

REVIEW OF CURRENT CONSERVATION AND MANAGEMENT MEASURES RELATING TO NERITIC TUNA SPECIES

PREPARED BY: IOTC SECRETARIAT, 13 JUNE 2014

PURPOSE

To encourage participants at the 4th Working Party on Neritic Tunas (WPNT04) to review some of the existing Conservation and Management Measures (CMM) relating to neritic tunas, noting the CMMs contained in document IOTC–2014–WPNT04–04; and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

BACKGROUND

In addition to the CMMs outlined in document IOTC–2014–WPNT04–04, neritic tunas in the Indian Ocean are currently subject to several other Conservation and Management Measures adopted by the Commission. In an attempt to focus the efforts of the WPNT, it is our aim to have participants annually review one of the key CMMs based on scientific advice, or which match current requests from the Commission. At next year's meeting, an alternative CMM may be presented for discussion.

Resolution 13/03: [*On the recording of catch and effort data by fishing vessels in the IOTC area of competence*](#). This Resolution introduces amendments to Resolution 12/03 on the recording of catch and effort by fishing vessels in the IOTC area of competence by including a requirement for the submission to the IOTC Secretariat of the template of all flag and coastal State logbooks to record data for the IOTC catches for publishing on the IOTC web page to facilitate port and at-sea inspections. For CPCs that use electronic logbook systems, a copy of the applicable regulations implementing the electronic logbook system in that CPC, a set of screen captures and the name of the certified software may be provided. Thresher sharks and Oceanic whitetip shark, which are prohibited to be retained onboard, are moved from “optional species” to “other species” to be required to be recorded in logbooks for longline, purse seine and gillnet. Marine turtles (in number) are also now required to be recorded in logbooks not only for purse seine and gillnet vessels but also for longline vessels. [Note: India expressed reservations and concerns regarding its ability to comply with the requirements detailed in the Resolution and indicated that they could not support the Resolution in its current form. Resolution 12/03 remains binding on India.]

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.

DISCUSSION

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

RECOMMENDATION

Noting the information contained in working paper IOTC–2014–WPNT04–04, the WPNT should aim to provide recommendations to the SC that clearly outline whether changes to Resolutions 13/03 and 10/02 are required, and/or to recommend whether other CMMs may be required.

APPENDICES

Appendix A: Resolution 10/02 *Mandatory statistical requirements for IOTC Members and Cooperating non-Contracting Parties (CPC's)*

Appendix B: Resolution 10/02 *Mandatory statistical requirements for IOTC Members and Cooperating non-Contracting Parties (CPC's)*

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

(Objection [India]: [Resolution 12/03](#) remains binding on India)

