low longline catches
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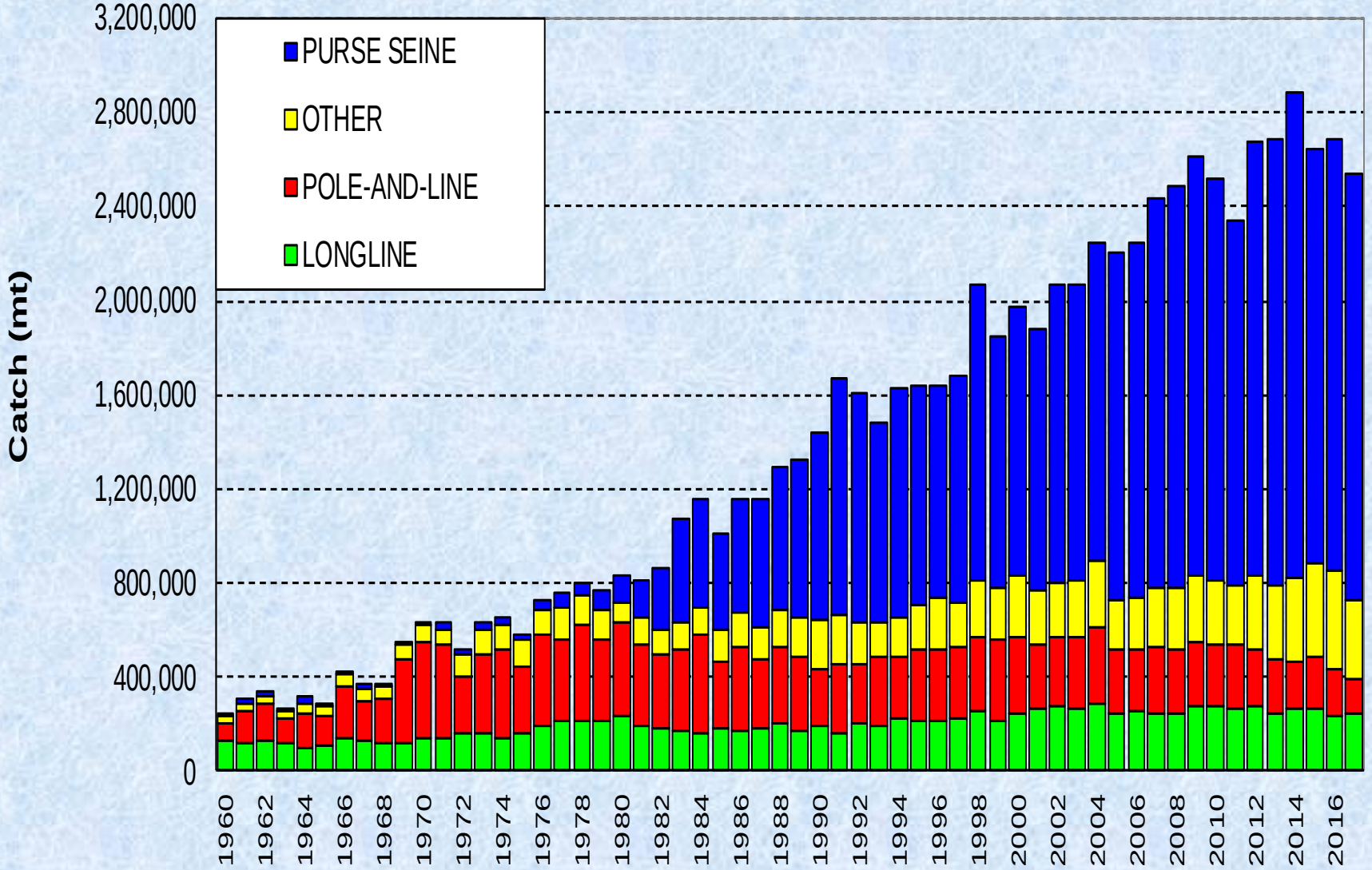
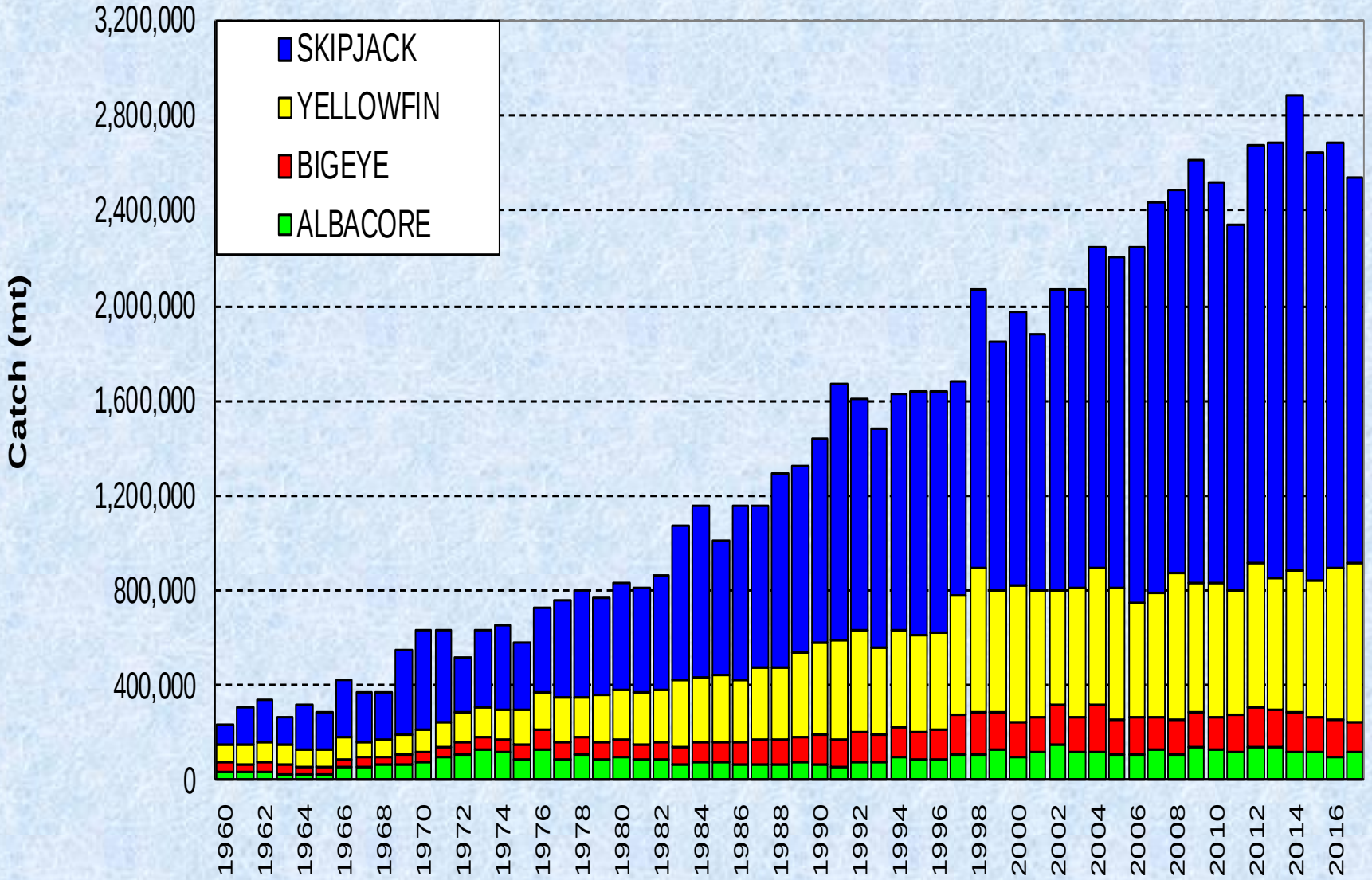
WCPO Tuna Catch (by Gear)



