

IOTC Regional Observer Scheme (ROS) Data Collection Fields

The format in which these data fields will be collected by observers is for individual observer programmes to decide. However standard forms developed specifically for the IOTC ROS are available for use¹.

Three types of data fields are provided below:

Mandatory Reporting (MR). Data fields marked ‘MR’ are to be reported to the IOTC Secretariat.

Optional Reporting (OR). Data fields marked ‘OR’ are to be reported to the IOTC Secretariat when they have been collected by the national programme.

Suggested Collection (---). Data fields marked ‘---’ should ideally be collected by national programmes, based on best practice as agreed by the IOTC, but do not need to be reported to IOTC.

For data fields that are reported to IOTC:

- ☐ All dates should be reported as YYYY/MM/DD regardless of the format in which they were collected.
- ☐ All times should be reported in UTC² (hh:mm) regardless of the time zone and format in which they were collected.
- ☐ All positions should be reported as dd°mm,m’ indicating if north or south of the equator (regardless of the format in which they were collected).
- ☐ All units of measurement should be clearly indicated.

GENERAL VESSEL AND TRIP INFORMATION FOR ALL VESSEL TYPES

Data field name	Data field description	Rep. Req.
Observed trip number	Record trip unique identifier. This is the observed trip unique identifier. This should begin with trip’s start date (YYYY-MM-DD), followed by IOTC observer number, and vessel main gear code as per IOTC classification (E.g. 2018/01/23-IOTCFRA001-PS).	MR
OBSERVER IDENTIFICATION		
Observer IOTC registration number	Record observer registration number allocated by the IOTC Secretariat to be used on all observer data submissions.	MR
Observer name	Record the name of the scientific observer(s) that collected the data on-board the fishing vessel. <i>Note: print in full. First name First - Last name Last (do not use initials).</i>	---
Observer nationality	Record the nationality of the scientific observer as it appears in passport (<i>Table 9Error! Not a valid result for table.</i>).	---
OBSERVER TRIP DETAILS		
Location of embarkation	Record the name and/or geographical coordinates of the port where the observer boarded the vessel – also include the country. If the observer embarked via a port launch within port limits, this is still recorded as a port embarkation. If the observer embarked at sea outside port limits via a vessel transfer, record “at sea” and record the position in Latitude and Longitude. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably ±(d)dd.dddd°).</i>	---

¹ <http://www.iotc.org/science/regional-observer-scheme-science>

² Coordinated Universal Time

Date / time embarkation	Record the date and time that the observer boarded the vessel. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	---
Location of disembarkation	Record the name and/or geographical coordinates of the port where the observer disembarked – also include the country. If the observer disembarked via a port launch within port limits then this is still recorded as a port of disembarkation. If the observer disembarked at sea outside port limits via a vessel transfer, record “at sea” and record the position in Latitude and Longitude. <i>Note: Latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	---
Date / time disembarkation	Record the date and time that the observer disembarked from the vessel. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	---
VESSEL IDENTIFICATION		
Name of the vessel	Record the vessel full name as recorded on vessel official documentation and crosschecked with the name recorded on the vessel itself (any discrepancies are to be reported to the IOTC Secretariat). <i>Note: care should be taken to record the correct spelling of the vessel's name including any corresponding numbers. i.e. “Agnes 83”.</i>	MR
Vessel flag state (or where chartering occurs, chartering state) ³	Record the name of country in which vessel is registered as shown on its registration documents (Table 9). Where chartering occurs, record name of the chartering country. <i>Note: vessel flag state (or chartering state when chartering occurs) may not be the same as the nationality from which the vessel originates.</i>	MR
Vessel IOTC number	Vessel IOTC number as per the IOTC Record of Authorized Vessels ⁴ and crosschecked with the number recorded on vessel certificates. <i>Note: any discrepancies are to be reported to the IOTC Secretariat.</i>	MR
Vessel IMO or Lloyd's number	Record vessel IMO number. This is the number allocated to the vessel when registered to the International Maritime Organization of the United Nations (e.g.: IMO8814275).	OR
International radio call sign (IRCS)	Record vessel radio call sign if available. This is the number displayed prominently on the vessel's side or superstructure.	---
Vessel port of registration	Record the name of vessel's port of registry (also called home port) shown on its registration documents and lettered on the stern of the ship's hull – also include the country.	MR
Vessel registration number	Record the number issued by country in which the vessel is registered, shown on its registration documents and written on the hull of the vessel. This may be a combination of characters and numbers; record them all (e.g.: CBG303).	---
Vessel phone, fax and email	When available, record vessel contact details, taking note of the ocean region code. A vessel may have several contact numbers and email addresses depending on the satellite communications systems installed onboard; record them all.	---
Licensed target species	Record licensed target species (FAO spp. 3-alpha code) as specified in vessel licences or permit conditions (Table 1, Table 2, Table 3, Table 4, Table 8). Vessels will generally target a narrow range or aggregation of species, however one or more might not be an IOTC species; record them all.	OR
Main fishing gear	Record vessel main fishing gear (Table 10).	---
VESSEL OWNER AND PERSONNEL		

