



**SCIENTIFIC COMMITTEE  
SECOND REGULAR SESSION**

7-18 August 2006  
Manila, Philippines

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**INFORMATION ON SEABIRD MITIGATION MEASURES OF OTHER RFMOs**

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**WCPFC-SC2-2006/GN IP-3**

Paper prepared by the Secretariat

1. The second regular session of the Commission which met 12-16 December 2005 requested the Scientific Committee to provide recommendations on seabird mitigation measures, as reflected at paragraph 36 of the Summary Record:

*“The Commission agreed that the Scientific Committee, in consultation with the Technical and Compliance Committee, should: investigate seabird mitigation measures applied and being tested by other RFMOs, particularly those of the Commission for Conservation of Antarctic Marine Living Resources; investigate the utility of implementing compatible measures; and recommend specific seabird mitigation measures for consideration at the Third Regular Session of the Commission”.*

2. Attachment A presents, for information, the decisions of the Inter-American Tropical Tuna Commission (IATTC), the Convention for the Conservation of Southern Blue-fin Tuna (CCSBT), the Indian Ocean Tuna Commission (IOTC) and the Convention for the Conservation of Atlantic Marine Living Resources (CCAMLR) in relation to seabird by-catch mitigation measures.

**WCPFC Resolution-2005-01**

**RESOLUTION ON THE INCIDENTAL CATCH OF SEABIRDS**

*The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean*

*Concerned that some species of seabirds, notably albatrosses and petrels, are threatened with global extinction.*

*Noting advice from the Commission for the Conservation of Antarctic Marine Living Resources that together with illegal, unreported and unregulated fishing, the greatest threat to Southern Ocean seabirds is mortality in longline fisheries in waters adjacent to its Convention Area.*

*In accordance with Article 5(e) and 10(c) of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean the Commission decides:*

1. Commission Members, Cooperating Non-Members, and participating Territories (called CCMs) shall, to the extent possible, implement the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries (IPOA-Seabirds) if they have not already done so.
2. CCMs shall report to the Commission on their implementation of the IPOA-Seabirds, including, as appropriate, the status of their National Plans of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries.
3. CCMs shall provide the Commission with all available information on interactions with seabirds, including incidental catches and details of species, to enable the Scientific Committee to estimate seabird mortality in all fisheries to which the WCPF Convention applies.
4. The Commission, in consultation with the Technical and Compliance Committee, shall consider measures for the mitigation of incidental catch of seabirds, including those applied and tested by CCAMLR, at its annual meeting in 2006.

**IATTC Resolution C-05-01**

**RESOLUTION ON INCIDENTAL MORTALITY OF SEABIRDS**

*The Inter-American Tropical Tuna Commission (IATTC):*

*Taking into account* the FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries;

*Recognizing* the need to evaluate the incidental mortality of seabirds during longline fishing operations for tunas and tuna-like species;

*Noting* that fisheries other than longline fisheries targeting tuna and tuna-like species may also contribute to the incidental mortality of seabirds;

*Further noting* that other factors, such as swallowing marine debris, are also responsible for seabird mortality.

*Recommends as follows:*

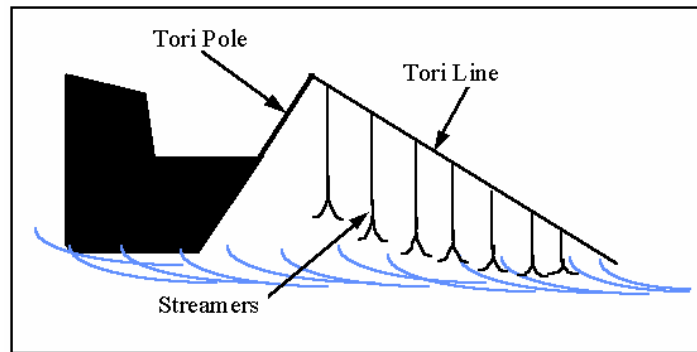
1. Each IATTC Party, cooperating non-Party, fishing entity or regional economic integration organization (collectively “CPCs”) should inform, if appropriate, the Commission of the status of its National Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries. The Commission should urge CPCs to implement, if appropriate, the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries if they have not yet done so.
2. CPCs should be encouraged to collect and voluntarily provide the Commission with all available information on interactions with seabirds, including incidental catches in all fisheries under the purview of IATTC.
3. When feasible and appropriate, the Working Group on Stock Assessment should present to the Commission an assessment of the impact of incidental catch of seabirds resulting from the activities of all the vessels fishing for tunas and tuna-like species, in the eastern Pacific Ocean. This assessment should include an identification of the geographic areas where there could be interactions between longline fisheries and seabirds.

