



**SCIENTIFIC COMMITTEE  
THIRD REGULAR SESSION**

13-24 August 2007  
Hawaii, United States of America

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**ISSUES ARISING FROM WCPFC3  
11-15 December 2006, Apia, Samoa**

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**WCPFC-SC3/GN IP-3**

Extracts from the Summary Report of WCPFC3 with reference to paragraph numbers:

**AD HOC TASK GROUP [DATA]**

“30. ....

32. The AHTG [Data] report to the Commission included advice and recommendations in relation to:

- a. the types of information to be treated as confidential;
- b. risk associated with the alteration, loss or unauthorized access to WCPFC data;
- c. guiding principles required for the rules and procedures for the access to and dissemination of data;
- d. data security and data security standards;
- e. further elaboration of an Information Security Policy for the Commission;
- f. the need for a framework for access to non-public domain data by CCMs;
- g. further consideration of historical data and the role of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC); and
- h. draft Rules and Procedures for Access to and Dissemination of Data Compiled by the Commission.

33. Several CCMs, including the FFA Members, supported the Commission’s adoption of the AHTG [Data] Summary Report on the basis that it is a ‘living document’, subject to refinement by the Scientific Committee (SC) and the Technical and Compliance Committee (TCC), as required.

34. The IATTC requested that in future elaborations of the AHTG [Data] report, the Commission consider the inclusion of a reference to cooperative data-sharing arrangements with other RFMOs.

35. In relation to the AHTG [Data] report, the Commission:
- a. adopted the report as a ‘living document’, noting Japan’s reservations based on its written comments;
  - b. agreed that the report be considered by SC3 and TCC3 for possible refinement; and
  - c. agreed that the report, as refined by SC3 and TCC3, be further considered by WCPFC4.

## SCIENCE ISSUES

### Report of the Second Regular Session of the Scientific Committee

“36. ....

38. Commission noted:
- a. record high catches of skipjack and bigeye tuna in 2005. The total catch in the Convention Area was also the highest catch on record at 2.1 million mt;
  - b. the assessments for yellowfin and bigeye tuna indicated that for both overfishing is occurring (fishing mortality is greater than the reference level  $F_{MSY}$ ) but they are not yet in an overfished state (biomass is greater than the reference level  $B_{MSY}$ );
  - c. the impact of the yellowfin tuna fishery has been to reduce by 50 per cent the biomass of yellowfin tuna. The Indonesian/Philippine domestic fishery probably has the greatest impact, particularly in the western equatorial region. The purse seine fishery has a lesser, but still substantial effect, particularly in the equatorial regions. The impact of the longline fishery of yellowfin tuna is relatively small;
  - d. the impact of the bigeye tuna fishery has been to reduce by 70 per cent the biomass of bigeye tuna. Although Fish Aggregating Device (FAD)-associated purse seine catches have made up an increasing proportion of the fishery impact on bigeye tuna biomass since the mid 1990s, and contributed to the increase in fishing mortality beyond the reference level  $F_{MSY}$  from 1997 onwards, longline fishing continues to contribute more than half of the total impact on the stock;
  - e. uncertainty associated with some of the assessments, particularly southwest Pacific swordfish, South Pacific albacore, yellowfin tuna and southwest Pacific striped marlin. Some of the issues relating to data uncertainty, particularly Indonesian and Philippines data have been resolved but further revisions are expected to result from the Indonesian Philippine Data Collection Project (IPDCP);
  - f. After preliminary work presented to the SC in 2005, this was the first full stock assessment of southwest Pacific swordfish. Whilst sensitivity analysis considered data for the entire southern region of the Convention Area, the base case assessment applied only to the southwest part of the Convention Area (0-50S, 140E-175W);
  - g. the uncertainty in the South Pacific albacore data did not greatly affect the conclusions of the assessment that South Pacific albacore was currently being fished within sustainable limits;

- h. IUU fishing continues to be a problem for some CCMs. Indonesia and Cook Islands continue to seek cooperation from other CCMs to eliminate illegal fishing in their waters;
- i. Conservation and Management Measure (CMM)-related catch statistics and their analyses on key tuna species should be provided in table as well as a summary figure for the Commission's information;
- j. the Convention's management objectives, including the application of reference points, has not yet been considered by the Commission.

