

**NORTHERN COMMITTEE**

**TENTH REGULAR SESSION**

1-4 September 2014

Fukuoka, Japan

**SC10 Summary Report to NC10**

**WCPFC-NC10-2014/IP-02-Supplement**

1. SC10 was held in Majuro, Republic of the Marshall Islands from 6-14 August 2014. Mr. Ludwig Kumoru chaired the meeting.

**WCPO Tuna Fisheries**

1. The provisional total WCPFC Statistical Area tuna catch for 2013 was estimated at 2,621,511 mt, 80% of the total Pacific Ocean catch of 3,213,733 mt, and 57% of the global tuna catch of 4,511,238 mt (the provisional estimate for 2013).

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| --- | --- | --- | --- | --- | --- | --- |
| Species  | Catch (mt)  | %  |  | Gear  | Catch (mt)  | %  |
| Skipjack | 1,784,091 | 68  | purse seine  | 1,898,090 | 72  |
| Yellowfin | 535,656 | 21  | pole-and-line  | 221,022 | 8  |
| Bigeye | 158,662 | 6  | longline  | 230,073 | 9  |
| Albacore  | 143,102 (NP: 58,404; SP: 84,698)  | 5  | SP troll albacore  | 3,226 | 0.1  |
| remainder  | 269,100  | 10  |

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| **Figure 1.** Catch (mt) of albacore, bigeye, skipjack and yellowfin in the WCPFC Statistical Area | **Figure 2.** Catch (mt) of albacore, bigeye, skipjack and yellowfin in the WCPFC Statistical Area, by longline, pole-and-line, purse-seine and other gear types |

# Data Gaps

1. The main data gap related to the non-provision of operational catch and effort data was highlighted and an arrangement was developed between CCMs and SPC to facilitate the availability of operational data for the Pacific-wide bigeye stock assessment scheduled for 2015 (Attachment F of the SC10 Report)

# Electronic Monitoring and Reporting

1. There were presentations and discussions on E-Reporting and E-Monitoring trials and expansion of large-scale implementation where appropriate was expected.

**WCPO Stock Status and Management Advice**

1. The review and results of 2014 stock assessments are briefly highlighted as follows:

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| Tunas | Bigeye | 1. Fcurrent(2008-11 average)/FMSY = 1.57 for the reference case, indicating that overfishing is occurring
2. SBlatest/SBMSY = 0.77 and SBlatest/SBF=0 = 0.16: an overfished state
3. A 36% reduction in F is required from Fcurrent to reach to FMSY
4. (can be stated as a minimum 33% reduction from the F2004 level, or a minimum 26% reduction from the F2001-2004 level)
5. Future status quo projections (assuming 2012 conditions):
	* + - Under S-R relationship, Pr (SB2032<0.2SBF=0)=0.94
			- Under recent R2002-2011, Pr (SB2032<0.2SBF=0)=0.13
			- Under both conditions, it was virtually certain (100%) that the stock would remain subject to overfishing (F>FMSY)
6. SC10 recommended that the Commission consider the results of updated projections at WCPFC11, including evaluation of the potential impacts of CMM 2013-01, to determine whether the CMM will achieve its objectives and allow the bigeye stock to rebuild above the LRP
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| Yellowfin  | 1. Fcurrent(2008-11 average)/FMSY = 0.72 for the reference case, indicating that overfishing is not occurring, however latest catches are close to or exceed the MSY by up to 13%
2. SBlatest/SBMSY = 1.24 and SBlatest/SBF=0 = 0.38: not in an overfished state
3. Future status quo projections (assuming 2012 conditions):
	* + - Under S-R relationship, Pr (SB2032<0.2SBF=0)=0.00
			- Under recent R2002-2011, Pr (SB2032<0.2SBF=0)=0.00
4. The SC10 recommend that the catch of WCPO yellowfin should not be increased from 2012 levels which exceeded MSY and measures should be implemented to maintain current spawning biomass levels until the Commission can agree an appropriate TRP
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| Skipjack | * + - 1. Fcurrent(2008-11 average)/FMSY = 0.62for the reference case, indicating that overfishing is not occurring
	1. SBlatest/SBMSY = 1.81 and SBlatest/SBF=0 = 0.48: within the range of a possible TRP, 40-60% of SBF=0
	2. Future status quo projections (assuming 2012 conditions):
		+ - Under S-R relationship, Pr (SB2032<0.2SBF=0)=0.00
			- Under recent R2002-2011, Pr (SB2032<0.2SBF=0)=0.00
	3. Abundance indices of coastal fisheries in the Pacific coastal waters of Japan show declining trend and level between 2006 and 2013 were half of its level between 1996 and 2005. The migration of skipjack stock to coastal area around Japan, one of the edge areas of skipjack distribution has been diminished since around 2006 possibly due to range contraction of this species in the WCPO, though other reasons cannot be ruled out.
	4. SC10 recommended that the PAW consider the inclusion of fisheries data into the skipjack assessment for the northern and southern margins of the Convention Area.
	5. SC10 recommended further research for range contraction of skipjack should be conducted in the framework of Project 67.
	6. SC10 advised the WCPFC that there is concern that high catches in the equatorial region could result in range contractions of the stocks, thus reducing skipjack availability to high latitude fisheries
	7. SC10 recommends the commission take action to avoid further increases in fishing mortality and keep the skipjack stock around the current levels, with tighter purse-seine control rules and advocates for the adoption of TRP and harvest control rules.
	8. SC10 recommended that the Commission consider the results of updated projections at WCPFC11, including evaluation of the potential impacts of CMM 2013-01, to determine whether the CMM will achieve its objectives including impacts of the skipjack fishery on bigeye and yellowfin tuna.
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| Northern stocks | SC10 noted stock status and conservation advice provided from ISC |
| sharks | OWT shark | No stock assessment conducted in 2013 |
| Silky shark |
| NP blue shark | 1. Bayesian Surplus Production model:

