



**SCIENTIFIC COMMITTEE  
EIGHTH REGULAR SESSION**

Busan, Republic of Korea

7-15 August 2012

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**Theme Agendas Annotated with Associated Papers**

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**WCPFC-SC8-2012/13**

These theme agendas (3 to 6) with associated papers have been prepared by Conveners for the convenience of participants.

**DRAFT AGENDA ITEM 3 DATA AND STATISTICS THEME**

**3.1 Data gaps**

3.1.1 Data gaps of the Commission

**ST-WP-01** – Peter Williams

Scientific data available to the Western and Central Pacific Fisheries Commission

SC8 will consider progress in relation to addressing gaps in the data holdings of the Commission.

CCMs are requested to report their progress to SC8 on the inclusion of the following text in Section 5 of “Scientific Data to be provided to the Commission”:

*“The statistical and sampling methods that are used to derive the size composition data shall be reported to the Commission, including reference to whether sampling was at the level of fishing operation or during unloading, details of the protocol used, and the methods and reasons for any adjustments to the size data.”*

CCMs are also requested to report their progress to SC8 on the inclusion of the following text in Sections 3, 4, and 5 of “Scientific Data to be provided to the Commission”:

*“Information on operational changes in the fishery that are not an attribute in the data provided are to be listed and reported with the data provision.”*

3.1.2 Species composition of purse-seine catches

**ST-WP-02** – Tim Lawson

Report on Project 60: Collection and Evaluation of Purse-Seine Species Composition Data

**ST-WP-03** – Tim Lawson

Estimation of the species composition of the catch by purse seiners in the Western and Central Pacific Ocean using grab samples and spill samples collected by observers.

SC8 will review the progress of Project 60 (Collection and evaluation of purse-seine species composition data), amended research plan and budget implication (Para 510, SC7 Summary Report).

### 3.1.3 Data issues with the ISC

SC8 will review the progress of data reconciliation of the Commission and ISC data holdings for North Pacific stocks to identify and address data gaps.

Update from Secretariat / SPC

## 3.2 Requests from CMM 2008-01

### 3.2.1 Fishing effort for bigeye and yellowfin tuna from other commercial tuna fisheries\*

In accordance with paragraph 39 of CMM 2008-01, SC8 will review estimates of fishing effort or proposals provided by CCMs for the provision of effort data for other commercial tuna fisheries fishing for bigeye and yellowfin tuna. CCMs will provide such information to the Secretariat ([tony.beeching@wcpfc.int](mailto:tony.beeching@wcpfc.int)) by 30 June 2012.

Update from Secretariat

## 3.3 Regional Observer Programme

SC8 will consider report on auditing Regional Observer Programme (ROP), and issues related with scientific data collected or to be collected and data gaps.

**ST-IP-02** Status of Observer data management

**ST-IP-03** Summary of Regional Observer Programme Audits

SC8 will review the data generated by the ROP as requested in Para 7, Annex C of CMM 2007-01, and make appropriate recommendations to the Commission for annual review of the ROP.

Update from Secretariat/SPC

*CMM2007-01, Annex C, para 7:*

*“At the 2012 annual sessions of the SC and TCC, the data generated by the ROP shall be reviewed and those subsidiary bodies shall make appropriate recommendations to the Commission. Based on the advice and recommendations of the SC and TCC, the Commission shall annually review the ROP and make adjustments as necessary. Among the elements of the ROP to be reviewed are the provisions of para 10 on vessels initially deferred from application of the ROP.”*

*CMM2007-01, para.10:*

*“The implementation schedule for the following vessels shall be deferred:*

- i) small vessels, the minimum size of which shall be considered by the IWG-ROP for recommendation to the Commission in 2008.*
- ii) troll and pole-and-line vessels used for fishing for skipjack tuna or albacore (to be scheduled for review by the IWG-ROP).”*

## DRAFT AGENDA ITEM 4

## STOCK ASSESSMENT THEME

### 4.1 WCPO bigeye tuna

#### 4.1.1 Review of research and information

- a. Peer review of 2011 bigeye tuna stock assessment

Paper

**SA-WP-1:** Independent Review of 2011 WCPO Bigeye Tuna Assessment by Ianelli, J., M. Maunder, and A. E. Punt.

Paper

**SA-IP-2:** SPC-OF response to the Independent Review of the 2011 bigeye tuna stock assessment by Hampton, J. et al.

- b. Indicator analysis

Paper

**SA-WP-2:** Fishery indicators for bigeye, skipjack, and yellowfin tunas in the WCPO, and swordfish in the southern WCPO by Harley, S. and P. Williams.