## CCSBT Decision by the Commission

The ERSWG has a role in the development of advice on best practice for educational activities. Education pamphlets on seabirds and sharks have been produced and distributed to SBT fishers. The pamphlets have been produced in four languages ([English](#) (Zip 9410Kb), [Japanese](#) (Zip 6530Kb), [Korean](#) (Zip 11015Kb) and [Mandarin](#) (Zip 6045Kb)).

The ERSWG provides advice and recommendations on these issues and on research priorities to the Commission through the Scientific Committee. Decisions taken by the Commission on ERS matters include:

- to require mandatory use by all Commission members of Tori poles in all long-line SBT fisheries below 30 degrees south;
- to require non-members to adopt mandatory use of Tori Poles in all long-line SBT fisheries below 30 degrees south;
- the publication of education pamphlets on sharks and sea birds for fishers involved in the SBT fishery.



**Tori pole:** A pole that has attached to it a main line from which streamers are hung at regular intervals to scare seabirds away from baits attached to a pelagic longline.

## Guidelines for Design and Deployment of Tori Lines

### Preamble

These guidelines are designed to assist in preparation and implementation of tori line regulations for long-line vessels.

While these guidelines are relatively explicit, they are not intended to inhibit improvement in tori line effectiveness through experimentation. The guidelines have taken into account environmental and operational variables such as weather conditions, setting speed and ship size, all of which influence tori line performance and design in protecting baits from birds. Tori line design and use may change to take account of these variables provided that line performance is not compromised. The working group envisages ongoing improvement in tori line design and consequently review of these guidelines should be undertaken in the future.

### Tori Line Design

1. It is recommended that a tori line 150 m in length be used. The diameter of the section of the line in the water may be greater than that of the line above water. This increases drag and hence reduces the need for greater line length and takes account of setting speeds and length of time taken for baits to sink. The section above water should be a strong fine line (e.g. about 3 mm diameter) of a conspicuous colour such as red or orange.
2. The above water section of the line should be sufficiently light that its movement is unpredictable to avoid habituation by birds and sufficiently heavy to avoid deflection of the line by wind.
3. The line is best attached to the vessel with a robust barrel swivel to reduce tangling of the line.
4. The streamers should be made of material that is conspicuous and produces an unpredictable lively action (e.g. strong fine line sheathed in red polyurethane tubing) suspended from a robust three-way swivel (that again reduces tangles) attached to the tori line, and should hang just clear of the water.
5. There should be a maximum of 5-7 m between each streamer. Ideally each streamer should be paired.
6. Each streamer pair should be detachable by means of a clip so that line stowage is more efficient.
7. The number of streamers should be adjusted for the setting speed of the vessel, with more streamers necessary at slower setting speeds. Three pairs are appropriate for a setting speed of 10 knots.

### **Deployment of Tori Lines**

1. The line should be suspended from a pole affixed to the vessel. The tori pole should be set as high as possible so that the line protects bait a good distance astern of the vessel and won't tangle with fishing gear. Greater pole height provides greater bait protection. For example, a height of around 6 m above the water line can give about 100 m of bait protection.
2. The tori line should be set so that streamers pass over baited hooks in the water.
3. Deployment of multiple tori lines is encouraged to provide even greater protection of baits from birds.
4. Because there is the potential for line breakage and tangling, spare tori lines should be carried onboard to replace damaged lines and to ensure fishing operations can continue uninterrupted.
5. When fishers use a bait casting machine (BCM) they must ensure coordination of tori line and machine by:
  - a) ensuring the BCM throws directly under the tori line protection and
  - b) when using a BCM that allows throwing to port and starboard, ensure that two tori lines are used.

6. Fishers are encouraged to install manual, electric or hydraulic winches to improve ease of deployment and retrieval of tori lines.

A standard design is detailed in various educational material available to fishers eg. *Longline fishing dollars and sense*, *Catch fish not birds*, and *Fish the seas not the sky*.

## **IOTC Recommendation 05/09**

### **Recommendation 05/09 on incidental mortality of seabirds**

The Indian Ocean Tuna Commission (IOTC),

TAKING INTO ACCOUNT the FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries;

RECOGNISING the need to evaluate the incidental mortality of seabirds during longline fishing operations for tunas and tuna-like species;

NOTING that fisheries other than longline fisheries targeting tuna and tuna-like species may also contribute to the incidental mortality of seabirds;

FURTHER NOTING that other factors, such as swallowing marine debris, are also responsible for seabird mortality.

