



ON THE RECORDING OF CATCH AND EFFORT BY FISHING VESSELS IN THE IOTC AREA OF COMPETENCE

SUBMITTED BY: EUROPEAN UNION, 05 APRIL 2013

Explanatory Memorandum

Despite the existing IOTC mandatory reporting requirements, turtles data remain largely unreported by CPCs. The information on incidents and releases of marine turtles contained in the IOTC database remains very incomplete for most fleets. In this context the Scientific Committee recommends that all CPCs collect and report incidents and releases of marine turtles, so that more detailed analysis can be undertaken for the next WPEB meeting.

The Scientific Committee noted that it is mandatory for marine turtles (in number) to be recorded on logbooks for purse seine and gillnet but not for longline and therefore recommended that marine turtles, as a group, be added to Resolution 12/03 *on the recording of catch and effort by fishing vessels in the IOTC area of competence*, in Annex II (Record once per set/shot/operation) paragraph 2.3 (SPECIES) for longline gear.

Furthermore, Resolution 12/03 should be revised to take into account the proposal of the EU, if adopted, to introduce detailed specifications of catch reporting from FAD sets in the suggested Guidelines for Preparation of FAD Management Plans set out in Resolution 12/08.

RESOLUTION 1312/03XX
ON 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 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 organizations 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 authorized 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 9. 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. 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.
5. 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.
6. Annex III contains specifications for handline and trolling gears.
7. The logbook shall be completed by the Master of the fishing vessel 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.
8. 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.
9. 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 by 1 July 2014.
10. The Commission shall consider development of special program to facilitate 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.
11. This Resolution supersedes Resolutions ~~08/04, 10/03~~12/03 *On The Recording Of Catch And Effort By Fishing Vessels In The IOTC Area Of Competence* and Recommendation 11/06.

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 12/08 *On a Fish Aggregating Devices (FADs) Management Plan* [\[reference to be updated if 12/08 is superseded by a new Resolution\]](#)

(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 on 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°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 12/08 On a Fish Aggregating Devices (FADs) Management Plan. [reference to be updated if 12/08 is superseded by a new Resolution]
5. Optionally, sea surface temperature at noon with one decimal point (XX.X°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 (<i>Thunnus maccoyii</i>)	SBF	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)	SSP
Albacore (<i>Thunnus alalunga</i>)	ALB	Blue shark (<i>Prionace glauca</i>)	BSH
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Mako sharks (<i>Isurus</i> spp.)	MAK
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Porbeagle shark (<i>Lamna nasus</i>)	POR
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Hammerhead sharks (<i>Sphyrna</i> spp.)	SPN
Swordfish (<i>Xiphius gladius</i>)	SWO	Other bony fishes	
Striped marlin (<i>Tetrapturus audax</i>)	MLS	Other sharks	SKH
Blue marlin (<i>Makaira nigricans</i>)	BUM	Seabirds (in number) ¹	
Black marlin (<i>Makaira indica</i>)	BLM	Marine Mammals (in number)	
Indo–Pacific sailfish (<i>Istiophorus platypterus</i>)	SFA	Marine turtles (in number)	
		Optional species to be recorded	
		Thresher sharks (<i>Alopias</i> spp.)	THR
		Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
		Tiger shark (<i>Galeocerdo cuvier</i>)	TIG
		Crocodile shark (<i>Pseudocarcharias kamoharai</i>)	PSK
		Great white shark (<i>Carcharodon carcharias</i>)	WSH
		Mantas and devil rays (<i>Mobulidae</i>)	MAN
		Pelagic stingray (<i>Pteroplatytrygon violacea</i>)	PSL
		Other rays	

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

For Purse Seine:

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

For Gillnet:

Primary Species	FAO code	Other Species	FAO code
Albacore (<i>Thunnus alalunga</i>)	ALB	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)	SSP
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Blue shark (<i>Prionace glauca</i>)	BSH
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Mako sharks (<i>Isurus</i> spp.)	MAK
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Porbeagle shark (<i>Lamna nasus</i>)	POR
Longtail tuna (<i>Thunnus tonggol</i>)	LOT	Hammerhead sharks (<i>Sphyrna</i> spp.)	SPN
Frigate tuna (<i>Auxis thazard</i>)	FRI	Other sharks	
Bullet tuna (<i>Auxis rochei</i>)	BLT	Other bony fish	
Kawakawa (<i>Euthynnus affinis</i>)	KAW	Marine turtles (in number)	
Narrow barred Spanish mackerel (<i>Scomberomorus commerson</i>)	COM	Marine mammals (in number)	
Indo–Pacific king mackerel (<i>Scomberomorus guttatus</i>)	GUT	Whale sharks (<i>Rhincodon typus</i>) (in number)	RHN
Swordfish (<i>Xiphias gladius</i>)	SWO	Seabirds (in number) ²	
Indo–Pacific sailfish (<i>Istiophorus platypterus</i>)	SFA	Optional species to be recorded	
Marlins (<i>Tetrapturus</i> spp, <i>Makaira</i> spp.)	BIL	Thresher sharks (<i>Alopias</i> spp.)	THR
Southern bluefin tuna (<i>Thunnus maccoyii</i>)	SBF	Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
		Tiger shark (<i>Galeocerdo cuvier</i>)	TIG

