OUTCOMES OF THE SEVENTEENTH SESSION OF THE COMMISSION

PREPARED BY: IOTC SECRETARIAT, 28 AUGUST 2013
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PURPOSE

To inform participants at the Eleventh Working Party on Billfish (WPB11) of the decisions and requests made by the Commission at its Seventeenth Session, held from 6–10 May 2013, specifically relating to the work of the WPB.

BACKGROUND

At the 17th Session, the Commission **CONSIDERED** and **ADOPTED** 11 proposals as Conservation and Management Measures (11 in total consisting of 11 Resolutions and 0 Recommendations), as detailed below:

Resolutions

- Resolution 13/01 *On the removal of obsolete Conservation and Management Measures*
- Resolution 13/02 *Concerning the IOTC record of vessels authorised to operate in the IOTC area of competence*
- Resolution 13/03 *On the recording of catch and effort by fishing vessels in the IOTC area of competence*
- Resolution 13/04 *On the conservation of cetaceans*
- Resolution 13/05 *On the conservation of whale sharks (Rhincodon typus)*
- Resolution 13/06 *On a scientific and management framework on the Conservation of sharks species caught in association with IOTC managed fisheries*
- Resolution 13/07 *Concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information*
- Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*
- Resolution 13/09 *On the conservation of albacore caught in the IOTC area of competence*
- Resolution 13/10 *On interim target and limit reference points and a decision framework*
- Resolution 13/11 *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and non-targeted species caught by purse seine vessels in the IOTC area of competence*

Pursuant to Article IX.4 of the IOTC Agreement, the above mentioned Conservation and Management Measures shall become binding on Members, 120 days from the date of the notification communicated by the Secretariat in IOTC Circular 2013–49 (17 May 2013), i.e. 14 September 2013.

The following Resolutions are considered to have the greatest relevance to the work of the WPB:

Resolution 13/03 ***On the recording of catch and effort data by fishing vessels in the IOTC area of competence***

1) The Commission **ADOPTED** Resolution 13/03 *On the recording of catch and effort data by fishing vessels in the IOTC area of competence.* This Resolution introduces amendments to Resolution 12/03 *on the recording of catch and effort by fishing vessels in the IOTC area of* competence by including a requirement for the submission to the IOTC Secretariat of the template of all flag and coastal State logbooks to record data for the IOTC catches for publishing on the IOTC web page to facilitate port and at-sea inspections. For CPCs that use electronic logbook systems, a copy of the applicable regulations implementing the electronic logbook system in that CPC, a set of screen captures and the name of the certified software may be provided. Thresher sharks and Oceanic whitetip shark, which are prohibited to be retained onboard, are moved from "optional species" to "other species" to be required to be recorded in logbooks for longline, purse seine and gillnet. Marine turtles (in number) are also now

required to be recorded in logbooks not only for purse seine and gillnet vessels but also for longline vessels. This Resolution supersedes Resolution 12/03. India expressed reservations and concerns regarding its ability to comply with the requirements detailed in the Resolution and indicated that they could not support the Resolution in its current form. India reserved its right to lodge an objection to the Resolution, as permitted under Article IX, paragraph 9 of the IOTC Agreement.

Resolution 13/08 ***Procedures on a fish aggregating devices (FADs) management plan, including more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species***

2) The Commission **ADOPTED** Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species.* This Resolution introduces amendments to Resolution 12/08 by including principles for the design and deployment of FADs to reduce the entanglement of sharks, marine turtles or any other species as well as the inclusion in the suggested Guidelines for Preparation of FAD Management Plans for each CPC with more detailed specifications of catch reporting from FAD sets. This Resolution also prohibits the abandonment at sea, in the IOTC area of competence, of drifting FADs composed of synthetic materials. This Resolution supersedes Resolution 12/08.

Resolution 13/10 ***On interim target and limit reference points and a decision framework***

3) The Commission **ADOPTED** Resolution 13/10 *On interim target and limit reference points and a decision framework.* This Resolution establishes the general principles that would guide the application of the precautionary approach in the context of IOTC, including the adoption of provisional reference points that would apply until such time as the Commission decides to update the reference points after considering the advice of the Scientific Committee following the management strategy evaluation exercise. The Resolution also considers a decision framework to facilitate management measures that are currently being undertaken by the Commission. This Resolution supersedes Recommendation 12/14.

Resolution 13/11 ***On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence***

4) The Commission **ADOPTED** Resolution 13/11 *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence.* The Resolution bans the discard of three tropical tuna species, with the exception of fish unfit for human consumption or if no space available to accommodate all fish. This Resolution supersedes Recommendation 10/13.

DISCUSSION

The Commission also considered a range of other proposals for CMMs on matters relevant to the WPB, but consensus could not be reached. The following is a brief discussion of those proposals which the WPB may wish to take into consideration when developing recommendations to the Scientific Committee:

Mandatory statistical reporting requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC'S)

The Commission **CONSIDERED** a proposal on *Mandatory statistical reporting requirements for IOTC Members and Cooperating Contracting Parties (CPC's)* but agreement could not be reached and the proposal was deferred until the next meeting of the Commission. This proposal aimed to introduce amendments to Resolution 10/02 *Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)* by including a list of the most commonly caught elasmobranch species for which nominal catch data could be reported as part of the statistical requirement for IOTC CPCs. In addition, the amendments aimed to improve the completeness of the fisheries data by including new obligations on data reporting on FADs, marine turtles and seabirds as well as better defining fishing gears.

Other requests

At the 17th Session of the Commission several specific requests were made to CPCs, the Scientific Committee and directly to the WPB, which participants are asked to consider:

Alternative management measures for swordfish

The Commission, at its 16th Session requested *'that the southwest region continue to be analysed as a special resource, as it appears to be highly depleted compared to the Indian Ocean as a whole, acknowledging that the SC and Working Party on Billfish should benefit from the findings on stock structure from the Indian Ocean Swordfish Stock Structure (IOSSS) project. However the difference in depletion does not appear to be as extreme as analyses in previous years have suggested. A review of the spatial assumptions should be conducted following the final results of the IOSSS project and the analysis of tagging experiments undertaken*.' (para. 21 of the S16 report). (para. 27 of the S17 report).