WCPO Tuna Catch (by Species)



Stock Status / Management Advice (BET)

1. WCPO bigeye tuna spawning biomass is above the biomass LRP and recent F is very likely below F_{MSY}.
   - The stock is **not experiencing overfishing** (94% probability $F<F_{MSY}$) and it is **not in an overfished condition** (0% probability $SB/SB_{F=0}<LRP$).
2. SC14 recommends that
   - WCPFC15 could continue to consider measures to reduce fishing mortality from fisheries that take juveniles, with the goal to increase bigeye fishery yields and reduce any further impacts on the spawning biomass
   - as a precautionary approach that the fishing mortality on bigeye tuna stock should not be increased from the recent average (2011-2014) level to maintain spawning biomass at or above the 2012-2015 average
3. SC14 noted that the acceptance of the new growth model for bigeye tuna raises a number of issues in relation to patterns of growth and stock structure of bigeye tuna across the Pacific Ocean and recommended several research issues be addressed

Stock Status / Management Advice (SPALB)

1. WCPO albacore tuna spawning biomass is very likely to be above the biomass LRP and recent F is very likely below FMSY
    - The stock is **not experiencing overfishing** (100% probability $F < F_{MSY}$) and **is not in an overfished condition** (100% probability $SB_{recent} >$ LRP).
2. SC14 recalled its previous advice from SC11, SC12, and SC13 that longline fishing mortality and longline catch be reduced to avoid decline in the vulnerable biomass so that economically viable catch rates can be maintained, especially for longline catch of adult albacore.
3. SC14 recommends that this advice be taken into consideration when the TRP for South Pacific albacore is discussed at WCPFC15.

Stock Status / Management Advice (Northern Stocks)

North Pacific albacore	SC14 noted that no management advice has been provided since SC13. Therefore, the advice from SC13 should be maintained.
Pacific bluefin tuna	SC14 advises the Commission to note the current very low level of spawning biomass (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. The majority of CCMs recommended a precautionary approach to the management of Pacific Bluefin tuna, especially in relation to the timing of increasing catch levels, until the rebuilding of the stock to higher biomass levels is achieved.
North Pacific swordfish	ISC provided the following information on the status of the WCNPO swordfish stock: 1. The WCNPO swordfish stock has produced annual yields of around 10,200 t per year since 2012, or about 2/3 of the MSY catch amount. 2. There is no evidence of excess fishing mortality above FMSY (F2013-2015 is 45% of F_{MSY}) or substantial depletion of spawning potential (SSB_{2016} is 87% above SSB_{MSY}). 3. Overall, the WCNPO swordfish stock is not likely overfished and is not likely experiencing overfishing relative to MSY-based or 20% of unfished spawning biomass-based reference points.

Stock Status / Management Advice (Sharks)

Silky shark	a) SC14 concludes that on the basis of the best available science, and pending the availability of less uncertain stock status indicators, the stock is being overfished. b) SC14 recommends, given that the WCPO silky shark stock continues to be overfished, that CMM 2013-08 be maintained as a precautionary measure.
North Pacific shortfin mako shark	SC14 noted that ISC provided the following conclusions: 1) Target and limit reference points have not been established for pelagic sharks in the Pacific Ocean. 2) The stock assessment results from the base case model show that, relative to MSY, the North Pacific shortfin mako stock is likely (>50%) not in an overfished condition and overfishing is likely (>50%) not occurring relative to MSY-based abundance and fishing intensity reference points.
Whale shark	Based on ABNJ-supported risk assessment: 1) SC14 considers there is a low probability that the Indo-Pacific whale shark is at risk from Pacific purse seine fisheries. 2) SC14 recommends that the WCPFC initiate concerted efforts to identify and promote best practice safe release methods for whale sharks. 3) SC14 recommends that research be undertaken to quantify post-release mortality rates under a variety of release scenarios.
North Pacific striped marlin	To emphasize the importance of developing a stock rebuilding plan for North Pacific striped marlin, SC14 reiterated the ISC15 stock status and management advice from SC11.

NP Blue Shark as a northern stock

1. SC14 recommends that the Commission clarify and quantify what is meant by "***mostly north of 20 degrees N***".
2. In relation to paragraph 1, SC14 recommends that a check-list of benchmark scientific information for North Pacific blue shark be developed to support the Commission's deliberations in determining the designation of a northern stock.
3. The following draft checklist is forwarded for the Commission's consideration.