³ IOTC Res. 18/10⁴ <http://www.iotc.org/vessels/current>

Registered owner	Record the owner's name, nationality (Error! Not a valid result for table.) and contact details in full. These can be obtained or cross-checked on the vessel registration forms.	---
Charterer / operator	Where the vessel has been chartered and is operated and managed by a company other than the owner, record operator's full name (company or individual as appropriate), nationality (Error! Not a valid result for table.) and contact details.	---
Fishing Master	Record the fishing master name and nationality in full (Error! Not a valid result for table.).	---
Skipper	Record skipper name and nationality in full (Error! Not a valid result for table.). <i>Note: in some instances the fishing master and skipper may be the same person. In such cases record here "N/A" for not applicable.</i>	---
Crew number	Record the number of crew. This should be cross checked against the vessel's crew list.	---
VESSEL TRIP DETAILS		
Port of departure	Record the name and/or geographical coordinates of the port from where the vessel sailed – also include the country. If the vessel started a new trip at sea following transshipment record 'at-sea' plus the geographical coordinates corresponding to the location the trip started. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	---
Date / time vessel sailed	Record the date and time the vessel departed from port or from a transshipment location. <i>Note: specify units (preferably YYYY/MM/DD and hh:mm).</i>	---
Port of return	Record the name and/or geographical coordinates of the port where the vessel returned – also include the country. If the vessel arrived at a transshipment location record 'at-sea' plus the geographical coordinates corresponding to the location the transshipment started. If the observer disembarked before the vessel returned then record expected port of return as provided by the vessel. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	---
Date / time vessel returned to port	Record the date and time the fishing vessel finishes its fishing campaign. i.e. returns to port or to a transshipment location for unloading. If the observer disembarks before the vessel returns then record expected date and time of arrival (ETA) as provided by the vessel. <i>Note: specify units (preferably YYYY/MM/DD and hh:mm).</i>	---
VESSEL ATTRIBUTES		
Tonnage	The vessel tonnage as specified in vessel registration papers. <i>Note: specify units, i.e. if the vessel is registered using Gross Tonnage (GT) or Gross Registered Tonnage (GRT).</i>	MR
Length overall	The vessel overall length (LOA) as specified in vessel registration papers. <i>Note: specify units (preferably metres).</i>	MR
Hull material	Record the vessel hull material (s) (steel, wood, aluminium, fibre glass, etc.) (Table 11).	MR
Main engines (make and power)	The make (brand) and power of the main engines. <i>Note: specify units (HP, Kilowatt or BHP).</i>	MR
Fish storage capacity	The vessel total maximum capacity to store catches. This should include blast freezer(s) capacity.	MR

