

## REVIEW OF CONSERVATION AND MANAGEMENT MEASURES RELATING TO TROPICAL TUNAS

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### PURPOSE

To encourage participants at the Working Party on Tropical Tunas (WPTT15) to review the existing Conservation and Management Measures (CMM) relating to the three tropical tuna species, noting the CMMs contained in document IOTC-2013-WPTT15-04; 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

In addition to the CMMs outlined in document IOTC-2013-WPTT15-04, tropical tunas in the Indian Ocean are currently subject to a range of other CMMs adopted by the Commission. Some are directed at a single species while others target fishing capacity across the whole Indian Ocean. In an attempt to focus the efforts of the WPTT, participants may wish to annually review several of the key CMMs which are clearly based on scientific advice, or which match current requests from the Commission. The following are a list of the key CMMs for the consideration of the WPTT15. At next year's meeting, a range of other CMMs will be presented for discussion.

**Resolution 12/11 *On the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties*.** This Resolution calls on CPCs to implement a limitation on their fishing capacity on tropical tunas, swordfish and albacore stocks, while allowing for the inclusion of vessels under construction during specific reference years, and those proposed by the developing States in their fleet development plans ([Appendix A](#))

**Resolution 12/13 *For the conservation and management of tropical tunas stocks in the IOTC area of competence*.** This Resolution establishes a closure of a defined area for purse seine vessels from 1st November to 1st December and for longline vessels from 1st February to 1st March in order to reduce the fishing pressure on yellowfin and bigeye tunas. The Scientific Committee is also to provide advice on possible modifications of the closure area or time periods; an evaluation of the impact of the catch of juveniles and spawners with recommendation for mitigation of such impact; and advice on possible different management measures. The Resolution is applicable in 2013 and 2014 to all vessels of 24 meters overall length and over, and under 24 meters if they fish outside their EEZ, fishing within the IOTC area of competence (para. 1) ([Appendix B](#)).

**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 ([Appendix C](#)).

### DISCUSSION

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

### RECOMMENDATION

That the WPTT **NOTE** paper IOTC-2013-WPTT15-05 which aimed to encourage the WPTT to review the existing Conservation and Management Measures (CMMs) relating to tropical tunas, 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.

### APPENDICES

**Appendix A:** [Resolution 12/11 on the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties](#).

**Appendix B:** [Resolution 12/13 for the conservation and management of tropical tunas stocks in the IOTC area of competence](#).

**Appendix C:** [Resolution 10/02 mandatory statistical requirements for IOTC Members and Cooperating non-Contracting Parties \(CPC's\)](#).

## APPENDIX A

### RESOLUTION 12/11

#### ON THE IMPLEMENTATION OF A LIMITATION OF FISHING CAPACITY OF CONTRACTING PARTIES AND COOPERATING NON-CONTRACTING PARTIES

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

NOTING that the IOTC Scientific Committee during its Eleventh Session agreed that the total overcapacity is a major concern in all Oceans;

RECALLING the adoption by IOTC in 2003 of the [Resolution 03/01](#) *on the limitation of fishing capacity of IOTC Contracting Parties and Cooperating Non-Contracting Parties*; the adoption in 2006 of Resolution 06/05 [superseded by Resolution 09/02, then [Resolution 12/11](#)] on limitation of fishing capacity, in terms of number of vessels, of IOTC Contracting Parties and Cooperating Non-Contracting Parties, and the adoption in 2007 of Resolution 07/05 [superseded by Resolution 09/02, then [Resolution 12/11](#)] *on limitation of fishing capacity of IOTC Contracting Parties and Cooperating Non-Contracting Parties in terms of number of vessels targeting swordfish and albacore*;

RECOGNISING that FAO International Plan of Action for the Management of the Fishing Capacity (IPOA) provides, in its Objectives and Principles that "States and Regional Fisheries Organisations confronted with an overcapacity problem, where capacity is undermining achievement of long-term sustainability outcomes, should endeavour initially to limit at present level and progressively reduce the fishing capacity applied to affected fisheries";

TAKING INTO ACCOUNT the need to have due regard for the interests of all Members concerned, in conformity with the rights and obligations of those Members under international law and in particular, to the rights and obligations of developing countries of the Indian Ocean rim with respect to entry into the high-seas fisheries in the IOTC area of competence;

RECOGNISING the need to ensure the proper implementation of the [Resolutions 03/01](#), 06/05 [superseded by Resolution 09/02, then [Resolution 12/11](#)] and 07/05 [superseded by Resolution 09/02, then [Resolution 12/11](#)], in order to allow the stabilisation of the level of fishing capacity active on the stocks of high commercial value under the IOTC responsibility, and to facilitate the work of the IOTC Scientific Committee to be able to provide the Commission with sound scientific advice;

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

1. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) shall notify to the IOTC Secretariat, by 31 December 2009, the lists of vessels, by gear type, over 24 meters overall length and over, and under 24 meters if the fished outside their Exclusive Economic Zone (EEZ), and corresponding overall capacity in GT, which have actively fished in accordance with the provision of IOTC Resolution 07/04 [superseded by Resolution 10/07 and [Resolution 10/08](#); Resolution 10/07 then superseded by Resolution 12/07, then [Resolution 13/07](#)]:

- for tropical tunas during the year 2006<sup>1</sup>
- for swordfish and albacore during the year 2007

Both lists shall include the vessel at that time considered under administrative process of construction.