### **Response to Conservation and Management Measures**

39. In accordance with the requirement under CMM-2005-01, the Commission endorsed the following advice:

- a. in order to keep bigeye biomass at  $B_{MSY}$  a reduction in fishing mortality of 25 per cent from the average levels in 2001-2004 would be required. Greater levels of reduction would be required to keep bigeye biomass above  $B_{MSY}$ .
- b. in order to keep yellowfin biomass at  $B_{MSY}$  a reduction in fishing mortality of 10 per cent from the average levels in 2001-2004 would be required. Greater levels of reduction would be required to keep yellowfin biomass above  $B_{MSY}$ .
- c. In response to the control of sets on FADs for the purse seine fishery (CMM-2005-01, paragraph 15), the Commission endorsed all recommendations on research into measures to reduce the by-catch of juvenile bigeye and yellowfin tuna (paragraphs 36-38, Executive Summary of the Scientific Committee Report)."

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*[Paragraphs 36-38, Executive Summary of the Scientific Committee Report*

#### *Juvenile bigeye and yellowfin tuna*

##### *Recommendations*

*36. The Commission's Science Service Provider should review spatio-temporal aspects of catches of juvenile bigeye and yellowfin tuna caught in association with fish aggregating devices (FADs) and refine analyses of potential management options that the Commission might adopt in order to reduce such catches, including cooperation with other RFMOs to identify appropriate mitigation measures.*

*37. CCMs should continue research into acoustic selectivity to avoid juvenile bigeye and yellowfin as well as research into the vertical distribution and residence time of juvenile bigeye and yellowfin tuna on FADs.*

*38. CCMs should ensure that relevant information (relevant to mitigation based on gear and operational modes) is being collected through observer programmes and port sampling and submitted to the Commission in order to assess the impacts of FADs and other technological aspects on catches of juvenile bigeye and yellowfin.]*

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## **“Advice and recommendations of the Second Regular Session of the Scientific Committee to the Commission**

41. ....
42. The Commission endorsed recommendations for:
- d. further development of Information Security Policy (paragraphs 51 and 52, Executive Summary).
  - e. the inclusion of the IPDCP in the core budget of the Commission, subject to budgetary implications (paragraph 53, Executive Summary). While the importance of the project was highlighted, there were views that data collection is the responsibility of each CCM, the budget for this project should be based on voluntary contributions, and geographical coverage of this project should be clarified.
  - f. tagging initiatives (paragraph 54, Executive Summary).
  - g. cooperation with other organizations (paragraphs 55 and 56, Executive Summary). The Indian Ocean Tuna Commission (IOTC) was recommended as the first priority for the development of a Memorandum of Understanding.
  - h. the special requirements of developing States and participating territories (paragraph 57, Executive Summary).
  - i. the Strategic Research Plan 2007–2011 for the Scientific Committee and 2007 Work Programme (paragraphs 58 and 59, Executive Summary) noting that careful consideration should be given to the frequency of assessment of key tuna species and evaluation of management options.
  - j. future operation of the Scientific Committee (paragraph 62, Executive Summary).
43. Following a presentation from China, the Commission decided to revise the recommended rules of procedure for the Scientific Committee inter-sessionally and reconsider them at WCPFC4. Some members expressed disappointment at this outcome given the amount of time and effort dedicated by some delegations to developing the draft presented to WCPFC3.
40. Regarding the independent review of the Commission’s science structure and functions, Japan submitted a new proposal on the reviewing process in relation to the composition of a steering committee, nomination of reviewers, costs, etc. The Commission, noting the need for the review to be cost effective and independent, requested the Scientific Committee to re-examine the terms of reference for the review of the Commission’s science structure and functions again and bring the results of the review back to WCPFC4.
41. FFA members requested that future advice from the Scientific Committee on management measures should include an analysis of the impacts of measures on the catches of all major tuna species.

## **Programme of work for the Scientific Committee in 2007**

42. The Commission endorsed the proposed work programme (Table 2 of the SC2 Summary Report) subject to budgetary considerations. In considering the provision of scientific services by the SPC, the Commission noted the management fee offered by SPC for 2007 was half that normally charged for SPC services.
43. ....
44. The Cook Islands, on behalf of FFA members, requested that the future work of the Scientific Committee assign a similar level of attention to the needs of small developing states as

is assigned to other issues. There is a need for particular attention to be given to the multi-species nature of the WCPO tuna fishery and start work on an ecosystem approach to management of the fishery.

45. ....”

**TECHNICAL AND COMPLIANCE ISSUES**

“140. In relation to the format of Part 2 of the Annual Report, the Commission endorsed TCC2’s recommendations that:

- a.
- b.
- c. the Commission invite the Scientific Committee to review Part 1 of the Annual Report in light of its relationship with Part 2, including its consistencies (such as reporting periods and submission times); and
- d. ....”

