



Relevant Tuna RFMO Measures Concerning Incidental Catches of Ecologically Related Species

Purpose

To provide background information in relation to item 6.4 (Assessment of mitigation measures adopted by other RFMOs) of the ERSWG 9 agenda.

Background

Catch data reported to the CCSBT Secretariat as part of the annual scientific data exchange indicates that all fishing for SBT by Members and Cooperating Non-Members (CNMs) from 2006 has occurred within the Convention Areas of ICCAT, IOTC and WCPFC.

The CCSBT's Recommendation to Mitigate the impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna recommends compliance by CCSBT Members and CNMs with the ERS measures of ICCAT, IOTC and WCPFC when fishing for SBT within those Convention Areas. Furthermore, all CCSBT Members and CNMs are also Members or CNMs of the area based tuna RFMOs for the areas that they currently fish for SBT (except for Taiwan in the Indian Ocean) and are thus bound by the decisions of those RFMOs. For the single exception, Taiwan is nevertheless cooperating with IOTC measures.

Table 1 provides a brief summary of the current mitigation measures of CCSBT, ICCAT, IOTC and WCPFC. This summary only covers specific mitigation measures and does not cover higher level recommendations such as to implement IPOAs and FAO guidelines (which these four RFMOs appear to have in common), nor does it include recommendations on research or data collection etc. The full resolutions of the mitigation measures referred to in this summary¹ can be obtained from the Bycatch Mitigation page of the CCSBT web site at: http://www.ccsbt.org/site/bycatch_mitigation.php.

Item 6.4.1 of the ERSWG 9 agenda refers to "Table 1" of a specific IOTC measure and a specific WCPFC mitigation measure. The full text of these two seabird mitigation measures are provided at **Attachments A** and **B** respectively. Furthermore, ICCAT has recently adopted a similar measure that is expected to enter into force on 7 June 2012. The full text of ICCAT's measure is at **Attachment C**.

¹ Except for the measures related to drift nets (because drift nets are not used in fishing for SBT) and the two 2011 ICCAT measures that are not yet active.

Table 1: Shark, Seabird and Sea Turtle mitigation measures of CCSBT, ICCAT, IOTC and WCPFC. Binding measures are highlighted within the table.

Mitigation Measures for			
	Sharks	Seabirds	Sea Turtles
CCSBT	<p><i>Attachment 17 of CCSBT18 (2011): Recommendation to Mitigate the impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna</i></p> <ul style="list-style-type: none"> Comply with IOTC, ICCAT and WCPFC binding and recommendatory measures in each Convention area. 	<p><i>Attachment U of CCSBT4 (1997): Recommendation to the Commission Relating to Ecologically Related Species</i></p> <ul style="list-style-type: none"> Use of Tori poles below 30°S. <p><i>Attachment 17 of CCSBT18 (2011): Recommendation to Mitigate the impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna</i></p> <ul style="list-style-type: none"> Comply with IOTC, ICCAT and WCPFC binding and recommendatory measures in each Convention area. 	<p><i>Attachment 17 of CCSBT18 (2011): Recommendation to Mitigate the impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna</i></p> <ul style="list-style-type: none"> Comply with IOTC, ICCAT and WCPFC binding and recommendatory measures in each Convention area.