RECOMMENDS, in accordance with paragraph 8 of Article IX of the Agreement, that:

1. Contracting Parties and Cooperating non-Contracting Parties (hereinafter referred to as “CPCs”) should inform the Scientific Committee, if appropriate, and the Commission of the status of their National Plans of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries. The Commission should urge CPCs to implement, if appropriate, the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries if they have not yet done so.
2. CPCs should be encouraged to collect and voluntarily provide Scientific Committee with all available information on interactions with seabirds, including incidental catches in all fisheries under the purview of IOTC.
3. When feasible and appropriate, Scientific Committee should present to the Commission an assessment of the impact of incidental catch of seabirds resulting from the activities of all the vessels fishing for tunas and tuna-like species, in the IOTC Area.
4. CPCs are encouraged to support developing countries in their implementing the FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries.

## CCAMLR CONSERVATION MEASURE CONSERVATION MEASURE 25-02 (2005)<sup>1,2</sup>

### **Minimisation of the incidental mortality of seabirds in the course of longline fishing or longline fishing research in the Convention Area**

The Commission,

*Noting* the need to reduce the incidental mortality of seabirds during longline fishing by minimising their attraction to fishing vessels and by preventing them from attempting to seize baited hooks, particularly during the period when the lines are set,

*Recognising* that in certain subareas and divisions of the Convention Area there is also a high risk that seabirds will be caught during line hauling,

*Adopts* the following measures to reduce the possibility of incidental mortality of seabirds during longline fishing.

1. Fishing operations shall be conducted in such a way that hooklines<sup>3</sup> sink beyond the reach of seabirds as soon as possible after they are put in the water.
2. Vessels using autoline systems should add weights to the hookline or use integrated weight hooklines while deploying longlines. Integrated weight (IW) longlines of a minimum of 50 g/m or attachment to non-IW longlines of 5 kg weights at 50 to 60 m intervals are recommended.
3. Vessels using the Spanish method of longline fishing should release weights before line tension occurs; weights of at least 8.5 kg mass shall be used, spaced at intervals of no more than 40 m, or weights of at least 6 kg mass shall be used, spaced at intervals of no more than 20 m.
4. Longlines shall be set at night only (i.e. during the hours of darkness between the times of nautical twilight<sup>4</sup>)<sup>5</sup>. During longline fishing at night, only the minimum ship's lights necessary for safety shall be used.
5. The dumping of offal is prohibited while longlines are being set. The dumping of offal during the haul shall be avoided. Any such discharge shall take place only on the opposite side of the vessel to that where longlines are hauled. For vessels or fisheries where there is not a requirement to retain offal on board the vessel, a system shall be implemented to remove fish hooks from offal and fish heads prior to discharge.
6. Vessels which are so configured that they lack on-board processing facilities or adequate capacity to retain offal on board, or the ability to discharge offal on the opposite side of the vessel to that where longlines are hauled, shall not be authorised to fish in the Convention Area.
7. A streamer line shall be deployed during longline setting to deter birds from approaching the hookline. Specifications of the streamer line and its method of deployment are given in the appendix to this measure.
8. A device designed to discourage birds from accessing baits during the haul of longlines shall be employed in those areas defined by CCAMLR as average-to-high or high (Level of Risk 4



or 5) in terms of risk of seabird by-catch. These areas are currently Statistical Subareas 48.3, 58.6 and 58.7 and Statistical Divisions 58.5.1 and 58.5.2.

9. Every effort should be made to ensure that birds captured alive during longlining are released alive and that wherever possible hooks are removed without jeopardising the life of the bird concerned.
10. Other variations in the design of mitigation measures may be tested on vessels carrying two observers, at least one appointed in accordance with the CCAMLR Scheme of International Scientific Observation, providing that all other elements of this conservation measure are complied with<sup>6</sup>. Full proposals for any such testing must be notified to the Working Group on Fish Stock Assessment (WG-FSA) in advance of the fishing season in which the trials are proposed to be conducted.

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands

<sup>2</sup> Except for waters adjacent to the Prince Edward Islands

<sup>3</sup> Hookline is defined as the groundline or mainline to which the baited hooks are attached by snoods.

<sup>4</sup> The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the CCAMLR Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to GMT.

<sup>5</sup> Wherever possible, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).

