

REVIEW OF CURRENT CONSERVATION AND MANAGEMENT MEASURES RELATING TO DATA COLLECTION AND STATISTICS

PREPARED BY: IOTC SECRETARIAT, 4 AND 19 NOVEMBER 2011

PURPOSE

To encourage the Working Party on Data Collection and Statistics (WPDCS) to review some of the existing Conservation and Management Measures (CMM) relating to data and statistics; 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

Fisheries for tuna and tuna-like species in the Indian Ocean are currently subject to a wide array of Conservation and Management Measures adopted by the Commission which include data collection and reporting requirements (Attachment A). Some are directed at a single species while others target fleets operating across the whole Indian Ocean. In an attempt to focus the efforts of the WPDCS, it is our aim to have participants annually review several of the key CMMs, which also match current direct requests from the Commission. The following are a list of the key CMMs for the consideration of the WPDCS. At next year's meeting, a range of other CMMs will be presented for discussion.

Resolution 08/04: *concerning the recording of catch by longline fishing vessels in the IOTC area.* This resolution sets out the minimum logbook requirements for longline fishing vessels over 24 metres length and under 24 metres if they fish outside the EEZ of their flag State (Attachment 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 (Attachment C).

Resolution 10/03: *concerning the recording of catch by fishing vessels in the IOTC area.* This resolution sets out minimum logbook requirements for all purse-seine vessels 24 metres length overall or greater and those under 24 metres if they fish outside the EEZs of their flag States (Attachment D).

Resolution 10/07: *concerning a record of licensed foreign vessels fishing for tunas and swordfish in the IOTC area.* This resolution makes provisions for a mandatory annual submission to the IOTC Secretariat of a list of all licensed foreign flag vessels by all CPCs which issue fishing licenses to foreign flag vessels to fish for tunas and swordfish in the portion of their EEZ that falls within the IOTC Area of Competence (Attachment E).

Resolution 10/08: *concerning a record of active vessels fishing for tunas and swordfish in the IOTC area.* This resolution makes provision for a mandatory annual submission by all CPCs to the IOTC Secretariat of a list of their respective vessels fishing for tunas and swordfish in the IOTC area that were active during the previous year. The resolution applies to vessel larger than 24 meters in length overall or vessel under 24 meters fishing outside the EEZ of their flag State (Attachment F).

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

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

DISCUSSION

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

RECOMMENDATION

Noting the information contained in working paper IOTC–2011–WPDCS08–03, the WPDCS should aim to provide recommendations to the Scientific Committee that clearly outline whether changes to the current CMMs (Resolutions 08/04, 10/02, 10/03, 10/07, 10/08, 11/04 and Recommendation 11/06) are required, and/or to recommend whether other CMMs may be required.

ATTACHMENTS

Attachment A: Types of fisheries statistics requested by the IOTC and reporting deadlines

Attachment B: Resolution 08/04 *concerning the recording of catch by longline fishing vessels in the IOTC area*

Attachment C: Resolution 10/02 *mandatory statistical requirements for IOTC Members and Cooperating non-Contracting Parties (CPC's)*

Attachment D: Resolution 10/03 *concerning the recording of catch by fishing vessels in the IOTC area*

Attachment E: Resolution 10/07 *concerning a record of licensed foreign vessels fishing for tunas and swordfish in the IOTC area*

Attachment F: Resolution 10/08 *concerning a record of active vessels fishing for tunas and swordfish in the IOTC area*

Attachment G: Resolution 11/04 *On a regional observer scheme.*

Attachment H: Recommendation 11/06 *Concerning the recording of catch by fishing vessels in the IOTC area of competence.*

