NORTHERN COMMITTEE
THIRTEENTH REGULAR SESSION

Busan, Republic of Korea
28 August – 1 September 2017

SC13 Summary Report to NC13

WCPFC-NC13-2017/IP-02 (Rev.01)

WCPFC Secretariat

NOTE

- Since SC11, the Summary Report of the Scientific Committee Meeting has been adopted intersessionally.
- As of today, rapporteurs are still working on finalizing the SC13 Summary Report, the following summary is based on recommendations from SC13 related to Northern Committee.
- WCPFC-NC13-IP-02 will be replaced by the SC13 Executive Summary once available.

SUMMARY REPORT FROM SC13 TO NC13

OPENING OF THE MEETING

1. SC13: National Auditorium, Rarotonga, Cook Islands, 9-17 August 2017. Ms Berry Muller (RMI) chaired the meeting.

Data and Statistics theme	Valerie Post (USA)
Stock Assessment theme	Jon Brodziak (USA) Hiroshi Nishida (Japan)
Management Issues theme	Robert Campbell (Australia)
Ecosystem and Bycatch Mitigation theme	Aisake Batibasaga (Fiji) John Annala (NZ)

REVIEW OF WCPO FISHERIES

2. The provisional total WCP–CA tuna catch for 2016 was estimated at 2,717,850 mt (the 2nd highest on record: 2,851,087 mt in 2014), which is 79% of the total Pacific Ocean catch of 3,406,269 mt, and 56% of the global tuna catch (the provisional estimate for 2016 is 4,795,867 mt).

Species	Catch (mt)	%
Skipjack	1,816,650	67
Yellowfin	650,491	24
Bigeye	152,806	6
Albacore	97,822 (NP: 29,221; SP: 68,601)	4

Gear	Catch (mt)	%
purse seine	1,858,198	68
pole-and-line	199,457	7
longline	231,860	9
SP troll albacore	2,097	0.1
remainder	269,100	16

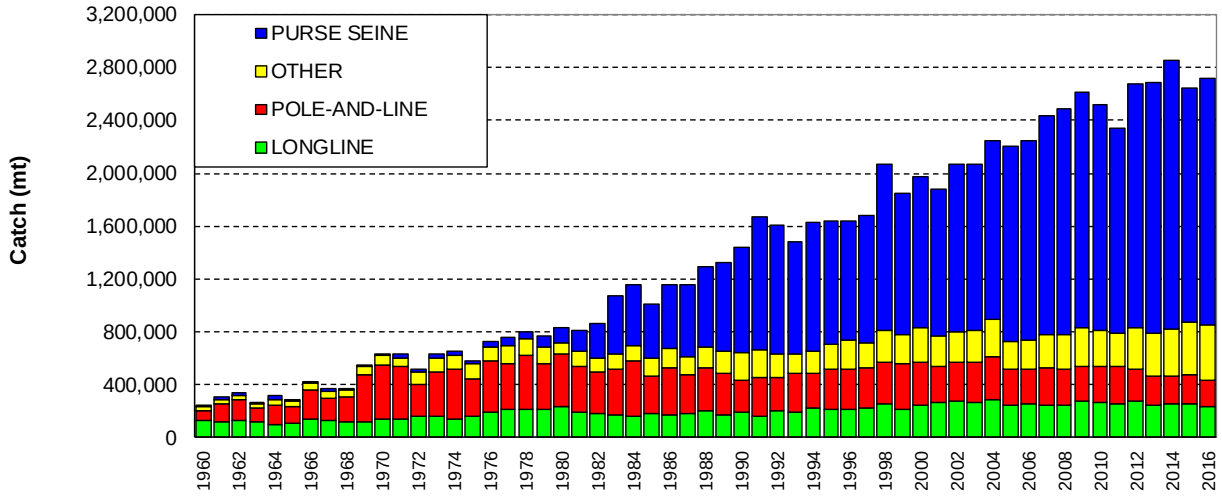


Figure 1. Catch (mt) of albacore, bigeye, skipjack and yellowfin in the WCP–CA, by purse seine, longline, pole-and-line and other gear types