2. In notifying their vessels fishing for tropical tunas in the area in 2006, and for swordfish and albacore in 2007, the CPCs shall confirm that they have verified the effective presence and fishing activities of their vessels in the IOTC area in 2006 and in 2007, through their VMS records, catch reports, port calls, or other means. The IOTC Secretariat shall have access to such information upon request.
3. This provision does not apply to those vessels included in the lists, but considered under administrative process of construction in 2006 and in 2007.

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<sup>1</sup> Acknowledging that the catch levels and vessels presence in 2006 of certain Members is not representative of their historical presence, and consequently that these Members may increase the number of vessels present during the period of application of the Resolution to a maximum level operating in a season or year since 2000. These Members shall provide the Commission the identified number of vessels and corresponding capacity in GT by 31 December 2009.

4. Within the period of application of this Resolution, CPCs may change the number of their vessels, by gear type, provided that they can either demonstrate to the Commission, under the advice of the IOTC Scientific Committee that the change in the number of vessels, by gear type, does not lead to an increase of fishing effort on the fish stocks involved or where they are directly limiting catches using individual transferable quotas under a comprehensive national management plan which has been provided to the Commission.
5. CPCs shall ensure that where there is a proposed transfer of capacity to their fleet that the vessels to be transferred are on the IOTC Record of Vessels or on the Record of Vessels of other tuna Regional Fisheries Management Organisations. No vessels on the List of IUU Vessels of any Regional Fisheries Management Organisation may be transferred.
6. The other CPCs which had the objective of developing their fleets following the provisions of IOTC [Resolution 03/01](#), through the introduction to the IOTC of a fleet development plan, shall confirm, by 31 December 2009, *inter alia*, the type, size, gear and origin of the vessels included in the Fleet Development Plans and the programming (precise calendar for the forthcoming 10 years) of their introduction into the fisheries). All future fishing efforts shall be in accordance with such development Plans of the concerned CPCs.
7. The CPCs which have introduced a Fleet Development Plan, and have confirmed the information on the vessels included in those plans according to the provision of paragraph 3, shall implement their Plans according to their programming. Regarding CPCs which fail to introduce vessels in accordance with their Fleet Development Plans, the IOTC Compliance Committee and the Commission will give annual consideration to the problems related to the implementation of Fleet Development Plans.
8. The IOTC Compliance Committee shall verify, at any IOTC Plenary Session, the compliance of CPCs with the provisions of this Resolution, including the implementation, according to the notified programming, of the Fleet Development Plans.
9. In relation to the foregoing, the Commission will give due consideration to the interests of the developing coastal States, in particular small islands developing States and territories within the IOTC area of competence.
10. This Resolution is applicable during the years 2012 and 2013. The Commission shall review its implementation at the 2014 IOTC Session.
11. This Resolution supersedes Resolution 09/02 *on the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties*.

**APPENDIX B**  
**RESOLUTION 12/13**  
**FOR THE CONSERVATION AND MANAGEMENT OF TROPICAL TUNAS STOCKS IN THE IOTC AREA**  
**OF COMPETENCE**

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

RECOGNISING that based on past experience in the fishery, the potential production from the resource can be negatively impacted by excessive fishing effort;

TAKING INTO ACCOUNT the available scientific information and advice, in particular the IOTC Scientific Committee conclusions whereby the yellowfin tuna and bigeye tuna stocks might have been over or fully exploited in recent years;

RECOGNISING that during the 12<sup>th</sup> IOTC scientific meeting held in Seychelles from 30 November to 04 December 2009, the IOTC Scientific Committee recommended that yellowfin tuna and bigeye tuna catches should not exceed the MSY levels which have been estimated at 300,000 tonnes for yellowfin tuna and at 110,000 tonnes for bigeye tuna;

ACKNOWLEDGING that the implementation of a TAC without a quota allocation would result in an inequitable distribution of the catches and fishing opportunities among the IOTC Members and Cooperating Non-Contracting Parties (CPCs) and non-CPCs;

