Report of SC12 outcomes to NC12

(focusing on NC-related issues)

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Opening of the Meeting

- Meeting Dates: 3-11 August 2016
- Venue: The Stones Hotel in Bali, Indonesia.
- SC Chair: Ms Berry Muller (RMI)

- Theme Conveners

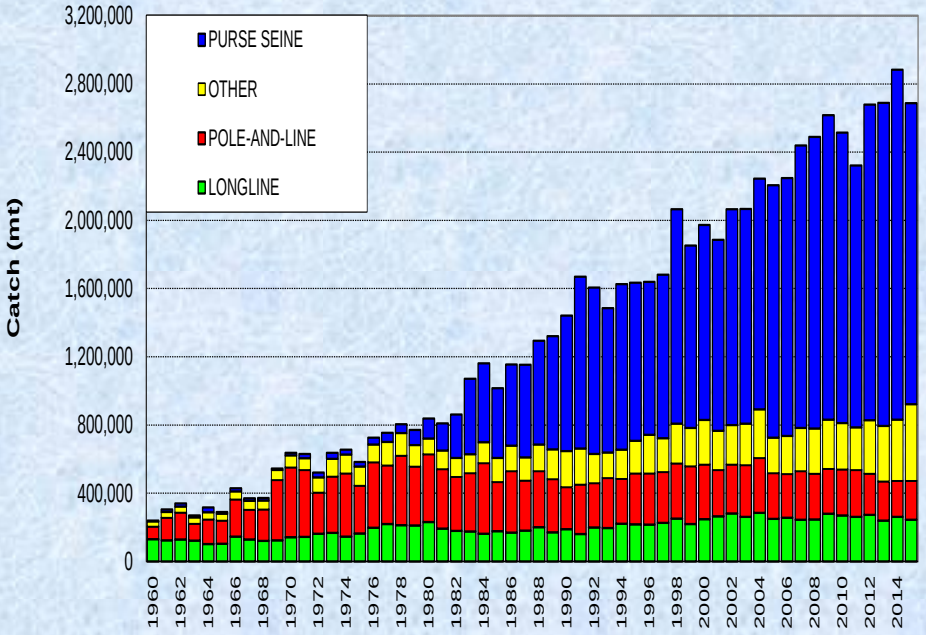
Data and Statistics theme (ST)	Berry Muller (RMI)
Stock Assessment theme (SA)	Jon Brodziak (USA) and Hiroshi Nishida (Japan)
Management Issues theme (MI)	Robert Campbell (Australia)
Ecosystem and Bycatch Mitigation theme (EB)	John Annala (NZ) and Aisake Batibasaga (Fiji)

Review of WCPO Fisheries

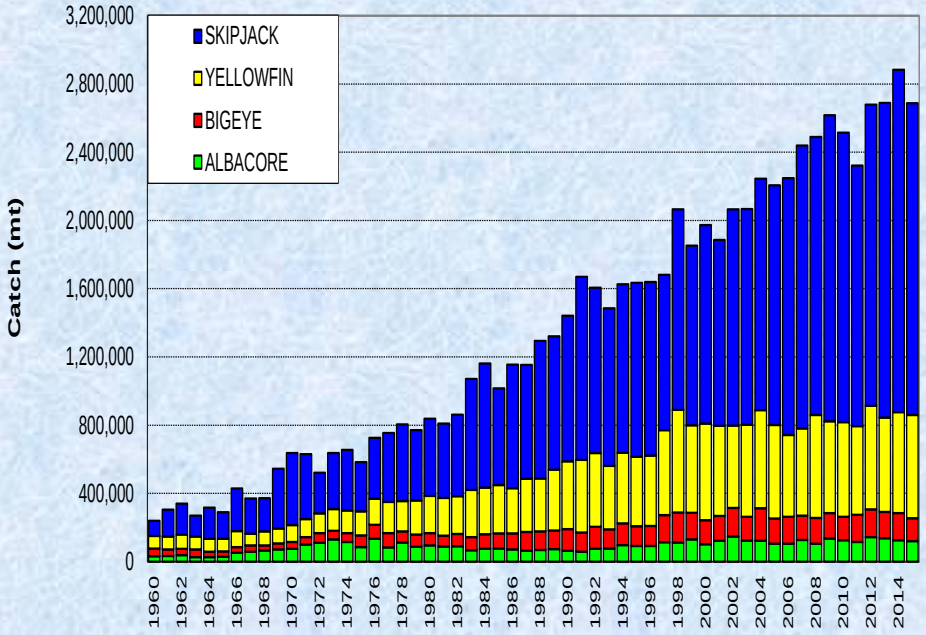
- The provisional total 2015 tuna catch: 2,687,840 mt
  - 80% of the Pacific Ocean tuna catch of 3,379,789 mt
  - 56% of the global tuna catch of 4,799,697 mt