	<i>Note: specify units (metric Tons (mT.) or cubic metres (m³)).</i>	
Fish preservation methods	Fish preservation methods: Record the method(s) used by the vessel to preserve the catch (<i>Table 12</i>).	---
Fish storage type	Record the type of structure(s) present on-board used by the vessel to store the catch (<i>Table 13</i>).	---
Vessel autonomy / range	Record vessel autonomy, expressed by the time (days) a vessel can spend at sea without refuelling. If this information is not available then record vessel range expressed in cruising distance (nautical miles). If a figure for the range cannot be obtained, the observer should calculate vessel range as follows. $\text{<Vessel range (nm)>} = \text{<Vessel average cruising distance per metric ton (nm/mT)>} : \text{<Tonnage of fuel carried (mT)>}$ <i>Note: specify units(days or nautical miles)</i>	---
VESSEL ELECTRONICS		
Global Positioning System (GPS)	Indicate Yes if on board No if not sighted. <i>Note: a GPS may be an independent unit or linked or incorporated into track plotters and acoustic systems.</i>	MR
Vessel Monitoring Systems (VMS)	Indicate Yes if on board No if not sighted	MR
Radars	Indicate Yes if on board No if not sighted. <i>Note: include high frequency radars used by the vessel to search for seabird activity or activity on the sea surface.</i>	MR
Track Plotter	Indicate Yes if on board No if not sighted	MR
Depth Sounder	Indicate Yes if on board No if not sighted	MR
Sonar	Indicate Yes if on board No if not sighted	MR
Doppler Current Meter	Indicate Yes if on board No if not sighted <i>Note: acoustic doppler current meter is used to ascertain current speed.</i>	MR
Expendable bathythermographs (XBT)	Indicate Yes if on board No if not sighted. XTBs are usually mounted on the bridge wings. <i>Note: XTBs are periodically used to determine the depth of the thermocline.</i>	MR
VHF radios	Indicate Yes if on board No if not sighted	---
HF radios	Indicate Yes if on board No if not sighted	---
Satellite communication systems	Indicate Yes if on board No if not sighted.	---
Sea Surface Temperature (SST) gauge	Indicate Yes if on board No if not sighted. SST gauge is usually mounted on the bridge. <i>Note: the vessel may also have access to SST charts received from Fisheries Information Services systems.</i>	---
Weather facsimile	Indicate Yes if on board No if not sighted. <i>Note: weather information may also be received from Fisheries Information Services systems.</i>	---
Fisheries information services	Indicate Yes or No if the vessel has access to a Fisheries information service. <i>Note: Vessels may access fishery information services for instant information on weather and oceanographic features (SST, phytoplankton densities or sea height).</i>	---
WASTE MANAGEMENT (MARPOL Agreement Annex 5)		

Waste category	Record the category of the waste produced by the vessel (<i>Table 14</i>).	OR
Storage/Disposal method	Record how the waste was disposed of (<i>Table 15</i>). <i>For example, incinerated, stored in sacks or disposed of overboard.</i>	OR
OBSERVED TRIP SUMMARY		
Number of fishing events/sets conducted by the vessel while the observer was on-board.	Record the total number of fishing events/sets conducted by the vessel while the observer was on-board, independently of their success and of being sampled or not by the observer. <i>Note: this should not include pole and line bait fishing events/sets.</i>	MR
Number of fishing events/sets observed	Record the total number of fishing sets/events monitored by the observer. <i>Note: this should not include pole and line bait fishing events/sets.</i>	MR
Number of days searching	Record the total number of days that the vessel was engaged in actively searching for fish (this includes active fishing days).	MR
Number active fishing days	Record the total number of days that the vessel actually fished (i.e. when the vessel had gear in the water). <i>Note: for some fishing events this may be for only a few hours of the day. Alternatively a single fishing event/set may span part of two days.</i>	MR
Number of days lost	Record the total number of days where a vessel was unable to fish due to factors such as adverse weather conditions, mechanical failure or other unforeseen events.	MR
Reason(s) for days lost	Record the reason(s) a vessel was unable to fish: (i) adverse weather conditions, (ii) mechanical breakdown or inoperative gear or (iii) unforeseen events (specify).	OR
Number of days in the fishing area	Record the number of days the vessel spent in the fishing area while the observer was onboard. This does not include transit time even if the area being transited is within the fishing area.	---
Number of days transiting	Record the number of days the vessel spent steaming or transiting to/between/from fishing areas while the observer was onboard.	---