ATTACHMENT A

Types of fisheries statistics requested by the IOTC and reporting deadlines

Types of Data	Description	IOTC Form	Species Group	Management Measures /Agreements	Type of Report	Report To / Reporting Deadline
Annual Catches						
Nominal Catches	Estimates of total annual retained catches in live weight by IOTC Area, species and type of fishery	Form 1RC	IOTC Species	R-10/02	Obligatory	Sec LL: 30/06 (P) LL: 30/12 (F) OT: 30/06 (F)
			Major Sharks	R-10/02; R-05/05	Obligatory	
			Other species	R-10/02	Voluntary	
Discards	Estimates of discard levels (dead individuals) in live weight (or number) by IOTC Area, species and type of fishery	Form 1DI	IOTC Species	R-10/02	Obligatory	SC; LL only Timely
			Major Sharks	R-10/02; R-05/05; R-10/12	Obligatory	
			Seabirds	R-10/02; R-10/06	Obligatory	
			Marine Turtles	R-10/02; R-09/06	Obligatory	Sec
			Other species	R-10/02	Voluntary	
Active crafts						
Numbers of Craft	Total number of fishing crafts operated by type of fishery, type of craft and craft size by year	Form 2FC	Fisheries targeting IOTC Species	FSA-Annex I, Article 4	Voluntary	Sec
Catch and Effort;						
Surface Fisheries	Catch by species in live weight and fishing effort by type of fishery by 1° grid area and month strata (extrapolated to annual catch)	Form 3CE	IOTC Species	R-10/02	Obligatory	Sec LL: 30/06 (P) LL: 30/12 (F) OT: 30/06 (F)
			Major Sharks	R-10/02; R-05/05	Obligatory	
			Other bycatch	R-10/02	Voluntary	
Longline Fisheries	Catch by species in number or live weight and effort in number of hooks set by 5° grid area and month strata (extrapolated to annual catch)	Form 3CE	IOTC Species	R-10/02	Obligatory	OT: 30/06 (F)
			Major Sharks	R-10/02; R-05/05	Obligatory	
			Other bycatch	R-10/02	Voluntary	
	Catch by species in number or live weight and effort in number of hooks set by 1° grid area and month strata (extrapolated to annual catch)	Form 3CE	IOTC Species	R-10/02	Voluntary	SC Timely*
			Major Sharks	R-10/02; R-05/05	Voluntary	
Coastal Fisheries	Catch by species and fishing effort by type of fishery and geographic area	Form 3AR	IOTC Species	R-10/02	Obligatory	Sec LL: 30/06 (P) LL: 30/12 (F) OT: 30/06 (F)
			Major Sharks	R-10/02; R-05/05	Obligatory	
			Other bycatch	R-10/02	Voluntary	
Supply vessels	Number and characteristics of supply vessels and number of days-at-sea by type of supply vessel by 1° grid area and month	Form 3SU	Not applicable	R-10/02	Obligatory	
FAD	Total number and type of Fish Aggregating Devices (FAD) set by purse seiners and supply vessels by quarter by fleet	Form 3FA	Not applicable	R-10/02	Obligatory	
Size Data						
Fish lengths	Length data by species by type of fishery by 5° grid area by month	Form 4SF	IOTC Species	R-10/02	Obligatory	
			Major Sharks	R-05/05; R-10/12	Obligatory	

ATTACHMENT A

Types of Data	Description	IOTC Form	Species Group	Management Measures /Agreements	Type of Report	Report To / Reporting Deadline
Socio-Economic Data						
Fish Prices	Average prices of fish per type of fish product (preservation, processing), weight units, type of currency, month and market	Form 7PR	Main IOTC Species	A-Article5 paragraph 2(d)	Voluntary	Sec
Country Indicators	Set of indicators per type of indicator and year (e.g. GDP, OECD status, number of fishermen, contribution of fisheries to GDP, etc.)	n/a	Not applicable		na	na

Management Measures / Agreements: IOTC Resolution (**R**); IOTC Recommendation (**Rc**); IOTC Agreement (**A**); UN Fish Stocks Agreement (**FSA**)

Report To / Reporting Deadline: Longline fisheries (**LL**) Preliminary statistics (**P**) or Final statistics (**F**); Other fisheries (**OT**)

Shall (reporting is compulsory) /may (reporting is voluntary) be reported to the IOTC through the IOTC Secretariat (Sec) or through the Scientific Committee (SC)

* Data for the exclusive use of IOTC scientists, subject to the approval of the data owners and bound by IOTC confidentiality policy (Resolution 98/02); should be provided for scientific use in a timely fashion.