The Commission **NOTED** that most of the evidence provided to date has indicated that the resource in the southwest Indian Ocean has been overfished in the past decade and that biomass remains below the level that would produce the maximum sustainable yield (B_{MSY}), however recent declines in catch and effort have brought fishing mortality rates to levels below the level that would produce the maximum sustainable yield (F_{MSY}). A risk of reversing the rebuilding trend remains if there is any increase in catch in this region. Thus, catches of swordfish in the southwest Indian Ocean should be maintained at levels at or below those observed in 2009 (6,600 t), until there is clear evidence of recovery and biomass exceeds B_{MSY}. (para. 28 of the S17 report).

The Commission **REQUESTED** that the southwest region continue to be analysed as a special resource, as it appears to be highly depleted compared to the Indian Ocean as a whole. (para. 29 of the S17 report).

The Commission **ACKNOWLEDGED** that there is no current need to apply additional management measures to the southwest Indian Ocean, although the resource in this area should be carefully monitored. (para. 30 of the S17 report).

Kobe II Strategy Matrix

The Commission **NOTED** the provision by the SC of the Kobe II strategy matrix for bigeye tuna, skipjack tuna, yellowfin tuna and swordfish (IO and SWIO) and recognized that it is a useful and necessary tool for management. The Commission **REQUESTED** that such matrices shall be provided for all stock assessments by the species Working Parties, and for these to be included in the report of the SC in 2013 and all future reports. (para. 31 of the S17 report).

On data

The Commission **NOTED** some minor improvements in the quantity of fisheries statistics available to the SC and its Working Parties in 2012 but reiterated its concerns about the lack of fisheries data from some gears and fleets for target and bycatch species. Specifically, many fisheries statistics are missing or incomplete for some industrial and artisanal fisheries. As such, the Commission **REQUESTED** that all CPCs improve their data collection and reporting to the IOTC, especially taking into account that the Commission has initiated the consultation process on developing criteria for a quota allocation system. (para. 34 of the S17 report).

Fisheries Officer (Science)

The Commission **AGREED** that a Fishery Officer (Science), working on science support, be employed at the Secretariat and for this to be incorporated in the Commission's budget on an ongoing basis.

The entire Report of the 17th Session of the Commission may be downloaded from the IOTC website in English or French.

English: http://iotc.org/files/proceedings/2013/s/IOTC-2013-S17-R%5BE%5D.pdf [1.5mb]

French: http://iotc.org/files/proceedings/2013/s/IOTC-2013-S17-R%5BF%5D.pdf [1.6mb]

RECOMMENDATION

That the WPB **NOTE** paper IOTC–2013–WPB11–04 which outlined the main outcomes of the Seventeenth Session of the Commission, specifically related to the work of the WPB and **AGREE** to consider how best to provide the SC with the information it needs, in order to satisfy the Commission's requests, throughout the course of the current WPB meeting.

That the WPB **NOTE** the 11 Conservation and Management Measures (CMMs) adopted at the Seventeenth Session of the Commission (consisting of 11 Resolutions and 0 Recommendations), and in particular the following four CMMs which have a direct impact on the work of the WPB:

- Resolution 13/03 *On the recording of catch and effort data by fishing vessels in the IOTC area of competence.*
- Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species.*
- Resolution 13/10 *On interim target and limit reference points and a decision framework.*
- Resolution 13/11 *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence.*

APPENDICIES

Appendix A: Resolution 13/03 *On the recording of catch and effort data by fishing vessels in the IOTC area of competence.*

Appendix B: Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species.*

Appendix C: Resolution 13/10 *On interim target and limit reference points and a decision framework.*

Appendix D: Resolution 13/11 *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence.*

APPENDIX A

RESOLUTION 13/03
ON THE RECORDING OF CATCH AND EFFORT DATA BY FISHING VESSELS IN THE IOTC AREA OF COMPETENCE

(*will enter into force on 14 September 2013*)

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 Cooperating 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 harmonise 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 deliberations of the 14th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 12 to 17 December 2011, that proposed a list of shark species for all gears and recommended minimum recording requirements for handline and trolling gears 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;

FURTHER CONSIDERING the recommendations of the 15th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 13–15 December 2012;

FURTHER CONSIDERING the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements included in the United Nations General Assembly Resolution 67/79 on sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and turtles;

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, longline, gillnet, pole and line, handline and trolling fishing vessels flying its flag and authorised to fish species managed by IOTC be subject to a data recording system.

2. The measure shall apply to all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels over 24 metres length overall and those under 24 metres if they fish outside the EEZs of their flag States within the IOTC area of competence. The data recording systems for developing CPCs vessels less than 24 metres operating within the EEZ of coastal States are subject to Paragraph 12. The vessels of less than 24 metres operating within the EEZ of developed CPCs shall apply this measure.

3. All vessels shall keep a bound paper or electronic logbook to record data that includes, as a minimum requirement, the information and data in the logbook set forth in **Annex I, II and III**.

4. Each flag CPC shall submit to the IOTC Executive Secretary by 15 February 2014 a template of its official logbooks to record data in accordance with **Annex I, II and III**, for publishing on the IOTC website to facilitate MCS activities. For CPCs that use electronic logbook systems, a copy of the applicable regulations implementing the electronic logbook system in that CPC, a set of screen captures and the name of the certified software may be provided. If changes are made to the template after 15 February 2014, an updated template shall be submitted.

5. Where the logbook is not in one of the two languages of the IOTC, CPCs shall provide a complete field description of the logbook in one of the two languages of the IOTC together with the submission of the sample of the logbook. The IOTC Executive Secretary shall publish the sample of the logbook and the field description on the IOTC website.

6. **Annex I** includes information on vessel, trip and gear configuration for purse seine, longline, gillnet and pole and line, and shall only be completed once for each trip, unless the gear configuration changes during the trip.

7. **Annex II** contains information for purse seine, longline, gillnet and pole and line operations and catch, which shall be completed for each set/shot/operation of the fishing gear.

8. **Annex III** contains specifications for handline and trolling gears.

