

## REVIEW OF CURRENT CONSERVATION AND MANAGEMENT MEASURES RELATING TO ECOSYSTEMS AND BYCATCH

PREPARED BY: IOTC SECRETARIAT, 02 SEPTEMBER 2011

### PURPOSE

To encourage the Working Party on Ecosystems and Bycatch (WPEB) to review the existing Conservation and Management Measures (CMM) relating to ecosystems and bycatch; and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

### BACKGROUND

Ecosystems and Bycatch in the Indian Ocean are currently subject to thirteen Conservation and Management Measures adopted by the Commission (9 Resolutions and 4 Recommendations), although two of the recommendations are considered obsolete:

#### Sharks:

**Resolution 05/05:** *Concerning the conservation of sharks caught in association with fisheries managed by IOTC.* This resolution includes minimum reporting requirements for sharks, calls for full utilisation of sharks and includes a ratio of fin-to-body weight for shark fins retained onboard a vessel (Attachment A).

**Resolution 10/12:** *On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence.* This Resolution prohibits the retention onboard, transshipment, landing, storing, selling or offering for sale any part or whole carcass of the three species of Thresher sharks (family Alopiidae) by all vessels on the IOTC record of authorized vessels (Attachment B).

#### Seabirds:

**Recommendation 05/09:** *On incidental mortality of seabirds* – While not superseded, this Recommendation is considered obsolete.

**Resolution 10/06:** *On reducing the incidental bycatch of seabirds in longline fisheries.* This Resolution introduced amendments to Resolution 08/03 *On reducing the incidental bycatch of seabirds in longline fisheries* in changing the limit of the area in which longline vessels have to implement mitigation measures from 30°S to 25°S to better encompass the area of overlap between the distribution area of endangered species of seabirds and the longline fishing grounds. The resolution includes a range of methods should be used in combination to achieve a reduction in seabird bycatch (Attachment C).

#### Marine turtles:

**Recommendation 05/08:** *On sea turtles* – While not superseded, this Recommendation is considered obsolete.

**Resolution 09/06:** *On marine turtles.* This resolution recognizes the threatened status of the populations of the six marine turtle species found in the Indian Ocean and that some tuna fishing operations carried out in the Indian Ocean can adversely impact marine turtles. This resolution, *inter alia*, makes mandatory the collection and provision of data on marine turtle interactions and the use of best handling practices to ensure the best chances of survival for any turtles returned to the sea after capture (Attachment D).

#### Data:

**Resolution 08/04:** *Concerning the recording of catch by longline fishing vessels in the IOTC area.* This resolution sets out the minimum logbook requirements for longline fishing vessels over 24 metres length and under 24 metres if they fish outside the EEZ of their flag State. As per this resolution, catch of all billfish species should be recorded (Attachment E).

**Resolution 10/02:** *Mandatory statistical requirements for IOTC Members and Cooperating non-Contracting Parties (CPC's).* This resolution sets out mandatory minimum requirements for the annual submission of fisheries statistics to the IOTC Secretariat. This resolution applies to all tuna and tuna-like species, including all billfish

species (Attachment F).

**Resolution 10/03:** *Concerning the recording of catch by fishing vessels in the IOTC area.* This resolution sets out minimum logbook requirements for all purse-seine vessels 24 metres length overall or greater and those under 24 metres if they fish outside the EEZs of their flag States. As per this resolution, catch and discard of all billfish species must be recorded (Attachment G).

**Recommendation 11/06:** *Concerning the recording of catch by fishing vessels in the IOTC area of competence.* This Recommendation consolidates Resolution 08/04 *Concerning the Recording of Catch by Longline Fishing Vessels in the IOTC Area* and Resolution 10/03 *Concerning the Record of Catch by Fishing Vessels in the IOTC Area*, but does not supersede them, as well as setting agreed minimum standards for data requirements for all pole-and-line and gillnet fleets operating in the IOTC area of competence, in order to harmonize data gathering and provide a common basis for scientific analysis for all IOTC CPCs. Some CPCs indicated that they would not be in a position to implement the proposal (Attachment H).

#### Other:

**Resolution 09/04:** *To prohibit the use of large-scale driftnets on the high seas in the IOTC area.* This resolution bans the use of large-scale driftnets (more than 2.5 km long) in the high seas within the IOTC Convention Area (Attachment I).

**Resolution 11/04:** *On a regional observer scheme.* This resolution puts in place a programme comprising national observer schemes to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area. The programme initially covers 5% of the operations of the vessels over 24 m and will include, progressively up to 5% of their operations in 2013, vessel under 24 m that fish outside their EEZs. Artisanal fishing landings shall also be progressively monitored at port by observers. Australia noted that a significant number of vessels less than 24 m long fish on the high seas in the IOTC Area, and the exclusion of these vessels at the start of the programme will result in a considerable loss of valuable information (Attachment J).

**Recommendation 10/13:** *On the implementation of a ban on discards of skipjack tuna, yellowfin tuna, bigeye tuna, and non targeted species caught by purse seiners.* This Recommendation requests that all CPCs encourage retention onboard the purse-seiners and landing of all skipjack, bigeye and yellowfin tuna as well as of all non-targeted species. Although this proposal was originally intended to become a binding resolution, there was no consensus among Members to do so (Attachment K).

## DISCUSSION

As part of best practice, the WPEB is obliged to review existing CMMs and consider whether their science-based components need to be revised. If this is the case, then the WPEB should provide clear, science-based recommendations for the Scientific Committee's consideration.

## RECOMMENDATION/S

- 1) The WPEB agrees that although IOTC Recommendations 05/09 *On incidental mortality of seabirds* and 05/08: *On sea turtles* have not been superseded, they are both considered to be obsolete and should be removed from the list of current Conservation and Management Measures of the Commission.
- 2) The WPEB provide recommendations to the Scientific Committee that clearly outline whether changes to the current CMMs are required, and/or to recommend whether other CMMs may be required.

## ATTACHMENTS

- Attachment A:** Resolution 05/05: *Concerning the conservation of sharks caught in association with fisheries managed by IOTC.*
- Attachment B:** Resolution 10/12: *On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence.*
- Attachment C:** Resolution 10/06: *On reducing the incidental bycatch of seabirds in longline fisheries.*
- Attachment D:** Resolution 09/06: *On marine turtles.*
- Attachment E:** Resolution 08/04: *Concerning the recording of catch by longline fishing vessels in the IOTC area.*
- Attachment F:** Resolution 10/02: *Mandatory statistical requirements for IOTC Members and Cooperating*

*non-Contracting Parties (CPC's)*

- Attachment G:** Resolution 10/03: *Concerning the recording of catch by fishing vessels in the IOTC area.*
- Attachment H:** Recommendation 11/06: *Concerning the recording of catch by fishing vessels in the IOTC area of competence.*
- Attachment I:** Resolution 09/05: *To prohibit the use of large-scale driftnets on the high seas in the IOTC area.*
- Attachment J:** Resolution 11/04: *On a regional observer scheme.*
- Attachment K:** Recommendation 10/13: *On the implementation of a ban on discards of skipjack tuna, yellowfin tuna, bigeye tuna, and non targeted species caught by purse seiners.*

**RESOLUTION 05/05**  
**CONCERNING THE CONSERVATION OF SHARKS CAUGHT IN ASSOCIATION WITH**  
**FISHERIES MANAGED BY IOTC**

**The Indian Ocean Tuna Commission (IOTC),**

RECALLING that the United Nations Food and Agriculture Organisation (FAO) International Plan of Action of Sharks calls on States, within the framework of their respective competencies and consistent with international law, to cooperate through regional fisheries organisations with a view to ensuring the sustainability of shark stocks as well as to adopt a National Plan of Action for the conservation and management of sharks (defined as elasmobranchs);

CONSIDERING that many sharks are part of pelagic ecosystems in the IOTC area, and that tunas and tuna-like species are captured in fisheries targeting sharks;

RECOGNISING the need to collect data on catch, effort, discards and trade, as well as information on the biological parameters of many species, in order to conserve and manage sharks;

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

1. Contracting Parties, Cooperating non-Contracting Parties (CPCs) shall annually report data for catches of sharks, in accordance with IOTC data reporting procedures, including available historical data.
2. In 2006 the Scientific Committee (in collaboration with the Working Party on Bycatch) provide preliminary advice on the stock status of key shark species and propose a research plan and timeline for a comprehensive assessment of these stocks.
3. CPCs shall take the necessary measures to require that their fishermen fully utilise their entire catches of sharks. Full utilisation is defined as retention by the fishing vessel of all parts of the shark excepting head, guts and skins, to the point of first landing.
4. CPCs shall require their vessels to not have onboard fins that total more than 5 % of the weight of sharks onboard, up to the first point of landing. CPCs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5 % ratio through certification, monitoring by an observer, or other appropriate measures.
5. The ratio of fin-to-body weight of sharks described in paragraph 4 shall be reviewed by the scientific committee and reported back to the Commission in 2006 for revision, if necessary.
6. Fishing vessels are prohibited from retaining on board, transshipping or landing any fins harvested in contravention of this Resolution.
7. In fisheries that are not directed at sharks, CPCs shall encourage the release of live sharks, especially juveniles and pregnant sharks, to the extent possible, that are caught incidentally and are not used for food and/or subsistence.
8. CPCs shall, where possible, undertake research to identify ways to make fishing gears more selective (such as the implications of avoiding the use of wire traces).
9. CPCs shall, where possible, conduct research to identify shark nursery areas.
10. The Commission shall consider appropriate assistance to developing CPCs for the collection of data on their shark catches.
11. This resolution applies only to sharks caught in association with fisheries managed by the IOTC.
12. This provision to apply without prejudice to many artisanal fisheries which traditionally do not discard carcasses.