Species	Catch (mt)	%		Gear	Catch (mt)	%
Skipjack	1,827,750	68		**purse seine**	1,766,070	66
Yellowfin	605,963	23		**pole-and-line**	228,129	8
Bigeye	134,084	5		**longline**	243,547	9
Albacore	120,043 (NP: 51,449; SP: 68,594)	4		**SP troll albacore**	2,576	0.1

Review of WCPO Fisheries



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



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

Data Issues

Recommendations include:

- Gaps in CCM's LL observer coverage in paper SC12-ST-IP-02 will be revisited at TCC12.
- Development of EM&ER will continue. CCMs should provide comments by 10 Sep. 2016 on E-Reporting standard data fields for logsheet and observer data for TCC12.
- *Definition of public domain data* (3-vessel rule) and the revised *Scientific Data to be provided to the Commission* will be revisited by TCC12.
- SC13 will consider guidelines for the CCM's voluntary submission of economic data to the Commission.

Stock Status and Management Advice

Bigeye Tuna

- No stock assessment conducted.
- Total bigeye catch in 2015 was 134,084 mt - 16% decrease over 2014 and a 13% decrease over the average for 2010-14.
- Purse seine
  - Bigeye catch in 2015 – 26% lower than that in 2014;
  - PS Effort – 21% lower.
- Longline
  - Bigeye catch in 2015 – 13% lower than that in 2014
  - Tropical LL effort (20N-10S) – 4% lower
- Depletion – $SB_{2015}/SB_{F=0} = 0.17$

Stock Status and Management Advice

Yellowfin Tuna

- No stock assessment conducted.
- Total yellowfin catch in 2015 was 605,963 mt – 2% increase over 2014 and a 7% increase over the average for 2010-14
- Purse seine
  - Yellowfin catch in 2015 – 15% lower than that in 2014
  - PS effort – 21% lower
- Longline
  - Yellowfin catch in 2015 – 2% lower than that in 2014
  - Tropical LL effort (20N-10S) – 4% lower
  - Catches of other gears – 47% increased from 2014 to 2015.
- Depletion – $SB_{2015}/SB_{F=0} = 0.49$

Stock Status and Management Advice

Skipjack Tuna (new stock assessment)

- Total skipjack catch in 2015 was 1,827,750 mt – 9% decrease over 2014 and a 3% increase over the average for 2010-14
- Purse seine
  - Skipjack catch in 2015 – 13% lower than that in 2014
  - PS effort – 21% lower
- Stock status and trends
  - Majority view: $SB_{latest}/SB_{F=0}$ = 0.58 >> LRP and close to TRP (50%$SB_{F=0}$), using a base-case model
  - Minority view: not possible to select a base-case model; some models indicate that SB_{2015} is below the TRP
- Management advice –moderately exploited and F level is sustainable; keep the SB near the TRP