NP Blue Shark as a northern stock

No	Criteria	Response	Comments
1	What proportion of the total estimated stock biomass occurs on average north of 20°N?	Unknown	Current assessment model does not included population spatial structure. Nominal CPUE may be biased and could be overestimated in the north unless the effects of fishing time, depth and depth distribution of blue sharks are accounted for.
2	Does all of the breeding/spawning area(s) occur north of 20°N?	No	Breeding area is mainly north of 20°N but may overlap areas south of 20°N
3	Does all of the nursery area(s) occur north of 20°N	Yes	Mostly in the area 30-40°N
4	Do any other important life history stages occur south of 20°N?	Yes	Pregnant females are commonly found south of 20°N

NP Blue Shark as a northern stock

No	Criteria	Response	Comments
5	What proportion of the total annual estimated catch occurs north of 20°N?	0.88 on average	Based on raised, aggregated (5x5 degree) longline data 2014-2017 submitted to WCPFC (Operational data would provide better resolution than aggregated data)
6	Is fishery catch-per-unit-effort demonstrably higher north of 20°N for comparable fisheries?	(i) Similar CPUE observed north and south of 20°N in Chinese Taipei LSTLL fishery and Hawaii deep-set LL fishery (ii) CPUE higher north of 20°N in Japan shallow set research survey	CPUE comparisons may be biased by different depth distribution of blue shark north and south of 20°N.
7	Is there sufficient information about fish movement between the areas north and south of 20oN?	Yes	Conventional tagging data shows that the maximum range of movements suggests at least northern and southern sub-populations of blue shark, as demarked by the equator.

NP Striped Marlin as a northern stock

No	Criteria	Response	Comments
1	What proportion of the total estimated stock biomass occurs on average north of 20N?	Proportion of biomass above 20°N is 2-4 times larger than the proportion of biomass south of 20°N in the North Pacific	SC14-SA-IP-011 This value was estimated by stock assessment result in 2007.
2	Does all of the breeding/spawning area(s) occur north of 20°N?	Unknown	
3	Does all of the nursery area(s) occur north of 20°N	Unknown	
4	Do any other important life history stages occur south of 20°N?	Unknown	

NP Striped Marlin as a northern stock

No	Criteria	Response	Comments
5	What proportion of the total estimated catch occurs north of 20°N?	Range of annual percentages of 66%-96% above 20°N. During the 2000s the average percentage was 73% above 20°N	SC14-SA-IP-11 These values were estimated from stock assessment results in 2007, but were not endorsed by SC3.
6	Is fishery catch-per-unit-effort demonstrably higher north of 20°N for comparable fisheries?	Unknown	
7	Is there sufficient information about fish movement between north and south of 20°N?	No	

Management Issues

Regarding the Paragraph 215 of the WCPFC14 Summary Report on the need for a ***Science-Management Dialogue***, SC14 recommended that:

1. WCPFC15 take the necessary steps to establish such a Dialogue in 2019; and
2. The Commission define the appropriate format for this group to possess authority to enable them to make the appropriate recommendations to the Commission.

SC Work Plan and Budget

Project title	Priority rank	2019	2020	2021
SPC Oceanic Fisheries Programme Budget (skipjack and SP striped marlin stock assessment in 2019)	High 1	906,396	924,524	943,015
SPC – Additional resourcing for harvest strategy evaluation, including stock assessments (Rob Scott)	High 1	164,832	166,480	168,145
Project 35b. Maintenance and enhancement of the WCPFC Tissue Bank	High 1	97,200	99,195	101,180
Project 42 Pacific Tuna Tagging Program (PTTP) Other: Approx. $170,000 from Korea	High 1	645,000	645,000	730,000
Project 60: Improving purse seine species composition		SPC use funding from other sources	40,000	40,000
Project 68. Estimation of seabird mortality across the WCPO Convention area	High 2	17,500		

SC Work Plan and Budget

Project title	Priority rank	2019	2020	2021
Project 82. Yellowfin tuna age and growth	High 1	85,000		
Project 83. Investigating the potential for a WCPFC tag vessel	High 2	95,000		
Project 88. Acoustic FAD analyses			120,000	72,000
Project 90. Better data on fish weights and lengths for scientific analyses	High 2	60,000	30,000	20,000
Project 92. Testing the performance of alternative stock assessments approaches for oceanic whitetip shark.	High 2	75,000		
Project 94. Workshop on yellowfin and bigeye tuna age and growth	High 1	15,000		
Unobligated (Contingency) Budget			83,000	83,000
SC14 TOTAL BUDGET		**2,160,928**	**2,025,200**	**2,074,340**

Administration

15th Scientific Committee

- Pohnpei, Federated States of Micronesia
- 7-15 August 2019

Samoa offered to host for 2020

Thank you~~