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

The Indian Ocean Tuna Commission (IOTC),

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

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

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

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

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

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

1. Each flag CPC shall ensure that all long line fishing vessels flying its flag and authorized to fish species managed by IOTC be subject to a data recording system. Within the IOTC Area of Competence, all long line vessels over 24 metres length and those under 24 metres if they fish outside the EEZs of their flag States shall keep a bound or electronic logbook to provide data for use by Working Parties and the Scientific Committee that includes, as a minimum requirement, the information and data in the logbook set forth in Annex I and II. Annex III provides a logbook template for illustrative purposes only.
2. This logbook format consists of two parts, Annex I and Annex II.

Annex I includes information on vessel, trip and gear configuration, and should be written once for each trip.

Annex II, which contains information of longline operation and catch, should be filled for each set.
3. The logbook data shall be provided by the fishing masters to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. The flag State and the States which receive this information shall provide all the data for any given year to the IOTC Secretariat and the Scientific Committee by June 30th of the following year on an aggregated basis. The confidentiality rules set out in Resolution 98/02 *Data Confidentiality Policy and Procedures* for fine-scale data shall apply.

ANNEX I

Record once in one cruise

1-1 INFORMATION OF REPORT

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

1-2 VESSEL INFORMATION

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

1-3 CRUISE INFORMATION

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

1-4 GEAR CONFIGURATION

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

ANNEX II

Record one record for each set

2-1 OPERATION

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

2-2 CATCH / CAPTURES

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

2-3 SPECIES / ESPÈCES

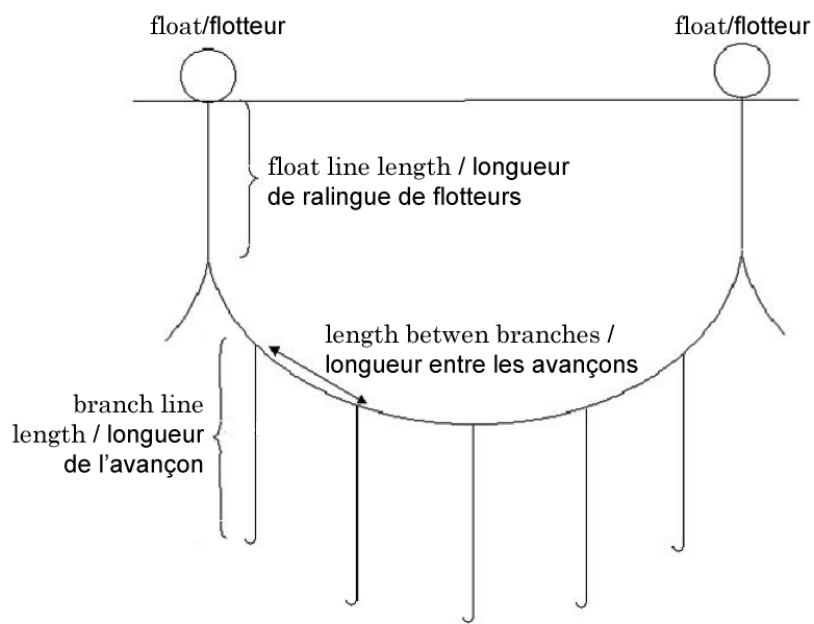
- 1) Southern bluefin,
- 2) Albacore,
- 3) Bigeye,
- 4) Yellowfin,
- 5) Skipjack
- 6) Swordfish
- 7) Marlins
- 8) Shortbill spearfish
- 9) Sailfish
- 10) Blue shark
- 11) Porbeagle
- 12) Mako shark
- 13) Other sharks
- 14) Other fishes

2-4 REMARKS / REMARQUES

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

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

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



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

The Indian Ocean Tuna Commission (IOTC)

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

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

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

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

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

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

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

CONSIDERING the deliberations of the 12th 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 *Data confidentiality policy and procedures*, and should be provided for scientific use in a timely fashion.