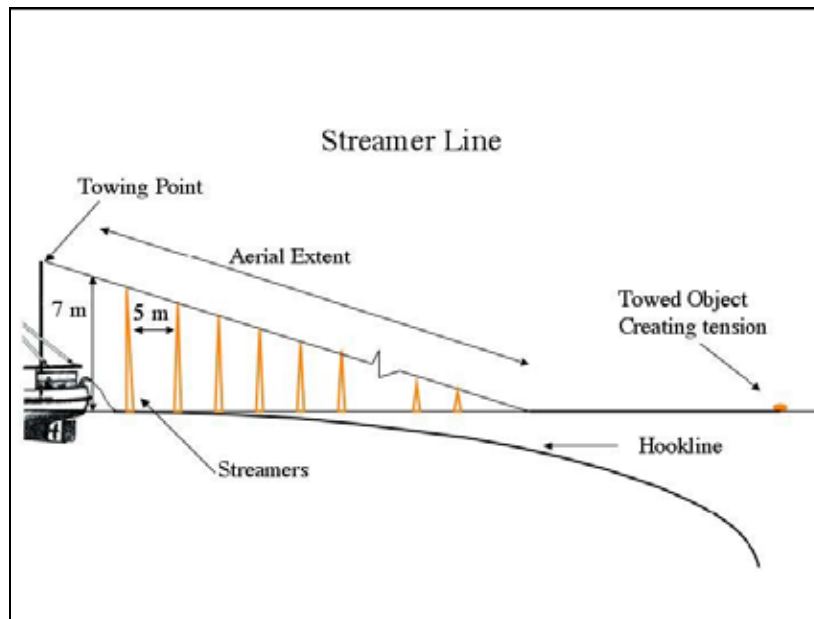
<sup>6</sup> The mitigation measures under test should be constructed and operated taking full account of the principles set out in WG-FSA-03/22 (the published version of which is available from the CCAMLR Secretariat and website); testing should be carried out independently of actual commercial fishing and in a manner consistent with the spirit of Conservation Measure 21-02.

## **APPENDIX TO CONSERVATION MEASURE 25-02**

1. The aerial extent of the streamer line, which is the part of the line supporting the streamers, is the effective seabird deterrent component of a streamer line. Vessels are encouraged to optimise the aerial extent and ensure that it protects the hookline as far astern of the vessel as possible, even in crosswinds.
2. The streamer line shall be attached to the vessel such that it is suspended from a point a minimum of 7 m above the water at the stern on the windward side of the point where the hookline enters the water.
3. The streamer line shall be a minimum of 150 m in length and include an object towed at the seaward end to create tension to maximise aerial coverage. The object towed should be maintained directly behind the attachment point to the vessel such that in crosswinds the aerial extent of the streamer line is over the hookline.
4. Branched streamers, each comprising two strands of a minimum of 3 mm diameter brightly coloured plastic tubing<sup>7</sup> or cord, shall be attached no more than 5 m apart commencing 5 m from the point of attachment of the streamer line to the vessel and thereafter along the aerial extent of the line. Streamer length shall range between minimums of 6.5 m from the stern to 1 m for the seaward end. When a streamer line is fully deployed, the branched streamers should reach the sea surface in the absence of wind and swell. Swivels or a similar device should be placed in the streamer line in such a way as to prevent streamers being twisted around the streamer line. Each branched streamer may also have a swivel or other device at its attachment point to the streamer line to prevent fouling of individual streamers.

- Vessels are encouraged to deploy a second streamer line such that streamer lines are towed from the point of attachment each side of the hookline. The leeward streamer line should be of similar specifications (in order to avoid entanglement the leeward streamer line may need to be shorter) and deployed from the leeward side of the hookline.

<sup>7</sup> Plastic tubing should be of a type that is manufactured to be protected from ultraviolet radiation.



## CCAMLR CONSERVATION MEASURE 25-03 (2003)<sup>1</sup>

### **Minimisation of the incidental mortality of seabirds and marine mammals in the course of trawl fishing in the Convention Area**

The Commission,

*Noting* the need to reduce the incidental mortality of or injury to seabirds and marine mammals from fishing operations,

*Adopts* the following measures to reduce the incidental mortality of or injury to seabirds and marine mammals during trawl fishing.

1. The use of net monitor cables on vessels in the CCAMLR Convention Area is prohibited.
2. Vessels operating within the Convention Area should at all times arrange the location and level of lighting so as to minimise illumination directed out from the vessel, consistent with the safe operation of the vessel.
3. The discharge of offal shall be prohibited during the shooting and hauling of trawl gear.
4. Nets should be cleaned prior to shooting to remove items that might attract birds.
5. Vessels should adopt shooting and hauling procedures that minimise the time that the net is lying on the surface of the water with the meshes slack. Net maintenance should, to the extent possible, not be carried out with the net in the water.
6. Vessels should be encouraged to develop gear configurations that will minimise the chance of birds encountering the parts of the net to which they are most vulnerable. This could include increasing the weighting or decreasing the buoyancy of the net so that it sinks faster, or placing coloured streamers or other devices over particular areas of the net where the mesh sizes create a particular danger to birds.

<sup>1</sup> Except for waters adjacent to the Kerguelen and Crozet Islands