9. The logbook shall be completed by the Master of the fishing vessel and submitted to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. Only the part of the logbook corresponding to the activity deployed in the coastal State EEZ shall be provided to the coastal State administration where the vessel has fished in that coastal State's EEZ.

10. The Flag State and the States which receive this information shall provide all the data for any given year to the IOTC Secretariat by June 30th of the following year on an aggregated basis. The confidentiality rules set out in Resolution 12/02 *Data Confidentiality Policy and Procedures* for fine–scale data shall apply.

11. Noting the difficulty in implementing a data recording system on fishing vessels from developing CPCs, the data recording systems for vessels less than 24 metres of developing CPCs operating inside the EEZ shall be implemented progressively from 1 July 2014.

12. The Commission shall consider development of a special program to facilitate the implementation of this Resolution by developing CPCs. Furthermore, developed and developing CPCs are encouraged to work together to identify opportunities for capacity building to assist the long-term implementation of this Resolution.

13. This Resolution supersedes Resolution 12/03 *On The Recording Of Catch And Effort By Fishing Vessels In The IOTC Area Of Competence*.

Conservation and Management Measures linked to Resolution 13/03
Resolution 13/08

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. IMO number, where available
3. IOTC number
4. Call sign: if call sign is not available, other unique identifying code such as fishing licence number should be used
5. Vessel size: gross tonnage and overall length (meters)

1.3 CRUISE INFORMATION

For multiday fishing operations record the:

1. Departure date (at your location) and port
2. Arrival date (at your location) 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 (Polyethylene or other materials)
   c) Nylon braided
   d) Nylon monofilament
5. Branch line material classified into two categories:
   a) Nylon
   b) Other (such as wire)

Purse Seine:

(Gear configuration):

1. Length of the purse seine net
2. Height of the purse seine net

3. Total number of FADs deployed per trip: refer to the Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*

(Search information):

1. Days searched
2. Spotter plane used (Yes/No)
3. Supply vessel used (Yes/No), if yes what is the name and registration number of the supply vessel

Gillnet (Gear Configuration):

1. Overall length of net (metres): record the total overall length of the net onboard
2. Mesh size of net (millimetres): record the size of the mesh size used during the trip
3. Depth of assembled net (meters): height of assembled net in meters
4. Netting material: e.g. nylon braid, nylon monofilament, etc

Pole and line (Gear Configuration):

1. Number of fishermen

ANNEX II
Record once per set/shot/operation

Note: for all gears in this annex use the follow format for date and time

For date: when recording date of the set/shot/operation: record the YYYY/MM/DD

For time: record 24hr time as either the local time, GMT or national time and clearly specify which time has been used.

2.1 OPERATION

For longline:

1. Date of set
2. Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used
3. Time of starting setting the gear
4. Number of hooks between floats: if there are different hooks counts between floats in a single set then record the most representative (average) number
5. Total number of hooks used in the set
6. Number of light–sticks used in the set
7. Type of bait used in the set: e.g. fish, squid, etc
8. Optionally, sea surface temperature at noon with one decimal point (XX.X^{o}C)

For purse seine:

1. Date of set
2. Type of event: **fishing set** or **deployment of a new FAD**

3. Position in latitude and longitude and time of event, or if no event during the day, at noon

4. If fishing set: specify if the set was successful, nil, well; type of school (free swimming school or FAD associated. If FAD associated, specify the type (e.g. log or other natural object, drifting FAD, anchored FAD, etc.). Refer to the Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*

5. Optionally, sea surface temperature at noon with one decimal point (XX.X^{o}C)

For gillnet:

1. Date of set: 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 time 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 or, if no set, record the latitude and longitude at noon for days without sets

5. Depth at which net is set (meters): approximate depth at which the gillnet is set

For Pole and Line:

1. Date of operation: record the day

2. Position in latitude and longitude at noon

3. Number of fishing poles used during that day

4. Start fishing time (record the time 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) and end fishing time (record the time immediately after fishing is complete from the last school). On multiple days this is the time fishing stopped from the last school

5. 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:

Primary Species	**FAO code**	**Other Species**	**FAO code**
Southern bluefin tuna (*Thunnus maccoyii*)	SBF	Shortbill spearfish (*Tetrapturus angustirostris*)	SSP
Albacore (*Thunnus alalunga*)	ALB	Blue shark (*Prionace glauca*)	BSH
Bigeye tuna (*Thunnus obesus*)	BET	Mako sharks (*Isurus* spp.)	MAK
Yellowfin tuna (*Thunnus albacares*)	YFT	Porbeagle shark (*Lamna nasus*)	POR

Skipjack tuna (*Katsuwonus pelamis*)	SKJ	Hammerhead sharks (*Sphyrna* spp.)	SPN
Swordfish (*Xiphius gladius*)	SWO	Other bony fishes	
Striped marlin (*Tetrapturus audax*)	MLS	Other sharks	SKH
Blue marlin (*Makaira nigricans*)	BUM	Seabirds (in number)[1]	
Black marlin (*Makaira indica*)	BLM	Marine Mammals (in number)	
Indo–Pacific sailfish (*Istiophorus platypterus*)	SFA	Marine turtles (in number)	
		Thresher sharks (*Alopias* spp.)	THR
		Oceanic whitetip shark (*Carcharhinus longimanus*)	OCS
		Optional species to be recorded	
		Tiger shark (*Galeocerdo cuvier*)	TIG
		Crocodile shark (*Pseudocarcharias kamoharai*)	PSK
		Great white shark (*Carcharodon carcharias*)	WSH
		Mantas and devil rays (*Mobulidae*)	MAN
		Pelagic stingray (*Pteroplatytrygon violacea*)	PSL
		Other rays	

For Purse Seine:

Primary Species	**FAO code**	**Other species**	**FAO code**
Albacore (*Thunnus alalunga*)	ALB	Marine turtles (in number)	
Bigeye tuna (*Thunnus obesus*)	BET	Marine mammals (in number)	
Yellowfin tuna (*Thunnus albacares*)	YFT	Whale sharks (*Rhincodon typus*) (in number)	RHN
Skipjack tuna (*Katsuwonus pelamis*)		Thresher sharks (*Alopias* spp.)	THR
Other IOTC species		Oceanic whitetip shark (*Carcharhinus longimanus*)	OCS
	SKJ	**Optional species to be recorded**	**FAO code**
		Silky sharks (*Carcharhinus falciformis*)	FAL
		Mantas and devil rays (*Mobulidae*)	MAN
		Other sharks	SKH
		Other rays	
		Other bony fish	