**RESOLUTION 10/12**  
**ON THE CONSERVATION OF THRESHER SHARKS (FAMILY ALOPIIDAE) CAUGHT IN**  
**ASSOCIATION WITH FISHERIES IN THE IOTC AREA OF COMPETENCE**

**The Indian Ocean Tuna Commission (IOTC),**

RECALLING that the IOTC Resolution 05/05 concerning the conservation of sharks caught in association with fisheries managed by IOTC;

CONSIDERING that thresher sharks of the family Alopiidae are caught as by-catch in the IOTC Agreement area;

NOTING that at its 2009 Meeting of the Working Party on Ecosystem and Bycatch recognized that full stock assessments on sharks may not be possible because of data limitations and that it is essential that some stock assessment evaluation should be carried out;

NOTING that the international scientific community points out that the bigeye thresher shark (*Alopias superciliosus*) is particularly endangered and vulnerable;

CONSIDERING that it is difficult to differentiate between the various species of thresher sharks without taking them on board and that such action might jeopardize the survival of the captured individuals;

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

1. This measure shall apply to all fishing vessels on the IOTC Record of authorised Vessels.
  2. Fishing Vessels flying the flag of an IOTC Member and Cooperating non-Contracting Parties (CPCs) are prohibited from retaining on board, transshipping, landing, storing, selling or offering for sale any part or whole carcass of thresher sharks of all the species of the family Alopiidae.
  3. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, thresher sharks when brought along side for taking on board the vessel.
  4. CPCs shall encourage their fishermen to record incidental catches as well as live releases. These data will be then kept at the IOTC secretariat.
  5. Recreational and sport fishing shall release alive all caught animals of thresher sharks of all the species of the family Alopiidae. In no circumstances specimen shall be retained on board, transshipped, landed, stored, sold or offered for sale. The CPCs shall ensure that both recreational and sport fishermen carrying out fishing with high risk of catching thresher sharks are equipped with instruments suitable to release alive the animals.
  6. CPCs shall, where possible, implement research on sharks of the species *Alopias* spp, in the Convention area in order to identify potential nursery areas. Based on this research, CPCs shall consider time and area closures and other measures, as appropriate.
  7. The Contracting Parties, Co-operating non-Contracting Parties, especially those directing fishing activities for sharks, shall submit data for sharks, as required by IOTC data reporting procedures (including estimates of dead discard and size frequencies), in advance of the 2011 Scientific Committee meeting.
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**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 hooklines<sup>1</sup> 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.

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

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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**

<b>Column A</b>	<b>Column B</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**

<b>Mitigation Measure</b>	<b>Description</b>	<b>Specification</b>
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"> <li>– minimum of 45 grams weight attached to all branch lines;</li> <li>– less than 60 grams weight must be within 1 metre of the hook;</li> <li>– 60 grams or greater and less than 98 grams must be within 3.5 metres of the hook; and</li> <li>– 98 grams or greater must be within 4 metres of the hook</li> </ul>
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>



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## ANNEX II

### DESIGN AND DEPLOYMENT OF BIRD SCARING LINES (TORI LINES)

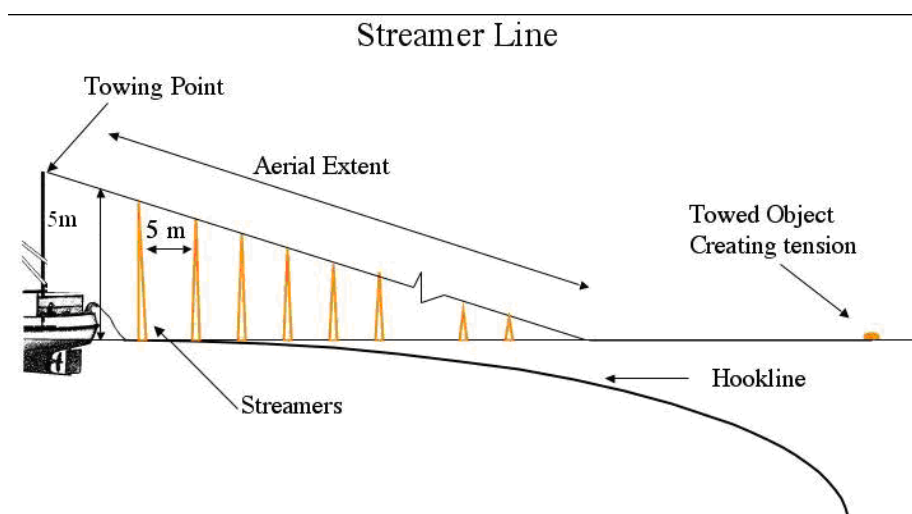
#### Bird-Scaring Line Design

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.*



**RESOLUTION 09/06  
ON MARINE TURTLES**

**The Indian Ocean Tuna Commission (IOTC),**

RECALLING Recommendation 05/08 *On Sea Turtles*;

AWARE that the populations of the six species of marine turtles under the *Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia* (IOSEA MoU) are listed as vulnerable, endangered or critically endangered on the IUCN - The World Conservation Union Red List of Threatened Species;

RECOGNISING that the 26th FAO-COFI Session in March 2005 adopted the *Guidelines to Reduce Sea Turtle Mortality in Fishing Operation* (hereinafter referred to as “the FAO Guidelines”) and recommended their implementation by regional fisheries bodies and management organizations;

RECOGNISING that some fishing operations carried out in the Indian Ocean can adversely impact marine turtles and the need to implement measures to manage the adverse effects of fishing in the Indian Ocean on marine turtles;

ACKNOWLEDGING the activities undertaken to conserve marine turtles and the habitats on which they depend within the framework of the IOSEA MoU in particular its *Resolution to Promote the Use of Marine Turtle Bycatch Reduction Measures by IOSEA Signatory States* adopted by the Fifth Meeting of the Signatory States.

NOTING the Scientific Committee’s concern that the expansion of gillnet fishing from traditional fishing grounds into high seas might increase the interaction with marine turtles and lead to increased mortality;

FURTHER NOTING the Scientific Committee’s adoption of a status report on marine turtles at its eleventh session and its finding that there is an urgent need to quantify the effects of Indian Ocean fisheries on non-target (bycatch) species and to develop mitigation measures to reduce adverse effects on these species;

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

1. Contracting Parties and Cooperating non-Contracting Parties (hereinafter referred to as “CPCs”) will implement, as appropriate, the FAO Guidelines.
2. CPCs shall collect (including through logbooks and observer programs) and provide to the Scientific Committee all data on their vessels’ interactions with marine turtles in fisheries targeting the species covered by the IOTC Agreement. CPC shall also furnish available information to the Scientific Committee on successful mitigation measures and other impacts on marine turtles in the IOTC Area, such as the deterioration of nesting sites and swallowing of marine debris.
3. CPCs shall report to the Commission, in accordance with Article X of the IOTC Agreement, their progress of implementation of the FAO Guidelines and this Resolution.
4. CPCs shall require fishermen on vessels targeting species covered by the IOTC Agreement to bring aboard, if practicable, any captured hard shelled turtle that is comatose or inactive as soon as possible and foster its recovery, including aiding in its resuscitation, before safely returning it to the water. CPCs shall ensure that fishermen are aware of and use proper mitigation and handling techniques and keep on board all necessary equipment for the release of turtles, in accordance with guidelines to be adopted by the IOTC.
5. CPCs with gillnet vessels that fish for species covered by the IOTC Agreement shall:

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- (a) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks<sup>1</sup> and report such incidents to the appropriate authorities of the CPC;
- (b) Provide the results of the reporting under paragraph 5(a) to the Commission as part of the reporting requirement of paragraph 2.
6. CPCs with longline vessels that fish for species covered by the IOTC Agreement shall:
- (a) Ensure that the operators of all longline vessels carry line cutters and de-hookers in order to facilitate the appropriate handling and prompt release of marine turtles caught or entangled, and that they do so in accordance with IOTC Guidelines to be developed. CPCs shall also ensure that operators of such vessels are required to carry and use, where appropriate, dip-nets, in accordance with guidelines to be adopted by the IOTC;
- (b) Encourage the use of whole finfish bait where appropriate;
- (c) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks<sup>2</sup> and report such incidents to the appropriate authorities of the CPC;
- (d) Provide the results of the reporting under paragraph 6(c) to the Commission as part of the reporting requirement of paragraph 2.
7. CPCs with purse seine vessels that fish for species covered by the IOTC Agreement shall:
- (a) Ensure that operators of such vessels, while fishing in the IOTC Area:
- (i) To the extent practicable, avoid encirclement of marine turtles, and if a marine turtle is encircled or entangled, take practicable measures to safely release the turtle.
- (ii) To the extent practicable, release all marine turtles observed entangled in fish aggregating devices (FADs) or other fishing gear.
- (iii) If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water; disentangle the turtle without injuring it before resuming the net roll; and to the extent practicable, assist the recovery of the turtle before returning it to the water.
- (iv) Carry and employ dip nets, when appropriate, to handle turtles.
- (b) Encourage such vessel to adopt FAD designs which reduce the incidence of entanglement of turtles;
- (c) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks<sup>3</sup> and report such incidents to the appropriate authorities of the CPC;
- (d) Provide the results of the reporting under paragraph 7(c) to the Commission as part of the reporting requirement of paragraph 2.
8. All CPCs are requested to:
- (a) Where appropriate undertake research trials of circle hooks, use of whole finfish for bait, alternative FAD designs, alternative handling techniques, gillnet design and fishing practices and other mitigation methods which may improve the mitigation of adverse effects on turtles;

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<sup>1</sup> This information should include, where possible, details on species, location of capture, conditions, actions taken on board and location of release

<sup>2</sup> This information should include, where possible, details on species, location of capture, conditions, actions taken on board and location of release

<sup>3</sup> This information should include, where possible, details on species, location of capture, conditions, actions taken on board and location of release

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(b) Report the results of these trials to the Scientific Committee (SC), at least (60 days) in advance of the annual meetings of the SC.