Mitigation Measures for			
	Sharks	Seabirds	Sea Turtles
ICCAT	<p><i>Recommendation 2005-05 to Amend Recommendation 04-10 Concerning the Conservation of Sharks Caught in Association with Fisheries Managed by ICCAT</i></p> <ul style="list-style-type: none"> Full utilisation (retention to the point of first landing) of all parts (except heads, guts, skin). Fin weight no more than 5% of total weight of sharks onboard to the point of first landing. Encourage live shark² release, especially juveniles, for non-shark directed fisheries. <p><i>Supplemental Recommendation 2007-06 Concerning Sharks</i></p> <ul style="list-style-type: none"> Until sustainable harvest levels can be determined, take appropriate measures to reduce fishing mortality in fisheries targeting porbeagle (<i>Lamna nasus</i>) and North Atlantic shortfin mako (<i>Isurus oxyrinchus</i>) sharks. <p><i>Recommendation 2009-07 on the conservation of thresher sharks caught in association with fisheries in the ICCAT convention area</i></p> <ul style="list-style-type: none"> Prohibition on retention, transshipping, landing, storing or selling bigeye thresher sharks³ (<i>Alopias superciliosus</i>) sharks. 	<p><i>Recommendation 2007-07 on Reducing Incidental Bycatch of Seabirds in Longline Fisheries</i></p> <ul style="list-style-type: none"> Seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons and fisheries through the use of effective mitigation. Carry and use tori poles when fishing south of 20°S⁶. Encourage use of a second tori pole at times of high bird abundance or activity⁶. Guidelines for the design and deployment of tori poles are suggested⁶. Backup tori lines to be carried and ready for immediate use⁶. 	<p><i>Recommendation 2010-09 on the bycatch of sea turtles in ICCAT fisheries</i></p> <ul style="list-style-type: none"> Purse seine vessels to avoid encircling sea turtles to the extent practicable and to release encircled or entangled sea turtles, including on FADs, when feasible. Pelagic longline vessels to carry on board safe handling, disentanglement and release equipment capable of releasing sea turtles in a manner that maximizes the probability of their survival. Fishermen on pelagic longline vessels use the equipment specified above to maximize the probability of sea turtle survival and are trained in safe handling and release techniques.

² that are caught incidentally and are not used for food and/or subsistence.

³ Mexican small-scale coastal fishery with a catch of less than 110 fish is exempted.

Mitigation Measures for		
Sharks	Seabirds	Sea Turtles
<ul style="list-style-type: none"> • Release unharmed, to the extent practical, bigeye thresher sharks brought along side. • Endeavour to ensure that vessels do not undertake a directed fishery for thresher sharks of the genus <i>Alopias</i>. <p><i>Recommendation 2010-06 on Atlantic shortfin mako sharks caught in association with ICCAT fisheries</i></p> <ul style="list-style-type: none"> • From 2013, CPCs that do not report the required data for Atlantic shortfin mako sharks shall be prohibited from retaining this species until the data are received by the ICCAT Secretariat. <p><i>Recommendation 2010-07 on the conservation of oceanic whitetip shark caught in association with fisheries in the ICCAT convention area</i></p> <ul style="list-style-type: none"> • Prohibition on retention, transshipping, landing, storing or selling oceanic whitetip sharks. <p><i>Recommendation 2010-08 on hammerhead sharks (family sphyrnidae) caught in association with fisheries managed by ICCAT</i></p> <ul style="list-style-type: none"> • Prohibition on retention, transshipping, landing, storing or selling hammerhead sharks of the family Sphyrnidae (except for <i>Sphyrna tiburo</i>)⁴. • Release unharmed, to the extent practical, hammerhead sharks brought along side⁴. <p><i>Recommendation 2011-08 on the conservation of silky sharks caught in association with ICCAT fisheries (This recommendation is not yet active. It is expected that this recommendation will enter into force on 7 June 2012)</i></p> <ul style="list-style-type: none"> • Release all silky sharks, whether dead or alive⁵ (unless domestic law requires all dead fish to be landed and that fishermen cannot draw any commercial profit from such fish). • Prohibition on retention, transshipping, or landing any part or whole carcass of silky shark⁵. • Promptly release silky sharks unharmed and at the latest before putting the catch into holds. • Purse seine vessels shall endeavour to take additional measures to increase the survival rate of incidentally caught silky sharks. 	<p><i>Supplemental Recommendation 2011-09 on Reducing Incidental Bycatch of Seabirds in ICCAT Longline Fisheries (This recommendation is not yet active. It is expected that this recommendation will enter into force on 7 June 2012)</i></p> <ul style="list-style-type: none"> • Seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons and fisheries through the use of effective mitigation measures. • South of 25°S, use at least 2 mitigation measures from Table 1 (see Attachment C). In the Mediterranean implement these measures on a voluntary basis. Elsewhere consider using these measures as appropriate. • Mitigation measures to conform to the minimum technical standards in Table 1 (see Attachment C). 	

⁶ Longline vessels targeting swordfish using monofilament gear may be exempted from this requirement providing they set their longlines during the night and use a minimum swivel weight of 60g placed not more than 3m from the hook to achieve optimal sing rates.