The Indian Ocean Tuna Commission (IOTC),

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

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

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

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

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

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

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

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

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

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

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

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

1. Each flag CPC shall ensure that all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels flying its flag and authorised to fish species managed by IOTC be subject to a data recording system.
2. The measure shall apply to all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels over 24 metres length overall and those under 24 metres if they fish outside the EEZs of their flag States within the IOTC area of competence. The data recording systems for developing CPCs vessels less than 24 metres operating within the EEZ of coastal States are subject to Paragraph 12. The vessels of less than 24 metres operating within the EEZ of developed CPCs shall apply this measure.
3. All vessels shall keep a bound paper or electronic logbook to record data that includes, as a minimum requirement, the information and data in the logbook set forth in **Annex I, II and III**.
4. Each flag CPC shall submit to the IOTC Executive Secretary by 15 February 2014 a template of its official logbooks to record data in accordance with **Annex I, II and III**, for publishing on the IOTC website to facilitate MCS activities. For CPCs that use electronic logbook systems, a copy of the applicable regulations implementing the electronic logbook system in that CPC, a set of screen captures and the name of the certified software may be provided. If changes are made to the template after 15 February 2014, an updated template shall be submitted.
5. Where the logbook is not in one of the two languages of the IOTC, CPCs shall provide a complete field description of the logbook in one of the two languages of the IOTC together with the submission of the sample of the logbook. The IOTC Executive Secretary shall publish the sample of the logbook and the field description on the IOTC website.
6. **Annex I** includes information on vessel, trip and gear configuration for purse seine, longline, gillnet and pole and line, and shall only be completed once for each trip, unless the gear configuration changes during the trip.
7. **Annex II** contains information for purse seine, longline, gillnet and pole and line operations and catch, which shall be completed for each set/shot/operation of the fishing gear.
8. **Annex III** contains specifications for handline and trolling gears.
9. The logbook shall be completed by the Master of the fishing vessel and submitted to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. Only the part of the logbook corresponding to the activity deployed in the coastal State EEZ shall be provided to the coastal State administration where the vessel has fished in that coastal State's EEZ.
10. The Flag State and the States which receive this information shall provide all the data for any given year to the IOTC Secretariat by June 30th of the following year on an aggregated basis. The confidentiality rules set out in [Resolution 12/02 Data Confidentiality Policy and Procedures](#) for fine-scale data shall apply.
11. Noting the difficulty in implementing a data recording system on fishing vessels from developing CPCs, the data recording systems for vessels less than 24 metres of developing CPCs operating inside the EEZ shall be implemented progressively from 1 July 2014.
12. The Commission shall consider development of a special program to facilitate the implementation of this Resolution by developing CPCs. Furthermore, developed and developing CPCs are encouraged to work together to identify opportunities for capacity building to assist the long-term implementation of this Resolution.
13. This Resolution supersedes Resolution 12/03 *On The Recording Of Catch And Effort By Fishing Vessels In The IOTC Area Of Competence*.

ANNEX I
Record once per trip (unless gear configuration changes)

1.1 REPORT INFORMATION

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

1.2 VESSEL INFORMATION

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

1.3 CRUISE INFORMATION

For multiday fishing operations record the:

1. Departure date (at your location) and port
2. Arrival date (at your location) and port

1.4 OTHER REQUIRED INFORMATION**Longline (Gear Configuration):**

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

Purse Seine:**(Gear configuration):**

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

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

(Search information):

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

Gillnet (Gear Configuration):

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

Pole and line (Gear Configuration):

1. Number of fishermen

ANNEX II**Record once per set/shot/operation**

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

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

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

2.1 OPERATION**For longline:**

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

For purse seine:

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

3. Position in latitude and longitude and time of event, or if no event during the day, at noon
4. If fishing set: specify if the set was successful, nil, well; type of school (free swimming school or FAD associated. If FAD associated, specify the type (e.g. log or other natural object, drifting FAD, anchored FAD, etc.). Refer to the [Resolution 13/08 Procedures on a fish aggregating devices \(FADs\) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species](#)
5. Optionally, sea surface temperature at noon with one decimal point (XX.X°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)	
		Thresher sharks (<i>Alopias</i> spp.)	THR
		Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
		Optional species to be recorded	
		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	

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>)		Thresher sharks (<i>Alopias</i> spp.)	THR
Other IOTC species		Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
	SKJ	Optional species to be recorded	FAO code
		Silky sharks (<i>Carcharhinus falciformis</i>)	FAL
		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

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

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	SKH
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	Thresher sharks (<i>Alopias</i> spp.)	THR
Marlins (<i>Tetrapturus</i> spp, <i>Makaira</i> spp.)	BIL	Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
Southern bluefin tuna (<i>Thunnus maccoyii</i>)	SBF	Optional species to be recorded	
		Tiger shark (<i>Galeocerdo cuvier</i>)	TIG
		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

