



**TECHNICAL AND COMPLIANCE COMMITTEE**

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**SEA TURTLES**

**WCPFC-TCC4-2008/19 (Supp.)**

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**Paper prepared by the Secretariat**

**Background**

*Prior to WCPFC4*

1. At SC3 in Honolulu, an Informal Small Group developed a table of possible measures that were effective at reducing or mitigating sea turtle mortality in longline fisheries (Attachment N, Table 3, of the SC3 report). A consensus was achieved on the efficacy of handling and mitigation activities for longline vessels that could mitigate sea turtle post harvest mortalities (Column A).

<b>A: All longline fisheries</b>	<b>B: Optional methods for longline fishing</b>
<ul style="list-style-type: none"> <li>• Carry and use dipnets (where appropriate), line cutters and dehookers to handle and release sea turtles using guidelines to be established by WCPFC</li> </ul>	<p>For shallow-set fisheries (majority of hooks &lt; 100 m) targeting swordfish, with possible bycatch of loggerhead or leatherback turtles:</p> <ul style="list-style-type: none"> <li>• Use large circle hooks<sup>1</sup></li> <li>• Use fish bait as a replacement for traditional use of squid bait</li> </ul> <p>For other fishery sectors than that described above (if applicable):</p> <ul style="list-style-type: none"> <li>• Replace non-circle hooks with circle hooks that are at least as wide (minimum width) as those replaced</li> <li>• Replace non-circle hooks with hooks<sup>1</sup> (any style) that are at least 20% wider (minimum width)</li> <li>• Use only fish for bait</li> <li>• Eliminate the shallowest-set hooks (i.e. &lt;100 m) in deep set fishing</li> <li>• Replace the shallowest set hooks (i.e. &lt;100m) with circle hooks</li> </ul>

*Discussion was not completed on the items in Column B due to reservations by Japan and will continue at further meetings of the WCPFC and its committees.*

<sup>1</sup>For all methods, hooks should not have points offset any greater than 10°. Review has shown that greater offsets can have negative effects in increasing the frequency of deep hooking as opposed to mouth hooking.

2. There was also a second group of measures (Column B) containing mitigation measures that were shown to reduce the capture or injury to sea turtles while maintaining target species catch rates. However, unlike column A, a consensus could not be obtained given some concerns related to some CCMs indicating that hook trial research was ongoing, while other CCMs expressed concerns on limiting operational flexibility of longline vessels.

**Table 3 from Attachment N of the SC3 Report**

3. At TCC3 the matter of the SC3’s Table 3 was taken up and the deliberation confirmed the SC’s finding that these measures were deemed operationally flexible and as described - that is, effective at reducing sea turtle interaction and mortality (refer to para. 109 of the TCC3 report). And some of the CCMs that expressed concerns at the SC were willing to relax those reservations – at least for the shallow-set provisions shown in the table.

4. A second table of measures emerged out of TCC3. It further divided Table 3 of the SC3 into a three-column table which included headings of Handling Methods – the previous Column A and Column B which was divided for measures for shallow- and deep-set or other longline fisheries (TCC3 Summary Report, para.117).

**117. Table of effective strategies to reduce the capture and mortality of sea turtles in WCPFC fisheries**

<b>A: Handling Methods</b>	<b>B: Catch Mitigation Methods</b>	
<b>All longline fisheries</b>	<b>1. Shallow-set swordfish longline fisheries</b>	<b>2. Other longline fisheries (if applicable)</b>
<ul style="list-style-type: none"> <li>• Carry and use line cutters and dehookers to handle and release sea turtles in accordance with WCPFC guidelines.</li> <li>• Where appropriate carry and use dipnets in accordance with WCPFC guidelines.</li> </ul>	<p><b>1.1 Use large circle hooks<sup>1</sup></b>  <b>1.2 Use fish rather than squid as bait</b></p>	<p><b>2.1 Replace non-circle hooks with circle hooks<sup>1</sup> that are at least as wide (minimum width) as those replaced</b></p> <p><b>2.2 Replace non-circle hooks with hooks<sup>1</sup> (any style) that are at least 20% wider (minimum width) than those replaced</b></p> <p><b>2.3 Use fish rather than squid as bait</b></p> <p><b>2.4 Eliminate the shallowest-set hooks (i.e. those &lt;100 m) in deep set fishing</b></p> <p><b>2.5 Replace the shallowest-set hooks (i.e. those &lt;100m) with circle hooks<sup>1</sup> when deep set fishing</b></p>
<p><sup>1</sup> For all methods, hooks should not have points offset any greater than 10°. Review has shown that greater offsets can have negative effects in increasing the frequency of deep hooking as opposed to mouth hooking.</p>		