⁴ Hammerhead catches by developing coastal CPCs for local consumption are exempted from this measure provided they provide the necessary data. Such CPCs should endeavour not to increase their catches of hammerhead sharks and take measures to ensure that hammerheads (except *Sphyrna tiburo*) will not enter international trade.

⁵ Silky sharks caught by developing coastal CPCs are exempted, but shall not increase their catches of silky sharks and shall take measures to ensure that silky sharks will not enter international trade.

Mitigation Measures for			
	Sharks	Seabirds	Sea Turtles
IOTC	<p><i>Resolution 05/05: Concerning the conservation of sharks caught in association with fisheries managed by IOTC</i></p> <ul style="list-style-type: none"> • Full utilisation (retention to the point of first landing) of all parts (except heads, guts, skin). • Fin weight no more than 5% of total weight of sharks onboard to the point of first landing. • Encourage live shark² release, especially juveniles and pregnant sharks, for non-shark directed fisheries. <p><i>Resolution 09/05 : To prohibit the use of large-scale driftnets on the high seas in the IOTC area of competence</i></p> <ul style="list-style-type: none"> • Prohibit the use of large-scale driftnets on the high seas within the Convention Area. <p><i>Resolution 10/12: On the conservation of thresher sharks (Family Alopiidae) caught in association with fisheries in the IOTC area of competence.</i></p> <ul style="list-style-type: none"> • Prohibition (both commercial and recreational fishing) on retention, transshipping, landing, storing or selling any thresher sharks in the family Alopiidae. • Promptly release unharmed, to the extent practical, all thresher sharks brought along side. 	<p><i>Resolution 09/05 : To prohibit the use of large-scale driftnets on the high seas in the IOTC area of competence</i></p> <p>Prohibit the use of large-scale driftnets on the high seas within the Convention Area.</p> <p><i>Resolution 10/06 : On reducing the incidental bycatch of seabirds in longline fisheries</i></p> <ul style="list-style-type: none"> • Seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons and fisheries through the use of effective mitigation measures. • Hooklines to sink beyond reach of seabirds as soon as possible. • South of 25⁰S, use at least 2 mitigation measures from Table 1 (see Attachment A) including at least one from Column A⁷, elsewhere use 1 mitigation measure from the table. • Mitigation measures to conform to the minimum technical standards in Annex 1 (see Attachment A). 	<p><i>Resolution 09/05 : To prohibit the use of large-scale driftnets on the high seas in the IOTC area of competence</i></p> <p>Prohibit the use of large-scale driftnets on the high seas within the Convention Area.</p> <p><i>Resolution 09/06: On marine turtles</i></p> <ul style="list-style-type: none"> • Foster recovery and safe return of hard shelled turtles. • Fishermen to be aware of and use proper mitigation and handling techniques. • Prompt release of marine turtles. • Longiners to: <ul style="list-style-type: none"> ○ Carry line cutters and de-hookers, and carry and use dip-nets where appropriate. ○ Use whole finfish bait where appropriate. • Purse seiners to: <ul style="list-style-type: none"> ○ Avoid encirclement of marine turtles where practical. ○ Carry and employ dip-nets when appropriate to handle turtles. ○ If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water, disentangle without injuring before resuming roll and to the extent practicable, assist recovery before returning turtle to water. ○ Use FAD designs which reduce the incidence of entanglement of turtles.

⁷ Vessels shall not use the same measure from Column A and Column B.