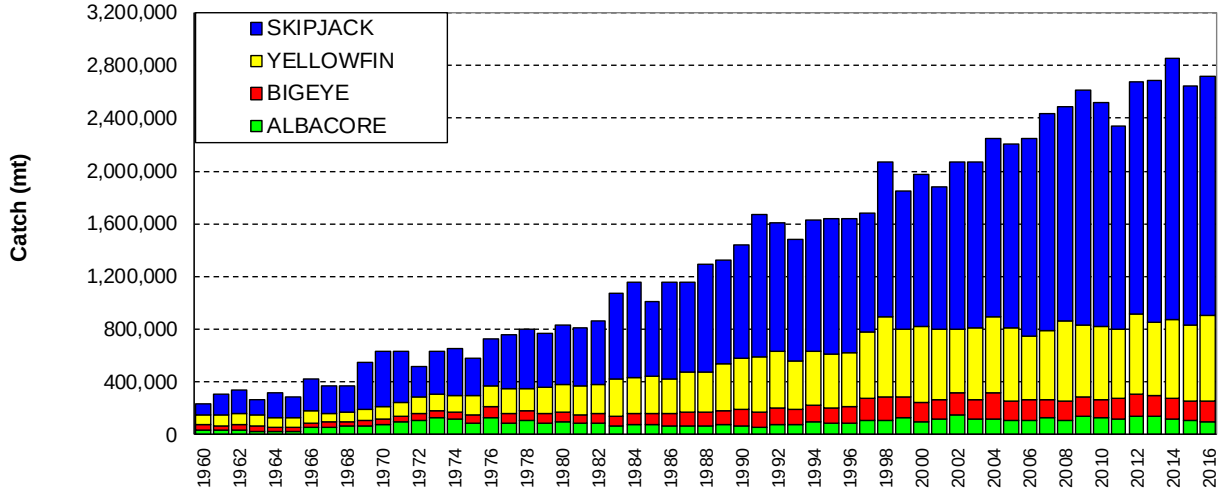


Figure 2. Catch (mt) of albacore, bigeye, skipjack and yellowfin in the WCP–CA

DATA ISSUES

3. Paper SC13-ST-WP-05 (Summary of large-scale purse seine fishery bycatch at a regional scale, 2003-2016), where bycatch covers catches of all species, excluding skipjack, yellowfin and bigeye (regardless of whether retained/ discarded).

- Rainbow runner, silky shark, oceanic triggerfish, mackerel scad and mahi-mahi were the most frequently observed bycatch species recorded by observers.