Stock Status and Management Advice

Pacific bluefin tuna

- SC12 noted that ISC provided conclusions on the stock status of Pacific bluefin tuna and conservation advice
- Total PBF catch in 2015 was 11,020 mt – 36% decrease over 2014 and a 30% decrease over the average for 2010-2014
- SC12 noted that the PBF SSB is depleted to 2.6% $SSB_{F=0}$ and also notes that the PBF stock remained below 20% $SB_{F=0}$ for most of the time of assessment.
- For the upcoming IATTC-WCPFC joint meeting, SC12 expressed the need of urgent coordinated actions in reviewing the current rebuilding plan, establishing the emergency rule as well as considering and developing reference points and HCRs for the long term management of PBF.

Designation of NP blue shark as a northern stock?

1) Reviewed SC12-SA-IP-19 (a population genetic structure study for NP blue shark)
   - This paper showed no spatial structure analysis, so SC could not identify if the NP and SP blue shark are distinct stocks.
   - The theme co-convenor commented that SC had been charged with evaluating whether NP blue shark was a northern stock, and suggested that CCMs could consider drafting some language.
2) FFA members noted that there was no new information to assist this decision.
   - These CCMs noted that the tagging data analysis in SC12-SA-IP-16 (A summary of blue shark…) recommended that the equator was the most appropriate delineation line, not 20°N, and the next north Pacific blue shark assessment should employ a regional split.

3) The theme co-convenor thanked FFA for presenting a potential way to progress this matter

Designation of NP blue shark as a northern stock?