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

		Crocodile shark (<i>Pseudocarcharias kamoharai</i>)	PSK
		Mantas and devil rays (Mobulidae)	MAN
		Pelagic stingray (<i>Pteroplatytrygon violacea</i>)	PSL
		Other rays	

For Pole and Line:

Primary Species	FAO code	Other Species	FAO code
Albacore (<i>Thunnus alalunga</i>)	ALB	Other bony fish	
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Sharks	
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Rays	
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Marine turtles (in number)	
Frigate and bullet tuna (<i>Auxis</i> spp.)	FRZ		
Kawakawa (<i>Euthynnus affinis</i>)	KAW		
Longtail tuna (<i>Thunnus tonggol</i>)	LOT		
Narrow barred Spanish mackerel (<i>Scomberomorus commerson</i>)	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 remarks³
2. Any interactions with whale sharks (*Rhincodon typus*), marine mammals, and seabirds should be recorded in the remarks
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.

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*

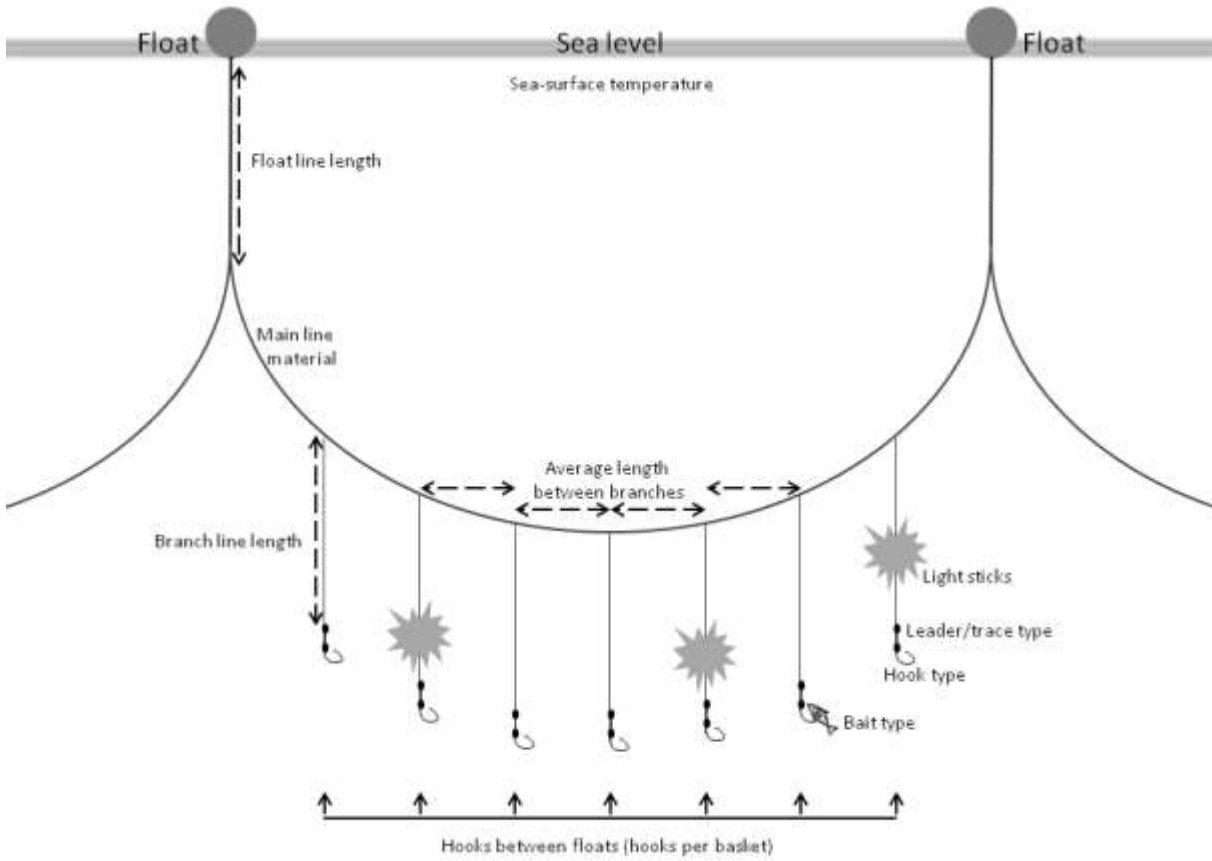


Figure 1. Longline (Gear Configuration): Average branch line length (meters): straight length in meters between snap and hook.

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