For Gillnet:

Primary Species	**FAO code**	**Other Species**	**FAO code**
Albacore (*Thunnus alalunga*)	ALB	Shortbill spearfish (*Tetrapturus angustirostris*)	SSP
Bigeye tuna (*Thunnus obesus*)	BET	Blue shark (*Prionace glauca*)	BSH
Yellowfin tuna (*Thunnus albacares*)	YFT	Mako sharks (*Isurus* spp.)	MAK

[1] When a CPC is fully implementing the observer program the provision of seabird data is optional

Skipjack tuna (*Katsuwonus pelamis*)	SKJ	Porbeagle shark (*Lamna nasus*)	POR
Longtail tuna (*Thunnus tonggol*)	LOT	Hammerhead sharks (*Sphyrna* spp.)	SPN
Frigate tuna (*Auxis thazard*)	FRI	Other sharks	SKH
Bullet tuna (*Auxis rochei*)	BLT	Other bony fish	
Kawakawa (*Euthynnus affinis*)	KAW	Marine turtles (in number)	
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM	Marine mammals (in number)	
Indo–Pacific king mackerel (*Scomberomorus guttatus*)	GUT	Whale sharks (*Rhincodon typus*) (in number)	RHN
Swordfish (*Xiphias gladius*)	SWO	Seabirds (in number)[2]	
Indo–Pacific sailfish (*Istiophorus platypterus*)	SFA	Thresher sharks (*Alopias* spp.)	THR
Marlins (*Tetrapturus* spp, *Makaira* spp.)	BIL	Oceanic whitetip shark (*Carcharhinus longimanus*)	OCS
Southern bluefin tuna (*Thunnus maccoyii*)	SBF	**Optional species to be recorded**	
		Tiger shark (*Galeocerdo cuvier*)	TIG
		Crocodile shark (*Pseudocarcharias kamoharai*)	PSK
		Mantas and devil rays (Mobulidae)	MAN
		Pelagic stingray (*Pteroplatytrygon violacea*)	PSL
		Other rays	

For Pole and Line:

Primary Species	**FAO code**	**Other Species**	**FAO code**
Albacore (*Thunnus alalunga*)	ALB	Other bony fish	
Bigeye tuna (*Thunnus obesus*)	BET	Sharks	
Yellowfin tuna (*Thunnus albacares*)	YFT	Rays	
Skipjack tuna (*Katsuwonus pelamis*)	SKJ	Marine turtles (in number)	
Frigate and bullet tuna (*Auxis* spp.)	FRZ		
Kawakawa (*Euthynnus affinis*)	KAW		
Longtail tuna (*Thunnus tonggol*)	LOT		
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM		
Other IOTC species			

2.4 REMARKS

1. Discard of tuna, tuna-like fish and sharks to be recorded by species in weight (kg) or number for all gears should be recorded in the remarks[3]

2. Any interactions with whale sharks (*Rhincodon typus*), marine mammals, and seabirds should be recorded in the remarks

[2] When a CPC is fully implementing the observer program the provision of seabird data is optional

[3] Recall the Recommendation 10/13 *On the implementation of a ban on discards of skipjack tuna, yellowfin tuna, bigeye tuna and non-target species caught by purse seiners*

3. Other information is also written in the remarks

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.

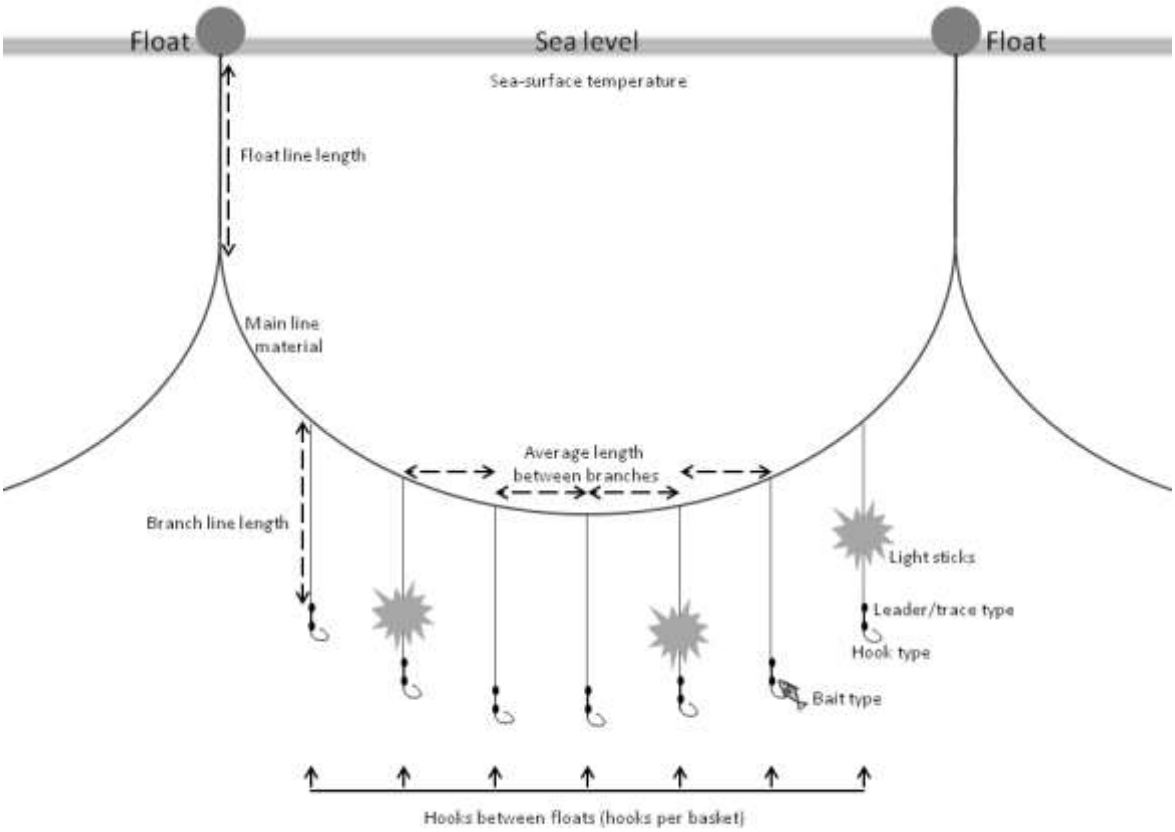

Figure 1. Longline (Gear Configuration): Average branch line length (meters): straight length in meters between snap and hook.