- c. Progress report on Project 35 (Refinement of bigeye parameters Pacific-wide)

Paper

**SA-WP-3:** Bigeye tuna age and reproductive biology – progress report by Nicol, S. et al.

#### 4.1.2 Provision of scientific information

- a. Status and trends\*
- b. Management advice and implications\*

### 4.2 WCPO yellowfin tuna

#### 4.2.1 Review of research and information

Paper

**SA-WP-9:** Yellowfin tuna CPUE standardization of the Korean tuna longline fisheries in the Western and Central Pacific Ocean by Lee, S., Z. Kim, M. Lee, J. Ku, S. Yoon, and D. Lee.

Paper

**SA-IP-3:** Composition, Distribution and Abundance of Fish Eggs and Larvae in the Philippine Pacific Seaboard and Celebes Sea with Focus on Scombrids Larvae (Tuna and Tuna-like Species) by Servidad-Bacordo, R., A. Dickson, L. Nepomuceno and R. Ramiscal.

Paper

**SA-IP-4:** Yellowfin Tuna Fisheries in New Zealand and the Southwest Pacific Ocean by Holdsworth, J.

#### 4.2.2 Provision of scientific information

- a. Status and trends\*
- b. Management advice and implications\*

### 4.3 WCPO skipjack tuna

#### 4.3.1 Review of research and information

#### 4.3.2 Provision of scientific information

- a. Status and trends\*
- b. Management advice and implications\*

### 4.4 South Pacific albacore tuna

#### 4.4.1 Review of research and information

- a. Review of FRDC Project 2009/012 (Population Biology of SP albacore)

- Paper
          - SA-IP-15:** Population biology of albacore tuna in the Australian region by Farley, J., A. Williams, C. Davies, N. Clear, J. Eveson, S. Hoyle, and S. Nicol.
        - b. Review of 2012 stock assessment
          - Paper
          - SA-WP-4:** Stock Assessment of Albacore in the South Pacific Ocean by Hoyle, S.
          - Paper
          - SA-IP-14:** Standardized CPUE for South Pacific albacore by Bigelow, K., and S. Hoyle.
        - c. Review of CMM 2010-05
  - 4.4.2 Provision of scientific information
    - a. Status and trends\*
    - b. Management advice and implications\*
- 4.5 South Pacific swordfish**
  - 4.5.1 Review of research and information
    - Paper
    - SA-WP-8:** An update on progress towards a stock assessment for swordfish in the southern WCPO including standardized CPUE for Spanish swordfish fleet by Kleiber, P. and S. Harley.
    - Paper
    - SA-IP-5:** Spatial dynamics of swordfish in the south Pacific Ocean inferred from tagging experiments by Evans, K., D. Kolody, F. Abascal, J. Holdsworth, and P. Maru.
    - Paper
    - SA-IP-13:** Abundance indices for striped marlin and broadbill swordfish in the southwest Pacific based on standardised CPUE from the Australian longline fleet by Campbell, R.
  - 4.5.2 Provision of scientific information
    - a. Status and trends\*
    - b. Management advice and implications\*
- 4.6 Southwest Pacific striped marlin**
  - 4.6.1 Review of research and information
    - a. Review of Project 64 (Collation of SP striped marlin)
      - Paper
      - SA-IP-6:** Estimates of the Spatial Distribution of Striped Marlin in the SW Pacific Ocean Using PSAT Tagging Data by Chambers M., M. Domeier, T. Sippel, and J. Holdsworth.
      - Paper
      - SA-IP-7:** Catch per unit effort and size composition of striped marlin caught by recreational fisheries in southeast Australian waters by Ghosn, D., D. Collins, C. Baiada and A. Steffe.
      - Paper
      - SA-IP-8:** Characterisation and catch per unit effort of striped marlin in New Zealand by Holdsworth, J., and T. Kendrick.
      - Paper
      - SA-IP-9:** Analysis of striped marlin catch per unit effort data for Japanese and Chinese Taipei longline fleets in the southwest Pacific Ocean by Davies, N. and S. Hoyle.
    - b. Review of 2012 stock assessment
      - Paper
      - SA-WP-5:** Stock Assessment of Striped Marlin in the southwestern Pacific Ocean by Davies, N. and S. Hoyle.
  - 4.6.2 Provision of scientific information