LONGLINE INFORMATION

Gear specifications⁵

Data field name	Data field description	Rep. Req.
SPECIAL EQUIPMENT OR MACHINERY		
Line setter	Indicate Yes if on board No if not sighted. Many long line vessels will be fitted with equipment or machinery that regulates line setting speed allowing the line to be set at uniform depth.	MR
Line hauler	Indicate Yes if on board No if not sighted. Most long line vessel will be fitted with equipment or machinery that hauls the line in after it has been set.	MR
Bait casting machine	Indicate Yes if on board No if not sighted. Most vessels manually deploy branch lines with the bait. However there are a number of vessels that use automatic bait casting machines.	MR
GENERAL GEAR ATTRIBUTES		
Mainline material	Record the material the mainline is made out of, e.g. kevlar, nylon, nylon multifilament (<i>Table 16</i> Error! Not a valid result for table.).	MR
Mainline length	Record the total length of the mainline (i.e. mainline maximum length). This information can be obtained from the Captain or Fishing Master. <i>Note: specify units (preferably 'Kilometres')</i>	MR
Mainline diameter	Record the diameter of the mainline. This information can be obtained from the Captain or crew and crosschecked by measuring mainline diameter with callipers. <i>Note: specify units (preferably 'millimetres')</i>	---
Branchline configuration number	Unique number for a specific branchline specification as detailed based on the fields below.	MR
Branchline material	Record the branchline material for each of the four sections where section 1 is that closest to the mainline and section 4 is the leader; note that wire trace may be sheathed by a plastic or nylon coating (<i>Table 16</i>).	---
Branchline length	Record the length of the branchline for each of the four sections where section 1 is that closest to the mainline and section 4 is the leader. <i>Note: specify units (preferably 'metres')</i>	MR
Branchline diameter	Record the diameter of the branchline for each of the four sections where section 1 is that closest to the mainline and section 4 is the leader. <i>Note: specify units (preferably 'millimetres')</i>	MR
Branch line storage	Record if the branch lines are coiled up and packed into baskets (BSK), or layered out in tubs (TBS), or coiled up onto reels (RLS).	---
MITIGATION DEVICES		
DMDs used	Record depredation mitigation device/s DMDs used by the vessel (if any) (<i>Table 37</i>).	---
TORI LINE DETAILS	If the vessel was equipped with a tori line provide tori line details below. If no tori line was present on-board fill in NA for not applicable.	
Tori line length	Record the total length of the tori line (not including streamers). <i>Note: specify units (preferably metres)</i>	MR

⁵ Information designed to capture detailed specifications of the different components of the longline gear used by the vessel.

Streamer type	Indicate the type of streamers which are used with the tori line (e.g. paired or single)	MR
Streamer line length	Record length of individual streamer lines (minimum and maximum where lengths vary). Record only one length if they do not vary. <i>Note: specify units (preferably metres)</i>	MR
No. streamers per line	Record the number of streamers that are attached to a single tori line	MR
Distance between streamers	Record the distance between streamers. <i>Note: specify units (preferably metres)</i>	---
Attached height	Record the height at the tori line is attached above the water level. <i>Note: specify units (preferably metres)</i>	MR
Streamers reach surface	Indicate Yes if the streamers are long enough to touch the surface of the water in calm conditions and No if they are not.	---
Towed objects	Record the total number and type of towed objects used to maintain tori line tension and achieve aerial extent when deployed.	---
Diagram	Sketch/complete a diagram containing Tori line key features (e.g. Fig. 1 of IOTC Resolution 12/06).	---

Fishing event⁶

Data field name	Data field description	Rep. Req.
Set number	Record set number. This should be a four digit numerical code beginning 0001. Set numbers should be consecutive from the start of the first line set to the last line set of the observed trip. A unique number is to be allocated to each individual set.	MR
SETTING OPERATIONS		
Start setting date and time	Record the date and the time the first dhan buoy and / or radio buoy is deployed to start the setting of the line. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR
Start setting position	Record the position in latitude and longitude for the start of the setting operation <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^\circ$).</i>	MR
End setting date and time	Record the date and the time that the last dhan buoy and / or radio buoy is deployed. Longline vessels often set lines at the night and the setting operation may continue beyond midnight and into the following day. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR
End Setting Position	Record the position in latitude and longitude for the end of the setting operation <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^\circ$).</i>	---
Vessel speed	Record the vessel's average speed during setting (knots). <i>Note: Collect vessel speed from the GPS several times during the operation and take the average.</i>	---
Line setter speed	Record the speed setting of the line setter (metres/second).	---
Length of mainline set	Record mainline total set length (i.e. the total deployed length of the mainline for the specific set). Usually calculated by multiplying the total time to set the line and the average line setter speed, taking into account any interruption times. This	MR