ANNEX III
Specifications for handline and trolling

Note: for all gears in this annex use the follow format for date and time

For date: when recording date of the set/shot/operation: record the YYYY/MM/DD

For time: record 24hr time as either the local time, GMT or national time and clearly specify which time has been used.

I - HANDLINE

All logbook information shall be recorded by day; where more than one fishing event is recorded for the same day, it is advisable to record each fishing event separately

Record once in one cruise, or month where daily operation

1.1 REPORT INFORMATION

1. Fishing day (or Date of submission of the logbook, where multiple fishing days)
2. Name of reporting person

1.2 VESSEL INFORMATION

1. Vessel name and registration number and IMO number, where available
2. IOTC number, where available
3. Fishing License number
4. Vessel size: Gross tonnage and/or length overall (in metres)

1.3 CRUISE INFORMATION

1. Departure date and port
2. Arrival date and port

2.1 OPERATION

1. Date of fishing

   Record the date of fishing. Each fishing day should be recorded separately

2. Number of fishermen

   Record the number of fishermen on the boat by fishing day

3. Number of Fishing Gear

   Record the number of fishing lines used during the fishing day. If the exact number is not available a range may be used i) 5 or less lines, ii) 6–10 lines; iii) 11 or more lines

4. Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished

   Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day

5. Position of the catch

Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port

Where information is recorded by day, record the 1° x 1° area(s) where fishing took place

6. Bait

Record the type of bait used (e.g. fish, squid), where applicable

2.2 CATCH

Catch in number and/or weight (kg) by species

1. Catch number and/or Weight

   For each species shown in section 2.3 caught and retained, record the number and estimated live weight (kg), per fishing day

2. Discard number and/or Weight

   For each species shown in section 2.3 caught and not retained record the number and estimated live weight (kg) discarded, per fishing day

2.3 SPECIES

Primary Species	**FAO code**
Yellowfin tuna (*Thunnus albacares*)	YFT
Bigeye tuna (*Thunnus obesus*)	BET
Skipjack tuna (*Katsuwonus pelamis*)	SKJ
Indo-Pacific sailfish (*Istiophorus platypterus*)	SFA
Black marlin (*Makaira indica*)	BLM
Other billfish	
Longtail tuna (*Thunnus tonggol*)	LOT
Kawakawa (*Euthynnus affinis*)	KAW
Frigate tuna/Bullet tuna (*Auxis* spp.)	FRZ
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM
Indo-Pacific king mackerel (*Scomberomorus guttatus*)	GUT
Sharks	
Other fishes	
Rays	
Marine turtles (by number)	

2.4 REMARKS

1. Other relevant information is also written in the remarks

Note: These species included in the logbook are regarded as minimum requirement. Optionally other species should be added as species may differ depending on the area fished and type of fishery

II - TROLLING VESSELS

All logbook information shall be recorded by day; where more than one fishing event is recorded for the same day, it is advisable to record each fishing event separately

Record once in one cruise

1.1 REPORT INFORMATION

1. Fishing day (or Date of submission of the logbook, where multiple fishing days)
2. Name of reporting person

1.2 VESSEL INFORMATION

1. Vessel name and registration number and IMO number, where available
2. IOTC number, where available
3. Fishing License number
4. Vessel size: Gross tonnage and/or length overall (in metres)

1.3 CRUISE INFORMATION

1. Departure date and port
2. Arrival date and port

2.1 OPERATION

1. Date of fishing

   Record the date of fishing. Each fishing day should be recorded separately

2. Number of fishermen

   Record the number of fishermen on the vessel by fishing day

3. Number of Fishing Gear

   Record the number of lines used during the fishing day. If the exact number is not available a range may be used i) 3 or less lines, ii) more than 3 lines

4. Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished

   Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day

5. Position of the catch

   Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port

   Where information is recorded by day, record the 1° x 1° area(s) where fishing took place

6. Bait

   Record the type of bait or indicate if lures are used

2.2 CATCH

Catch in number and/or weight (kg) by species

1. Number and/or Weight of fish retained

   For each species shown in section 2–3 caught and retained, record the number or estimated live weight (kg), per fishing day

2. Discard number and/or Weight

For each species shown in section 2–3 caught and not retained record the number and estimated live weight (kg) discarded, per fishing day

2.3 SPECIES

Primary Species	**FAO code**
Yellowfin tuna (*Thunnus albacares*)	YFT
Bigeye tuna (*Thunnus obesus*)	BET
Skipjack tuna (*Katsuwonus pelamis*)	SKJ
Albacore (*Thunnus alalunga*)	ALB
Swordfish (*Xiphias gladius*)	SWO
Blue marlin (*Makaira nigricans*)	BUM
Black marlin (*Makaira indica*)	BLM
Striped marlin (*Tetrapturus audax*)	MLS
Indo-Pacific sailfish (*Istiophorus platypterus*)	SFA
Other billfish	
Longtail tuna (*Thunnus tonggol*)	LOT
Kawakawa (*Euthynnus affinis*)	KAW
Frigate tuna/Bullet tuna (*Auxis* spp.)	FRZ
Narrow barred Spanish mackerel (*Scomberomorus commerson*)	COM
Indo-Pacific king mackerel (*Scomberomorus guttatus*)	GUT
Sharks	
Other fishes	
Rays	
Marine turtles	

2.4 REMARKS

1. Other relevant information is also written in the remarks

Note: These species included in the logbook are regarded as minimum requirement. Optionally other species should be added as species may differ depending on the area fished and type of fishery.