FURTHER RECOGNISING that the tuna artisanal fisheries sector needs strengthening in terms of catch statistics reporting in order to more closely follow the catch situations and notwithstanding improvement in the industrial fishery catch statistics reporting requirements;

NOTING the importance of applying the precautionary approach for the management of the tropical tuna and swordfish stock, in particular yellowfin tuna and bigeye tuna in the Indian Ocean;

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

1. This Resolution is applicable in 2011, 2012, 2013 and 2014 to all vessels of 24 meters overall length and over, and under 24 meters if they fish outside their EEZ, fishing within the IOTC area of competence.
2. With the view to decreasing the pressure on the main targeted stocks and in particular on the yellowfin tuna and bigeye tuna in the IOTC area of competence for the years 2011, 2012, 2013 and 2014, the area defined by the following coordinates (**Annex I**) will be closed for longline vessels in each year from 0000 hours on 1 February to 2400 hours on 1 March, and for purse-seine vessels in each year from 0000 hours on 1 November to 2400 hours on 1 December:
 

0 ° - 10° North

40° and 60° East
3. All vessels fishing within the IOTC area of competence in 2011, 2012, 2013 and 2014, regardless of the flag under which they operate or whether they change flag during the year, shall observe the area and period closure.
4. CPCs flag states shall monitor the compliance of their vessels with this Resolution, notably through VMS, and will provide a summary of VMS records related to their fleet operation in the previous year for the consideration of the IOTC Compliance Committee.
5. Fishing vessels that do not comply with IOTC [Resolution 06/03](#) "*On establishing a vessel monitoring system programme*" are not allowed to be active in the IOTC area of competence.
6. Landings, transshipments and commercial transactions of all species, and their products, that have been positively identified as originating from fishing activities that contravene this Resolution, are prohibited.
7. Each CPC shall no later than 45 days before the date of entry into force of a closure:
  - a) take the necessary legal and administrative measures to implement the closure;

b) inform all interested parties and their national tuna and tuna-like species industries of the closure;

c) inform the IOTC Executive Secretary that these steps have been taken.

8. In order to have a more extensive knowledge of the exploitation rate of these species and also the assessment of the feasibility of near real time reporting, the IOTC CPCs agree to implement as soon as possible a pilot project within the framework of the port sampling programme under [Resolution 11/04](#), with a view to enhancing the gathering of catch data related to the activities of the artisanal fishery sector and to establishing a catch reporting system.

The pilot project shall be implemented for a 12 months period by the IOTC Secretariat in collaboration with the CPCs concerned.

The pilot project will contribute relevant information to the work of the IOTC Scientific Committee in future revision of stock estimates and in the assessment of the reporting requirements in respect of catch quota reporting, particularly in the artisanal fisheries.

The IOTC Scientific Committee will examine the results of the pilot project at its 2011 meeting and provide management advice to the Commission.

9. The IOTC Scientific Committee will provide at its 2010, 2011 and 2012 plenary Session any appropriate management options based on the Kobe II matrix (**Annex II**) for the consideration of the Commission.

10. The IOTC Scientific Committee will provide at its 2011, 2012 and 2013 Plenary sessions:

- a) an evaluation of the closure area, specifying in its advice if a modification is necessary, its basic scientific rationale with an assessment of the impact of such a closure on the tropical tuna stocks, notably yellowfin tuna and bigeye tuna;
- b) an evaluation of the closure time periods, specifying in its advice if a modification is necessary, its basic scientific rationale with an assessment of the impact of such a closure on the tropical tuna stocks, notably yellowfin tuna and bigeye tuna;
- c) an evaluation of the impact on yellowfin tuna and bigeye tuna stocks by catching juveniles and spawners taken by all fisheries. The IOTC Scientific Committee shall also recommend measures to mitigate the impacts on juvenile and spawners;
- d) any other advice on possible different management measures based on the Kobe II matrix, on the main targeted species under the IOTC competence.