⁶ Information required for every set/operation.

	information can be obtained from the Fishing Master and cross checked against observer calculations. <i>Note: specify units (preferably in Kilometres).</i>	
Branchline clip on time	Record the average time interval in seconds between the “beeps” that indicate to the crew to clip on a branch line. <i>Note: the timing of this is usually controlled by the Fishing Master.</i>	---
Buoys clip on time	Record the average time interval in seconds between the “beeps” that indicate to the crew to clip on a buoy. <i>Note: the timing of this is usually controlled by the Fishing Master.</i>	---
Total number of hooks set	Record the total number of hooks deployed for the set. Usually calculated by multiplying number of baskets by the average number of hooks between the baskets. This information can be obtained from the Fishing Master and cross checked against observer calculations. <i>Note: total length of line set and spacing between branch lines can also be used to determine the number of hooks set.</i>	MR
Total number of floats set	Record the total number of floats deployed during the set (this should not include the radio/dhan buoys). Usually calculated by subtracting the number of buoys in their holders before setting by the number of buoys in their holders after setting. This information can be obtained from the Fishing Master and cross checked against observer calculations.	---
N° of hooks set between floats	Record the number of hooks set between floats. This will correspond to the number of hooks stored in each basket/tub, or on a reel and will be equivalent to the number of branch lines set.	---
Distance between branchlines	Record the distance between branch lines (i.e. the interval at which they were set along the mainline) in metres. Usually calculated by multiplying ‘Branch line clip on time (s)’ by the ‘line setter speed’ (m/s).	---
Floatline lengths (1, 2 and 3)	Record the different lengths of the floatlines used (1, 2 and 3). <i>Note: specify units (preferably metres).</i>	---
Total radio/dhan buoys set	Record the total number of radio and /or dhan buoys deployed.	---
Attached lights	Record number of lights attached to the branchlines per type (Table 22) and colour (Table 23)."	---
Shark lines set	Indicate Y or No if shark lines were set during the operation. <i>Note: shark lines are branch lines running directly off the longline floats or drop lines, specifically for targeting sharks.</i>	MR
N° of shark lines set	Record the number of shark lines set during the operation. If no shark lines are set then record zero (0).	---
Target species	Record the target species for the set (FAO spp. 3-alpha code), (Table 1, Table 2, Table 3 and Table 4).	MR
VMS on	Indicate Y or No to sign if the VMS was on or not while setting and hauling.	OR
Mitigation measures		
Number of Tori lines deployed	The total number of tori lines deployed during the setting operation. Record zero if none were deployed.	MR
Low light night setting	Indicate Y or No for whether minimum deck lighting is used during night setting (as defined in Table 1. Mitigation measures of IOTC Res 12/06). <i>Note: night setting is binary. i.e. if all hooks are set between dusk and dawn, then night setting was used. If some hooks are set outside of nautical darkness, then night setting was not used.</i> [Consistent with IOTC Res 12/06]	MR