- a. Status and trends\*
- b. Management advice and implications\*

#### **4.7 North Pacific striped marlin**

##### **4.7.1 Review of research and information**

- a. Review of 2012 stock assessment  
Paper  
**SA-WP-10:** Annex 5 Report of the Billfish Working Group ISC 6-16 December 2011  
Paper  
**SA-IP-16:** Annex 7 Report of the Billfish Working Group ISC 2-9 April 2012

##### **4.7.2 Provision of scientific information**

- a. Status and trends\*
- b. Management advice and implications\*

#### **4.8 Northern stocks**

##### **4.8.1 North Pacific albacore tuna**

###### **4.8.1.1 Review of research and information**

###### **4.8.1.2 Provision of scientific information**

- a. Status and trends\*
- b. Management advice and implications\*

##### **4.8.2 Pacific bluefin tuna**

###### **4.8.2.1 Review of research and information**

- a. Review of 2012 stock assessment

###### **4.8.2.2 Provision of scientific information**

- a. Status and trends\*
- b. Management advice and implications\*

##### **4.8.3 North Pacific swordfish**

###### **4.8.3.1 Review of research and information**

###### **4.8.3.2 Provision of scientific information**

- a. Status and trends\*
- b. Management advice and implications\*

#### **4.9 WCPO sharks**

##### **4.9.1 Oceanic whitetip shark**

###### **4.9.1.1 Review of research and information**

- a. Review of 2012 stock assessment  
Paper  
**SA-WP-6:** Stock Assessment of Oceanic Whitetip Sharks in the Western and Central Pacific Ocean by Rice, J. and S. Harley.  
Paper  
**SA-IP-10:** Catch per unit effort of oceanic white tip sharks in the Western and Central Pacific Ocean by Rice, J.  
Paper  
**SA-IP-12:** Alternative catch estimates for silky and oceanic whitetip sharks in the WCPO by Rice, J.

###### **4.9.1.2 Provision of scientific information**

- a. Status and trends\*
- b. Management advice and implications\*

##### **4.9.2 Silky shark**

###### **4.9.2.1 Review of research and information**

- a. Review of 2012 stock assessment  
Paper  
**SA-WP-7:** Stock Assessment of Silky Sharks in the Western and Central Pacific Ocean by Rice, J. and S. Harley.  
Paper

**SA-IP-11:** Catch per unit effort of silky sharks in the Western Central Pacific Ocean by Rice, J.

4.9.2.2 Provision of scientific information

- a. Status and trends\*
- b. Management advice and implications\*

**4.10 Stock Assessment Methods**

4.10.1 Review of research and information

Paper

**SA-IP-1:** Recent developments in the MULTIFAN-CL stock assessment software by Davies, N. et al.

**DRAFT AGENDA ITEM 5**

**MANAGEMENT ISSUES THEME**

**5.1 TERMS OF REFERENCE**

At WCPFC8 the Commission reviewed the draft TOR provided by SC7 and agreed on final TOR for the MI-Theme. SC8 will note the final TOR.

Paper

**MI-IP 1:** Draft Terms of Reference for the Management Issues Theme

**5.2 REFERENCE POINTS FOR THE WCPFC**

5.2.1 Limit Reference Points

SC8 will review the working definition of Limit Reference Points adopted by SC7 (described in Para 334 b of the SC7 Summary Report) in light of any comments from the Commission.

SC8 will review relevant research on evaluating the consequences of adopting limit reference points identified by SC7 for yellowfin, bigeye and South Pacific albacore tunas (c.f. Para 334 f, SC7 Summary Report) and provide comments and recommendations to the Management Objectives Workshop (MOW – see 5.4 below).

Paper

**MI-WP 1:** Evaluation of stock status of bigeye, skipjack, yellowfin, and south Pacific albacore tunas, and southwest Pacific striped marlin against potential limit reference points, by S. Harley et al.

5.2.2 Target Reference Points

SC8 will review relevant research on identifying and evaluating candidate target reference points for the WCPFC, in particular for skipjack tuna (c.f. Para 334 k, SC7 Summary Report) and provide comments and recommendations to the MOW.