Mitigation Measures for			
	Sharks	Seabirds	Sea Turtles
WCPFC	<p><i>CMM 2008-04 : Conservation and Management measure to Prohibit the Use of Large Sale Driftnets on the High Seas in the Convention Area</i></p> <ul style="list-style-type: none"> Prohibit the use of large-scale driftnets on the high seas within the Convention Area <p><i>Conservation and Management Measure 2010-07 Conservation and Management Measure for Sharks</i></p> <ul style="list-style-type: none"> Full utilisation (retention to the point of first landing or transshipment) of all parts (except heads, guts, skin). Fin weight no more than 5% of total weight of sharks onboard to the point of first landing. Encourage live shark² release in fisheries for tuna and tuna-like species that are not directed at sharks. 	<p><i>Conservation and Management measure 2007-04 to Mitigate the Impact of Fishing for Highly Migratory Fish Stocks on Seabirds</i></p> <ul style="list-style-type: none"> South of 30°S and north of 23°N, use at least 2 mitigation measures from Table 1 (see Attachment B) including at least one from Column A in areas south of 30°S and north of 23°N. In other areas, where necessary, CCMs are encouraged to employ one or more measures from Table 1. Minimum technical specifications for measures in Table 1 are provided in Annex 1 (see Attachment B). CCMs are encouraged to adopt measures aimed at ensuring that live captures are release alive in as good a condition as possible and that wherever possible hooks are removed without jeopardizing the life of the seabird. <p><i>CMM 2008-04 : Conservation and Management measure to Prohibit the Use of Large Sale Driftnets on the High Seas in the Convention Area</i></p> <ul style="list-style-type: none"> Prohibit the use of large-scale driftnets on the high seas within the Convention Area 	<p><i>Conservation and Management Measure 2008-03 Conservation and Management of Sea Turtles</i></p> <ul style="list-style-type: none"> Foster recovery and safe return of hard shelled turtles. Fishermen to be aware of and use proper mitigation and handling techniques. Prompt release of marine turtles. Longiners to: <ul style="list-style-type: none"> Carry line cutters and de-hookers, and carry and use dip-nets where appropriate. Use whole finfish bait where appropriate. Longiners that fish for swordfish in shallow waters to use one of the following 3 measures⁸: <ul style="list-style-type: none"> Use only large circle hooks and with an offset not exceeding 10 degrees. Use only whole finfish for bait. Use another measure/plan reviewed by the SC and TCC and approved by the Commission. Purse seiners to: <ul style="list-style-type: none"> Avoid encirclement of marine turtles where practical. Carry and employ dip-nets when appropriate to handle turtles. If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water, disentangle without injuring before resuming roll and to the extent practicable, assist recovery before returning turtle to water. <p><i>CMM 2008-04 : Conservation and Management measure to Prohibit the Use of Large Sale Driftnets on the High Seas in the Convention Area</i></p> <ul style="list-style-type: none"> Prohibit the use of large-scale driftnets on the high seas within the Convention Area

Prepared by the Secretariat

⁸ Certain fisheries may be exempted if there are minimal observed interaction rates over three years with observer coverage of at least 10% during those three years.

RESOLUTION 10/06
ON REDUCING THE INCIDENTAL BYCATCH OF SEABIRDS IN LONGLINE FISHERIES

The Indian Ocean Tuna Commission (IOTC),

RECALLING *Resolution 08/03 On reducing Incidental Bycatch of Seabirds in longline fisheries*, and in particular, its paragraph 8;

RECOGNISING the need to strengthen mechanisms to protect seabirds in the Indian Ocean;

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 recommendations of the IOTC Working Party on Ecosystems and Bycatch (WPEB) on measures to mitigate seabird interactions as outlined in their 2007 and 2009 Reports;

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

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

NOTING that the ultimate aim of the IOTC and the 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;

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

1. 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.
2. Fishing operations shall be conducted in such a way that hooklines¹ sink beyond the reach of seabirds as soon as possible after they are put in the water.
3. CPCs shall as soon as possible and, at the latest before 1 November 2010, ensure that all longline vessels fishing south of 25°S use at least two of the mitigation measures in Table 1 below, including at least one from Column A. Vessels shall not use the same measure from Column A and Column B.
Until 31 October 2010, CPCs shall ensure that all longline vessels fishing south of 30°S use at least two of the mitigation measures in Table 1 below, including at least one from Column A. Vessels shall not use the same measure from Column A and Column B.
4. In all other areas, CPCs may require that longline vessels use at least one of the measures in Table 1.
5. Mitigation measures used shall conform to the minimum technical standards for the measures as shown in Annex 1.
6. The design and deployment for bird scaring lines shall meet the specifications provided in Annex 2.
7. CPCs shall provide to the Commission, as part of their annual reports, information on how they are implementing this measure and all available information on interactions with seabirds, including bycatch by fishing vessels carrying their flag or authorised to fish by them.

¹ Hookline is defined as the groundline or mainline to which the baited hooks are attached by snoods.

