

**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 9<sup>th</sup> 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 13<sup>th</sup> Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 December 2010, that recommended one option of mandatory reporting of a revised list of shark species in logbooks to improve the data collection and statistics on sharks in the IOTC Area of competence;

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

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

- 1 Each flag CPC should ensure that all purse seine, longline, gillnet and pole and line fishing vessels flying its flag and authorized to fish species managed by IOTC be subject to a data recording system.
- 2 Within the IOTC Area of competence, all purse seine, longline, gillnet and pole and line fishing vessels over 24 metres length and those under 24 metres if they fish outside the EEZs of their flag States should keep a bound or electronic logbook to provide data for use by Working Parties and the Scientific Committee that includes, as a minimum requirement, the

information and data in the logbook set forth in Annex I and II.

- 3 The logbooks format consists of two parts, Annex I and Annex II, and logbook templates are provided for illustrative purposes only for all gears (Annex III, IV, V and VI):  

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

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

## ANNEX I

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

### 1.1 REPORT INFORMATION

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

### 1.2 VESSEL INFORMATION

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

### 1.3 CRUISE INFORMATION

For multiday fishing operations record the

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

### 1.4 OTHER REQUIRED INFORMATION

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

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

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

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

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

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

#### **Pole and line**

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

## ANNEX II

### Record once per set/shot/operation

#### 2.1 OPERATION

##### **For longline:**

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

##### **For purse seine:**

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

##### **For gillnet:**

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

##### **For Pole and Line**

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

## 2.2 CATCH

- 1) Catch weight (kg) or number by species per set/shot/fishing event for each of the species and form of processing in section 2.3:
  - a. For longline by number and weight;
  - b. For purse seine by weight;
  - c. For gillnet by weight;
  - d. For pole and line by weight or number

## 2.3 SPECIES

For Longline:

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

For Purse Seine:

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

Other fishes	
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For Gillnet:

<b>Fish Species</b>	<b>Other Species</b>
Albacore Tuna ( <i>Thunnus alalunga</i> )	Blue Shark ( <i>Prionace glauca</i> )
Bigeye Tuna ( <i>Thunnus obesus</i> )	Mako Sharks ( <i>Isurus</i> spp.)
Longtail Tuna ( <i>Thunnus tonggol</i> )	Porbeagle Shark ( <i>Lamna nasus</i> )
Yellowfin Tuna ( <i>Thunnus albacores</i> )	Oceanic Whitetip Shark ( <i>Carcharhinus longimanus</i> )
Skipjack Tuna ( <i>Katsuwonus pelamis</i> )	Hammerhead Sharks ( <i>Sphyrna</i> spp.)
Frigate Tuna ( <i>Auxis thazard</i> )	Other sharks
Kawakawa ( <i>Euthynnus affinis</i> )	<b>Optional species to be recorded</b>
Narrow banded Spanish Mackerel ( <i>Scomberomorus comerson</i> )	Thresher Sharks ( <i>Alopias</i> spp.)
Indo-Pacific King Mackerel ( <i>Scomberomorus guttatus</i> )	Tiger Shark ( <i>Galeocerdo cuvier</i> )
Marlins ( <i>Tetrapturus</i> spp, <i>Makaira</i> spp)	Crocodile Shark ( <i>Pseudocarcharias kamoharai</i> )
Indo-Pacific Sailfish ( <i>Istiophorus platypterus</i> )	Other Requiem sharks ( <i>Carcharhinus</i> spp.)
Shortbilled spearfish ( <i>Tetrapturus angustirostris</i> )	Great White shark ( <i>Carcharodon carcharias</i> )
Swordfish ( <i>Xiphius gladius</i> )	
Other fishes	

For Pole and Line:

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

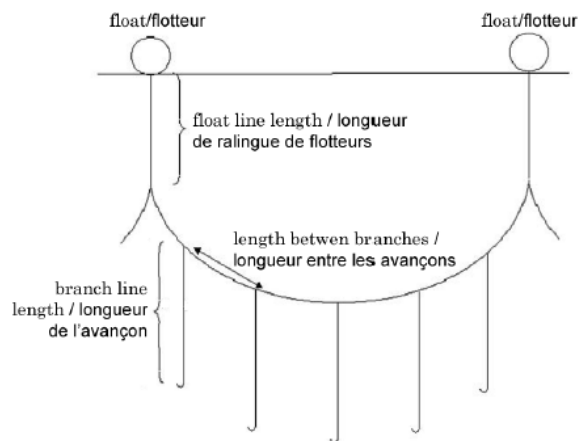
## 2.4 REMARKS

- 1) Discard Weight (kg) or number

- a. For longline by number and weight
  - b. For purse seine estimate weight for each species
  - c. For gillnet by weight
  - d. For pole and line by weight or number
- 2) Any interactions with whale sharks (*Rhincodon typus*) and marine mammals must 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.*



## ANNEX III – LOGBOOK TEMPLATE FOR TUNA LONGLINERS (FOR ILLUSTRATIVE PURPOSES ONLY)

**CPCs NEED TO ENSURE THAT THE MINIMUM REQUIREMENTS SET OUT ABOVE ARE ADDED TO THE LOGBOOKS**

Flag country / Pavillon		
Date reported / Date de déclaration †	Name of captain / Nom du capitaine	
Reporting person / Personne déclarante	Name / Nom	Phone / Téléphone
Departure date / Date de départ †	Departure port / Port de départ	
Arrival date / Date d'arrivée †	Arrival port / Port d'arrivée	