Paper

**MI WP-2:** Consideration of target reference points for WCPO stocks with an emphasis on skipjack tuna, by G. Pilling et al.

### 5.2.3 Harvest Control Rules

SC8 will review relevant work on the concept, structure and development of harvest control rules for the WCPFC in preparation for the MOW (c.f. Para 334 i, SC7 Summary Report).

#### Paper

**MI WP-3:** An introduction to the use of harvest control rules for WCPO tuna fisheries, by A. Berger et al.

## **5.3 REQUESTS FROM CMM 2011-01**

### 5.3.1 Fishing effort for bigeye and yellowfin tuna from other commercial tuna fisheries\*

#### Paper

**MI-WP-4:** Relationship between bigeye tuna catch and school type of Japanese purse seine operated in tropical area of the western and central Pacific Ocean, by K. Satoh, H. Okamoto and M. Ogura.

### 5.3.2 Review of CMM 2011-01\*

Assisted by the science services provider, SC8 will review the assessment on the ability of the measure to reduce fishing mortality of bigeye tuna and the effectiveness of CMM 2011-01 through projections using various assumptions. SC8 will provide scientific advice to the Commission for the development of a revised CMM for bigeye, yellowfin and skipjack tuna stocks (paragraph 46).

#### Papers

**MI-WP-5:** Mapping the Conservation Burden in the Western and Central Pacific Tuna Fisheries, by Q. Hanich.

**MI-WP-6:** Analysis of the implementation and effectiveness of key management measures for tropical tunas, by J. Hampton et al.

## **5.4 MANAGEMENT OBJECTIVES WORKSHOP**

SC8 will review and discuss the TOR of the Management Objectives Workshop (MOW) that was adopted by WCPFC8, and consider any additional provision of scientific advice to the MOW, which will be held in Manila, 29-30 November 2012.

#### Paper

**MI-IP 2:** Terms of Reference for the Management Objectives Workshop.

## **DRAFT AGENDA ITEM 6    ECOSYSTEM AND BYCATCH THEME**

### **6.1 Ecosystem effects of fishing**

SC8 may consider any research related with fishery impacts on ecosystem, including the progress of SEAPODYM applications and the Kobe process on bycatch issues, if available.

#### **6.1.1 Review of research and information**

- a)     **EB-WP-01:** Progressing adaptation to climate variability and change in Western and Central Pacific Ocean tuna fisheries.    Evans, K., et al.
- b)     **EB-WP-02:** Progress on Kobe III bycatch technical working group.    Nicol, S.

#### **\*\*\* Related Information Papers (for reference only)**

- 1) EB-IP-06: SEAPODYM applications in WCPO – progress report.    Lehody, P. et al.
- 2) EB-IP-11: WCPO ecosystem indicator trends and results from ecopath simulations.    Allain et al.

### **6.2 Sharks\***

SC8 will review the progress of the Shark Research Plan including designation of additional key shark species , such as whale sharks, plans for shark stock assessments and prioritization.

SC8 will consider whether whale sharks meet the criteria for the designation of key shark species and provide recommendations to the Commission.

#### **6.2.1 Shark Research Plan**

- a)     **EB-WP-03:** A Progress Report on the Shark Research Plan Rev 1.    Rice, J. and S. Harley.
- b)     **EB-WP-04:** Assessment of the whale shark as a key shark species.    Rice, J. and S. Harley.

#### **6.2.2 Review of CMM for Sharks**

SC8 will consider investigations into the effectiveness of mitigation measures for sharks.

- a)     CMM 2010-07 (CMM for Sharks)  
       SC8 will review CMM for Sharks, especially paragraphs 4, 8, and 13.
- b)     CMM 2011-04 (CMM for oceanic whitetip shark)  
       SC8 will review CMM for Oceanic Whitetip Shark
- c)     Development of CMMs on other shark species  
       SC8 may wish to consider providing scientific advice on the stock status of relevant shark species to WCPFC9.
- d)     Guidelines for safe release of encircled animals  
       SC8 will continue developing the best practice guidelines for release of encircled whale sharks, including the development of a research programme, perhaps involving tagging, to evaluate and verify the effectiveness of preliminary safe release guidelines, and provide recommendations to the Commission.