This is to including details of species where available to enable the Scientific Committee to annually estimate seabird mortality in all fisheries within the IOTC area of competence.

8. The 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 2011 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 or research on the issue, in order to make the Resolution more effective.
9. *Resolution 08/03. On Reducing Incidental Bycatch of Seabirds in Longline Fisheries* is superseded by this Resolution.

Table 1: Seabird mitigation measures

Column A	Column B
Night setting with minimum deck lighting	Night setting with minimum deck lighting
Bird-scaring lines (Tori Lines)	Bird-scaring lines (Tori Lines)
Weighted branch lines	Weighted branch lines
	Blue-dyed squid bait
	Offal discharge control
	Line shooting device

ANNEX I

Mitigation Measure	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)	A bird-scaring line shall be deployed during longline setting to deter birds from approaching the branch line.	Design and deployment for bird-scaring lines are provided in Annex 2 of this Resolution.
Weighted branch lines	Weights must be attached to all branch lines in accordance with specifications provided	<ul style="list-style-type: none"> – minimum of 45 grams weight attached to all branch lines; – less than 60 grams weight must be within 1 metre of the hook; – 60 grams or greater and less than 98 grams must be within 3.5 metres of the hook; and – 98 grams or greater must be within 4 metres of the hook
Blue-dyed squid bait	All bait must be dyed to the colour and shade shown in the placard provided by the IOTC Secretariat.	The standardized colour shall be equivalent to bait dyed using “Brilliant Blue” food dye (Colour Index 42090, also known as Food Additive Number E133) mixed at 0.5% for a minimum of 20 minutes.
Management of offal discharge	No offal discharge during setting. Strategic offal discharge may occur during hauling.	No offal discharge during setting. Offal discharge during hauling should be avoided if possible. If offal discharge is essential during hauling, it must be from the opposite side of the boat to hauling activity.
Line-setter or line-shooter	Permits a mainline to be set slack (no tension astern)	<p>Position line-setter as close to the water line as feasible.</p> <p>Ensure mainline is pulled at a constant speed and slightly faster than the speed of vessel during line-setting, to ensure lines are set slack to aid sinking rate. Avoid setting into propwash.</p>

ANNEX II

DESIGN AND DEPLOYMENT OF BIRD SCARING LINES (TORI LINES)

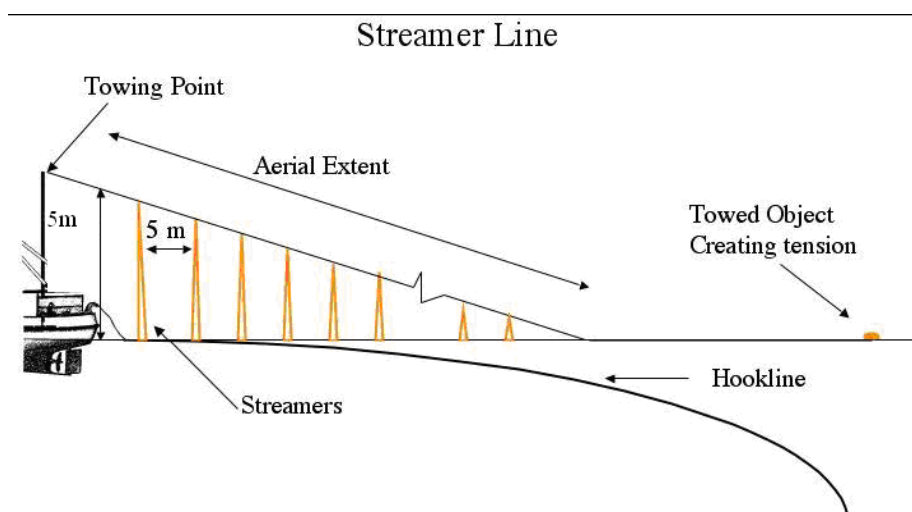
Bird-Scaring Line Design

1. The bird-scaring line shall be a minimum of 100 m in length and if less than 150 m in length will include an object towed at the seaward end to create tension to maximise aerial coverage. The section above water shall be a strong fine line of a conspicuous colour such as red or orange.
2. The above water section of the line shall 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. Streamers for the bird-scaring line shall be made of material that is conspicuous and produces an unpredictable lively action (e.g. strong fine line sheathed in red polyurethane tubing) and shall be suspended in pairs from a robust three-way swivel attached to the bird scaring line and shall hang just clear of the water.
4. There shall be a maximum of 5 m between each streamer pair.
5. The number of streamers shall be adjusted for the setting speed of the vessel, with more streamers necessary at slower setting speeds.