Name of boat / nom du navire	
Vessel size / Taille du navire	GT (tons)/TB (tonnes)      LOA (m) / LHT (m)
License number / Numéro de licence	
Call sign / Indicateur radio	
Number of crew / Effectif équipage	

† use YYYY/MMDD for dates / utilisez AAAA/MM/JJ pour les dates

Gear configuration / configuration de l'engin	
Branch line length / Longueur des avancons (m)	
Float line length / longueur des ralingues de flotteurs (m)	
Length between branch lines / longueur entre les avancons (m)	
Target / cibles	1. Tuna/thons ( ) 2. Swordfish/espadon ( ) 3. Other/ autres ( )

Type of weight / type de poids
<input type="checkbox"/> whole / entier
<input type="checkbox"/> processed / transformé

**In each set, catch should be given both in number and weight (in kg) in upper and lower row, respectively**

Date †	Position				Time of starting setting gear (24hr) / heure de début de calée	SST °C *	Number of hooks / between floats / nombre d'hameçons entre flotteurs	Total number of hooks / nombre total d'hameçons	Tunas / thons					Billfishes / Portes-épée					Sharks / requins				Other fishes / autres poissons	Remarks (discard or other information) / remarques (rejets ou autres informations)
	Degree / Degrés ‡	NS	Degree / Degrés ‡	EW					southern bluefin / thon rouge	albacore / germon	bigeye / patudo	yellowfin / albacore	skipjack / listao	Swordfish / espadon	Stripped marlin / marlin rayé	blue marlin / marlin bleu	black marlin / marlin noir	Sailfish / volier	Shortbill spearfish / marlin à rostre court	Blue shark / Peau bleue	Porbeagle / requin taupe	Mako / petite taupe		
		N S		E W																				
		N S		E W																				
		N S		E W																				
		N S		E W																				

† for dates, use the YYYY/MM/DD format / pour les dates, utiliser le format AAAA/MM/JJ  
‡ for positions, use the format: / pour les positions, utiliser le format: XX°XX'  
\*\* for SST, use a value with one decimal point / pour la SST, utiliser une valeur à une décimale





## ANNEX V – LOGBOOK TEMPLATE FOR POLE-AND-LINE VESSELS (FOR ILLUSTRATIVE PURPOSES ONLY)

Date Logbook Submitted: \_\_\_/\_\_\_/\_\_\_ Submitted by(name and position): \_\_\_\_\_

Vessel's Name: \_\_\_\_\_ IOTC no.: \_\_\_\_\_ Reg No: \_\_\_\_\_ License no.: \_\_\_\_\_ LOA(m): \_\_\_\_\_

Port Departure: \_\_\_\_\_ Date Departure: \_\_\_/\_\_\_/\_\_\_ Port Arrival: \_\_\_\_\_ Date Arrival: \_\_\_/\_\_\_/\_\_\_ Trip no.: \_\_\_\_\_

Date (MM/DD)	Position START fishing			Time START fishing (HH:MM)	Time END fishing (HH:MM)	no. fishing events	Number of fishermen	Number of fishing gear	Free FAD	Type of school	Catch units no. t	TROPICAL TUNAS										OTHER SPECIES										DISCARDS																	
	1° Area	LAT.	LONG.									Yellowfin tuna	Skipjack tuna	Bigeye tuna	Albacore	Longtail tuna	Frigate tuna	Kawakawa	NB Spanish mackerel																														
		deg:min	deg:min																																														
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Remarks

## ANNEX VI LOGBOOK TEMPLATE FOR GILLNET VESSELS (FOR ILLUSTRATIVE PURPOSES ONLY)

Date Logbook Submitted: \_\_\_\_/\_\_\_\_/\_\_\_\_ Submitted by(name and position): \_\_\_\_\_

Vessel's Name: \_\_\_\_\_ IOTC no: \_\_\_\_\_ Reg No: \_\_\_\_\_ Call Sign: \_\_\_\_\_ GT: \_\_\_\_\_ LOA(m): \_\_\_\_\_

Port Departure: \_\_\_\_\_ Date Departure: \_\_\_\_/\_\_\_\_/\_\_\_\_ Port Arrival: \_\_\_\_\_ Date Arrival: \_\_\_\_/\_\_\_\_/\_\_\_\_ Trip no.: \_\_\_\_\_

Gear Mesh Size(mm): \_\_\_\_\_ Net height(m): \_\_\_\_\_ Net material: \_\_\_\_\_ Fishing depth range Min/Max(m): \_\_\_\_/\_\_\_\_ Total net lost(m): \_\_\_\_\_

Date (MM/DD)	Position START set		Position END set		Time START set (HH:MM)	Time START haul (HH:MM)	Time END set (HH:MM)	Length net set (m)	Target species (+)	TUNAS					BILLFISHES				SHARKS			OTHER FISH	DISCARDS				
	LAT.	LONG.	LAT.	LONG.						Albacore(1)	Bigeye tuna(2)	Yellowfin tuna(3)	Skipjack tuna(4)	Other(5) (Name and catch)	Swordfish(6)	Black marlin(7)	Blue marlin(8) & striped marlin(9)	IP Sailfish(10)	Other(11) (Name and catch)	Blue shark(12)	Finetooth sharks(13)	Other(14) (Name and catch)	(15) (Name and catch)	(Name and catch)			
	deg:min	deg:min	deg:min	deg:min																							
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(+) Use the number corresponding to the target species as recorded for the species in the columns on the right

Remarks