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

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

3. Other information is also written in the remarks

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

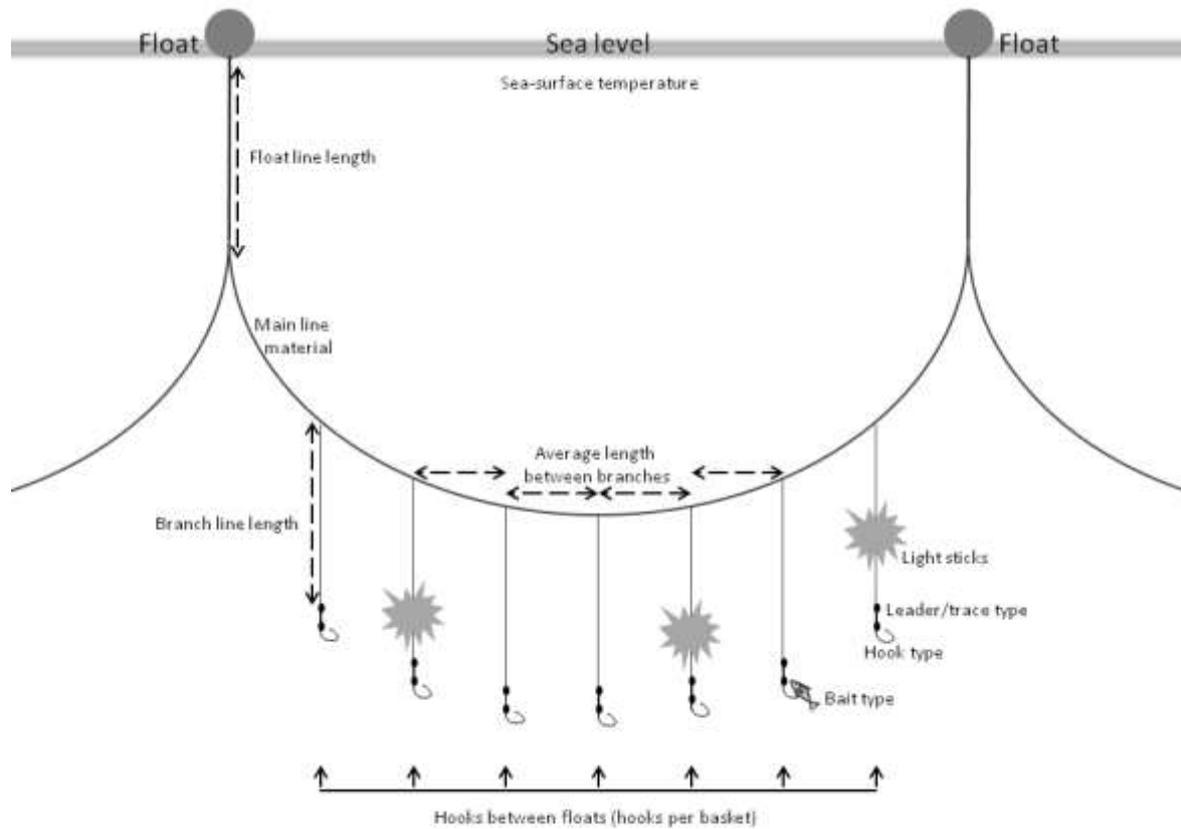


Figure 1. Longline (Gear Configuration): Average branch line length (meters): straight length in meters between snap and hook.

ANNEX III
Specifications for handline and trolling

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

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

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

I - HANDLINE

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

Record once in one cruise, or month where daily operation

1.1 REPORT INFORMATION

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

1.2 VESSEL INFORMATION

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

1.3 CRUISE INFORMATION

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

2.1 OPERATION

1. Date of fishing
Record the date of fishing. Each fishing day should be recorded separately
2. Number of fishermen
Record the number of fishermen on the boat by fishing day
3. Number of Fishing Gear
Record the number of fishing lines used during the fishing day. If the exact number is not available a range may be used i) 5 or less lines, ii) 6–10 lines; iii) 11 or more lines
4. Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished
Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day
5. Position of the catch
Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port

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

6. Bait

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

2.2 CATCH

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

1. Catch number and/or Weight

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

2. Discard number and/or Weight

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

2.3 SPECIES

Primary Species	FAO code
Yellowfin tuna (<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
Bigeeye 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.

APPENDIX B

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)*.