Deployment of Bird scaring Lines

1. The line shall be deployed before longlines enter into the water.
2. The line should have an aerial coverage of at least 100 metres. To achieve this coverage the line shall be suspended from a point a minimum of 5 metres above the water at the stern on the windward side of the point where the branch line enters the water.
3. The bird scaring line shall be set so that streamers pass over baited hooks in the water. The position of the object towed shall be maintained so as to ensure, even during crosswinds, that the aerial extent of the bird-scaring line is over the branch line as far astern of the vessel as possible.
4. Because there is the potential for line breakage and tangling, spare bird scaring lines shall be carried onboard to replace damaged lines and to ensure fishing operations can continue uninterrupted.

Figure 1. Diagram of Bird-scaring Streamer Line.





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**CONSERVATION AND MANAGEMENT MEASURE TO MITIGATE THE
IMPACT OF FISHING FOR HIGHLY MIGRATORY FISH STOCKS ON
SEABIRDS¹**

Conservation and Management Measure 2007-04

The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean

Concerned that some seabird species, 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.

Noting scientific research into mitigation of seabird bycatch in surface longline fisheries has showed that the effectiveness of various measures varies greatly depending on the vessel type, season, and seabird species assemblage present.

Noting the advice of the Scientific Committee that combinations of mitigation measures are essential for effective reduction of seabird bycatch.

Resolves as follows:

1. Commission Members, Cooperating Non-members and participating Territories (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.

¹ By adoption of this CMM (CMM-2007-04) the Commission rescinds CMM-2006-02 which has been revised and replaced.

Adopts, in accordance with Article 5 (e) and 10(i)(c) of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean the Commission the following measure to address seabird bycatch:

1. CCMs shall require their longline vessels to use at least two of the mitigation measures in Table 1, including at least one from Column A in areas south of 30 degrees South and north of 23 degrees North.

Table 1: Mitigation measures

<i>Column A</i>	<i>Column B</i>
<i>Side setting with a bird curtain and weighted branch lines²</i>	<i>Tori line³</i>
<i>Night setting with minimum deck lighting</i>	<i>Weighted branch lines</i>
<i>Tori line</i>	<i>Blue-dyed bait</i>
<i>Weighted branch lines</i>	<i>Deep setting line shooter</i>
	<i>Underwater setting chute</i>
	<i>Management of offal discharge</i>

2. In other areas, where necessary, CCMs are encouraged to employ one or more of the seabird mitigation measures listed in Table 1.

3. Minimum technical specifications for measures in Table 1 are provided in Annex 1.

4. For research and reporting purposes, each CCM with longline vessels that fish in the Convention Area south of 30°S or north of 23°N shall submit to the Commission in part 2 of its annual report for 2007 (due in 2008) information describing which of the mitigation measures in Table 1 they require or will require their vessels to use, as well as the technical specifications for each of those mitigation measures. Each such CCM shall also include in its annual reports for subsequent years any changes it has made to its required mitigation measures or technical specifications for those measures.

5. CCMs are encouraged to undertake research to further develop and refine measures to mitigate seabird bycatch including mitigation measures for use during the hauling process and should submit to the Secretariat for the use by the SC and the TCC any information derived from such efforts. Research should be undertaken in the fisheries and areas to which the measure will be used.

6. 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.

² This measure can only be applied in the area north of 23 degrees north until research establishes the utility of this measure in waters south of 30 degrees south. If using side setting with a bird curtain and weighted branch lines from column A this will be counted as two mitigation measures.

³ If tori line is selected from both Column A and Column B this equates to simultaneously using two (i.e. paired) tori lines.

7. CCMs are encouraged to adopt measures aimed at ensuring that seabirds captured alive during longlining are released alive and in as good condition as possible and that wherever possible hooks are removed without jeopardizing the life of the seabird concerned.