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

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

4. Size data:

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

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

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

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

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

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

6. Timeliness of data submission to the IOTC Secretariat:

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

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

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

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

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

The Indian Ocean Tuna Commission (IOTC),

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

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

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

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

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

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

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

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

[illegible]

Instructions for filling the logbook form (EU purse seine and baitboats template) Notice explicative pour utiliser la fiche de pêche (senneurs et canneurs, modèle UE)
EN-TÊTE / CABECERA / HEADING
<p>DEPART / SALIDA / DEPARTURE</p> <ul style="list-style-type: none"> ✓ Port / Puerto / Port ✓ Date / Fecha / Date ✓ Heure / Hora / Hour ✓ Loch / Corredera / Loch <p>ARRIVEE / LLEGADA / ARRIVAL</p> <ul style="list-style-type: none"> ✓ Port / Puerto / Port ✓ Date / Fecha / Date ✓ Heure / Hora / Hour ✓ Loch / Corredera / Loch <p>NAVIRE / BARCO / VESSEL</p> <p>PATRON / PATRON / MASTER</p> <p>FEUILLE / HOJA / SHEET N°</p> <p><i>Remplir l'information correspondante au départ et au retour. Le loch au départ et au retour permettent d'estimer la distance parcourue par le navire pendant sa marée, et donc indirectement la surface prospectée. Les feuilles seront numérotées de 1 à n pour chaque marée.</i></p> <p><i>Fill in the corresponding information at departure and arrival of the boat. Loch at departure and arrival allows to estimate the distance run during the trip, and indirectly the prospected surface. Sheets will be numbered from 1 and following for each trip.</i></p>
DONNÉES SUR LA PÊCHE / DATOS SOBRE LA PESCA / FISHING DATA
<p><i>Toute les informations concernant les activités, captures, incidents, ... qui se sont produits pendant la marée doivent être reportées aussi précisément que possible.</i></p> <p><i>All information regarding activities, catches, incidents, ... which occurred during the trip should be reported as precisely as possible.</i></p> <p>DATE/FECHA/DATE</p> <p><i>Remplir au moins une ligne par jour, même s'il n'y a pas eu d'activité de pêche (cape, avarie, ...).</i></p> <p><i>Fill in at least one line by day, even in case of no fishing activities.</i></p> <p>POSITION (chaque calée ou midi)/POSICION (cada lance o mediadia)/POSITION (each set or midday)</p> <p><i>Utiliser une ligne différente pour chaque calée (y compris les calées nulles), ou chaque DCP déployé, et noter leur position. S'il n'y a pas eu de pêche et qu'aucun DCP n'a été déployé au cours de la journée, noter la position aux environs de midi. Si nécessaire, les informations sur la calée peuvent utiliser plusieurs lignes sans changer les informations générales (date, position, ...).</i></p> <p><i>Use one line for each set (including negative ones), or each FAD deployed, and note its position. If no set have been made and FADs have not been deployed during the day, note the position around midday. If necessary, information for one set can use several lines, without changing the general information (date and position).</i></p> <p>CALÉE / LANCE / SET ou/o/ou DEPLOIEMENT DE DCP / PLANTANDO DE OBJETO / DEPLOYMENT OF FAD</p> <ul style="list-style-type: none"> ✓ Portant / Positivo / Successful ✓ Nul / Nulo / Nil <p><i>Cocher la case correspondante selon que le coup est nul ou portant.</i></p> <p><i>Tick the corresponding column according that the set was positive or not.</i></p> <ul style="list-style-type: none"> ✓ Heure / Hora / Time : Préciser / Especificar / Specify (TU+ ?) <p><i>Mettre l'heure de début de la calée ou de déploiement de DCP ; préciser le cas échéant l'heure utilisée par le bord (TU+ ??).</i></p> <p><i>Indicate the time at the beginning of the set or at the time the FAD was deployed; if necessary, precise the time used on board (TU+ ??).</i></p> <ul style="list-style-type: none"> ✓ N° Cuve / Cuba / Well <p><i>Indiquer le numéro de la/les cuve(s) où la capture sera stockée.</i></p> <p><i>Indicates the well number where the catch will be stored.</i></p> <p>CAPTURE ESTIMÉE / ESTIMACION DE LA CAPTURA / ESTIMATED CATCH</p> <ul style="list-style-type: none"> ✓ ALBACORE / RABIL / YELLOWFIN <ul style="list-style-type: none"> • Taille / Talla / Size • Capture / Captura / Catch ✓ LISTAO / LISTADO / SKIPJACK <ul style="list-style-type: none"> • Taille / Talla / Size • Capture / Captura / Catch ✓ PATUDO / PATUDO / BIGEYE <ul style="list-style-type: none"> • Taille / Talla / Size • Capture / Captura / Catch <p><i>Pour chacune des principales espèces de thons mentionnées, indiquer la capture estimée ainsi que la taille/poids moyen ou la gamme de taille/poids des poissons (par exemple 5-15 kg, 10kg, >30 kg, ...). Si la distinction entre espèces n'est pas connue, remplir à cheval sur les 3 colonnes.</i></p> <p><i>For each of the main tuna species indicated, note the estimated catch as well as the average size/weight or size/weight range (for example,</i></p>