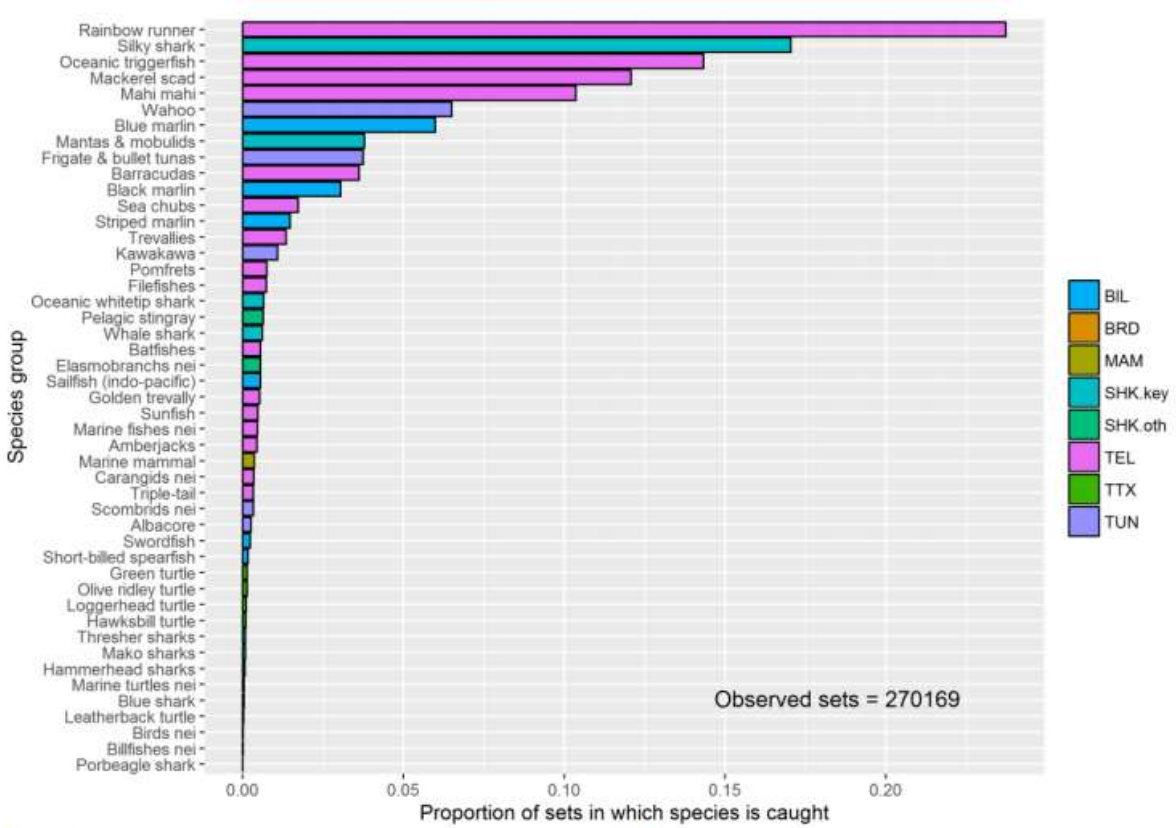


Figure 5 The proportion of purse seine sets with observed bycatch against species/species group. Bar colour denotes billfish (BIL), scombrids (TUN), other teleosts (TEL), WCPFC key shark species (SHK.key), other shark species (SHK.oth), marine mammals (MAM), turtles (TTX) and seabirds (BRD).

- SC13 recommended that the Scientific Service Providers continue the work on purse seine bycatch[1] estimates and extend this work to producing estimates of bycatch in the longline fisheries for presentation at SC14.

4. FAD data fields
   a) FAD data fields to be provided by vessel operators
      - SC13 recommended that FAD related data fields in Attachment C in WCPFC-2016-FADMgmtOptionsIWG02_rev2 be forwarded to TCC13 for review and WCPFC14 for adoption.
   b) FAD data fields to be provided by observers
      - SC13 recommended the followings revisions to the ROP Minimum Standard Data Fields be forwarded to TCC13 for review and WCPFC14 for adoption.
        - Addition of a new section "FAD Information" that will include inventories of the FAD buoys on board at the start and end of each trip.
        - Addition of a new field for FAD Identification.
        - Deletion of FAD Data fields related to a) materials FAD is made from and b) estimated size of FAD

[1] "bycatch" in this instance refers to the purse-seine catches of any species other than skipjack, yellowfin and bigeye tuna, regardless of whether it was retained or discarded. For the longline fishery, it would exclude the primary target species.

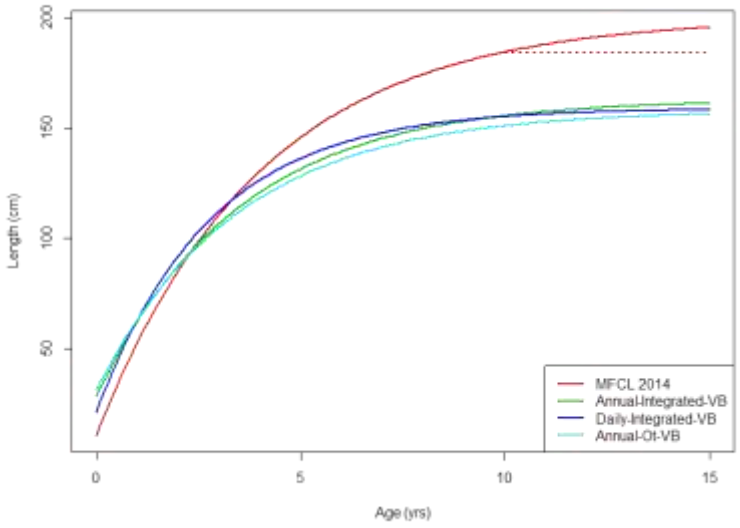
5. SC13 recommended that the WCPFC ERandEM Working Group convene prior to SC14, and that the latest draft version of the WCPFC E-Reporting observer data standards (WCPFC13-2016-28, Annex A, Attachment 2) be forwarded to WCPFC14 for adoption.