**\*\*\* Related Information Papers (for reference only)**

- 1) EB-IP-03: Distribution and trend of abundance for porbeagle (*Lamna nasus*) in the Southern Hemisphere. Semba, Y., K. Yokawa and H. Matsunaga.
- 2) EB-IP-07: Chondrichthyan Guide for Fisheries Managers. Patterson, H. M. and M. J. Tudman.
- 3) EB-IP-08: National Plan of Action for the Conservation and Management of Sharks 2012 – Shark Plan 2. Australia.
- 4) EB-IP-09: Operational Strategy: National Plan of Action for the Conservation and Management of Sharks 2012 - Shark-Plan 2. Australia.
- 5) Whale Shark: WCPFC8-2011-IP/01, WCPFC8-2011-DP/15a (Rev 1), and WCPFC8-2011-DP/17)

### **6.2.3 International cooperation on shark issues**

The ISC Chair will brief SC8 on the activities of ISC Shark Working Group and its coordination of shark data sharing and shark stock assessments with SPC-OFI.

## **6.3 Seabirds\***

### **6.3.1 Review of research and information**

SC8 will review any relevant available research findings as recommended in paragraph 439 of the SC6 Summary Report and paragraph 430 of the SC7 Summary Report and provide recommendations on the effectiveness of CMM 2007-04 to TCC8 and the Commission.

- a) **EB-WP-06:** Review of Seabird Bycatch Mitigation Measures for Pelagic Longline Fisheries. ACAP.
- b) **EB-WP-07:** Minimum Data Requirements for Monitoring Seabird Bycatch. ACAP.
- c) **EB-WP-09:** New branch line weighting regimes reduce risk of seabird mortality in the Australian pelagic longline fishery without affecting fish catch. Robertson, G. et al.
- d) **EB-WP-10:** Branch line weighting options that reduce the risk of seabird bycatch. Robertson, G. et al.

**\*\*\* Related Information Papers (for reference only)**

- 1) EB-IP-02: Progress report on the development and testing of the underwater bait setter for pelagic longline fisheries. Robertson, G. and I. Hay.
- 2) EB-IP-04: Progress Report on the Development of a Seabird Identification Guide for use by tRFMOs. Rev 2 (31 July 2012). Beck, N., Y. Inoue and W. Papworth.
- 3) EB-IP-05: Seabird Bycatch Mitigation Fact Sheets. Birdlife International and ACAP
- 4) EB-IP-12: Good practices to reduce the mortality of sharks and rays caught incidentally by the tropical tuna purse seiners. Poisson F. et al.

## **6.4 Sea turtles\***

SC8 may review scientific aspects of the CMM 2008-03, and consider any additional or new mitigation measures of sea turtles.

## 6.5 Other species and issues

### 6.5.1 FAD bycatch mitigation

SC8 will review the progress and future plans for research on FAD bycatch mitigation efforts.

- a) **EB-WP-11:** Overview of the ISSF Bycatch Mitigation Research Cruise in the WCPO. Itano, D. et al.
  - b) **EB-WP-12:** The post-release condition of FAD associated silky sharks (*Carcharhinus falciformis*) caught in tuna purse seine gear Rev 1. Hutchinson, M. et al.
  - c) **EB-WP-13:** Behaviour of target and non-target species on drifting FADs and when encircled by purse seine gear. Muir, J. et al.
  - d) **EB-WP-14:** Development and testing of a release panel for sharks and nontarget finfish in purse seine gear. Itano, D. et al.
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- e) **EB-WP-15:** Review of Japan's approaches to reduce bycatch of juvenile bigeye tuna by purse seine on FADs in tropical area of the western and central Pacific Ocean. Satoh, S. et al.
  - f) **EB-WP-16:** Study on the methods to reduce the by-catch of juvenile Bigeye tuna in purse seine FADs operations. Rev 1. Oshima, T. et al.
  - g) **EB-WP-17:** Study on the methods to mitigate the bycatch of juvenile bigeye tuna by introducing Double FADs with light stimulus for tuna purse seine fishery in the Western and Central Pacific Ocean. Kawamoto, T. et al.

### 6.5.2 Food security issues with bycatch

SPC-OFP will present an analysis related with food fish discarded and its impact. SC8 will review results of relevant research and provide comments and recommendations to the Commission.

- a) **EB-WP-18:** Estimation of catches and fate of edible bycatch species taken in the equatorial purse seine fishery. Rev 1 (25 July 2012). Pilling, G. et al.