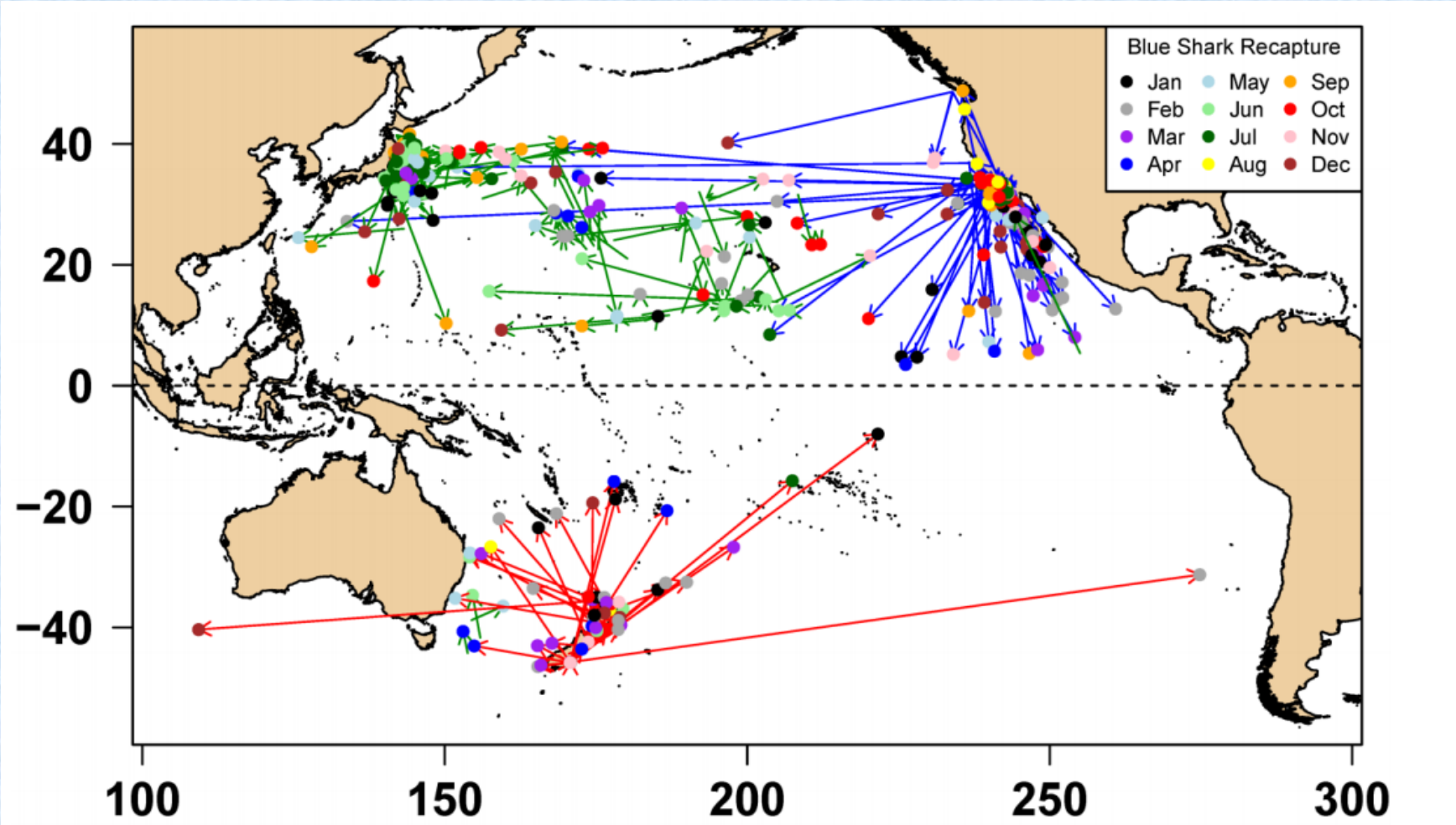


Figure 1. Blue shark tag recaptures. Blue lines are from NOAA – Southwest Fisheries Science Center databases, green lines are from Japanese National Research Institute of Far Seas Fisheries databases, red lines are from the New Zealand Ministry of Fisheries database. Recapture months are depicted by colored circles.

Management Issues

1. There have been four sessions of the Management Objectives Workshop during the last four years.
2. CMM on the development of WCPFC harvest strategy framework
   - CMM 2014-06 (*CMM to develop and implement a harvest strategy approach for key fisheries and stocks in the WCPO*)
   - WCPFC12 (Dec., 2015) adopted *Agreed Work Plan for the Adoption of Harvest Strategies under CMM 2014-06*
3. WCPFC12, Para 618.

   "The Commission agreed that …, and the harvest strategy-related issues will be included on the WCPFC13 agenda in 2016. In addition, the Commission directed SC12 to include these discussions under the Management Issues theme agenda item, so that the discussion on harvest strategies, in particular, continues."

Harvest Strategy Framework

Six Elements

1. **Management objectives** – SC12 requested the Commission to clarify the MOs for skipjack and SP albacore
2. **Reference points**
   - SP albacore – SC12 requested the Commission to determine a TRP, noting biological and economic information in paper SC12-MI-WP-01
   - Bigeye tuna – Commission tasked SC to determine a biologically reasonable timeframe for rebuilding bigeye tuna to [or above] its LRP. SC12 provided various options including minimum rebuilding time in the absence of fishing of 2-4 years. Refer to paper SC12-MI-WP-02 for the details

Harvest Strategy Framework

Six Elements

3. **Levels of acceptable risk**
   - WCPFC13 is scheduled to agree levels of risk for the four key tuna species;
   - SC12 recommended that WCPFC13 consider the rationale outlined in paper SC12-MI-WP-03
4. **Monitoring strategy**
   - SC12 reviewed and recommended candidate performance indicators and monitoring strategies listed in paper SC12-MI-WP-03
   - SC12 requested the Commission to provide advice on what performance indicators and monitoring strategies should be included for the development of harvest strategies

Harvest Strategy Framework

Six Elements

5. **Harvest control rules** and 6. **Management Strategy Evaluation**

1) Report of the SPC's MSE Expert Consultation Workshop (SC12-MI-WP-05)
   - Continue SPC's informal expert's workshops
   - Stakeholder's involvement in the development of HS
2) SC12 reviewed and recommended an evaluation of candidate HCRs and related information for the tropical skipjack PS fishery in paper SC12-MI-WP-06
3) ISC's presentation on the development of HCRs and MSE for PBF and NP albacore stocks (SC12-MI-WP-07).
   - SC12 recommended that the Commission consider the need to facilitate discussion on MSE between SPC and ISC and across all t-RFMOs.