9. The Scientific Committee shall request the Working Party on Ecosystems and Bycatch to:
- (a) Develop recommendations on appropriate mitigation measures for gillnet, longline and purse-seine fisheries in the IOTC Area;
  - (b) Develop guidelines for the appropriate handling and release of marine turtles that are impacted by fisheries under the purview of the IOTC;
  - (c) Develop regional standards covering data collection, data exchange and training;
  - (d) Produce a marine turtle identification guide for the Indian Ocean.

The recommendations of the Working Party on Ecosystems and Bycatch shall be provided to the Scientific Committee for consideration at its annual session in 2010. In developing its recommendations, the Working Party on Ecosystems and Bycatch shall examine and take into account the information provided by CPCs in accordance with paragraph 8 of this measure, other research available on the effectiveness of various mitigation methods in the IOTC area, mitigation measures and guidelines adopted by other relevant organizations and, in particular, those of the Western and Central Pacific Fisheries Commission. The Working Party on Ecosystems and Bycatch will specifically consider the effects of circle hooks on target species catch rates, marine turtle mortalities and other bycatch species.

10. At its annual session in 2011 the Commission shall consider the recommendations of the Scientific Committee, together with socio-economic considerations, with a view to adopting further measures to mitigate interactions with marine turtles in fisheries covered by the IOTC Agreement.
11. CPCs should continue to undertake research and development to improve the mitigation of adverse affects on marine turtles and provide research outcomes to the Scientific Committee.
12. In researching new mitigation methods, consideration should be given to ensuring that methods do not cause greater harm than they prevent and do not adversely impact other species (particularly threatened species) and/or the environment.
13. CPCs are encouraged to collaborate with the IOSEA and take into account the IOSEA MoU including the provisions of the Conservation and Management Plan in the implementation of bycatch mitigation measures for marine turtles.
14. The IOTC and IOSEA secretariats are encouraged to intensify their collaboration and exchange of information on marine turtle issues in accordance with the protocols agreed by the Commission.
15. CPCs are encouraged to support developing countries in their implementation of the FAO Guidelines and this Resolution.
16. The Scientific Committee shall annually review the information reported by CPCs pursuant to this measure and, as necessary, provide recommendations to the Commission on ways to strengthen efforts to reduce marine turtle interactions with IOTC fisheries.

**RESOLUTION 08/04**  
**CONCERNING THE RECORDING OF CATCH BY LONGLINE FISHING VESSELS IN THE**  
**IOTC AREA**

**The Indian Ocean Tuna Commission (IOTC),**

TAKING NOTE of the results of the Inter-sessional Meeting on an Integrated Control and Inspection Scheme held in Yaizu, Japan from 27 to 29 March 2001;

CONSIDERING the provisions set forth in Resolution 01/05 Mandatory Statistical Requirements for IOTC Members, and in particular the requirements set out for surface fisheries/purse-seine fleets adopted by the Commission in 2001;

CONSIDERING the deliberations of the 9th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 November 2006 where it agreed that a standardised logbook would be advantageous and agreed on the minimum data requirements for all purse-seine and bait boat fleets operating in the IOTC Area of Competence, in order to harmonize data gathering and provide a common basis for scientific analysis for all IOTC Contracting Parties and Cooperating non-Contracting Parties (CPCs);

CONSIDERING the IOTC Resolution 07/03 *Concerning the Recording of Catch by Fishing Vessels in the IOTC Area*, and in particular its paragraph 3, whereby the CPCs committed themselves to adopt at 2008 annual session a minimum standard for logbooks for all longline vessels over 24 metres and those under 24 metres if they fish outside the EEZ of their flag State;

FURTHER CONSIDERING the works of the small task force created by the IOTC Scientific Committee during its 10th Session held in Seychelles in November 2007, in order to harmonise the various forms currently used by the fleets and the IOTC Scientific Committee agreement on the minimum standard requirements for all longline fleets as well as the produced logbook template;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that

1. Each flag CPC shall ensure that all long line fishing vessels flying its flag and authorized to fish species managed by IOTC be subject to a data recording system. Within the IOTC Area of Competence, all long line vessels over 24 metres length and those under 24 metres if they fish outside the EEZs of their flag States shall keep a bound or electronic logbook to provide data for use by Working Parties and the Scientific Committee that includes, as a minimum requirement, the information and data in the logbook set forth in Annex I and II. Annex III provides a logbook template for illustrative purposes only.
2. This logbook format consists of two parts, Annex I and Annex II.  
Annex I includes information on vessel, trip and gear configuration, and should be written once for each trip.  
Annex II, which contains information of longline operation and catch, should be filled for each set.
3. The logbook data shall be provided by the fishing masters to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. The flag State and the States which receive this information shall provide all the data for any given year to the IOTC Secretariat and the Scientific Committee by June 30th of the following year on an aggregated basis. The confidentiality rules set out in Resolution 98/02 *Data Confidentiality Policy and Procedures* for fine-scale data shall apply.

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## ANNEX I

### Record once in one cruise

#### 1-1 INFORMATION OF REPORT

- 1) Date of the submission of logbook.
- 2) Name of reporting person

#### 1-2 VESSEL INFORMATION

- 1) Vessel name
- 2) Call sign: If call sign is not available, other identical code as registration number should be used.
- 3) Vessel size: Gross tonnage (in MT) and/or overall length (in m)

#### 1-3 CRUISE INFORMATION

- 1) Departure date and port
- 2) Arrival date and port

#### 1-4 GEAR CONFIGURATION

- 1) Average Branch line length (m): Straight length in meter between snap and hook. See Figure 1.
- 2) Average Float line length (m): Straight length in meter from the float to the snap
- 3) Average Length between branch (m): Straight length of main line in meter between successive branch lines.
- 4) Main line material classified into four categories, Thick rope (Cremona rope), Thin rope (PE or other materials), Nylon braided and Nylon monofilament.

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## ANNEX II

### Record one record for each set

#### 2-1 OPERATION

- 1) Date of set (YYYY/MM/DD).
- 2) Position in latitude and longitude: either at noon (local time) position or position of start of gear setting, area code of operation (e.g.. Seychelles EEZ, High Seas, etc.) may be used optionally;
- 3) Local Time (24hr) of starting setting gear;
- 4) Sea surface temperature at noon with one decimal point, if available (XX.X °C);
- 5) The number of hooks between floats: If different hooks between floats were used in a single set, record the most representative one;
- 6) The number of hooks used in the set;
- 7) Number of lighsticks used in the set;
- 8) Type of bait used in the set

#### 2-2 CATCH / CAPTURES

- 1) Catch in number and weight by species per set for each of the species and form of processing in section 2-3

#### 2-3 SPECIES / ESPÈCES

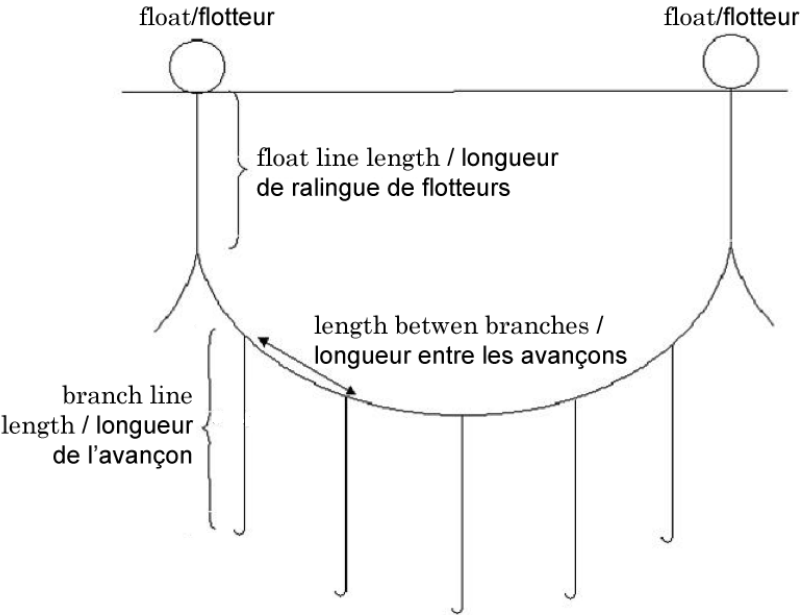
- 1) Southern bluefin,
- 2) Albacore,
- 3) Bigeye,
- 4) Yellowfin,
- 5) Skipjack
- 6) Swordfish
- 7) Marlins
- 8) Shortbill spearfish
- 9) Sailfish
- 10) Blue shark
- 11) Porbeagle
- 12) Mako shark
- 13) Other sharks
- 14) Other fishes

#### 2-4 REMARKS / REMARQUES

- 1) Discard of tuna, tuna-like fish and sharks should be recorded in the remarks.
- 2) Other information is also written in the remarks.