APPENDIX B

RESOLUTION 13/08
PROCEDURES ON A FISH AGGREGATING DEVICES (FADS) MANAGEMENT PLAN, INCLUDING MORE DETAILED SPECIFICATIONS OF CATCH REPORTING FROM FAD SETS, AND THE DEVELOPMENT OF IMPROVED FAD DESIGNS TO REDUCE THE INCIDENCE OF ENTANGLEMENT OF NON-TARGET SPECIES

(*will enter into force on 14 September 2013*)

The Indian Ocean Tuna Commission (IOTC),

BEARING IN MIND 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;

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

NOTING that the United Nations Food and Agricultural Organization (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 organisation;

RECOGNISING that all gears deployed to target resources under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

AWARE that the Commission is committed to adopt Conservation and Management Measures to reduce juvenile bigeye tuna and yellowfin tuna mortalities from fishing effort on Fish Aggregating Devices (FADs);

AWARE that the availability of adequate information is fundamental to carrying out the objectives of the IOTC Agreement laid down in its Article V;

NOTING that the IOTC Scientific Committee advised the Commission to conduct an investigation of the feasibility and impacts of a temporary FAD closure as well as other measures in the context of Indian Ocean fisheries and stocks;

RECALLING that Resolution 12/04 established that the Commission at its annual session in 2013 should consider the recommendations of the IOTC Scientific Committee as regards the development of improved FAD designs to reduce the incidence of entanglement of marine turtles, including the use of biodegradable materials, 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;

NOTING that the IOTC Scientific Committee advised the Commission that only non-entangling FADs, both drifting and anchored, should be designed and deployed to prevent the entanglement of sharks, marine turtles and other species;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the mentioned Agreement and encouraging sustainable development of fisheries based on such stocks and minimising the level of bycatches;

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

1. This Resolution shall apply to CPCs having purse seine vessels and bait boats fishing on Fish Aggregating Devices (FADs), for the purpose of aggregating tuna target species, in the IOTC area of competence.

2. CPCs having vessels fishing on FADs shall submit, to the Commission, by the end of 2013, Management Plans for the use of FADs by their purse seiners and bait boat/vessels. Due to their specificity in terms of users, number deployed, type of boat/vessel involved, fishing method and gear used and materials used in their construction, the Management Plans and Reporting Requirements for Drifting FADs (DFAD) and Anchored FADs (AFAD) shall be addressed separately for the purposes of this Resolution. The Plans shall at a minimum meet the Suggested Guidelines for Preparation for FAD Management Plans by each CPC as provided for DFADs in **Annex I** and AFADs in **Annex II**. For the purpose of this Resolution, the term Fish Aggregating Device means drifting (DFAD) or anchored floating or submerged objects (AFAD) deployed for the purpose of aggregating target tuna species.

3. The Management Plans shall be analysed by the IOTC Compliance Committee at its 2014 session.

4. Starting in 2015, CPCs shall submit the data elements prescribed in **Annex I and II** to the Commission, consistent with the IOTC standards for the provision of catch and effort data, and these data shall be made available for analysis to the IOTC Scientific Committee on the aggregation level set by Resolution 10/02 (or any subsequent superseding Resolution), and under the confidentiality rules set by Resolution 12/02 (or any subsequent superseding Resolution).

5. All CPCs shall ensure that all fishing vessels as referred to in paragraph 1 shall record fishing activities in association with FADs using the specific data elements found in **Annex I** (DFAD) **and II** (AFAD) in the section of the "FAD-logbook".

6. The Management Plans shall include initiatives or surveys to investigate, and to the extent possible minimise the capture of small bigeye tuna and yellowfin tuna and non-target species associated with fishing on FADs. Management Plans shall also include guidelines to prevent, to the extent possible, the loss or abandonment of FADs. To reduce the entanglement of sharks, marine turtles or any other species, the design and deployment of FADs shall be based on the principles set out in **Annex III**, which will be applied gradually from 2014. From 2015 on, CPCs shall submit to the Commission, 60 days before the Annual Meeting, a report on the progress of the management plans of FADs, including reviews of the initially submitted Management Plans, and including reviews of the application of the principles set out in **Annex III**.

7. The IOTC Scientific Committee will analyse the information, when available, and provide scientific advice on additional FAD management options for consideration by the Commission in 2016, including recommendations on the use of biodegradable materials in new and improved FADs and the phasing out of FAD designs that do not prevent the entanglement of sharks, marine turtles and other species. When assessing the impact of FADs on the dynamic and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned FADs (i.e. FADs without a beacon).

8. From January 2015, CPCs shall require all artificial FADs deployed or modified by their flagged fishing vessels in the IOTC area of competence to be marked in accordance with a detailed marking scheme, e.g. including FAD marking or beacon ID. The marking scheme shall be developed and considered for adoption by the Commission at its regular annual session in 2014, based on recommendations from the IOTC Scientific Committee as requested by the Commission. The marking scheme should take into account, as a minimum, the following:

   a) All artificial FADs shall be marked with a unique identification number, based on a specific numbering system and format to be adopted by the Commission;

   b) The marking should be easy to read before the vessel operator engages in any artificial FAD related activity (e.g. setting on the artificial FAD, retrieving the artificial FAD, servicing the artificial FAD, fishing on the artificial FAD), but if not visible for any reason, (time of day, weather, etc.), the vessel operator shall ensure to obtain the unique artificial FAD identifier as soon as feasible;

   c) The marking should be easy to apply to the artificial FAD, but should be applied in such a manner that it will not become unreadable or disassociated with the artificial FAD.

