



**SCIENTIFIC COMMITTEE
SIXTH REGULAR SESSION**

**Nuku'alofa, Tonga
10-19 August 2010**

PROVISIONAL AGENDA'S FOR THEME SESSIONS

**WCPFC-SC6-2010 /08
12th August 2010
Rev.4**

FISH BIOLOGY

1. Selection of rapporteurs

2. Review of new biological information and study on tunas in the WCPO

BI-WP-02 H. Ashida, T. Tanabe, K. Satoh, A. Fukui, S. Tanaka, N. Suzuki. Reproductive biology of male skipjack tuna *Katsuwonus pelamis* (*Linnaeus*) in the tropical Western and Central Pacific Ocean

3. Review of biological research projects under the convention

BI-WP-03 S. Nicol[1], K. Sisior[2], S. Retalmai[3], J. Farley[4]. Bigeye tuna age and reproductive biology – progress report.

BI-WP-01 J.Farley [1], A.Williams [2]. South Pacific Albacore age and reproductive biology – progress report.

4. Recommendation on research needs and projects

FISHING TECHNOLOGY

1. Selection of rapporteurs
2. Review of agenda
3. Review of information and related studies

3.1. Acoustic discrimination

- a) FT WP-01: **Application of broadband dolphin mimetic sonar for discriminating target fish species.** H. Okamoto *et al*

Supporting documents (noted, not presented)

- FT-IP-04: *Technical options for the utilization of underwater video to characterize species, size composition and spatial distribution of tunas and bycatch species aggregating around floating objects.* D. Itano.

3.2. Behavioral studies of tuna on FADs

Supporting documents (noted, not presented)

- FT-IP-01: *Vertical Behavior and the Observation of FAD Effects on Tropical Tuna in the Warm-Pool of the Western Pacific Ocean.* Leroy *et al.*
- FT-IP-04: *Telemetry study on juvenile yellowfin tuna *Thunnus albacares* around a payao in the Philippines.* R. Babaran *et al.*

3.3. FAD and gear modifications to improve selectivity

- a) FT WP-03: **Analysis of the Catch Rate of Juvenile Bigeye Depending On the Depth of the Purse-seine Net Used by the Tropical Fleet.** A. Delgado de Molina *et al.* (*noted, not presented*)

3.4. Technical solutions to bycatch mitigation

- a) FT WP-02: **Study on the methods to reduce the bycatch of juvenile bigeye tuna by purse seine operation on FADs in the western and central Pacific Ocean.** S. Hasegawa *et al.*
- b) FT WP-04: **International Seafood Sustainability Foundation initiatives to develop and test bycatch mitigation options for tropical purse seine fisheries.** V. Restrepo.

Supporting documents (not presented)

- FT-IP-02: *ISSF Meeting on mitigation of by-catches in the Tuna Purse seine Floating Object fisheries: Sukarrieta, Spain 24-27 November 2009.* ISSF.
- FT-IP-03: *Purse seine by-catch mitigation techniques.* AZTI-Tecnalia.

4. Work Plan and future research
5. Recommendations from the SC and advice to the Commission

METHODS

1. Selection of rapporteurs

2. Adoption of agenda

The meeting will review the draft agenda and make changes as required.

3. Changes in MULTIFAN-CL

The meeting shall review the recent changes made to MULTIFAN-CL used for undertaking the principal stocks assessments in the WCPO.

ME-WP-01: Update of recent developments in MULTIFAN-CL and related software for stock assessment: N. Davies et al.

4. Developments in CPUE Analyses

The meeting shall review recent developments in the methods used to standardise catch-rates and development annual indices of stock abundance.

ME-WP-02 Application of the Tweedie distribution to zero-catch data in CPUE analysis: H. Shono

ME-WP-03 Confidence interval estimation of CPUE year trend in delta-type two step models: H. Shono

5. Future Research

6. Other Issues

7. Adoption of Report

STOCK STATUS

- I. Selection of rapporteurs**
- II. Adoption of agenda**
- III. Adoption of structure of Stock Assessment Theme report**
- IV. Agenda item – 6. Stock Assessments**

6.1 WCPO bigeye tuna

- SA-WP-01 Background information for the 2010 bigeye assessment – S. Harley et al.
- SA-WP-02 Analysis of Japanese longline operational catch and effort for bigeye – S. Hoyle et al.
- SA-WP-03 CPUE standardization for bigeye and yellowfin tuna in the western and central Pacific Ocean – S. Hoyle
- SA-WP-04 Stock assessment of bigeye tuna in the western and central Pacific Ocean – S. Harley et al.

6.2 WCPO yellowfin tuna

6.3 Requests from CMM-2008-01

- SA-WP-05 Further analysis of CMM2008-01

6.4 WCPO skipjack tuna

- SA-WP-07 Recent status of Japanese skipjack fishery in the vicinity of Japan – K. Uosaki et al
- SA-WP-09 Standardized CPUE for a skipjack caught by Japanese offshore pole and line fishery in the northern region of western and central Pacific Ocean – H. Kiyofuji et al.
- SA-WP-08 A standardized CPUE analysis of the Japanese distant-water skipjack pole-and-line fishery in the western and central Pacific Ocean (WCPO), 1972-2009 – Adam Langley et al.
- SA-WP-10 Stock assessment of skipjack tuna in the western and central Pacific Ocean – S. Hoyle et al.