**Note a:** These species included in the logbook is regarded as minimum requirement. Optionally other shark and/or fish species should be added. Maybe, other shark and fish species caught frequently would be different by area and fishery.

*Figure 1. Schematic diagram of longline gear / Diagramme schématique d'une palangre.*





**RESOLUTION 10/02**  
**MANDATORY STATISTICAL REQUIREMENTS FOR IOTC MEMBERS AND COOPERATING NON-CONTRACTING PARTIES (CPC'S)**

**The Indian Ocean Tuna Commission (IOTC)**

GIVEN that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort.

NOTING that the United Nations Food and Agricultural Organisation (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organizations and provide them in a timely manner to the organization.

RECALLING the commitment made by members under Article V of the IOTC Agreement to keep under review the conditions and trends of the stocks and to gather, analyse and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the stocks and to fisheries based on the stocks covered by the Agreement.

COGNISANT that the above commitment can only be achieved when members meet the requirements of Article XI of the IOTC Agreement i.e. to provide statistical and other data and information to minimum specifications and in a timely manner.

ACKNOWLEDGING that the IOTC Scientific Committee has repeatedly stressed the importance of the timeliness of data submissions.

GIVEN that the activities of supply vessels and the use of Fish Aggregating Devices (FAD) are an integral part of the fishing effort exerted by the purse seine fleet.

CONSIDERING the provisions set forth in *Resolution 08/01 on mandatory statistical requirements for IOTC Members and Cooperating non-Contracting parties (CPCs)*, adopted by the Commission in 2008;

CONSIDERING the deliberations of the 12<sup>th</sup> Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009

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

1. CPC's shall provide the following information to the IOTC Secretariat according to the timelines specified in paragraph 6:
2. **Nominal catch data:**  
Estimates of the total annual catch by species and gear for all species under the IOTC mandate.
3. **Catch and effort data:**
  - a) **For surface fisheries:** catch weight by species and fishing effort shall be provided by 1° grid area and month strata. Purse seine fishery data shall be stratified by fishing mode (e.g. free swimming schools or schools in association with floating objects). The data shall be extrapolated to the total national monthly catches for each gear. Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted routinely.
  - b) **Longline fisheries:** catch by species, in numbers or weight, and effort as the number of hooks deployed shall be provided by 5° grid area and month strata. Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted

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routinely. For the work of relevant working parties under the IOTC Scientific Committee, longline data should be of a resolution of 1° grid area and month or finer. These data would be for the exclusive use of IOTC scientists, subject to the approval of the data owners and IOTC Resolution 98/02 *Data confidentiality policy and procedures*, and should be provided for scientific use in a timely fashion.

c) **For coastal fisheries:** available catch by species, fishing gear and fishing effort shall be submitted frequently and may be provided using an alternative geographical area if it better represents the fishery concerned.

These provisions, applicable to tuna and tuna-like species, shall also be applicable to the most commonly caught shark species and, where possible, to the less common shark species. CPC's are also encouraged to record and provide data on species other than sharks and tunas taken as bycatch.

**4. Size data:**

Size data shall be provided for all gears and for all species covered by the IOTC mandate according to the guidelines set out by the IOTC Scientific Committee. Size sampling shall be run under strict and well described random sampling schemes which are necessary to provide unbiased figures of the sizes taken. Sampling coverage shall be set to at least one fish measured by ton caught, by species and type of fishery, with samples being representative of all the periods and areas fished. Alternatively, size data for longline fleets may be provided as part of the Regional Observer Scheme where such fleets have at least 5% observer coverage of all fishing operations. Length data by species, including the total number of fish measured, shall be submitted by a 5° grid area by month, by gear and fishing mode (e.g. free swimming schools or schools in association with floating objects for the purse seiners). Documents covering sampling and raising procedures shall also be provided, by species and type of fishery.

**5. Given that the activities of supply vessels and the use of **Fish Aggregating Devices (FAD)** are an integral part of the fishing effort exerted by the purse seine fleet, the following data shall be provided:**

a) The number and characteristics of supply vessels: (i) operating under their flag, (ii) assisting purse seine vessels operating under their flag, or (iii) licensed to operate in their exclusive economic zones, and that have been present in the IOTC Area.

b) Number of days at sea by supply vessels by 1° grid area and month to be reported by the flag state of the supply vessel.

c) The total number and type of FADs set by the supply vessel and purse seine fleet per quarter. Types of FADs are defined as 1) drifting log or debris, 2) drifting raft or fad with a net, 3) drifting raft or fad without a net, 4) other (e.g. Payao, dead animal etc). All types monitored by a tracking system.

These data would be for the exclusive use of IOTC scientists, subject to the approval of the data owners and Resolution 98/02 *Data confidentiality policy and procedures*, and should be provided in a timely fashion.

**6. Timeliness of data submission to the IOTC Secretariat:**

(a) Longline fleets operating in the high seas shall provide provisional data for the previous year no later than 30 June. Final data shall be submitted no later than 30 December.

(b) All other fleets (including supply vessels) shall submit their final data for the previous year no later than 30 June.

(c) In case where the final statistics cannot be submitted by that date, at least preliminary statistics should be provided. Beyond a delay of two years, all revisions of historical data should be formally reported and duly justified. These reports should be made on forms provided by the Secretariat and reviewed by the Scientific Committee. The Scientific Committee will advise the Secretariat if revisions are then accepted for scientific use.

**7. This Resolution supersedes Resolution 08/01 on *Mandatory statistical requirements for IOTC Members and Cooperating non-Contracting parties (CPCs)***

**RESOLUTION 10/03**  
**CONCERNING THE RECORDING OF CATCH BY FISHING VESSELS IN THE IOTC**  
**AREA**

**The Indian Ocean Tuna Commission (IOTC),**

TAKING NOTE of the results of the Inter-sessional Meeting on an Integrated Control and Inspection Scheme held in Yaizu, Japan from 27 to 29 March 2001;

CONSIDERING the provisions set forth in *Mandatory Statistical Requirements For IOTC Members and Cooperating non-Contracting Parties (CPCs)* , and in particular the requirements set out for surface fisheries/purse-seine fleets adopted by the Commission in 2001;

CONSIDERING the deliberations of the 9<sup>th</sup> Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 November 2006 where it agreed that a standardised logbook would be advantageous and agreed on the minimum data requirements for all purse-seine and bait boat fleets operating in the IOTC Area of Competence, in order to harmonize data gathering and provide a common basis for scientific analysis for all IOTC Members and Cooperating non-Contracting Parties (CPCs);

CONSIDERING the provisions set forth in *Resolution 07/03 concerning the recording of catch by fishing vessels in the IOTC area*, adopted by the Commission in 2007;

CONSIDERING the deliberations of the 12<sup>th</sup> Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009

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

1. Each flag CPC shall ensure that all purse-seine vessels flying its flag and authorized to fish species managed by IOTC be subject to a data recording system. Within the IOTC Area of Competence, all purse-seine vessels 24 metres length overall or greater and those under 24 metres if they fish outside the EEZs of their flag States shall keep a bound or electronic logbook to provide data for use by Working Parties and the Scientific Committee that includes, as a minimum requirement, the information and data in the logbook set forth, for illustrative purposes, in Annex I.
2. The logbook data shall be provided by the fishing masters to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. The flag State and the States which receive this information shall provide all the data for any given year to the IOTC Secretariat and the Scientific Committee by June 30<sup>th</sup> of the following year on an aggregated basis. The confidentiality rules set out in Resolution 98/02 *Data Confidentiality Policy and Procedures* for fine-scale data shall apply.
3. This Resolution supersedes Resolution 07/03 *concerning the recording of catch by fishing vessels in the IOTC area*

**Annex I. LOGBOOK TEMPLATE// Annexe I.MODÈLE DE FICHES DE PÊCHE**

DEPART / SALIDA / DEPARTURE				ARRIVEE / LLEGADA / ARRIVAL				NAVIRE / BARCO / VESSEL				PATRON / PATRON / MASTER				FEUILLE HOJA / SHEET N°						
PORT / PUERTO / PORT DATE / FECHA / DATE HEURE / HORA / HOUR LOCH / CORREDERA / LOCH				PORT / PUERTO / PORT DATE / FECHA / DATE HEURE / HORA / HOUR LOCH / CORREDERA / LOCH																		
DATE FECHA DATE	POSITION (chaque calée ou midi) POSICION (cada lance o mediadia) POSITION (each set or midday)	CALEE LANCE SET			CAPTURE ESTIMEE ESTIMACION DE LA CAPTURA ESTIMATED CATCH									ASSOCIACION ASSOCIATION				COMMENTAIRES OBSERVATIONS COMMENTS		COURANT CORRIENTE CURRENT		
		Portant / Positivo / Successful Nul / Nulo / Nil	Heure / Hora / Time préciser/especificar/specify TU+	N° Cuve / Cuba / Well	1		2		3		AUTRE ESPECE préciser le/les nom(s) OTRA ESPECIE dar el/los nombre(s) OTHER SPECIES give name(s)			REJETS préciser le/les nom(s) DESCARTES dar el/los nombre(s) DISCARDS give name(s)			Banc libre/Banco libre/Free school Epave / Objeto / Log N (naturelle/natural), A (artificielle/artificial) Bateau d'assistance Barco de apoyo / Supply Balise / Baliza / Beacon Requin Baleine Tiburón Ballena / Shark Whale Baléine / Ballena / Whale	Route/Recherche, problèmes divers, type d'épave (naturelle/artificielle, balisée, bateau), prise accessoire, taille du banc, autres associations, ... Ruta/Busca, problemas varios, tipo de objeto (natural/artificial, con baliza, barco), captura accesoria, talla del banco, otras asociaciones, ... Steaming/Searching, miscellaneous problems, log type (natural/artificial, with radio beacon, vessel), by catch, school size, other associations, ...		T° Mer / Mar / Sea	Direction / Dirección / Direction Degrés / Grados / Degree	Vitesse / Velocidad / Speed Nœuds / Nudos / Knots
					Taille Talla Size	Capture Captura Catch	Taille Talla Size	Capture Captura Catch	Taille Talla Size	Capture Captura Catch	Nom Nombre Name	Taille Talla Size	Capture Captura Catch	Nom Nombre Name	Taille Talla Size	Capture Captura Catch						
Une calée par ligne / Uno lance cada línea / One set by line																						