B2011/BMSY = 1.65; B2011= 622,000 mt; F2011=0.32 FMSY 1. Stock Synthesis (SS) reference case model:

SSB2011= 449,930 mt; SSB2011/SSBMSY = 1.621; F2011 = 0.34 FMSY* The stock is likely not experiencing overfishing and not in an overfished condition
1. Under status quo catch and fishing mortality, future projections show that median BSH biomass will remain above BMSY. However SC10 noted that there is substantial uncertainty in the model results and recommended that the catch and fishing effort should be carefully monitored.
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| Billfish | No stock assessment |

# Management Issues for the WCPFC

1. As requested by WCPFC10 for clarification of the acceptable risk levels, SC10 agreed to conduct further analyses with the axes of uncertainties and associated weighting as shown in Attachment G of the SC10 Report, the results of which will be presented to the MOW3 (if it takes place) and WCPFC11.
2. SC10 recommends that WCPFC11 identify the level of acceptable risk which should be applied to breaching a LRP for the key target species.
3. SC10 also provided recommendations on identifying appropriate LRPs for elasmobranchs (refer to Para 513 of the SC10 Report for details).
4. SC10 considered a draft CMM on establishing a harvest strategy for key tuna species in the WCPO, and recommended that Australia continue to develop this CMM and that the updated CMM be presented to TCC10 and WCPFC11.
5. SC10 considered Para 29 and 38 of CMM 2013-01 on the impacts of FAD set measures and additional FAD management options. For details, refer to section 5.3 of the SC10 Summary Report.

**Bycatch Mitigation**

1. SC10 recommends that Relevant members will present the analysis of the different bycatch interaction rates between exempted small longline vessels (<24 m) and of larger non-exempt vessels north of 23 degrees north in CMM 2012-07 at SC11.

**SC Work Programme and Budget**

1. SC10 adopted the list of SC work programme titles and budget for 2015, and indicative budget for 2016–2017, which require funding from the Commission’s core budget (in USD).

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| Research activity / Project with priority | 2015 | 2016 | 2017 |
| Project 14. WPEA Project * Scope: port sampling and capacity building of WPEA countries
 | 25,000 | 25,000 | 25,000 |
| Project 35. Refinement of bigeye parameters* Scope: 2015 is the last year of the project; sampling data and analysis of otoliths/gonads for assessment
 | 125,000 | 50,000 |  |
| Project 42. Pacific-wide tagging project | 10,000 | 10,000 | 10,000 |
| Project 57. Limit reference points: Expert panel work on the identification of appropriate life history parameters for use in developing shark LRPs | 25,000  |  |  |
| Project 66. Target reference points  |  |  |  |
| Project 63. Harvest control rules |  |  |  |
| Project 70. Additional resourcing SPC for the improvement of stock assessment along with 2011 BET peer review recommendations | 160,000 |  |  |
| Project 74. Pacific-wide Bigeye Stock Assessment (additional cost)* Travel and associated costs for 2 workshops ($52,600)
* MULTIFAN-CL software development ($26,300)
* Computer hardware ($13,100)
 | 92,000 |  |  |
| New Project – Monte Carlo simulation of mitigation options for longline shark Bycatch* See SC10-EB-WP-01 for details
 | 25,000 |  |  |
| Project 67 – Review of impacts of recent high catches of skipjack on fisheries on the margins of the WCPFC Convention Area | 40,000 |  |  |
| UNOBLIGATED BUDGET  | 83,000 | 83,000 | 83,000 |
| SPC OCEANIC FISHERIES PROGRAMME BUDGET (This includes $130,000 for shark research.) | 871,200 | 1,031,200 | 1031,200 |
| GRAND TOTAL | 1,456,200 | 1,199,200 | 1,149,200 |

1. SC10 and the Scientific Services Provider agreed that 2015 service agreement will include the following assessments and shark research program activities:
2. Pacific-wide bigeye stock assessment
3. South Pacific albacore stock assessment
4. Indicator analyses for key shark species
5. Development of Shark Research Plan
6. Update of stock assessment for WCPO bigeye incorporating 2013 data in projection mode
7. SC10 also ranked the projects listed in the Table below which were considered for funding under the Unobligated Budget. If there is no other priority demand on these funds by WCPFC11, then calls for proposals will be advertised for the three highest ranked projects.