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

✓ AUTRE ESPECE (préciser le/les nom(s))/OTRA ESPECIE (dar el/los nombre(s))/OTHER SPECIES (give name(s))

- Nom / Nombre / Name
- Taille / Talla / Size
- Capture / Captura / Catch

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

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

✓ REJETS (préciser le/les nom(s))/DESCARTES (dar el/los nombre(s))/DISCARDS (give name(s))

- Nom / Nombre / Name
- Taille / Talla / Size
- Capture / Captura / Catch

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

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

ASSOCIATION / ASOCIACION / ASSOCIATION

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

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

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

COMMENTAIRES / OBSERVACIONES / COMMENTS

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

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

T° Mer / Mar / Sea

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

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

COURANT / CORRIENTE / CURRENT

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

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

Indiquer la vitesse et la direction du courant si disponible.

Indicates the current speed and direction if known.

RESOLUTION 10/07
CONCERNING A RECORD OF LICENSED FOREIGN VESSELS FISHING FOR TUNAS AND
SWORDFISH IN THE IOTC AREA

The Indian Ocean Tuna Commission (IOTC):

RECOGNISING that coastal States have sovereign rights in a 200-nautical mile exclusive economic zone (EEZ) with respect to their natural resources;

CONCIOUS of the provisions of Article 62 of the United Nations Convention on the Law of the Sea;

NOTING that the information on vessels licensed to fish in the exclusive economic zone (EEZ) of IOTC Members and Cooperating non-Contracting Parties (CPCs), constitutes a means to identify potential unreported fishing activities;

MINDFUL of the recommendation 17 of the Performance Review Panel, as listed in Resolution 09/01 On the performance review follow-up, that the obligation incumbent to a flag State to report data for its vessels be included in a separate Resolution from the obligation incumbent on Members to report data on the vessels of third countries they licence to fish in their EEZs.

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

1. All CPCs which issue licenses to foreign flag vessels to fish for tunas and swordfish in the portion of their EEZ that falls within the IOTC Area of Competence (hereinafter referred to as “the Area”), by 15 February every year:
 - Shall submit to the Secretary a list of all foreign flag vessels to which such licences have been issued during the previous year;
2. This list shall contain the following information for each vessel:
 - IOTC Number;
 - Name and registration number;
 - IMO number, if available;
 - The flag at the time of issuing the licence;
 - International radio call sign (if any);
 - Vessel type, length, and gross tonnage (GT);
 - Name and address of owner, and/or charterer and/or operator;
 - Main target species,
 - Period of licence.
3. The Secretary shall circulate this information annually, or upon request, to all CPCs.
4. The CPCs shall notify the Secretary of any information concerning foreign flag fishing vessels that requested a license but are not included in the Record of Authorized Vessels,
5. The information to be provided, shall include for each vessel:
 - a. Name and registration number;
 - b. IMO number, if available;
 - c. The flag at the time of requesting for a license;
 - d. International radio call sign (if any);
 - e. Vessel type, length, and gross tonnage (GT);
 - f. Name and address of owner, and/or charterer and/or operator,
 - g. Main target species.
6. The Secretary shall compile for future consideration by the Compliance Committee information on vessels covered in paragraph 5 whose flag is not identified.