**Instructions for filling the logbook form (EU purse seine and baitboats template)**  
**Notice explicative pour utiliser la fiche de pêche (senneurs et canneurs, modèle UE)**

**EN-TÊTE / CABECERA / HEADING**

**DEPART / SALIDA / DEPARTURE**

- ✓ Port / Puerto / Port
- ✓ Date / Fecha / Date
- ✓ Heure / Hora / Hour
- ✓ Loch / Corredera / Loch

**ARRIVEE / LLEGADA / ARRIVAL**

- ✓ Port / Puerto / Port
- ✓ Date / Fecha / Date
- ✓ Heure / Hora / Hour
- ✓ Loch / Corredera / Loch

**NAVIRE / BARCO / VESSEL**

**PATRON / PATRON / MASTER**

**FEUILLE / HOJA / SHEET N°**

*Remplir l'information correspondante au départ et au retour. Le loch au départ et au retour permettent d'estimer la distance parcourue par le navire pendant sa marée, et donc indirectement la surface prospectée. Les feuilles seront numérotées de 1 à n pour chaque marée.*

*Fill in the corresponding information at departure and arrival of the boat. Loch at departure and arrival allows to estimate the distance run during the trip, and indirectly the prospected surface. Sheets will be numbered from 1 and following for each trip.*

**DONNÉES SUR LA PÊCHE / DATOS SOBRE LA PESCA / FISHING DATA**

*Toute les informations concernant les activités, captures, incidents, ... qui se sont produits pendant la marée doivent être reportées aussi précisément que possible.*

*All information regarding activities, catches, incidents, ... which occurred during the trip should be reported as precisely as possible.*

**DATE/FECHA/DATE**

*Remplir au moins une ligne par jour, même s'il n'y a pas eu d'activité de pêche (cape, avarie, ...).*

*Fill in at least one line by day, even in case of no fishing activities.*

**POSITION (chaque calée ou midi)/POSICION (cada lance o mediadia)/POSITION (each set or midday)**

*Utiliser une ligne différente pour chaque calée (y compris les calées nulles), ou chaque DCP déployé, et noter leur position. S'il n'y a pas eu de pêche et qu'aucun DCP n'a été déployé au cours de la journée, noter la position aux environs de midi. Si nécessaire, les informations sur la calée peuvent utiliser plusieurs lignes sans changer les informations générales (date, position, ...).*

*Use one line for each set (including negative ones), or each FAD deployed, and note its position. If no set have been made and FADs have not been deployed during the day, note the position around midday. If necessary, information for one set can use several lines, without changing the general information (date and position).*

**CALÉE /LANCE/SET ou/o/or DEPLOIEMENT DE DCP/PLANTANDO DE OBJETO/DEPLOYMENT OF FAD**

- ✓ Portant / Positivo / Successful
- ✓ Nul / Nulo / Nil

*Cocher la case correspondante selon que le coup est nul ou portant.*

*Tick the corresponding column according that the set was positive or not.*

- ✓ Heure / Hora / Time : Préciser / Especificar / Specify (TU+ ?)

*Mettre l'heure de début de la calée ou de déploiement de DCP ; préciser le cas échéant l'heure utilisée par le bord (TU+ ??).*

*Indicate the time at the beginning of the set or at the time the FAD was deployed; if necessary, precise the time used on board (TU+ ??).*

- ✓ N° Cuve / Cuba / Well

*Indiquer le numéro de la/les cuve(s) où la capture sera stockée.*

*Indicates the well number where the catch will be stored.*

**CAPTURE ESTIMÉE / ESTIMACION DE LA CAPTURA / ESTIMATED CATCH**

- ✓ ALBACORE / RABIL / YELLOWFIN
  - Taille / Talla / Size
  - Capture / Captura / Catch
- ✓ LISTAO / LISTADO / SKIPJACK
  - Taille / Talla / Size
  - Capture / Captura / Catch
- ✓ PATUDO / PATUDO / BIGEYE
  - Taille / Talla / Size
  - Capture / Captura / Catch

*Pour chacune des principales espèces de thons mentionnées, indiquer la capture estimée ainsi que la taille/poids moyen ou la gamme de taille/poids des poissons (par exemple 5-15 kg, 10kg, >30 kg, ...). Si la distinction entre espèces n'est pas connue, remplir à cheval sur les 3 colonnes.*

*For each of the main tuna species indicated, note the estimated catch as well as the average size/weight or size/weight range (for example,*

5-15 kg, 10 kg, > 30 kg, ...). In case you cannot separate species, fill in on the 3 columns.

- ✓ AUTRE ESPECE (préciser le/les nom(s))/OTRA ESPECIE (dar el/los nombre(s))/OTHER SPECIES (give name(s))
  - Nom / Nombre / Name
  - Taille / Talla / Size
  - Capture / Captura / Catch

Remplir comme pour les espèces de thons, en précisant en plus le/les nom(s) de/des espèce(s) pêchées.

Fill in as for tuna species, indicating also the name(s) of the fished species.

- ✓ REJETS (préciser le/les nom(s))/DESCARTES (dar el/los nombre(s))/DISCARDS (give name(s))
  - Nom / Nombre / Name
  - Taille / Talla / Size
  - Capture / Captura / Catch

Remplir comme pour les espèces de thons, en précisant en plus le/les nom(s) de/des espèce(s) rejetées.

Fill in as for tuna species, indicating also the name(s) of the discarded species.

#### **ASSOCIATION / ASOCIACION / ASSOCIATION**

- ✓ Banc libre/Banco libre/Free school
- ✓ Epave / Objeto / Log : N (naturelle/natural), A (artificielle/artificial)
- ✓ Bateau d'assistance / Barco de apoyo / Supply
- ✓ Balise / Baliza / Beacon
- ✓ Requin Baleine / Tiburon Ballena / Shark Whale
- ✓ Baleine / Ballena / Whale

Cocher la colonne correspondant au type d'association observé. Pour une pêche sur épave ou pour le déploiement d'un DCP, préciser si elle est naturelle (N) ou artificielle (A), ainsi que si elle a ou non une balise. Indiquer également si la calée a été réalisée après l'appel d'un bateau d'assistance. Plusieurs associations sont bien sur possibles, et on peut signaler d'autres associations dans la rubrique « Commentaires »..

Tick the case corresponding to the association type observed. For log sets or deployment of FADs indicate if the log is natural (N) or artificial (A), as well as if there bear or not a beacon. Indicates also if fishing set was done after the call of a supply vessel. Of course, several associations are possible, and others than indicated may be mentioned in the "Comments" field.

#### **COMMENTAIRES / OBSERVACIONES / COMMENTS**

Route/Recherche, problèmes divers, type d'épave (naturelle ou artificielle, balisée, bateau), prise accessoire, taille du banc, autres associations,

Steaming/Searching, miscellaneous problems, log type (natural or artificial, with radio beacon, vessel), by catch, school size, other associations,

#### **T° Mer / Mar / Sea**

Indiquer la température de la mer (au 1/10 de degré) si elle est disponible.

Indicates the sea surface temperature (1/10 degree) if known.

#### **COURANT / CORRIENTE / CURRENT**

Direction / Direccion / Direction (Degrés / Grados / Degree)

Vitesse / Velocidad / Speed (Nœuds / Nudos / Knots)

Indiquer la vitesse et la direction du courant si disponible.

Indicates the current speed and direction if known.