6.5 South Pacific albacore

6.6 South Pacific swordfish

6.7 Southwest Pacific striped marlin

6.8 North Pacific striped marlin

6.9 Northern stocks

6.9.1 North Pacific albacore (CMM-2005-03)

6.9.2 Pacific bluefin tuna (CMM-2009-07)

6.9.3 North Pacific swordfish

Information Papers

SA-IP-01 – Report from the pre-assessment workshop in April 2010 – S. Harley and S. Hoyle

SA-IP-02 – Changes to the data available for stock assessment – P. Williams

V. Research and planning coordination

VI. Advice to the Commission

VII. Adoption of Report

MANAGEMENT ISSUES

1. **Confirmation of convener and selection of rapporteurs**

2. **Adoption of agenda**

The meeting will review the draft agenda and make changes as required.

3. **Terms of Reference**

The Convener will introduce the draft TOR of the Management Issues Theme and the Committee will refine the TOR. The TOR will open for any modification as necessary.

4. **Consideration of Management Issues**

(a) Limiting catches of Juvenile Bigeye

In considering potential management measures to address overfishing of bigeye tuna there has been interest in determining the spatial distribution of juvenile BET within the WCPO and the effectiveness of FAD closures. In order to further address these issues the SC with review and discuss the following two papers:

MI-WP-03 Charaterization of purse seine fishing activities during the 2009 FAD closure.
P. Williams and S. Harley.

ST-IP-02 Preliminary analysis of the spatial distribution of juvenile bigeye tuna catches
from equatorial WCPO purse seine fisheries.
S. Harley and T. Lawson.

(b) Identification of Limit Reference Points (LRP) for the key target species in the WCPO

The Special Workshop on Reference Points held at SC5 made a number of recommendations to further progress this issue. The SC will review the outputs of this work, and following up the recommendation from SC5, make a recommendation to WCPFC7 on appropriate provisional Limit-Reference-Points, both types and associated values, for the key target species in the WCPFC.

MI-WP-01 Stochastic and deterministic projections: A framework to evaluate the potential
impacts of limit reference points, including multi species considerations.
N. Davies and S.J. Harley.

5. **Workshop on Management Objectives**

At the Special Workshop on Reference Points held at SC5 it was recommended that the Commission hold a workshop on Management Objective. The purpose of the workshop was to: i) assist managers identify the information required to guide management decisions, and how these can be quantified, ii) provide guidance on identifying stock specific limit and target reference points; and iii) provide advice on how uncertainty in the estimation of performance indicators can be incorporated into management decisions. The 2010 budget approved at WCPFC6 included US\$90,000 to support a Management Objectives Workshop.

The SC will consider the provision of scientific assistance to the preparation and convening of the Commission's workshop on Management Objectives that is scheduled for 2011. Issues to consider include timing, venue, lead agency and drafting of an agenda.

6. **Review of KOBE2 Workshop outcomes**

The SC will also review the outputs of the Kobe 2 ‘Workshop on the Provision of Scientific Advice’ and ‘Workshop on Tuna Management’

GN-WP-06 Joint tuna RFMOs workshops in 2010: Reports and recommendations.

7. Adoption of Report

ECOSYSTEM AND BYCATCH

- 1. Selection of rapporteurs**
- 3. Adoption of agenda**
- 4. Ecosystem effects of fishing**
 - a. SEAPODYM applications in WCPO – progress report
 - b. Kobe II Workshop on Bycatch.
- 5. Sharks**
 - a. A Proposal for a Research Plan to Determine the Status of the Key Shark Species.
 - b. Addition of porbeagle and hammerhead sharks to list of key species under CMM-009-04 (Conservation And Management Of Sharks)
 - c. Outcome on sharks from of Kobe II Bycatch Meeting
 - d. Update of CMM-2009-04
- 6. Seabirds**
 - a. Outcome on seabirds from of Kobe II Bycatch Meeting
 - b. Experimental comparison among four types tori-line designs in the western North Pacific
 - c. Options for Differential Management and Monitoring of Seabird Bycatch.
 - d. Review of Seabird Bycatch Mitigation Measures for Pelagic Longline Fishing
 - e. Experimental determinations of factors affecting the sink rates of baited hooks to minimize seabird mortality in pelagic longline fisheries.
 - f. Effect of line shooter and mainline tension on the sink rates of pelagic longlines and implications for seabird interactions.
 - g. Progress report on the development and testing of the underwater bait setter for pelagic longline fisheries.
 - h. Seabird Spatial Ecological Risk Assessment
 - i. Update of CMM-2007-04 (Conservation And Management Measure To Mitigate The Impact Of Fishing For Highly Migratory Fish Stocks On Seabirds)
- 7. Sea Turtles**
 - a. Outcome on sea turtles from of Kobe II Bycatch Meeting WCPFC Secretariat
 - b. Review of CMM-2008-03 (Conservation And Management Of Sea Turtles)
- 8. Other Species**
 - a. Evaluation of longline mitigation to reduce catches of North Pacific striped marlin in the Hawaii-based tuna fishery
 - b. Outcome on marine mammals from of Kobe II Bycatch Meeting
 - c. Outcome on finfish from of Kobe II Bycatch Meeting
 - d. WCPFC Bycatch Mitigation Information System (BMIS)
 - e. Non-Target Species Interactions with the Tuna Fisheries of the Western and Central Pacific Ocean.
- 9. Future research plan**
- 10. Detailed operational research plan for 2010/11 with budget**
- 11. Work programme for 2010-2012 with indicative budget**
- 12. Other matters**
- 13. Adoption of Report**

DATA AND STATISTICS

- 1. Selection of rapporteurs**
- 2. Adoption of agenda**
- 3. Data gaps and progress towards addressing gaps**
- 4. Species composition of purse-seine catches**
- 5. Data issues with the ISC**
- 6. Regional Observer Programme (ROP)**
- 7. Other matters**
- 8. Adoption of Report**