6. SC13 recommended an intersessional work for the development of guidelines for the voluntary provision of economic data to the Commission by CCMs. Any CCMs will participate in the intersessional work and the outcome of which will be considered by TCC13.

SUMMARY OF STOCK STATUS AND MANAGEMENT RECOMMENDATIONS

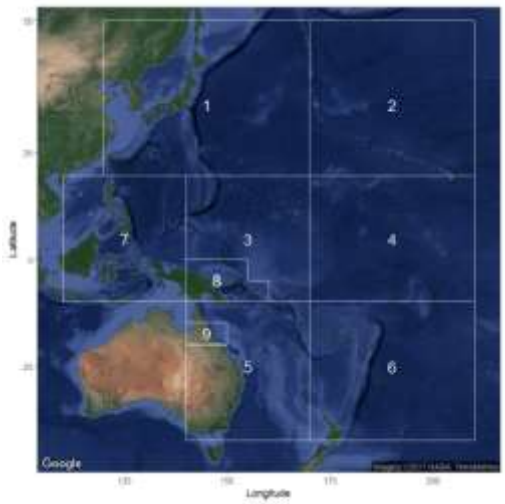
7. There were several new elements for the 2017 bigeye stock assessment but the following two factors provided the largest influence to the outcome of the assessment.

a) New growth curve from Project 35 (Pacific-wide bigeye biology)

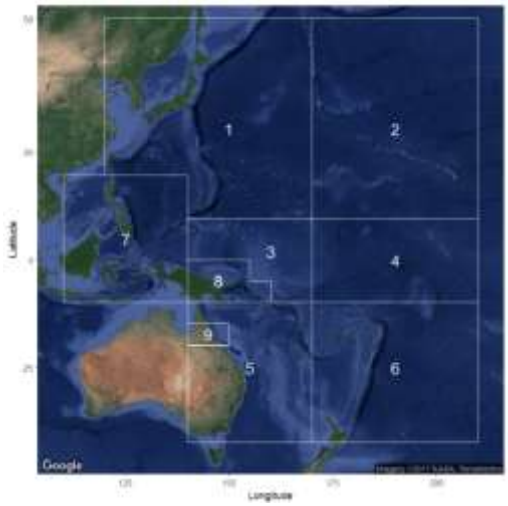


b) Changes in spatial structure for stock assessment (Regions 1,2,3 and 4)

Spatial structure - 2014



Spatial structure - 2017



8. 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 Summary Report in the near future. Figures and Tables for stock status and management quantities for bigeye and yellowfin tuna are in Attachment 1 and 2, respectively.

