Food and Agriculture Organization of the United Nations

Indian Ocean Tuna Commission
Commission des Thons de l'Ocean Indien
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IOTC-2023-S27-PropG_Rev2[E]

ON REDUCING THE INCIDENTAL BYCATCH OF SEABIRDS IN LONGLINE FISHERIES

SUBMITTED BY: AUSTRALIA

Explanatory Memorandum

In accordance with Article IX of the IOTC Agreement, Australia submits this proposal to the 27th Session of the IOTC to amend Resolution 12/06 On Reducing the Incidental Bycatch of Seabirds in Longline Fisheries to include hook-shielding devices as an additional option for seabird mitigation. The proposal reflects recommendations of the IOTC Scientific Committee and is consistent with the Agreement on the Conservation of Albatrosses and Petrels (ACAP) best practice advice. It is very important to note that the proposed additional mitigation method is optional for fleets to implement but ensures fleets that wish to adopt hook-shielding devices are not prevented from doing so.

In 2012, the IOTC adopted Resolution 12/06, the objective of which was to prescribe best practice mitigation measures, consistent with advice from ACAP, to reduce seabird bycatch. The mitigation methods included in 12/06 included night setting, bird-scaring lines (tori lines) and weighted branchlines.

In 2016, the Scientific Committee recommended that when Resolution 12/06 was reviewed, the two hook-shielding devices recommended by ACAP as best practice mitigation measures be incorporated as stand-alone mitigation options in IOTC fisheries operating south of 25 degrees South latitude. The Scientific Committee also noted that these measures should conform with the technical specifications described in the ACAP advice and that the hook-shielding devices did not need to be combined with any other mitigation measure. However, due to a lack of data available with which to review the efficacy of seabird mitigation methods, the Commission agreed to extend the review of Resolution 12/06 until such information was available.

In 2018, the Western and Central Pacific Fisheries Commission (WCPFC) amended their CMM-17-06 Conservation and Management Measure to Mitigate the Impact of Fishing for Highly Migratory Fish Stocks on Seabirds to include the use of hook-shielding devices as a stand-alone measure, consistent with ACAP advice.

In 2022, the Scientific Committee noted the evidence provided to the Working Party on Ecosystems and Bycatch on the effectiveness of hook-shielding devices in reducing seabird bycatch mortality, as well as advice that the WCPFC had included the hook-shielding devices as a mitigation option in their CMM on seabird bycatch mitigation.

While noting the potential operational and cost-related challenges of implementing these devices for some fleets, given the scientific evidence provided, the Scientific Committee recommended that the Commission consider including hook-shielding devices as an additional option for seabird bycatch mitigation in Resolution 12/06.

This proposal seeks to implement the recommendation of the Scientific Committee and reflect the best-practice advice provided by ACAP. It also seeks to harmonise the requirements for bycatch mitigation among tuna-RFMOs by aligning with the mitigation methods available in the WCPFC.

Australia welcomes feedback on the proposal and invites all CPCs to engage in discussions at the upcoming Commission meeting in May 2023.

RESOLUTION 2312/xx06

ON REDUCING THE INCIDENTAL BYCATCH OF SEABIRDS IN LONGLINE FISHERIES

The Indian Ocean Tuna Commission (IOTC),

RECALLING Resolution 120/06 *On reducing incidental bycatch of seabirds in longline fisheries* [superseded by Resolution 2312/xx06]; and in particular, its paragraph 8;

RECOGNISING the need to strengthen mechanisms to protect seabirds in the Indian Ocean and to harmonise such mechanisms across tuna RFMOs; in the Indian Ocean, and,

NOTING the adoption of optional hook-shielding measures by the WCPFC ICCAT measures that in 2018 will enter into force no later than July 2013;

TAKING INTO ACCOUNT the United Nations Food and Agriculture Organization (FAO) International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds);

NOTING the previous recommendations of the IOTC Scientific Committee, in agreement with the IOTC Working Party on Ecosystems and Bycatch (WPEB) on measures to mitigate seabird interactions as outlined in their 2007, 2009, and 2011, 2016 and 2022 Reports;

RECOGNISING that in 2022 the Scientific Committee recommended that the Commission consider including hook-shielding devices as an additional option for seabird bycatch mitigation measures in Resolution 12/06;

ACKNOWLEDGING that to date some IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter referred to as "CPCs") have identified the need for, and have either completed or are near finalising, their National Plan of Action on Seabirds;

RECOGNISING the global concern that some species of seabirds, notably albatrosses and petrels, are threatened with extinction;

NOTING that the Agreement on the Conservation of Albatrosses and Petrels, which opened for signatures at Canberra on 19 June 2001, has entered into force and continues to update best-practice mitigation advice;

NOTING that the ultimate aim of the IOTC and CPCs is to achieve a zero bycatch of seabirds for fisheries under the purview of the IOTC, especially threatened albatrosses and petrel species in longline fisheries;

