



**TECHNICAL AND COMPLIANCE COMMITTEE  
FOURTH REGULAR SESSION**

2-7 October 2008  
Pohnpei, Federated States of Micronesia

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**MITIGATION MEASURES FOR JUVENILE BIGEYE TUNA AND YELLOWFIN TUNA  
TAKEN AROUND FADs**

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**WCPFC-TCC4-2008/22  
3 September 2008**

**Paper prepared by the Secretariat**

**Introduction**

1. Since the inaugural session of the Commission there has been a strong emphasis on the importance of managing the use of floating objects, including fish aggregation devices (FAD) to mitigate the catch of juvenile bigeye and yellowfin. Paragraph 13 of CMM-2005-01 states,

“CCMs shall develop management plans for the use of FADs (anchored and drifting) within waters under national jurisdiction which shall be submitted to the Commission.”

Paragraph 15 of CMM-2005-01 states,

“Beginning in 2006, the Scientific Committee and the Technical and Compliance Committee shall undertake to explore and evaluate mitigation measures for juvenile bigeye and yellowfin taken around FADs, in cooperation with other RFMOs, and present the results annually to the Commission. This work shall continue on an annual basis.”

Paragraph 4 of CMM-06-01 states,

“CCMs whose vessels fish in areas beyond national jurisdiction shall develop management plans for the use of FADs (anchored and drifting) in areas beyond national jurisdiction which shall be submitted to the Commission by 1<sup>st</sup> January 2008.”

2. As of 31 August 2008, four CCMs have submitted their FAD management plans to the WCPFC Secretariat.

3. TCC3 requested the Secretariat to correspond with other RFMOs, notably the IATTC, to gather information concerning their experience with FAD-related measures. TCC3 further requested that CCMs provide information to the Secretariat to support further consideration of these issues, particularly in relation to new technology.

## **Experience of the IATTC**

4. In July 1999, the IATTC adopted a Resolution on FADs that includes prohibition of the transshipment of tuna at sea and the use of tender vessels in support of vessels fishing on FADs in the EPO. This Resolution also includes the establishment of a scientific working group to carry out comprehensive research related to the FAD fishery. The IATTC's Permanent Working Group on Compliance continued evaluating the level of compliance on transshipment and the use of tender vessels. However, up to 2007, no FAD-related measure has been incorporated into the Resolution for Conservation of Tuna in the Eastern Pacific Ocean (EPO).

5. Since the IATTC annual meeting in 2007, the IATTC Parties, cooperating non-parties, fishing entities or regional economic integration organizations (collectively "CPCs") started to propose FAD-related measures in their tuna resolution. However, since there is little information available about deployment and disposition of FADs, the proposed measures are still at a research stage, including marking FADs; maintaining a record of the number of FADs on board at the beginning and end of each trip, and of the numbers and position of FADs deployed at sea; retrieving at least 40 per cent of FADs deployed before returning to port; and making this information available to the IATTC. The IATTC has not yet adopted a Resolution on this issue.

6. For the mitigation research of bycatch in the EPO, two complementary studies were proposed at the 9<sup>th</sup> Meeting of the IATTC Working Group on Stock Assessments in May 2008: 1) a FAD-related research proposal using ultrasonic telemetry for the fine-scale spatial and temporal dynamics of mixed-species aggregations, and acoustic imaging for the species and size composition determinations; and 2) an alternative research proposal to mitigate the catch of small tunas using a sorting grid, where a sorting grid is a device to be attached into a net so that small tunas can be selectively released.

## **SC4 consideration of mitigation measures for juvenile bigeye and yellowfin tuna taken around FADs**

7. The Fishing Technology Specialist Working Group (FT-SWG) at the Fourth Regular Session of the Scientific Committee (SC4) intensively focused on FAD-related studies. Over 70 per cent of the research documents presented to the FT-SWG covered diverse topics and proposals related to the reduction of bycatch and fishing mortality of small tuna on floating objects. The FT-SWG advised SC4 to investigate the development of FAD-based management and bycatch reduction options that are practical and supportable by industry.

8. The IATTC has introduced a variety of research topics and proposals to reduce the fishing mortality on small bigeye tuna, particularly in relation to FAD sets (WCPFC-SC4-2008/FT-IP-3). It was noted that of the options available, avoidance is considered the more practical method to research and develop versus post-capture approaches, and can be achieved by improving species selectivity for skipjack, the main target species.

9. The SC4 endorsed 2008/09 research on 1) continuing field trials with underwater video gear to verify acoustic estimates of tuna and bycatch associated with floating objects; 2) documentation of identifying characteristics of tuna and bycatch species from video images; and 3) conducting studies on the behaviour of target and non-target species influenced by different association types and floating objects in particular in relation to reducing effort on bycatch and small tuna.

## **Discussion**

10. Noting the relevance of this issue to the Commission's request under agenda item 4.8, the Technical and Compliance Committee is invited to consider:

- a) the scope of FAD-related measures to be incorporated into the bigeye and yellowfin tuna CMM at the Commission meeting in December 2008;
- b) a mechanism to support the implementation of the potential measures above; and
- c) the provision of consolidated advice and recommendations to the Commission on this issue in December 2008.