Tunas	
Bigeye tuna	a) Based on the uncertainty grid adopted by SC13, the WCPO BET spawning biomass is likely above the biomass limit reference point and recent fishing mortality is likely below F_{MSY}. • Therefore noting the level of uncertainties in the current assessment it appears that the stock is not experiencing overfishing (77% probability) and it appears that the stock is not in an overfished condition (84% probability). b) Based on those results, SC13 recommends as a precautionary approach that the fishing mortality on bigeye tuna stock should not be increased from current level to maintain current or increased spawning biomass until the Commission can agree on an appropriate target reference point.
Yellowfin tuna	a) Based on the uncertainty grid adopted by SC13 the spawning biomass is highly likely above the biomass limit reference point and recent fishing mortality is highly likely below F_{MSY}. • Therefore noting the level of uncertainties in the current assessment is appears that the stock is not experiencing overfishing 96% probability) and it appears that the stock is not in an overfished condition (92% probability). b) SC13 reiterates its previous advice from SC10: • That WCPFC could consider measures to reduce fishing mortality from fisheries that take juveniles, with the goal to increase to maximum fishery yields and reduce any further impacts on the spawning potential for this stock in the tropical regions. • that measures should be implemented to maintain current spawning biomass levels until the Commission can agree on an appropriate target reference point.
Skipjack tuna	a) Skipjack fishery impacts on the margins of the Convention Area • SC13 reviewed the progress of Project 67 on the impacts of recent catches of skipjack tuna on fisheries on the margins of the WCPFC Convention Area. Recent progress in application of SEAPODYM to skipjack included new environmental forcing, revision of fishing data set and parameter optimisation including conventional tagging data in addition to fishing data (SC13-SA-WP-07). In this study, though a significant connectivity between equatorial and higher latitudes is suggested, the high biomass predicted in the equatorial regions limits the impact of the equatorial purse seine fishery on the stock at northern latitudes. The connectivity among the areas and the impact to the stock in the northern area may be sensitive to model setting. b) SC13 noted that no stock assessment has been conducted since SC12. Therefore, the advice from SC12 should be maintained, pending a new assessment or other new information. For further information on the management advice and implications from SC12.

Northern stocks	
North Pacific albacore	SC13 noted the following conservation information from the ISC.

Pacific bluefin tuna	SC13 noted that no management advice has been provided since SC12. Therefore, the advice from SC12 should be maintained, pending a new assessment or other new information. For further information on the management advice and implications from SC12
North Pacific swordfish	SC13 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. For further information on the management advice and implications from SC10

Sharks	
North Pacific blue sharks	SC13 noted the conservation information provided from the ISC.
Pacific bigeye thresher shark	SC13 reviewed the report for Pacific-wide sustainability risk assessment of bigeye thresher shark (*Alopias superciliosus*) (SA-WP-11) conducted by the Common Oceans (ABNJ) Tuna Project and NIWA, and recommends that WCPFC14 take the results of this assessment into consideration when framing a management measure for bigeye thresher sharks in the WCPO.

Management Issues Theme

9. As requested by the Harvest Strategies Workplan (Attachment N, WCPFC13 Summary Report) and the Small Working Group on Management Objectives at WCPFC13, SC13 reviewed candidate performance indicators and monitoring strategies for

i) South Pacific albacore commensurate with candidate management objectives for the Southern Longline Fishery (WCPFC-SC13-2017/MI-WP-02) and
ii) Bigeye and Yellowfin Tuna commensurate with candidate management objectives for the Tropical Longline Fishery (WCPFC-SC13-2017/MI-WP-03).

10. SC13 provided a number of suggestions to clarify, and update as appropriate, aspects of these papers and requested that revised versions of both be forwarded to WCPFC14. SC13 recommended that WCPFC14 note the candidate performance indicators and monitoring strategies for each of these fisheries, and provide advice on what performance indicators and monitoring strategies should be included for the development of harvest strategies under CMM 2014-06.

Ecosystem and Bycatch Mitigation Issues

11. Continued update of SEAPODYM (Spatial Ecosystem and Population Dynamics Model), which is a numerical model initially developed for investigating physical-biological interaction between tuna populations and the pelagic ecosystem of the Pacific Ocean.

12. Four FAD research plans were introduced but none was budgeted yet in 2018.

13. In 2018, SPC is scheduled to conduct stock assessments for South Pacific albacore and Southwest Pacific striped marlin.

Administration Issues

14. Election of Officers of the Scientific Committee
    - Both SC Chair and Vice-Chair will finish their terms this year. No nomination was made at SC13, so a new Chair and Vice-Chair will be selected at WCPFC14.

15. Next meeting
    - SC14 in 2018 will be held in the Korea and Samoa offered to host SC15 in 2019. WCPFC14 will confirm the venue and meeting dates.