Branchline weighted	Indicate Yes or No if the branch line is weighted. [Consistent with IOTC Res 12/06]	MR
Sinker average weight	Record the average weight of weights or sinkers attached to the branchlines (weights deployed on the snood prior to setting). <i>Note: specify units (preferably grams (g)).</i> [Consistent with IOTC Res 12/06]	MR
% branchlines weighted	Record the proportion of branchlines weighted (%). If all weighted, record 100%.	MR
Hook-sinker distance	The distance of the weights/sinkers from the eye of the hook. <i>Note: specify units (preferably centimetres (cm)).</i>	MR
Underwater setting	Indicate Yes or No if the bait is protected on the branchlines until they are a certain depth below the surface.	---
Other mitigation measures used	Record any other mitigation measures observed (<i>Table 37</i>).	---
N° of branchlines set by type	Record the number of branchlines set by type (branchline configuration number_). Branchline types must be in accordance to types previously defined under the “Gear specifications” section.	---
Hook type	Record the type of hooks used (<i>Table 17</i>).	MR
% hooks set by type	Record the percentage (%) of hooks set by type. [As per SC20.23 recommendations]	MR
Variations in hook type ⁷	Where possible indicate any variations in hook type, hook material and presence/absence of hook ring (<i>Table 17</i>).	---
Bait type	Record bait type/condition used (<i>Table 25</i>).	MR
Bait species	Record the species of bait used (FAO spp. 3-alpha code) (<i>Table 8</i>).	MR
Bait ratio (%)	Record the approximate proportion of bait species and condition used across all hooks in the set (%).	MR
Bait dye colour	Record the colour or colours that the different baits are dyed (e.g. blue to avoid bird bycatch). If none, write NONE.	---
HAULING OPERATIONS		
Start hauling date and time	Record the date and the time when the first dhan buoy and / or radio buoy is hauled back on-board to start hauling the line. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR
Start hauling position	Record the position in latitude and longitude for the start of the hauling operation. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^{\circ}$).</i>	MR
End hauling date and time	Record the date and the time when the last component of the longline gear (dhan buoy and / or radio buoy) is hauled back on-board. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	---
End hauling position	Record the position in latitude and longitude for the end of the hauling operation. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^{\circ}$).</i>	---

⁷ Hooks used in pelagic fisheries are correctly identified and characterised based on type, type variations, material and presence/absence of hook ring. Standardization of hook types and characteristics is therefore very important for data recording and analysis and for scientific studies on their effects on catch rates and post-capture survival.

Offal management	Record fate given to the offal (fish heads, guts, etc.) and bait produced during the observed set. Indicate if these are retained for batch disposal (BD) at a later stage and/or disposed of ad hoc (AH) as they accumulate.	---
Position of offal disposal	Record the position where offal and used bait was disposed. Indicate if these are disposed at port side (BB), starboard (SB) or aft (AF).	---
Method/s to stun fish	Record the method/s used to stun fish during hauling (<i>Table 24</i>).	---
Bird scaring device at hauler	Indicate Yes if a bird scaring device was deployed during hauling operations and No if not. <i>Note: report on the construction and effectiveness of all devices used in the comments section and trip report.</i>	---
Number of bite-offs (by branchline type)	Record for each type of branchline set up previously identified how many have had the hook bitten off. This only includes bite-offs observed while the observer was in a position to observe and record the hooks coming directly out of the water.	---
Number of retrieved hooks observed	Record the number of hooks observed.	MR
Sampling protocol	Indicate sampling protocol followed by the observer (<i>Table 38</i>).	MR
CATCH DETAILS		
Set number	Unique within a specific trip	MR
Catch detail number	Unique within a specific set	MR
Species	Record the species code for each specimen observed using FAO three figure alpha codes (<i>Table 1, Table 2, Table 3, Table 4, Table 5, Table 6 and Table 7</i>). If species FAO code is not available, record the species scientific name. <i>Note: Record "unknown" for species that cannot be positively identified and give it a reference number. Use the same reference number throughout the trip for that species. Retain a sample and / or take a photograph of the unidentified organism for latter identification.</i>	MR
Fate	Specify the fate which includes whether it was retained or discarded and the reason, e.g. "Discarded – too small" (<i>Table 41</i>).	MR
SPECIMEN INFORMATION		
Set number	Unique within a specific trip	MR
Catch detail number	Unique within a specific set	MR
Specimen number	Unique within a specific catch detail	MR
Depredation details	[In agreement with SC18.16 (para. 53)]	
Depredation source	For depredated specimens, record the depredation source based on depredation scar characteristics (<i>Table 44</i>). For non-depredated specimens record NA.	MR
Predator Observed	For depredated specimens, record the predator species directly observed and identified (FAO spp. 3-alpha code). If the predator was not observed record UNK (unknown). For non-depredated specimens record NA. <i>Note: species observed in the area may not necessarily be associated with depredation unless directly observed. Similarly for shark and squid damage the species may be difficult to determine.</i>	MR
Additional details on non-target species	Catch details on non-target species to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	