11. CPCs shall implement the following action plan:

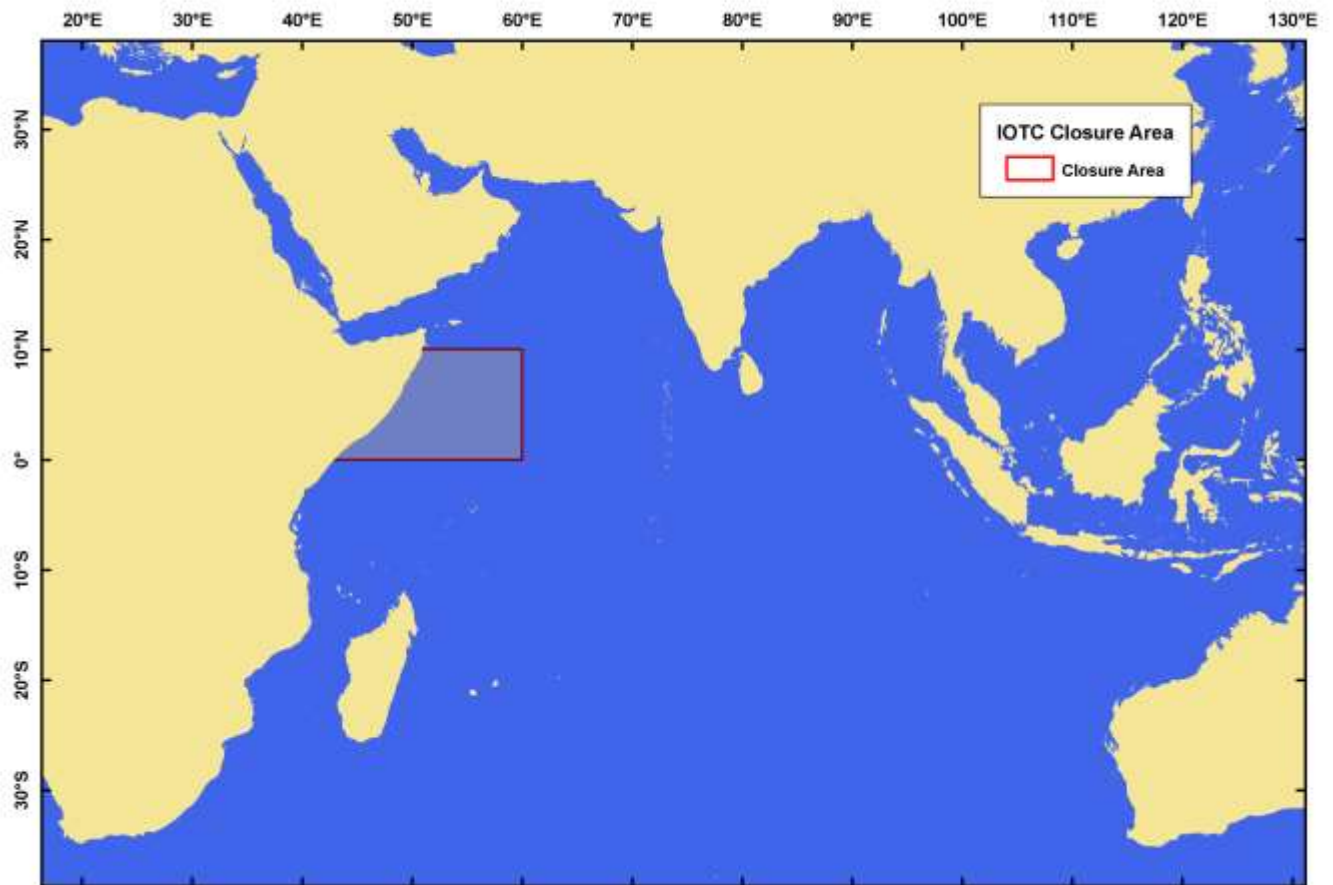
- a) establishment of an allocation system (Quota) or any other relevant measures based on the IOTC Scientific Committee recommendations for the main targeted species under the IOTC competence;
- b) advice on the best reporting requirement of the artisanal tuna fisheries and implementation of an appropriate data collection system;
- c) the pilot project as specified in paragraph 8.

12. A technical committee meeting shall be held prior to the Commission Plenary session in 2011 to discuss on allocation criteria for the management of the tuna resources of the Indian Ocean and recommend an allocation quota system or any other relevant measures. CPCs are encouraged to submit proposals one month prior to the meeting.

13. The Commission shall adopt an allocation quota system or any other relevant measure for the yellowfin tuna and bigeye tuna at its plenary session in 2012.

14. This Resolution supersedes Resolution 10/01 *For the conservation and management of tropical tunas stocks in the IOTC area of competence*.

## ANNEX I



## ANNEX II

## Strategy matrix for setting management measures

Management target	Time frame	Probability of meeting target			Data rich / Data poor
		A%	B%	C%	
<Fishing mortality target>	In x years				
	In y years				
	In z years				
Management target	Time frame	Probability of meeting target			Data rich / Data poor
		A%	B%	C%	
<Biomass target>	In x years				
	In y years				
	In z years				
Management target		Probability of meeting target			Data rich / Data poor
		A%	B%	C%	
<Status quo>					

**APPENDIX C**  
**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 organisations 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 ~~[superseded by Resolution 10/02]~~ 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 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 [\[superseded by Resolution 12/02\]](#) *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 [\[superseded by Resolution 12/02\]](#) *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 IOTC Secretariat and reviewed by the IOTC Scientific Committee. The IOTC Scientific Committee will advise the IOTC 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)*.