BEARING in mind studies undertaken in other longline tuna fisheries, demonstrating the economic benefit of measures to mitigate incidental bycatch of seabirds, by significantly increasing catches of targeted species;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. CPCs shall record data on seabird incidental bycatch by species, notably through scientific observers in accordance with Resolution 2211/04 and report these annually. Observers shall to the extent possible take photographs of seabirds caught by fishing vessels and transmit them to national seabird experts or to the IOTC Secretariat, for confirmation of identification.
2. CPCs that have not fully implemented the provisions of the IOTC Regional Observer Scheme outlined in paragraph 32 of Resolution 2211/04 shall report seabird incidental bycatch through logbooks, including details of species, if possible.
3. CPCs shall provide to the Commission as part of their annual reports, information on how they are implementing this measure.

4. CPCs shall seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons, and fisheries through the use of effective mitigation measures, while giving due consideration to the safety of crew members and the practicability of mitigation measures.

5. In the area south of 25 degrees South latitude, CPCs shall ensure that all longline vessels use at least two of the three mitigation measures in **Table 1** or, alternatively~~ly~~, use hook-shielding devices (as described in Table 2) as a stand-alone measure. These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.

~~5.~~6. Mitigation measures used pursuant to paragraph 5 shall conform to the minimum technical standards for these measures, as shown in **Table 1** and **Table 2**.

7. The design and deployment for bird scaring lines should also meet the additional specifications provided in **Annex I**.

8. The Scientific Committee will continue to review and make recommendations to the Commission on advancements and best practice in seabird bycatch mitigation as they become available. This will include, by 2024 at the latest, developing advice to the Commission on best practice branch line weighting.

9. CPCs who elect to use hook--shielding devices as a mitigation method are encouraged to share their experience with other CPCs, as appropriate, through the Working ~~Group~~Party on Ecosystems and Bycatch.

10. ~~[Noting~~ T~~t~~he use of hook--shielding devices must be consistent with all other IOTC Resolutions~~]~~.

~~6. 8. The IOTC Scientific Committee, based notably on the work of the WPEB and information from CPCs, will analyse the impact of this Resolution on seabird bycatch no later than for the 2016 meeting of the Commission. It shall advise the Commission on any modifications that are required, based on experience to date of the operation of the Resolution and/or further international studies, research or advice on best practice on the issue, in order to make the Resolution more effective.~~

~~9. The Commission should hold a workshop in the intersessional period before the entry into force of this Resolution to facilitate its implementation, particularly focusing on how to address safety and practical concerns. CPCs shall ensure that fishers make a trial of the safety and practicality of these measures for review at the workshops with a view of resolving their concerns and assuring the orderly implementation, including training for and adaptation to these measures. A second workshop should be held, if necessary to explain the science, theory and application of the line weighting measure.~~

11. ~~10~~This Resolution shall enter into force on 1 July 202~~1~~4.

12. ~~11~~As of 1 July 202~~1~~4, the Resolution 1~~2~~0/06 *on reducing incidental bycatch of seabirds in longline fisheries* ~~and the Recommendation 05/09 *on incidental mortality of seabirds*~~ is superseded by this Resolution.

Table 1. Mitigation measures

Mitigation	Description	Specification
Night setting with minimum deck lighting	No setting between nautical dawn and before nautical dusk. Deck lighting to be kept to a minimum.	Nautical dusk and nautical dawn are defined as set out in the Nautical Almanac tables for relevant latitude, local time and date. Minimum deck lighting should not breach minimum standards for safety and navigation.
Bird-scaring lines (Tori lines)	Bird-scaring lines shall be deployed during the entire longline setting to deter birds from approaching the branch line.	For vessels greater than or equal to 35 m: • Deploy at least 1 bird-scaring line. Where practical, vessels are encouraged to use a second tori pole and bird scaring line at times of high bird abundance or activity; both tori lines should be deployed simultaneously, one on each side of the line being set. • Aerial extent of bird-scaring lines must be greater than or equal to 100 m. • Long streamers of sufficient length to reach the sea surface in calm conditions must be used. • Long streamers must be at intervals of no more than 5m. For vessels less than 35 m: • Deploy at least 1 bird-scaring line. • Aerial extent must be greater than or equal to 75 m. • Long and/or short (but greater than 1 m in length) streamers must be used and placed at intervals as follows: o Short: intervals of no more than 2 m. o Long: intervals of no more than 5 m for the first 55 m of bird scaring line. Additional design and deployment guidelines for bird-scaring lines are provided in **Annex I** of this Resolution.
Line weighting	Line weights to be deployed on the snood prior to setting.	Greater than a total of 45 g attached within 1 m of the hook or; Greater than a total of 60 g attached within 3.5 m of the hook or; Greater than a total of 98 g weight attached within 4 m of the hook.