9. Resolution 12/08 *Procedures on a fish aggregating devices (FADs) management plan* is superseded by this Resolution.

Conservation and Management Measures linked to Resolution 13/08

Resolution 13/03 Resolution 13/04 Resolution 13/05

ANNEX I

GUIDELINES FOR PREPARATION OF DRIFTING FISH AGGREGATING DEVICE (DFAD) MANAGEMENT PLANS

To support obligations in respect of the DFAD Management Plan (DFAD–MP) to be submitted to the IOTC Secretariat by CPCs with fleets fishing in the IOTC area of competence, associated to DFADs, DFAD–MP should include:

- An objective
- Scope:

  Description of its application with respect to:

  - vessel-types and support and tender vessels
  - DFAD numbers and/or DFADs beacon numbers to be deployed
  - reporting procedures for DFAD deployment
  - incidental bycatch reduction and utilization policy
  - consideration of interaction with other gear types
  - plans for monitoring and retrieval of lost DFADs
  - statement or policy on "DFAD ownership"
- Institutional arrangements for management of the DFAD Management Plans:
  - Institutional responsibilities
  - application processes for DFAD and /or DFAD beacons deployment approval
  - Obligations of vessel owners and masters in respect of DFAD and /or DFAD beacons deployment and use
  - DFAD and/or DFADs beacons replacement policy
  - reporting obligations
- DFAD construction specifications and requirements
  - DFAD design characteristics (a description)
  - DFAD markings and identifiers, including DFADs beacons
  - Lighting requirements
  - radar reflectors
  - visible distance
  - radio buoys (requirement for serial numbers)
  - satellite transceivers (requirement for serial numbers)
- Applicable areas
  - Details of any closed areas or periods e.g. territorial waters, shipping lanes, proximity to artisanal fisheries, etc
- Applicable period for the DFAD–MP

- Means for monitoring and reviewing implementation of the DFAD–MP
- DFAD logbook

a)

- catch reporting from DFAD sets (consistent with the Standards for the provision of Catch and Effort Data) set out in Resolution 13/03), including:

b)

a) Any visit on a DFAD*.

b) For each visit on a DFAD, whether followed or not by a set,

i. position,

ii. date,

iii. DFAD identifier (i.e., D FAD Marking or beacon ID or any information allowing to identify the owner),

iv. DFAD type (drifting natural FAD, drifting artificial FAD),

v. DFAD design characteristics (dimension and material of the floating part and of the underwater hanging structure),

vi. type of the visit (deployment, hauling, retrieving, loss, intervention on electronic equipment).

c) If the visit is followed by a set, the results of the set in terms of catch and bycatch.

* Other FADs encountered at–sea should be monitored in accordance with each CPCs' domestic regulations.

ANNEX II

GUIDELINES FOR PREPARATION OF ANCHORED FISH AGGREGATING DEVICE (AFAD) MANAGEMENT PLANS

To support obligations in respect of the AFAD Management Plan (AFAD–MP) to be submitted to the IOTC Secretariat by CPCs with fleets fishing in the IOTC area of competence, associated to AFADs, AFAD– MP should include:

1. An objective

2. Scope:

Description of its application with respect to:

a) Vessel types

b) AFAD numbers and/or AFADs beacons numbers to be deployed (per AFAD type)

c) reporting procedures for AFAD deployment

d) distances between AFADs

e) incidental bycatch reduction and utilisation policy

f) consideration of interaction with other gear types

g) the establishment of inventories of the AFADs deployed, detailing AFAD identifiers, characteristics and equipment of each AFAD as laid down in point 4 of the present Annex, coordinates of the AFAD's mooring sites, date of set, lost and reset

h) plans for monitoring and retrieval of lost AFADs

i) statement or policy on "AFAD ownership"

3. Institutional arrangements for management of the AFAD Management Plans:

a) Institutional responsibilities

b) Regulations applicable to the setting and use of AFADs

c) AFAD repairs, maintenance rules and replacement policy

d) Data collection system

e) reporting obligations

4. AFAD construction specifications and requirements:

a) AFAD design characteristics (a description of both the floating structure and the underwater structure, with special emphasis on any netting materials used)

b) Anchorage used for mooring

c) AFAD markings and identifiers, including AFAD beacons if any

d) Lighting requirements if any

e) radar reflectors

f) visible distance

g) radio buoys if any (requirement for serial numbers)

h) satellite transceivers (requirement for serial numbers)

i) echo sounder

5. Applicable areas

a) Coordinates of mooring sites, if applicable

b) Details of any closed areas e.g., shipping lanes, Marine Protected Areas, reserves etc.

6. Means for monitoring and reviewing implementation of the AFAD–MP

AFAD logbook

- Catch reporting from AFAD sets (consistent with the Standards for the provision of Catch and Effort Data) set out in Resolution 13/03), including:

a) Any visit in a AFAD.

b) For each visit on a AFAD, whether followed or not by a set or other fishing activities, the,

i. position;

ii. date;

iii. AFAD identifier (i.e., FAD Marking or beacon ID or any information allowing to identify the owner).

c) If the visit is followed by a set or other fishing activities, the results of the set in terms of catch and bycatch.

ANNEX III

PRINCIPLES FOR DESIGN AND DEPLOYMENT OF FADS

1. The surface structure of the FAD should not be covered, or only covered with non-meshed material.

2. If a sub-surface component is used, it should not be made from netting but from non-meshed materials such as ropes or canvas sheets.

3. To reduce the amount of synthetic marine debris, the use of natural or biodegradable materials (such as hessian canvas, hemp ropes, etc.) for drifting FADs should be promoted.

APPENDIX C

RESOLUTION 13/10
ON INTERIM TARGET AND LIMIT REFERENCE POINTS AND A DECISION FRAMEWORK
(*will enter into force on 14 September 2013*)

The Indian Ocean Tuna Commission (IOTC),

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECALLING that Article 6, paragraph 3, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), establishes the application of precautionary reference points as a general principle for sound fisheries management;

FURTHER RECALLING that Annex II of UNFSA provides guidelines for the application of precautionary reference points in the conservation and management of straddling fish stocks and highly migratory fish stocks, including the adoption of provisional reference points when information for establishing reference points is absent or poor;

NOTING that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of stock specific target and limit reference points, *inter alia*, on the basis of the precautionary approach;

NOTING that recommendations 37 and 38 of the Performance Review Panel, adopted by the Commission as Resolution 09/01, indicate that pending the amendment or replacement of the IOTC Agreement to incorporate modern fisheries management principles, the Commission should implement the precautionary approach including, *inter alia*, precautionary reference points, as set forth in the UNFSA;

NOTING Resolution 12/01 *On the implementation of the precautionary approach* that recommends adoption of provisional reference points, and that the IOTC Scientific Committee proposed provisional values at its 14th Session;

RECALLING ALSO that the IOTC Scientific Committee has initiated a process leading to a management strategy evaluation (MSE) process to improve upon the provision of scientific advice on Harvest Control Rules (HCRs);

ACKNOWLEDGING that continuing dialog between scientists and managers is necessary to define appropriate HCRs for the IOTC tuna and tuna-like stocks;

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

1. When assessing stock status and providing recommendations to the Commission, the IOTC Scientific Committee should apply the following interim target and limit reference points for the species of tuna and tuna-like species listed in **Table 1**. B_{MSY} refers to the biomass level for the stock that would produce the Maximum Sustainable Yield; F_{MSY} refers to the level of fishing mortality that produces the Maximum Sustainable Yield.