8. The intersessional working group for the regional observer programme (IWG-ROP) will take into account the need to obtain detailed information on seabird interactions to allow analysis of the effects of fisheries on seabirds and evaluation of the effectiveness of by-catch mitigation measures.

9. CCMs shall annually provide to the Commission, in part 1 of their annual reports, all available information on interactions with seabirds, including bycatches and details of species, to enable the Scientific Committee to estimate seabird mortality in all fisheries to which the WCPF Convention applies.

10. Paragraph 1 of this Conservation and Management Measure shall be implemented by CCMs in the following manner:

- In areas south of 30 degrees South, no later than 1 January 2008 in relation to large-scale longline vessels of 24 meters or more in overall length, and no later than 31 January 2009 in relation to smaller longline vessels of less than 24 meters in overall length.
- In areas north of 23 degrees North, and in relation to large-scale longline vessels of 24 meters or more in overall length, no later than 30 June 2008.

11. CCMs shall as of 1 January 2007 initiate a process to ensure that vessels flying their flag will be able to comply with the provisions of para 1 within the deadlines referred to in para 10.

12. This Conservation and Management measure replaces Resolution 2005-01, which is hereby repealed.

Attachment O, Annex 1

As the methods below have not all been given due consideration by the SC and TCC all are subject to review and are considered to be provisional. Recognizing that the SC and the TCC will annually review any new information on new or existing mitigation measures or on seabird interactions that indicate their effectiveness in reducing seabird bycatch for that measure, CCMs with longline vessels that fish in the Convention Area shall submit to the Commission detailed information describing the minimum technical specifications being used in fulfillment of this measure as well as any data resulting from research undertaken and/or monitoring measures to further develop and refine measures to mitigate seabird bycatch.

Specifications for Column A mitigation measures

1a) Tori Lines

- i. Minimum length: 100 m
- ii. Must be attached to the vessel such that it is suspended from a point a minimum of 5 m above the water at the stern on the windward side of the point where the hookline enters the water.
- iii. Must be attached so that the aerial extent is maintained over the sinking baited hooks.
- iv. Streamers must be less than 5m apart, be using swivels and long enough so that they are as close to the water as possible.
- v. If the tori line is less than 150 m in length, must have a towed object attached to the end so that the aerial extent is maintained over the sinking baited hooks.
- vi. If two (i.e. paired) tori lines are used, the two lines must be deployed on opposing sides of the main line.

1b) Tori Line (light streamer)

- i. Minimum length of tori line: 100 m or three times the total length of the vessel.
- ii. Must be attached to the vessel such that it is suspended from a point a minimum of 5 m above the water at the stern on the windward side of a point where the hookline enters the water.
- iii. Must be attached so that the aerial extent is maintained over the sinking baited hooks.
- iv. Streamers must be less than 1m apart and be 30 cm in minimum length.
- v. If two (i.e. paired) tori lines are used, the two lines must be deployed on opposing sides of the main line.

2. Side setting with bird curtain and weighted branch lines

- i. Mainline deployed from port or starboard side as far from stern as practicable (at least 1 m), and if mainline shooter is used, must be mounted at least 1m forward of the stern.

ii. When seabirds are present the gear must ensure mainline is deployed slack so that baited hooks remain submerged.

iii. Bird curtain must be employed:

- Pole aft of line shooter at least 3 m long;
- Minimum of 3 main streamers attached to upper 2 m of pole;
- Main streamer diameter minimum 20 mm;
- Branch streamers attached to end of each main streamer long enough to drag on water (no wind) – minimum diameter 10 mm.

3. Night setting

i. No setting between local sunrise and one hour after local sunset.

ii. Deck lighting to be kept to a minimum, noting requirements for safety and navigation.

4. Weighted branch lines

i. Following minimum weight specifications are required:

ii. Minimum weights attached to all branch lines is 45 g, with the following options:

- less than 60 g weight attached to within 1 m of the hook or;
- greater than 60 g and less than 98 g weight attached to within 3.5 m of the hook or;
- greater than 98 g weight attached to within 4 m of the hook.

Specifications for Column B mitigation measures

1. Weighted branch lines

i. Following minimum weight specifications are required:

ii. Minimum weights attached to all branch lines is 45 g, with the following options:

- less than 60 g weight attached to within 1 m of the hook; or
- greater than 60 g and less than 98 g weight attached to within 3.5 m of the hook; or
- greater than 98 g weight attached to within 4 m of the hook.