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7. IOTC Resolution 07/04 *Concerning registration and exchange of information on vessels fishing for tunas and swordfish in the IOTC Area* is superseded by this Resolution.

RESOLUTION 10/08
CONCERNING A RECORD OF ACTIVE VESSELS FISHING FOR TUNAS AND
SWORDFISH IN THE IOTC AREA

The Indian Ocean Tuna Commission (IOTC):

CONSCIOUS of the duties of every State to exercise effectively its jurisdiction and control over vessels flying its flag;

RECALLING the responsibilities incumbent on States whose vessels fish for highly migratory fish stocks on the high seas;

NOTING that the information about the size of active fleets for implementing the limitation of fishing capacity as set forth in Resolution 09/02 On the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating non-Contracting Parties;

MINDFUL of the recommendation 17 of the Performance Review Panel, as listed in Resolution 09/01 On the performance review follow-up, that the obligation incumbent to a flag State to report data for its vessels be included in a separate Resolution from the obligation incumbent on Members to report data on the vessels of third countries they licence to fish in their exclusive economic zones (EEZs).

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

1. All IOTC Members and Cooperating non-Contracting Parties (CPCs) with vessels fishing for tunas and swordfish in the IOTC Area of Competence (hereinafter referred to as “the Area”), shall submit to the Secretary by 15 February every year a list of their respective vessels that were active in the Area during the previous year and that are:
 - a. larger than 24 metres in length overall, or
 - b. in case of vessels less than 24m, those operating in waters outside the economic exclusive zone of the flag state,
2. These lists shall contain the following information for each vessel:
 - The IOTC number;
 - Name and registration number;
 - IMO number, if available;
 - Previous flag (if any);
 - International radio call sign (if any);
 - Vessel type, length, and gross tonnage (GT);
 - Name and address of owner, and/or charterer, and/or operator;
 - Main target species,
 - Period of authorisation
3. The Secretary shall maintain the IOTC Record of Active Vessels, and take any measure to ensure publicity of the Record and through electronic means, including placing it on the IOTC website, in a manner consistent with confidentiality requirements noted by CPCs.
4. The Secretary shall compile, for consideration by the Compliance Committee, a report on the information submitted by CPCs.
5. The objective of the report shall be to provide the Compliance Committee with an independent evaluation of the level of compliance to this resolution, and other pertinent IOTC resolution(s), by the concerned CPCs.
6. The Compliance Committee shall after its evaluation of the Secretary’s report, make appropriate recommendations to the Commission on actions that should be pursued against the non-complying CPCs. These should include, *inter alia*, taking actions under Resolution 10/10.

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7. IOTC Resolution 07/04 *Concerning registration and exchange of information on vessels fishing for tunas and swordfish in the IOTC Area* is superseded by this Resolution.

RESOLUTION 11/04
ON A REGIONAL OBSERVER SCHEME

The Indian Ocean Tuna Commission (IOTC),

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

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

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

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

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

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

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

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

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

Objective

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

Observer Scheme

2. In order to improve the collection of scientific data, at least 5 % of the number of operations/sets for each gear type by the fleet of each CPC while fishing in the IOTC Area of 24 meters overall length and over, and under 24 meters if they fish outside their EEZs shall be covered by this observer scheme. For vessels under 24 meters if they fish outside their EEZ, the above mentioned coverage should be achieved progressively by January 2013.
3. When purse seiners are carrying an observer¹ as stated in paragraph 1, this observer shall also monitor the catches at unloading to identify the composition of bigeye catches. The requirement for the observer to monitor catches at unloading is not applicable to CPCs already having a sampling scheme, with at least the coverage set out in paragraph 2.
4. The number of the artisanal fishing vessels landings shall also be monitored at the landing place by field samplers². The indicative level of the coverage of the artisanal fishing vessels should progressively increase towards 5% of the total levels of vessel activity (i.e. total number of vessel trips or total number of vessels active).
5. CPCs shall:
 - a) Have the primary responsibility to obtain qualified observers. Each CPC may choose to use either deployed national or non-national of the flag State of the vessel on which they are deployed;
 - b) Endeavour that the minimum level of coverage is met and that the observed vessels are a representative sample of the gear types active in their fleet;