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**Conservation and Management Measure 2006-01: yellowfin and bigeye**

Paragraph 7 and 8

7. The Commission asks the CCM’s to urgently collaborate on research to reduce fishing mortality of juvenile bigeye and yellowfin from fishing on FADs. This research should include collaboration with industry to explore technical and industry based solution to the FAD closures, identify areas with high concentrations of juvenile bigeye and yellowfin tuna, consider areas of closure and determine a regime for observer coverage and reporting for adoption at the next session of the Commission.

8. This research should be coordinated by the Secretariat of the WCPFC and the TCC and Scientific Committee chairs and representatives of industry organisations<sup>1</sup>.

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**Conservation and Management Measure 2006-02: sea birds**

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3. The Commission will at its 2007 Annual Meeting adopt minimum technical specifications for the mitigation measures, based on the advice and recommendations of SC3 and TCC3.

4. ....

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<sup>1</sup> The meeting noted that much of the information on concentrations of juvenile bigeye could be found in the “closures paper” prepared for the meeting by the Executive Director or in the long-term records of the SPC.

5.

6.

7.

8. The SC and TCC will annually review any new information on new or existing mitigation measures or on seabird interactions from observer or other monitoring programmes. Where necessary an updated suite of mitigation measures, specifications for mitigation measures, or recommendations for areas of application will then be provided to the Commission for its consideration and review as appropriate.

9.

10.

11. CCMs shall provide the Commission with all available information on interactions with seabirds, including by-catches and details of species, to enable the Scientific Committee to estimate seabird mortality in all fisheries to which the WCPF Convention applies.

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#### **Conservation and Management Measure 2006-03: swordfish**

Measure to be reviewed, on basis of information provided by the Scientific Committee, in 2008.

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#### **Conservation and Management Measure 2006-04: Striped marlin**

Scientific Committee to monitor compliance with this Measure and make recommendations to the Commission, as may be necessary.

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#### **Conservation and Management Measure 2006-05: Sharks**

4. Each CCM shall include key shark species, to be identified by the Scientific Committee, in their annual reporting to the Commission of annual catches and catch and fishing effort statistics by gear type, including available historical data, in accordance with the WCPF Convention and agreed reporting procedures;

5.

And adopts, in accordance with Articles 5 and 10 of the Convention, that:

6.

7.

8. The specification of the ratio of fin weight to shark weight described in paragraph 7 above shall be reviewed by the Scientific Committee in 2007 (and occasionally there after) and the Committee will recommend any appropriate revisions to the Commission for its consideration.

9.

10.

11.

12.

13. On the basis of advice from the SC, the TCC and the Commission, CCMs shall review the implementation and effectiveness of this measure, and any alternative measures applied under paragraph 11 above, and shall consider the application of additional measures for the management of shark stocks in the Convention Area, as appropriate.

14. CCMs are encouraged to co-operate in the development of stock assessments for key shark species within the Convention Area.

15. This decision shall apply to sharks caught in association with fisheries managed under the WCPF Convention, and to sharks listed in Annex 1 of the 1982 Convention occurring in the Convention Area.

16. At the initial stage this Measure shall apply to vessels greater than 24m overall length.

17. This Measure shall enter into force on 1<sup>st</sup> January 2008 and in the interim shall be applied as a resolution.

## Table 2 from SC2 Summary Report

**Table 2.** Work Programme for 2008 and budget. Core funding is shown against high priority (#1) items on the basis of that only \$250,000 indicative funding will be available in 2007 (indicative funding of \$375,000 will be available in 2008). Additional funding for other high and lower priority items will need to be obtained from other sources.

Strategic Research Priority/Research Activity or Project		2007 funding required		2008 funding required		Priority	Comments
		Core	Other	Core	Other		
<i>Collection, compilation and verification of data from the fishery</i>							
	Data management services (SPC-OFP services)	139,000	1,000,000	146,000		1	Total costs based on SPC costs of employment of 1 scientific position plus travel, computer support. "Other funding" currently secured by OFP.
	Develop a draft list of fields of data that observers should collect for longline and purse-seine, for consideration at the 2007 meeting of the ST-SWG					1	Costs included in SPC-OFP services
	Indonesian and Philippines Data Collection Project (including FAD related studies)	30,000		100,000		1	College of Fisheries and Ocean Sciences, University of the Philippines in the Visayas, Miag-ao, Iloilo, Philippines
	Rescue of historical commercial catch data from the Philippines (and Indonesia and Vietnam)	15,000		15,000		1	