2. Blue dyed bait

i. The Commission Secretariat shall distribute a standardized color placard.

ii. All bait must be dyed to the shade shown in the placard.

3. Management of offal discharge

i. Either:

- No offal discharge during setting or hauling; or

- Strategic offal discharge from the opposite side of the boat to setting/hauling to actively encourage birds away from baited hooks.

11-09

BYC

**SUPPLEMENTAL RECOMMENDATION BY ICCAT ON REDUCING
INCIDENTAL BYCATCH OF SEABIRDS IN ICCAT LONGLINE FISHERIES**

RECALLING the *Recommendation by ICCAT on Reducing Incidental By-catch of Seabirds in Longline Fisheries* [Rec. 07-07];

RECOGNISING the need to strengthen mechanisms to protect endangered seabirds in the Atlantic Ocean;

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);

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

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

NOTING that the Agreement on the Conservation of Albatrosses and Petrels has entered into force;

NOTING that the General Fisheries Commission for the Mediterranean (GFCM) has adopted Recommendation GFCM/35/2011/13 launching a process, to be carried out in coordination with other RFMOs, with a view to reducing incidental by-catch of seabirds in fisheries in the GFCM Competence Area,

CONSCIOUS that the ICCAT seabird assessment has been completed and has concluded that ICCAT fisheries are having a measurable impact on seabird species;

RECOGNIZING the progress that some CPCs have made in addressing seabird bycatch in their fisheries:

**THE INTERNATIONAL COMMISSION FOR THE CONSERVATION
OF THE ATLANTIC TUNAS (ICCAT) RECOMMENDS THAT:**

1. CPCs shall record data on seabird incidental catch by species through scientific observers in accordance with the Recommendation 10-10 and report these data annually.
2. CPCs shall seek to achieve reductions in levels of seabird by-catch 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.
3. In the area south of 25 degrees South latitude, CPCs shall ensure that all longline vessels use at least two of the mitigation measures in **Table 1**. These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.
4. In the Mediterranean, mitigation measures in **Table 1** should be implemented on a voluntary basis. The SCRS is encouraged to work in coordination with the GFCM as provided for in GFCM Recommendation 35/2011/13.
5. Mitigation measures used pursuant to paragraph 3 shall conform to the minimum technical standards for the measures as shown in **Table 1**.
6. The design and deployment for bird scaring lines should also meet the additional specifications provided in **Annex 1**.

7. CPCs shall collect and provide to the Secretariat information on how they are implementing these measures and on the status of their National Plans of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries.
8. In 2015, the SCRS shall conduct another fishery impact assessment to evaluate the efficacy of these mitigation measures. Based on this fishery impact assessment, the SCRS shall make appropriate recommendations, if necessary, to the Commission on any modifications.
9. The Commission shall consider adopting additional measures for the mitigation of any incidental catch of seabirds in light of any new scientific information available, if necessary and consistently with the precautionary approach.
10. Notwithstanding Article VIII of the Convention the provisions of this Recommendation shall come into force to the extent possible by January 2013 but not later than July 2013.
11. ICCAT Rec. 07-07 will continue to apply in the area between 20°S to 25°S.

Table 1. Mitigation measures that comply with the following minimum technical standards.

<i>Mitigation measure</i>	<i>Description</i>	<i>Specification</i>
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 longline setting to deter birds from approaching the branch line.	<p>For vessels greater than or equal to 35 m:</p> <ul style="list-style-type: none"> - 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. <p>For vessels less than 35m:</p> <ul style="list-style-type: none"> - Deploy at least 1 bird-scaring line. - Aerial extent must be greater than or equal to 75m. - Long and/or short (but greater than 1m in length) streamers must be used and placed at intervals as follows: <ul style="list-style-type: none"> o Short: intervals of no more than 2m. o Long: intervals of no more than 5m for the first 55 m of bird scaring line. <p>Additional design and deployment guidelines for bird-scaring lines are provided in Annex 1 of this Recommendation.</p>
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.

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 Recommendation, and are not repeated here. These supplemental guidelines are designed to assist in 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 Recommendation. 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

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.