5. It should be noted that both the SC and the TCC indicated that effective methods for purse seine fishing were described in Resolution 2005-04.

6. Based on the results of the TCC3 (TCC3 Summary Report paras. 117-124), the U.S. developed a proposed sea turtle conservation and management measure (WCPFC4-2007/DP13). In sum, that measure proposed that: (1) the handling measures of Column A be made binding for all longline vessels and (2) that for the sector of the longline fishery that has been shown to have the highest turtle by-catch rates, or what we called the shallow-set or swordfish fishery, that circle hooks and other measures related to bait be required. The U.S. proposal also included some measures that parallel those adopted at the IATTC for purse seine vessels operating in the ETP.

7. However, based on consultations with some PIC CCMs prior to WCPFC4, the U.S. decided to not to pursue active discussion of the proposal. These CCMs indicated that hook research was currently underway and that there was continued concern on the impact of some of the proposed measures on the catch of species of concern (e.g., sharks) in specific fisheries.

8. At the annual meeting the Chair expressed an interest in the future adoption of a binding measure for sea turtles and requested that the U.S. attempt to progress the work inter-sessionally (WCPFC4 Summary Report, para. 242).

#### *Post-WCPFC4 developments*

9. In May 2008 the U.S. distributed, via the Secretariat, WCPFC Circular 2008/13 inviting all CCMs to participate in an electronic working group. And after some “outreach” efforts by the U.S., the group was constituted with representatives from Vanuatu, Australia, New Zealand, Japan, and the U.S. There is also some private sector and ENGO representation.

10. The electronic work group started with some exchange of recent information that had been generated on sea turtle by-catch mitigation, most notably a Sea Turtle Action Plan developed by FFA members, and the results of an EU study on hooks. There has been active discussion on the issue of circle hooks and whether there is a need to require them, as well as a way to measure and identify them. The group agreed that detailed efforts at identifying circle hooks specifications in a CMM would be problematic from several perspectives. The U.S. WCPFC4 proposal was tabled for comment, review and refinement. No comments were received.

11. At SC4, there was limited new information *vis-à-vis* the impact of circle hooks on sea turtle mitigation. There were, however, two papers that reviewed the efficacy of circle hooks with regard to target catch and the catch of certain by-catch species. The first was an Australian study which reported that, during the trial, not enough sea turtles were caught to determine the effect of hook-type on turtles (WCPFC-2008-SC4-EB/WP-09). Additionally the paper did not examine in any detail the efficacy on target catch of large circle hooks (18/0) and concentrated the focus on hook sizes 13/0 and 14/0. Secondly, a Korean paper reviewed circle hook and various bait effectiveness on trials conducted in the central Pacific—again little was stated with regard to circle hook efficacy (WCPFC-2008-SC4-FT/WP-05). It should be noted that some meeting participants did suggest that greater priority be given to educating fishers to release such turtles, rather than simply focusing on hook type (see SC4 – Ecosystem and By-Catch SWG Summary Report, para.80).

12. During SC4, the convener of the electronic working group met informally with key delegations to discuss their current views regarding a sea turtle measure for consideration at the annual meeting in Busan—and views seemed to be approximately where they were a year ago at this time.

#### **Recommendation**

13. TCC4 is invited to comment on the operational and compliance aspects of WCPFC4-2007/DP13, and provide advice and recommendations in respect of the possible development of a Measure to address bycatch and bycatch mitigation for sea turtles at WCPFC5.