Table 2. Hook-shielding devices

Mitigation	**Description**	**Specification**
Hook-shielding devices[1]	Hook-shielding devices, listed by the Parties to the Agreement on the Conservation of Albatross and Petrels as Best Practice Advice, that encase the point and barb of baited hooks to prevent seabird ~~attacks~~bycatch during setting shall be used. ~~The following devices have been approved for use in IOTC fisheries: Hookpods~~	Hook-shielding devices that comply with the following performance characteristics. Devices must: • encase the point and barb of the hook until it reaches a depth of at least 10 m or has been immersed for at least 10 minutes; meet current minimum standards for branch line weighting, as follows: ~~as specified in **Table 1**; and~~ Greater than a total of 45 g attached within 1 m of the hook or; Greater than a total of 60 g attached within 3.5 m of the hook or; Greater than a total of 98 g weight attached within 4 m of the hook. • • be designed to be retained on the fishing gear rather than lost.

[1] Hook-shielding devices can be used as a stand-alone measure, subject to meeting line weighting requirements.

ANNEX I
Supplemental Guidelines for Design and Deployment of Tori Lines

Preamble

Minimum technical standards for deployment of tori lines are found in **Table 1** of this Resolution, and are not repeated here. These supplemental guidelines are designed to assist in the preparation and implementation of tori line regulations for longline vessels. While these guidelines are relatively explicit, improvement in tori line effectiveness through experimentation is encouraged, within the requirements of **Table 1** in the Resolution. The guidelines take 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. On-going improvement in tori line design is envisaged and consequently review of these guidelines should be undertaken in the future.

Tori line design (see **Figure 1**)

1. An appropriate towed device on the section of the tori line in the water can improve the aerial extension.
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.
5. Each streamer should consist of two or more strands.
6. Each streamer pair should be detachable by means of a clip so that line stowage is more efficient.

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 will not tangle with fishing gear. Greater pole height provides greater bait protection. For example, a height of around 7 m above the water line can give about 100 m of bait protection.
2. If vessels use only one tori line it should be set to windward of sinking baits. If baited hooks are set outboard of the wake, the streamer line attachment point to the vessel should be positioned several meters outboard of the side of the vessel that baits are deployed. If vessels use two tori lines, baited hooks should be deployed within the area bounded by the two tori lines.
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. Breakaways can be incorporated into the tori line to minimize safety and operational problems should a longline float foul or tangle with the in-water extent of a streamer line.
5. When fishers use a bait casting machine (BCM), they must ensure coordination of tori line and machine by: i) ensuring the BCM throws directly under the tori line protection, and ii) when using a BCM (or multiple BCMs) that allows throwing to both port and starboard, two tori lines should be used.
6. When casting branchline by hand, fishers should ensure that the baited hooks and coiled branchline sections are cast under the tori line protection, avoiding the propeller turbulence which may slow the sink rate.
7. Fishers are encouraged to install manual, electric or hydraulic winches to improve ease of deployment and retrieval of tori lines.

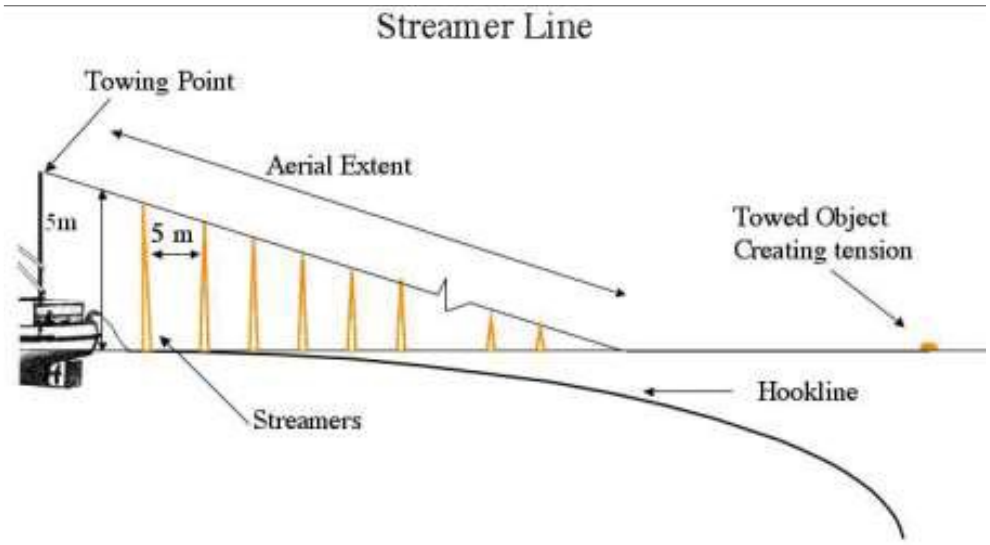

Figure 1. Diagram of Bird Scaring Streamer Line.