Table 1. Interim target and limit reference points.

Stock	Target Reference Point	Limit Reference Point
Albacore	B_{MSY}; F_{MSY}	$B_{LIM} = 0.40\ B_{MSY}$; $F_{LIM} = 1.40\ F_{MSY}$
Bigeye tuna	B_{MSY}; F_{MSY}	$B_{LIM} = 0.50\ B_{MSY}$; $F_{LIM} = 1.30\ F_{MSY}$
Skipjack tuna	B_{MSY}; F_{MSY}	$B_{LIM} = 0.40\ B_{MSY}$; $F_{LIM} = 1.50\ F_{MSY}$
Yellowfin tuna	B_{MSY}; F_{MSY}	$B_{LIM} = 0.40\ B_{MSY}$; $F_{LIM} = 1.40\ F_{MSY}$
Swordfish	B_{MSY}; F_{MSY}	$B_{LIM} = 0.40\ B_{MSY}$; $F_{LIM} = 1.40\ F_{MSY}$

2. These interim target and limit reference points shall be assessed and further reviewed by the IOTC Scientific Committee and the results shall be presented to the Commission for adoption of species-specific reference points. If applicable, the IOTC Scientific Committee should endeavour to apply the interim reference points in the provision of advice on the status of stocks and on recommendations for management measures.

3. The IOTC Scientific Committee shall assess, as soon as possible and more particularly through the management strategy evaluation process (MSE) process, the robustness and the performance of the interim reference points, specified under paragraph 1 and other reference points based on the guidelines of International agreements

taking into account: i) the nature of these reference points – target or limits, ii) the best scientific knowledge on population dynamics and on life-history parameters, iii) the fisheries exploiting them, and iv) the various sources uncertainty.

4. In addition the IOTC Scientific Committee shall develop and assess potential harvest control rules (HCRs) to be applied, considering the status of the stocks against the reference points assessed in paragraph 3 for albacore, bigeye tuna, skipjack tuna, yellowfin tuna and swordfish. Based on the results of the MSE and considering the guidelines set forth in the UNFSA and in Article V of the IOTC Agreement, the IOTC Scientific Committee will recommend to the Commission HCRs for these tuna and tuna-like species, which among other factors, taking account of the following objectives:

    a) For stocks which assessed status will match with the lower right (green) quadrant of the Kobe Plot, aim at maintaining the stocks in a high probability within this quadrant;

    b) For stocks which assessed status will match with the upper right (orange) quadrant of the Kobe Plot, aim at ending overfishing with a high probability in as short a period as possible;

    c) For stocks which assessed status will match with the lower left (yellow) quadrant of the Kobe plot, aim at rebuilding these stocks in as short a period as possible;

    d) For stocks which assessed status will match with the upper left quadrant (red), aim at ending overfishing with a high probability and at rebuilding the biomass of these stocks in as short a period as possible.

5. Bearing in mind Article 64 of UNCLOS and Article 8 of UNFSA, the entirety of this Resolution is subject to Article XVI (Coastal States' Rights) of the IOTC Agreement for the Establishment of the Indian Ocean Tuna Commission, and Articles 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

6. This Resolution supersedes Recommendation 12/14 *On interim target and limit reference points*.

APPENDIX D

RESOLUTION 13/11
ON A BAN ON DISCARDS OF BIGEYE TUNA, SKIPJACK TUNA, YELLOWFIN TUNA, AND A RECOMMENDATION FOR NON-TARGETED SPECIES CAUGHT BY PURSE SEINE VESSELS IN THE IOTC AREA OF COMPETENCE

(*will enter into force on 14 September 2013*)

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the need for action to ensure the achievement of IOTC objectives to conserve and manage bigeye tuna, skipjack tuna and yellowfin tuna in the IOTC area of competence;

RECOGNISING that the international community has recognised 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 Stocks Agreement has underlined the importance of ensuring the conservation and optimum utilisation 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"*;

RECALLING that the Commission adopted Resolution 12/01 *on the implementation of the precautionary approach*;

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;

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

RETENTION OF TUNA SPECIES

1. Contracting Parties and Cooperating Non-Contracting Parties shall require all purse seine vessels to retain on board and then land all bigeye tuna, skipjack tuna, and yellowfin tuna caught, except fish considered unfit for human consumption.

2. Procedures for the implementation of full retention requirements include:

    a) No bigeye tuna, skipjack tuna, 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:

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

- "unfit for human consumption" are 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 tuna, skipjack tuna or yellowfin tuna) was caught during the final set of a trip and there is insufficient well space to accommodate all tuna (bigeye tuna, skipjack tuna or yellowfin tuna) caught in that set. This fish may only be discarded if:

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

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 as far as the vessel can ensure appropriate fishing operation (including but not limited to 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 non-targeted fish caught in that set.

IMPLEMENTATION

4. The IOTC Scientific Committee, the IOTC Working Party on Tropical Tunas, and the IOTC Working Party on Ecosystems and Bycatch shall annually:

   a) review the information available on bycatch (retained and discarded) by purse seine vessels; and

   b) provide advice to the Commission on options to sustainably manage discards in purse seine fisheries.

5. This Resolution shall enter into force on 1 January 2014 and will be revised, according to the advice of the IOTC Scientific Committee resulting from the review of the IOTC Working Party on Tropical Tunas (for bigeye tuna, skipjack tuna and yellowfin tuna) and of the IOTC Working Party on Ecosystems and Bycatch (for non-target species).

6. This Resolution supersedes 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.*