	Develop a draft list of objectives and priorities for data to be collected by observers for fisheries other than purse-seine and longline, for consideration at the 2007 meeting of the ST-SWG					2	Costs included in SPC-OFP services
	Publication and distribution costs for reproducing materials developed by the FT-SWG in languages useful for the Scientific Committee		5,000			2	
	Quantification of changes in fishing efficiency due to changes in fishing gears and fish finding technologies					2	Used to assess changes in fishing power over time for incorporation in CPUE standardisation analyses. SPC-OFP services, as time allows.
	Quantification of changes in longline selectivity due to changes in gears and patterns of deployment					2	Used to model changes in selectivity over time required in MFCL assessment models. SPC-OFP services as time allows.
	Undertake a study to develop a database that clearly defines vessel and gear attributes and operational details.		10,000			3	
Sub-total (non SPC-OFP services)		45,000	15,000	115,000			
<i>Monitoring and Assessment of Stocks</i>							
Stock assessment and modelling							
	Detailed stock assessments for selected stocks (SPC-OFP services)	139,000	500,000	146,000		1	Total costs based on SPC costs of employment of 1 scientific position plus travel, computer

							support. "Other funding" currently secured by OFP.
	Continued refinement of stock assessment models			30,000		1	Includes refinement of models to standardise CPUE. Costs included in SPC-OFP services.
	Exploration of sensitivity of assessment outcomes to structural assumptions in models					1	This work would also include the development of better diagnostics to more objectively determine plausible model structure. Costs included in SPC-OFP services.
	Investigation of alternative stock status reference points	10,000				2	Includes identification of appropriate target and limit reference points
	Development of an appropriate index of abundance for region 7					2	Needed to index the time-series of recruitment in MFCL assessment models. Costs included in SPC-OFP services.
	Development of recruitment indices independent of the MFCL model					2	Required to index recruitment in stock assessment models. Currently funded SPC-OFP project.
Biological studies							
	Ongoing and newly funded research with sonic and archival tags in Hawaii, PNG and other areas					1	Currently funded SPC-OFP and Univ. of Hawaii projects
	Comprehensive study of bigeye tuna reproductive biology	0	40,000		40,000	1	

	Supply TDRs and hook timers to regional observer programmes (48 TDRs @ \$600 ea, 400 hook timers @ \$45 ea)	50,000				1	
	Better determination length-weight relationships for the principal target species		5,000			3	Includes investigation of possible spatial-temporal differences and required for input into MFCL assessment models.
<b>Tagging studies</b>							
	Contribution to Regional Tuna Tagging Project		500,000		1,500,000	1	Voluntary funding contributions from CCMs, SPC projects provide equivalent level of support. In kind support from CCMs and IATTC desirable.
Sub-total (non SPC-OFP services)		60,000	545,000		1,540,000		
<i>Monitoring and assessment of the ecosystem</i>							
	Ecological Risk Analysis (including PSA)	100,000		100,000		1	Detailed analyses of high risk spp from PSA analysis. Level 1 in 2007 and Level 2 in 2008, Level 3 dedicated assessments in 2009
	Turtle/sea bird interactions and fishery overlaps	30,000		30,000		1	Desk top study
	Seabird and turtle education and extension of fishers		100,000		100,000	1	Includes travel and publication costs
	Turtle de-hooking devices		50,000		50,000	1	Half of these funds are for personnel costs, half for

							equipment
	Development / review of models for evaluation of impacts on ecosystem, including development of reference points		100,000		100,000	2	Required to model and assess fishery impacts on the ecosystems
	Studies on biology of high risk species		30,000		30,000	2	Scholarships for tertiary study
	Turtle population assessments		50,000		50,000	2	Three year project to continue into 2009, involving collation of data eventually leading to quantitative assessments
	Survival of hooked and released seabirds		30,000		30,000	2	Will require sourcing external funding for satellite/archival tags
	Turtle tagging and associated materials		30,000		30,000	2	Will require sourcing external funding for satellite/archival tags. Conventional tags can probably be obtained at little or no cost from SPREP
	Offal discards and haul-back mitigation studies		250,000		250,000	3	
Sub-total		130,000	640,000	130,000	640,000		
<i>Evaluation of management options</i>							
	Continued development of methods to evaluate potential management strategies, including MSE development and uncertainty		100,000		100,000	1	Required to evaluate efficacy of candidate management options. Current evaluation of options included in SPC-OFP services. Additional funding required to development comprehensive MSE

							framework.
Sub-total		100,000		100,000			
GRAND TOTAL (non SPC-OFP services)	235,000	1,300,000	245,000	2,280,000			
SPC-OFP	278,000	1,500,000	292,000				
	Independent Review of Science Structure and Function	80,000					WCPFC Core Budget
	Information Security Policy	15,000		25,000			