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

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

- c) Take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;
 - d) Endeavour to ensure that the observers alternate vessels between their assignments. Observers are not to perform duties, other than those described in paragraphs 10 and 11 below;
 - e) Ensure that the vessel on which an observer is placed shall provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible. Vessel masters shall ensure that all necessary co-operation is extended to observers in order for them to carry out their duties safely including providing access, as required, to the retained catch, and catch which is intended to be discarded.
6. The cost of the observer scheme in paragraph 2 and 3 shall be met by each CPC.
 7. The sampling scheme referred in paragraph 4 will be covered by the Commission's accumulated funds and voluntary contribution on a provisional basis. The Commission will consider an alternative for the financing of this scheme.
 8. If the coverage referred in paragraphs 2 and 3 is not met by a CPC, any other CPC may, subject to the consent of the CPC who has not met its coverage, place an observer to fulfill the tasks defined in the paragraphs 1 and 2 until that CPC provides a replacement or the target coverage level is met.
 9. CPCs shall provide to the Executive Secretary and the Scientific Committee annually a report of the number of vessels monitored and the coverage achieved by gear type in accordance with the provisions of this Resolution.
 10. Observers shall:
 - a) Record and report fishing activities, verify positions of the vessel;
 - b) Observe and estimate catches as far as possible with a view to identifying catch composition and monitoring discards, by-catches and size frequency;
 - c) Record the gear type, mesh size and attachments employed by the master;
 - d) Collect information to enable the cross-checking entries made to the logbooks (species composition and quantities, live and processed weight and location, where available); and
 - e) Carry out such scientific work (for example, collecting samples), as requested by the IOTC Scientific Committee.
 11. The observer shall, within 30 days of completion of each trip, provide a report to the CPCs of the vessel. The CPCs shall send within 150 days at the latest each report, as far as continuous flow of report from observer placed on the longline fleet is ensured, which is recommended to be provided with 1°x1° format to the Executive Secretary, who shall make the report available to the Scientific Committee upon request. In a case where the vessel is fishing in the EEZ of a coastal state, the report shall equally be submitted to that Coastal State.
 12. The confidentiality rules set out in the resolution 98/02 Data confidentiality policy and procedures for fine-scale data shall apply.
 13. Field samplers shall monitor catches at the landing place with a view to estimating catch-at-size by type of boat, gear and species, or carry out such scientific work as requested by the IOTC Scientific Committee.
 14. The funds available from the IOTC balance of funds may be used to support the implementation of this programme in developing States, notably the training of observers and field samplers.
 15. The elements of the Observer Scheme, notably those regarding its coverage, are subject to review and revision, as appropriate, for application in 2012 and subsequent years. Basing on the experience of other Tuna RFMOs, the Scientific Committee will elaborate an observer working manual, a template to be used for reporting (including minimum data fields) and a training program.
- This Resolution supersedes Resolution 10/04 *on a Regional Observer Scheme*.

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

The Indian Ocean Tuna Commission (IOTC),

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

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

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

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

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

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

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

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

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

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

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

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

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

ANNEX I

Record once per trip (unless gear configuration changes)

1.1 REPORT INFORMATION

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

1.2 VESSEL INFORMATION

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

1.3 CRUISE INFORMATION

For multiday fishing operations record the

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

1.4 OTHER REQUIRED INFORMATION

Longline (Gear Configuration):

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

Purse Seine (Search Information):

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

Gillnet (Gear Configuration):

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

Pole and line

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

ANNEX II

Record once per set/shot/operation

2.1 OPERATION

For longline:

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

For purse seine:

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

For gillnet:

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

For Pole and Line

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

2.2 CATCH

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

- For longline by number and weight;
- For purse seine by weight;
- For gillnet by weight;
- For pole and line by weight or number

2.3 SPECIES

For Longline:

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

For Purse Seine:

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

For Gillnet:

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

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

For Pole and Line:

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

2.4 REMARKS

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

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

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