**RECOMMENDATION 11/06**  
**CONCERNING THE RECORDING OF CATCH AND EFFORT BY FISHING VESSELS IN**  
**THE IOTC AREA OF COMPETENCE**

**The Indian Ocean Tuna Commission (IOTC),**

RECALLING the commitment made by members under Article V of the IOTC Agreement to keep under review the conditions and trends of the stocks and to gather, analyse and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the stocks and to fisheries based on the stocks covered by the Agreement;

CONSIDERING the provisions set forth in Resolution 10/02 Mandatory Statistical Requirements for IOTC Members and Co-operating Non-Contracting Parties (CPCs), and in particular paragraph 3, which sets out the catch and effort reporting requirements for surface fisheries, longline and coastal fisheries;

ACKNOWLEDGING that the IOTC Science Committee has repeatedly stressed the importance of the timeliness and accuracy of data submissions for members;

ALSO RECALLING the outcomes of the 9th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 November 2006 where it was agreed that a standardised logbook would be advantageous and agreed on the minimum requirements for all purse seine and bait boat fleets operating in the IOTC Area of competence in order to harmonize data gathering and provide a common basis for scientific analysis for all IOTC Contracting Parties and Cooperating non-Contracting Parties (CPCs);

FURTHER RECALLING the recommendations adopted by the KOBE II Workshop on Bycatch, held in Brisbane, Australia, 23–25 June 2010; in particular that RFMOs should consider adopting standards for bycatch data collection which, at a minimum, allows the data to contribute to the assessment of bycatch species population status and evaluation of the effectiveness of bycatch measures, and that the data should allow the RFMOs to assess the level of interaction of the fisheries with bycatch species;

ALSO CONSIDERING the deliberations of the 12th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009;

FURTHER CONSIDERING the deliberations of the 13th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 December 2010, that recommended three options, one of which is mandatory reporting of a revised list of shark species in logbooks to improve the data collection and statistics on sharks in the IOTC Area of competence;

FURTHER CONSIDERING the works of the small task force created by the IOTC Scientific Committee during its 10th Session held in Seychelles in November 2007, to harmonise the various forms currently used by the fleets and the IOTC Scientific Committee agreement on the minimum standard requirements for all purse seine, longline and gillnet fleets as well as the produced logbook template;

RECOMMENDS in accordance with the provisions of the Agreement Establishing the IOTC, that:

- 1 Each flag CPC should ensure that all purse seine, longline, gillnet and pole and line fishing vessels flying its flag and authorized to fish species managed by IOTC be subject to a data recording system.
- 2 Within the IOTC Area of competence, all purse seine, longline, gillnet and pole and line fishing vessels over 24 metres length and those under 24 metres if they fish outside the EEZs of their flag States should keep a bound or electronic logbook to provide data for use by Working Parties and the Scientific Committee that includes, as a minimum requirement, the information and data in the logbook set forth in Annex I and II.
- 3 The logbooks format consists of two parts, Annex I and Annex II, and logbook templates are provided for illustrative purposes only for all gears (Annex III, IV, V and VI):

Annex I includes information on vessel, trip and gear configuration, and need only be completed once for each trip, unless the gear configuration changes during the trip.

Annex II contains information of purse seine, longline, gillnet and pole and line operations and catch, which must be completed for each set of the fishing gear.

- 4 The logbook data should be provided by the fishing masters to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. The flag State and the States which receive this information should provide all the data for any given year to the IOTC Secretariat and the Scientific Committee by June 30<sup>th</sup> of the following year on an aggregated basis. The confidentiality rules set out in Resolution 98/02 *Data Confidentiality Policy and Procedures* for fine-scale data shall apply.
- 5 The Commission will review this recommendation at its 2012 annual meeting, taking into account the recommendations of the Scientific Committee, with the view of adopting a resolution to implement reporting requirements across all gear types.



## ANNEX I

**Record once per trip (unless gear configuration changes)**

### 1.1 REPORT INFORMATION

- 1) Date of the submission of logbook
- 2) Name of reporting person

### 1.2 VESSEL INFORMATION

- 1) Vessel name and/or registration number
- 2) IOTC number, where available
- 3) Call sign: if call sign is not available, other unique identifying code such as registration or fishing licence number should be used
- 4) Vessel size: gross tonnage and/or overall length (meters)

### 1.3 CRUISE INFORMATION

For multiday fishing operations record the

- 1) Departure date and port
- 2) Arrival date and port

### 1.4 OTHER REQUIRED INFORMATION

#### **Longline (Gear Configuration):**

- 1) Average branch line length (meters): straight length in meters between snap and hook (Figure 1)
- 2) Average float line length (meters): straight length in meters from the float to the snap
- 3) Average length between branch (meters): straight length of main line in meters between successive branch lines
- 4) Main line material classified into four categories:
  - a. Thick rope (Cremona rope)
  - b. Thin rope (PE or other materials)
  - c. Nylon braided
  - d. Nylon monofilament

#### **Purse Seine (Search Information):**

- 1) Days searched
- 2) Spotter plane used (Yes/No)

#### **Gillnet (Gear Configuration):**

- 1) Minimum and maximum fishing depth of assembled net (meters): record the maximum and minimum of the depth range fished
- 2) Mesh size of net (millimetres): record the size of the mesh size used during the trip
- 3) Height of assembled net (meters): height on assembled net in meters
- 4) Netting material: e.g. nylon braid, nylon monofilament, etc
- 5) Total length of net lost and not recovered (meters): record the total length lost during the trip

#### **Pole and line**

- 1) Activity: reported each day from the start of the trip to the end of the trip. Activities should include “a day fishing or search with bait onboard”, “no fishing – collecting bait”, “no fishing – in transit”; no fishing – gear breakdown”; no fishing – bad weather” and no fishing – in port

## ANNEX II

### Record once per set/shot/operation

#### 2.1 OPERATION

##### For longline:

- 1) Date of set (YYYY/MM/DD)
- 2) Position in latitude and longitude: either at noon (local time) position or position of start of gear, area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used
- 3) Local Time (24 hr) of starting setting the gear
- 4) Sea surface temperature at noon with one decimal point, if available (XX.X°C)
- 5) Number of hooks between floats: if there are different hooks counts between floats in a single set then record the most representative (average) number
- 6) Total number of hooks used in the set
- 7) Number of light-sticks used in the set
- 8) Type of bait used in the set

##### For purse seine:

- 1) Date of fishing activity (YYYY/MM/DD)
- 2) Position in latitude and longitude: for each set or at noon (local time) position
- 3) Details of the set or deployment of FAD: specify if the set was successful, nil, time, well
- 4) Type of school: FAD association (specify the type e.g. object, beacon, whale shark, whale, etc) and/or free swimming school
- 5) Sea surface temperature at noon with one decimal point, if available (XX.X°C)
- 6) Current speed (knots) and direction (degrees)

##### For gillnet:

- 1) Date of set (YYYY/MM/DD): record the date for each set of day at sea (for days without sets)
- 2) Total length of net (meters): length floatline used for each set in meters
- 3) Start fishing time: record the UCT time (24 hr) when starting each set
- 4) Start and end position in latitude and longitude: record start and end latitude and longitude that represent the area that your gear is set between. Record the latitude and longitude at noon for days with no set.
- 5) Depth at which net is set (meters): approximate depth at which the gillnet is set
- 6) Start Haul Time: record the UCT time (24 hr) when hauling starts
- 7) Finish Haul Time: record the UCT time (24 hr) when hauling ends

##### For Pole and Line

- 1) Date of fishing: record the day of fishing. Each fishing day should be recorded separately.
- 2) Number of fishermen: record the number of fishermen on the boat by fishing day (fishing event)
- 3) Number of fishing gears used: Record the number of fishing gears used during the day (fishing event)
- 4) Start fishing time: record the UCT time (24 hr) immediately after bait fishing is complete and the vessel heads to the ocean for fishing. For multiple days, the time at which search starts should be recorded
- 5) End fishing time: record the UCT time (24 hr) immediately after fishing is complete from the last school. This is the time that the captain decides to head home. On multiple days this is the time fishing stopped from the last school.
- 6) Position of the catch: record the latitude and longitude at the start of the fishing event, record the latitude and longitude at noon for non-fishing days. Where information is recorded by day, record the average 1° x 1° area(s) where fishing took place.
- 7) Type of school: FAD associated and/or free school

#### 2.2 CATCH

- 1) Catch weight (kg) or number by species per set/shot/fishing event for each of the species and form of processing in section 2.3:

- a. For longline by number and weight;
- b. For purse seine by weight;
- c. For gillnet by weight;
- d. For pole and line by weight or number

### 2.3 SPECIES

For Longline:

<b>Fish Species</b>	<b>Other Species</b>
Southern Bluefin Tuna ( <i>Thunnus maccoyii</i> )	Blue Shark ( <i>Prionace glauca</i> )
Albacore Tuna ( <i>Thunnus alalunga</i> )	Mako Sharks ( <i>Isurus</i> spp.)
Bigeye Tuna ( <i>Thunnus obesus</i> )	Porbeagle Shark ( <i>Lamna nasus</i> )
Yellowfin Tuna ( <i>Thunnus albacores</i> )	Oceanic Whitetip Shark ( <i>Carcharhinus longimanus</i> )
Skipjack Tuna ( <i>Katsuwonus pelamis</i> )	Hammerhead Sharks ( <i>Sphyrna</i> spp.)
Swordfish ( <i>Xiphius gladius</i> )	Other sharks
Striped marlin & blue marlin ( <i>Tetrapturus audax</i> & <i>Makaira indica</i> )	<b>Optional species to be recorded</b>
Swordfish ( <i>Xiphius gladius</i> )	
Black Marlin ( <i>Makaira mazara</i> )	Thresher Sharks ( <i>Alopias</i> spp.)
Striped marlin & blue marlin ( <i>Tetrapturus audax</i> & <i>Makaira indica</i> )	
Shortbilled spearfish ( <i>Tetrapturus angustirostris</i> )	Tiger Shark ( <i>Galeocerdo cuvier</i> )
Black Marlin ( <i>Makaira mazara</i> )	
Indo–Pacific Sailfish ( <i>Istiophorus platypterus</i> )	Crocodile Shark ( <i>Pseudocarcharias kamoharai</i> )
Shortbilled spearfish ( <i>Tetrapturus angustirostris</i> )	
Other bony fishes	Other Requiem sharks ( <i>Carcharhinus</i> spp.)
Indo–Pacific Sailfish ( <i>Istiophorus platypterus</i> )	
Other bony fishes	Great White shark ( <i>Carcharodon carcharias</i> )
	Pelagic stingray ( <i>Pteroplatytrygon violacea</i> )