Implementation of CMM 2015-01

1) **Yellowfin catch limit (Para 28 and 29)**
   - SC12 noted that the catch of yellowfin in the LL and PS fisheries appears relatively stable
   - Several CCMs do not consider yellowfin catch limits be immediately necessary.
2) **Options for the recovery of bigeye stock**
   - SC12 recommended that there are various options to limit bigeye catches on PS vessels, including
     - Limit bigeye catches on PS vessels with higher percentage of bigeye tuna catch (SC12-MI-WP-09)
     - Introduction of FAD charges to manage FAD usage in PNA waters, etc.

Implementation of CMM 2015-01

3) Effort creep

- SC12 reviewed candidate indicators of effort creep in the WCPO purse seine fishery (SC12-MI-WP-08)
  - Consideration of adjusting the Vessel Day Scheme TAE for effort creep
- SC12 strongly supported this work, noting that this work was also directly relevant to the development of a harvest control rule for skipjack
- SC12 identified effort creep as an important issue related to all fleets operating in the WCPO and recommended that WCPF13 prioritise continued research on this important issue.

Ecosystem and Bycatch Mitigation

Spatial Ecosystem and Population Dynamics Model (SEAPODYM)

A numerical model initially developed for investigating physical-biological interaction between tuna populations and the pelagic ecosystem of the Pacific Ocean

SC12 reviewed SEAPODYM (SC12-EB-IP-14) as follows for the Commission's note:

- SEAPODYM has the potential to be a useful complementary model to MULTIFAN-CL for MSE work that includes spatial management
- The capacity of SEAPODYM to include climate changes would be a consideration in the MSE work.

Ecosystem and Bycatch Mitigation

Sharks

SC12 provided several recommendations related with potential mitigation of fishing-related mortality on oceanic sharks, including recommendations on:

- Choice of longline mitigation approaches such as excluding wire trace and shark-lines
- Findings from fin to carcass ratio research
- Definition of LL fisheries “targeting” sharks and management plans
- Progress of shark research plan
- Designation of a shark species and adoption of guidelines for safe release of Manta and Mobula rays caught incidentally in WCPFC fisheries

Ecosystem and Bycatch Mitigation

Seabirds

- Regarding the research on seabird distributions, SC12 recommended that the Commission note that the northern limit of the spatial distribution of seabird density data extends to areas north of 30°S.
- Regarding the tori line research, SC12 recommends that the Commission note the tori line options developed in papers SC12-EB-WP-10 and SC12-EB-WP-13, especially for small longline vessels, recognizing that some of the options may have the potential to be effective in reducing seabird bycatch.

Administration

1. Budget

Two options of 2017 Budget were provided:

- Excluding external funding of tagging project: $1,711,700
- Including external funding of tagging project: $2,661,700

2. Election of Officers of the Scientific Committee

- SC Chair – B. Muller from RMI
- SC Vice-Chair – Aisake Batibasaga

3. Next Meeting

- SC13 (2017) –Cook Islands
- SC14 (2018) – Busan, Korea

Adoption of SC12 Report

Due by	Activity
11 August	Close of SC12
18 August	Theme convenors receive SC12 draft summary report for review from the Secretariat
23 August	The Secretariat receives theme convenors' comments
23 August	The Secretariat posts the provisional Executive Summary on the SC12 website
26 August	The Secretariat distributes the draft summary report to all CCMs and Observers by email
30 September	The Secretariat receives comments from CCMs and Observers


Thank you...