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| **List of projects with high priority** | **Priority Level** |
| 1. Analysis of archival tag data held by SPC, in particular the relationship between fish movement and oceanography. | High |
| 2. Regional Observer Programme (ROP) data fields. Identification and description of operational characteristics of the major WCPO fleets and identification of important technical parameters for data collection (SC Project 19). | High |
| 3. Further development of methods and analysis to account for changes in targeting practices on the catch of non-target species in particular shark species. | High |
| 4. Project. Electronic tagging of whale sharks released from purse-seine nets (to examine survival). | Low |
| 5. Determination of North Pacific blue shark to be designated as a northern stock. | Low |

**Administrative Matters**

1. No nominations were forthcoming for the positions of Chair and Vice Chair for the SC; the Chair announced that nominations may be submitted for selection during WCPFC11 in December 2014.
2. FSM kindly offered to host SC11 in Pohnpei, FSM, which is provisionally scheduled for Wednesday 5 August to Thursday 13 August 2015. Indonesia kindly offered to host SC12 in 2016.

**Attachment F**

**The Commission for the Conservation and Management of**

**Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

**SCIENTIFIC COMMITTEE**

**TENTH REGULAR SESSION**

Majuro, Republic of the Marshall Islands

6-14 August 2014

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| DRAFT REPORT TEXT CONCERNING JAPAN, KOREA AND CHINESE TAIPEI COMMITMENTS TO SUPPORT THE PACIFIC-WIDE BIGEYE ASSESSMENT WITH PROVISION OF OPERATIONAL-LEVEL DATA |

(To follow the text that records the interventions by Japan, Korea and Chinese Taipei in plenary pledging availability of their operational-level data for the Pacific-wide bigeye assessment)

Representatives from Japan, Korea, Chinese Taipei and SPC discussed outside the meeting the assembly and collaborative analysis of operational-level longline data for the 2015 Pacific-wide bigeye assessment, and agreed that the following process would be the most effective and efficient way forward.

1. Korea and SPC will consult to reconcile their respective operational-level data holdings, with a view to the creation of a common data set for this fleet that includes all available data. (Japan holds all available data for their fleet, and this task was largely completed with Chinese Taipei in 2014, so this reconciliation is not required for Japan or Chinese Taipei.) These consultations will take place initially electronically, with follow-up as required at SPC headquarters in Noumea, New Caledonia at a mutually convenient time to be decided.
2. All parties shall agree on a format for operational-level data to be provided and integrated into a common data set for subsequent collaborative analysis. The format shall include, *inter alia*:
	* + 1. Set-by-set data for individual vessels, with vessel identity protected by a vessel code applied consistently through the time series;
			2. Effort in number of hooks;
			3. Hooks between floats (where available);
			4. Catch in number of bigeye, yellowfin, albacore tuna and swordfish;
			5. Date of set;
			6. Start time of set in local time (where available);
			7. Position specified to the nearest 1 degree square.
3. The scope of the data will be 1952 – 2013, and for the entire Pacific Ocean.
4. A data preparation workshop will be held at SPC headquarters involving the three parties and SPC at a time to be decided, but as early as possible in 2015. The data prepared in the agreed format shall be integrated into a common Chinese Taipei – Japan – Korea data set which will be used for exploratory analyses of the data and preliminary estimation of standardized CPUE indices.
5. The conditions for maintaining the confidentiality of the data and the duration for which the data set can remain available to SPC for further collaborative analyses necessary for the Pacific-wide bigeye assessment will be determined before TCC10 through consultations with respective fisheries agencies.

**Attachment G**

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| Identification of axes of uncertainties and relative weightings required for evaluating risks of exceeding limit reference points |

An informal small group (ISG-2) met on two occasions (Thursday 7th August and Monday 11th August) to discuss identification of the axes of uncertainties and relative weightings of parameter values to be included in the stochastic projections which are to be used for evaluating risks of exceeding limit reference points. These analyses will be undertaken for the bigeye tuna, yellowfin tuna, skipjack tuna and south Pacific albacore and the results provided to WCPFC11.

The following axes of uncertainties and relative weightings were agreed (with the reference model parameters highlighted):

 Axis of Uncertainty Relative Weighting

BIGEYE

 Steepness 0.65 0.80 0.95 0.8 1.0 0.8

 Mixing 1Qtr 2Qtr 2Qtr+28QtrCS 0.8 1.0 1.0

YELLOWFIN

 Steepness 0.65 0.80 0.95 0.8 1.0 0.8

 Mixing 1Qtr 2Qtr 0.8 1.0

SKIPJACK

 Steepness 0.65 0.80 0.95 0.8 1.0 0.8

 Mixing 1Qtr 2Qtr 1.0 1.0

SOUTH PACIFIC ALBACORE

 Steepness 0.65 0.80 0.95 0.8 1.0 0.8

 M 0.3 0.4 0.5 0.8 1.0 0.8