For Purse Seine:

<b>Fish Species</b>	<b>Others Optional</b>
Albacore Tuna ( <i>Thunnus alalunga</i> )	Whale Shark ( <i>Rhincodon typus</i> )
Yellowfin Tuna ( <i>Thunnus albacores</i> )	Oceanic Whitetip Shark ( <i>Carcharhinus longimanus</i> )
Skipjack Tuna ( <i>Katsuwonus pelamis</i> )	Silky sharks ( <i>Carcharhinus falciformis</i> )
Bigeye Tuna ( <i>Thunnus obesus</i> )	Other sharks
Other fishes	

For Gillnet:

<b>Fish Species</b>	<b>Other Species</b>
Albacore Tuna ( <i>Thunnus alalunga</i> )	Blue Shark ( <i>Prionace glauca</i> )
Bigeye Tuna ( <i>Thunnus obesus</i> )	Mako Sharks ( <i>Isurus</i> spp.)
Longtail Tuna ( <i>Thunnus tonggol</i> )	Porbeagle Shark ( <i>Lamna nasus</i> )
Yellowfin Tuna ( <i>Thunnus albacores</i> )	Oceanic Whitetip Shark ( <i>Carcharhinus longimanus</i> )
Skipjack Tuna ( <i>Katsuwonus pelamis</i> )	Hammerhead Sharks ( <i>Sphyrna</i> spp.)
Frigate Tuna ( <i>Auxis thazard</i> )	Other sharks
Kawakawa ( <i>Euthynnus affinis</i> )	<b>Optional species to be recorded</b>
Narrow banded Spanish Mackerel ( <i>Scomberomorus comerson</i> )	Thresher Sharks ( <i>Alopias</i> spp.)
Indo–Pacific King Mackerel ( <i>Scomberomorus guttatus</i> )	Tiger Shark ( <i>Galeocerdo cuvier</i> )

Marlins ( <i>Tetrapturus</i> spp, <i>Makaira</i> spp)	Crocodile Shark ( <i>Pseudocarcharias kamoharai</i> )
Indo-Pacific Sailfish ( <i>Istiophorus platypterus</i> )	Other Requiem sharks ( <i>Carcharhinus</i> spp.)
Shortbilled spearfish ( <i>Tetrapturus angustirostris</i> )	Great White shark ( <i>Carcharodon carcharias</i> )
Swordfish ( <i>Xiphius gladius</i> )	
Other fishes	

For Pole and Line:

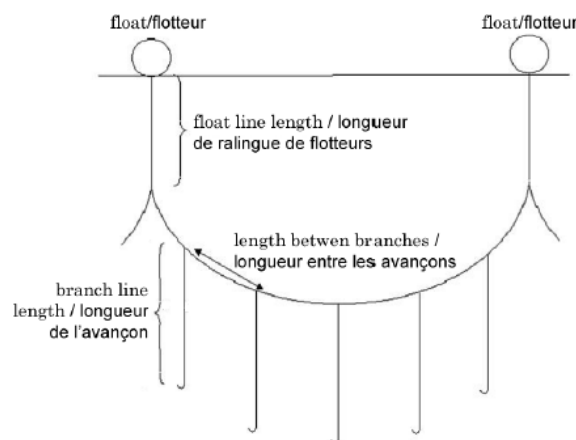
<b>Fish Species</b>
Skipjack Tuna ( <i>Katsuwonus pelamis</i> )
Yellowfin Tuna ( <i>Thunnus albacores</i> )
Bigeye Tuna ( <i>Thunnus obesus</i> )
Albacore Tuna ( <i>Thunnus alalunga</i> )
Frigate Tuna ( <i>Auxis thazard</i> )
Kawakawa ( <i>Euthynnus affinis</i> )
Longtail Tuna ( <i>Thunnus tonggol</i> )
Narrow banded Spanish Mackerel ( <i>Scomberomorus comerson</i> )
Other fishes

## 2.4 REMARKS

- 1) Discard Weight (kg) or number
  - a. For longline by number and weight
  - b. For purse seine estimate weight for each species
  - c. For gillnet by weight
  - d. For pole and line by weight or number
- 2) Any interactions with whale sharks (*Rhincodon typus*) and marine mammals are encouraged to be recorded
- 3) Discard of tuna, tuna-like fish and sharks, turtles and seabirds should be recorded in the remarks
- 4) Other information is also written in the remarks
- 5) Recall the Recommendation 10/13 *On the Implementation of a Ban on Discards of Skipjack Tuna, Yellow Fin Tuna, Bigeye Tuna and Non Targeted Species Caught by Purse Seiners*

**Note:** The species included in the logbooks are regarded as minimum requirement. Optionally other frequently caught shark and/or fish species should be added as required across different areas and fisheries.

Figure 1. Schematic diagram of longline gear / Diagramme schématique d'une palangre.



**RESOLUTION 09/05**  
**TO PROHIBIT THE USE OF LARGE-SCALE DRIFTNETS ON THE HIGH SEAS IN THE**  
**IOTC AREA**

**The Indian Ocean Tuna Commission (IOTC),**

RECALLING that the United Nations General Assembly (UNGA) Resolution 46/215 calls for a global moratorium on large-scale high seas driftnet fishing;

NOTING that a number of vessels continue to engage in large-scale high seas driftnet fishing in the Indian Ocean area (Convention Area);

MINDFUL that any vessel fishing with large-scale driftnets on the high seas in the Convention Area, or configured to conduct large-scale high seas driftnet operations, has the capacity to take species of concern to the IOTC and is likely to undermine the effectiveness of IOTC conservation and management measures;

NOTING with concern that recent information indicates that such vessels are interacting more frequently with highly migratory species, such as tunas, swordfish, sharks, and other species covered by the Convention; and that associated “ghost fishing” by lost or discarded driftnets have serious detrimental effects on these species of concern and the marine environment;

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

1. The use of large-scale driftnets<sup>1</sup> on the high seas within the Convention Area shall be prohibited.
2. Each Contracting Party and Cooperating Non-Contracting party (hereinafter referred to as CPCs) shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets while on the high seas in the Convention Area.
3. A CPC-flagged fishing vessel will be presumed to have used large-scale driftnets on the high seas in the Convention Area if it is found operating on the high seas in the Convention Area and is configured<sup>2</sup> to use large-scale driftnets.
4. Paragraph 3 shall not apply to a CPC-flagged vessel duly authorized to use large-scale driftnets in their EEZs. While on the high seas in the Convention Area all of such driftnets and related fishing equipment shall be stowed or secured in such a manner that they are not readily available to be used for fishing.
5. CPCs shall include in their Annual Reports a summary of monitoring, control, and surveillance actions related to large-scale driftnet fishing on the high seas in the Convention Area.
6. The IOTC shall periodically assess whether additional measures should be adopted and implemented to ensure that large-scale driftnets are not used on the high seas in the Convention Area. The first such assessment shall take place in 2012.
7. Nothing in this measure shall prevent CPCs from applying more stringent measures to regulate the use of large-scale driftnets.

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<sup>1</sup> “Large-scale driftnets” are defined as gillnets or other nets or a combination of nets that are more than 2.5 kilometers in length whose purpose is to enmesh, entrap, or entangle fish by drifting on the surface of, or in, the water column.

<sup>2</sup> “Configured” to use large-scale drift-nets means having on board assembled gear that collectively would allow the vessel to deploy and retrieve large-scale driftnets.

ATTACHMENT J

**RESOLUTION 11/04  
ON A REGIONAL OBSERVER SCHEME**

**The Indian Ocean Tuna Commission (IOTC),**

TAKING INTO ACCOUNT the need to increase the scientific information, in particular to provide the IOTC Scientific Committee working material in order to improve the management of the tuna and tuna-like species fished in the Indian Ocean;

REITERATING the responsibilities of flag States to ensure that their vessels conduct their fishing activities in a responsible manner, fully respecting IOTC conservation and management measures;

CONSIDERING the need for action to ensure the effectiveness of the IOTC objectives;

CONSIDERING the obligation of all IOTC Members and Co-operating Non-contracting Parties (hereinafter CPCs) to fully comply with the IOTC conservation and management measures;

AWARE of the necessity for sustained efforts by CPCs to ensure the enforcement of IOTC's conservation and management measures, and the need to encourage non-Contracting Parties (NCPs) to abide by these measures;

UNDERLINING that the adoption of this measure is intended to help support the implementation of conservation and management measures as well as scientific research for tuna and tuna-like species;

CONSIDERING the provisions set forth in Resolution 10/04 *on a Regional Observer Scheme*, adopted by the Commission;

CONSIDERING the deliberations of the 12<sup>th</sup> Session of the IOTC Scientific Committee held in Victoria, Seychelles from 30 November to 4 December 2009

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

**Objective**

1. The objective of the IOTC observer scheme shall be to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area.

**Observer Scheme**

2. In order to improve the collection of scientific data, at least 5 % of the number of operations/sets for each gear type by the fleet of each CPC while fishing in the IOTC Area of 24 meters overall length and over, and under 24 meters if they fish outside their EEZs shall be covered by this observer scheme. For vessels under 24 meters if they fish outside their EEZ, the above mentioned coverage should be achieved progressively by January 2013.
3. When purse seiners are carrying an observer<sup>1</sup> as stated in paragraph 1, this observer shall also monitor the catches at unloading to identify the composition of bigeye catches. The requirement for the observer to monitor catches at unloading is not applicable to CPCs already having a sampling scheme, with at least the coverage set out in paragraph 2.
4. The number of the artisanal fishing vessels landings shall also be monitored at the landing place by field samplers<sup>2</sup>. The indicative level of the coverage of the artisanal fishing vessels should progressively increase towards 5% of the total levels of vessel activity (i.e. total number of vessel trips or total number of vessels active).
5. CPCs shall:
  - a) Have the primary responsibility to obtain qualified observers. Each CPC may choose to use either deployed national or non-national of the flag State of the vessel on which they are deployed;
  - b) Endeavour that the minimum level of coverage is met and that the observed vessels are a representative sample of the gear types active in their fleet;

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<sup>1</sup> Observer: a person that collects information on board fishing vessels. Observer programmes can be used for quantifying species composition of target species, bycatch, by-products and dead discards, collecting tag returns, etc.

<sup>2</sup> Field sampler: a person that collects information on land during the unloading of fishing vessels. Field sampling programmes can be used for quantifying catch, retained bycatch, collecting tag returns, etc.

- c) Take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;
  - d) Endeavour to ensure that the observers alternate vessels between their assignments. Observers are not to perform duties, other than those described in paragraphs 10 and 11 below;
  - e) Ensure that the vessel on which an observer is placed shall provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible. Vessel masters shall ensure that all necessary co-operation is extended to observers in order for them to carry out their duties safely including providing access, as required, to the retained catch, and catch which is intended to be discarded.
6. The cost of the observer scheme in paragraph 2 and 3 shall be met by each CPC.
  7. The sampling scheme referred in paragraph 4 will be covered by the Commission's accumulated funds and voluntary contribution on a provisional basis. The Commission will consider an alternative for the financing of this scheme.
  8. If the coverage referred in paragraphs 2 and 3 is not met by a CPC, any other CPC may, subject to the consent of the CPC who has not met its coverage, place an observer to fulfill the tasks defined in the paragraphs 1 and 2 until that CPC provides a replacement or the target coverage level is met.
  9. CPCs shall provide to the Executive Secretary and the Scientific Committee annually a report of the number of vessels monitored and the coverage achieved by gear type in accordance with the provisions of this Resolution.
  10. Observers shall:
    - a) Record and report fishing activities, verify positions of the vessel;
    - b) Observe and estimate catches as far as possible with a view to identifying catch composition and monitoring discards, by-catches and size frequency;
    - c) Record the gear type, mesh size and attachments employed by the master;
    - d) Collect information to enable the cross-checking entries made to the logbooks (species composition and quantities, live and processed weight and location, where available); and
    - e) Carry out such scientific work (for example, collecting samples), as requested by the IOTC Scientific Committee.
  11. The observer shall, within 30 days of completion of each trip, provide a report to the CPCs of the vessel. The CPCs shall send within 150 days at the latest each report, as far as continuous flow of report from observer placed on the longline fleet is ensured, which is recommended to be provided with 1°x1° format to the Executive Secretary, who shall make the report available to the Scientific Committee upon request. In a case where the vessel is fishing in the EEZ of a coastal state, the report shall equally be submitted to that Coastal State.
  12. The confidentiality rules set out in the resolution 98/02 Data confidentiality policy and procedures for fine-scale data shall apply.
  13. Field samplers shall monitor catches at the landing place with a view to estimating catch-at-size by type of boat, gear and species, or carry out such scientific work as requested by the IOTC Scientific Committee.
  14. The funds available from the IOTC balance of funds may be used to support the implementation of this programme in developing States, notably the training of observers and field samplers.
  15. The elements of the Observer Scheme, notably those regarding its coverage, are subject to review and revision, as appropriate, for application in 2012 and subsequent years. Basing on the experience of other Tuna RFMOs, the Scientific Committee will elaborate an observer working manual, a template to be used for reporting (including minimum data fields) and a training program.

This Resolution supersedes Resolution 10/04 *on a Regional Observer Scheme*.

**RECOMMENDATION 10/13**  
**ON THE IMPLEMENTATION OF A BAN ON DISCARDS OF SKIPJACK TUNA, YELLOW FIN TUNA, BIGEYE TUNA AND NON TARGETED SPECIES CAUGHT BY PURSE SEINERS**

**The Indian Ocean Tuna Commission (IOTC):**

RECOGNIZING the need for action to ensure the achievement of IOTC objectives to conserve and manage skipjack, yellow fin and bigeye tuna in the IOTC Area of Competence;

RECOGNIZING that the international community has recognized both ethical concerns and policy regarding discards of species in several international instruments and statements, including United Nations General Assembly resolutions (A/RES/49/118 (1994); A/RES/50/25 (1996); A/RES/51/36 (1996); A/RES/52/29 (1997); A/RES/53/33 (1998); A/RES/55/8 (2000); and A/RES/57/142 (2002)), United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea (UNCLOS) relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (United Nations Fish Stocks Agreement); The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995; the Code of Conduct for Responsible Fisheries, the FAO International Plan of Action (IPOA) on sharks; the Convention on Biological Diversity (CBD);

RECALLING that the United Nations Fish Stock Agreement has underlined the importance of ensuring the conservation and optimum utilization of highly migratory species through the action of regional fishery bodies such as the IOTC, and provides that “*States should minimize ... discards, ..., catch of non target species, both fish and non-fish species, and impacts on associated or dependent species, in particular endangered species ...*”;

RECALLING that The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995, provides that “*States should...reduce bycatches, fish discards...*”;

RECALLING that the FAO Code of Conduct for Responsible Fisheries provides that “*States should take appropriate measures to minimize waste, discards...collect information on discards ...; ... take account of discards (in the precautionary approach) ...; develop technologies that minimize discards ...; use of selective gear to minimize discards*”;

CONCERNED about the morally unacceptable waste and the impact of unsustainable fishing practices upon the oceanic environment, represented by the discarding of tunas and non-target species in the purse-seine fishery for tunas in the Indian Ocean;

CONSIDERING the important volume of tuna and non targeted species discarded in the purse-seine fishery for tunas in the Indian Ocean;

RECOMMENDS, in accordance with the provisions of Article IX, paragraph 8 of the IOTC Agreement, the following:

**Retention of tuna species**

1. Contracting Parties and Cooperating non-Contracting Parties should encourage all purse-seine vessels to retain on board and then land all bigeye, skipjack, and yellowfin tuna caught, except fish considered unfit for human consumption.
2. Procedures for the implementation of full retention requirements include:
  - a) No bigeye, skipjack, and/or yellowfin tuna caught by purse-seine vessels may be discarded after the point in the set when the net is fully pursed and more than one half of the net has been retrieved. If equipment malfunctions affect the process of pursing and retrieving the net in such a way that this rule cannot be complied with, the crew must make efforts to release the tuna as soon as possible.
  - b) The following two exceptions to the above rule shall apply:



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i. Where it is determined by the captain of the vessel that tuna (bigeye, yellowfin or skipjack) caught are unfit for human consumption, the following definitions shall be applied:

- "unfit for human consumption" includes, but is not limited to, fish that:
  - is meshed or crushed in the purse-seine; or
  - is damaged due to depredation; or
  - has died and spoiled in the net where a gear failure has prevented both the normal retrieval of the net and catch, and efforts to release the fish alive;
- "unfit for human consumption" does not include fish that:
  - is considered undesirable in terms of size, marketability, or species composition; or
  - is spoiled or contaminated as the result of an act or omission of the crew of the fishing vessel.

ii. Where the captain of a vessel determines that tuna (bigeye, yellowfin or skipjack) was caught during the final set of a trip and there is insufficient well space to accommodate all tuna (bigeye, yellowfin or skipjack) caught in that set. This fish may only be discarded if:

- the captain and crew attempt to release the tuna (bigeye, yellowfin or skipjack) alive as soon as possible
- and no further fishing is undertaken after the discard until the tuna (bigeye, yellowfin or skipjack) on board the vessel has been landed or transshipped.

**Retention of species other than those specified under Para 2, a)**

3. Contracting Parties and Cooperating non-Contracting Parties should encourage all purse-seine vessels to retain on board and then land all non targeted species (other tunas, rainbow runner, dolphinfish, triggerfish, billfish, wahoo, and barracuda) except fish considered unfit for human consumption (as defined in paragraph 2, b), i). A single exception shall be the final set of a trip, when there may be insufficient well space remaining to accommodate all the fish caught in that set.

**Implementation**

4. Contracting Parties and Cooperating non-Contracting Parties should encourage full compliance by their respective fleets with the requirements of this recommendation.
5. Contracting Parties and Cooperating non-Contracting Parties are encouraged to take appropriate actions to promote better data collection and reporting on discards from all gears, to allow the WPEB to estimate the level of discards of both purse seine and longline fisheries.
6. The Scientific Committee is encouraged to provide advice at its 2010 session, on the management of discards in both purse seine and longline fisheries.