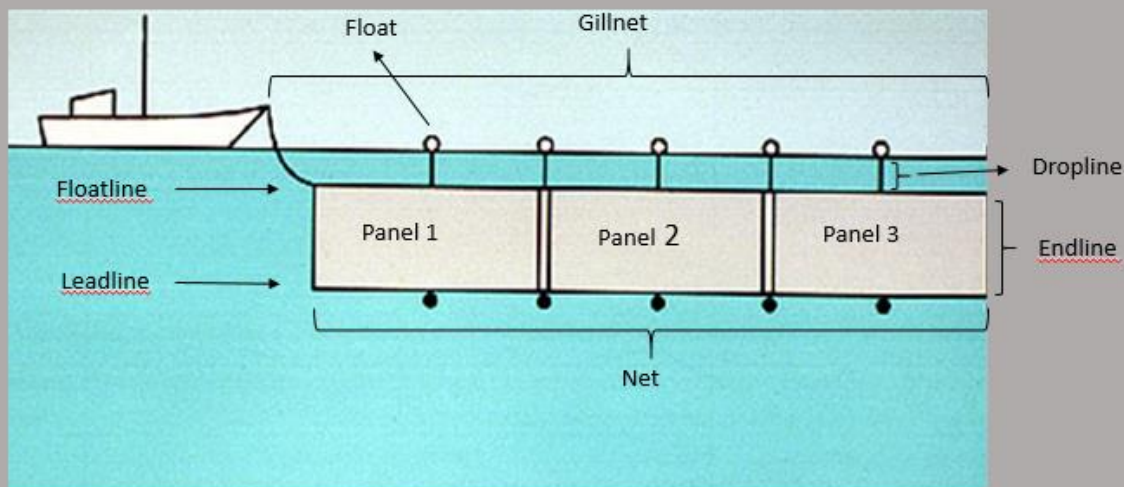
Condition at capture	State the condition of the specimen at capture (Table 45Table 44. Depredation source <table border="1" data-bbox="406 300 992 837"> <thead> <tr> <th>Code</th><th>English Description</th><th>French Description</th></tr> </thead> <tbody> <tr><td>SH</td><td>Shark</td><td>Requin</td></tr> <tr><td>TW</td><td>Toothed whales</td><td>Baleines à dents</td></tr> <tr><td>SW</td><td>Sharks/toothed whales</td><td>Requins / baleines à dents</td></tr> <tr><td>MM</td><td>Marine mammal</td><td>Mammifère marin</td></tr> <tr><td>CC</td><td>Cookie-cutter shark</td><td>Requin emporte-pièce</td></tr> <tr><td>BA</td><td>Depredation on bait</td><td>Depredation sur appât</td></tr> <tr><td>SQ</td><td>Squid</td><td>Calamar</td></tr> <tr><td>SB</td><td>Birds</td><td>Des oiseaux</td></tr> <tr><td>OT</td><td>Other (specify)</td><td>Autre (précisez)</td></tr> <tr><td>UNK</td><td>Unknown</td><td>Inconnu</td></tr> </tbody> </table> Table 45).	Code	English Description	French Description	SH	Shark	Requin	TW	Toothed whales	Baleines à dents	SW	Sharks/toothed whales	Requins / baleines à dents	MM	Marine mammal	Mammifère marin	CC	Cookie-cutter shark	Requin emporte-pièce	BA	Depredation on bait	Depredation sur appât	SQ	Squid	Calamar	SB	Birds	Des oiseaux	OT	Other (specify)	Autre (précisez)	UNK	Unknown	Inconnu	OR
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Additional catch details on SSIs	Additional catch details on Species of Special Interest (Table 46) to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.																																		
Gear interaction	For SSI only, specify the type of interaction of the specimen with the fishing gear (Table 47).	OR																																	
Hook type	For SSI only, record the type of hook the individual was hauled on (Table 17) [Consistent with IOTC Res 12-04]	OR																																	
Bait type	For SSI only, record the type/condition of bait the individual was hauled on (Table 25). [Consistent with IOTC Res 12-04]	OR																																	

Leader material	For SSI only, record the leader material the individual was hauled on (<i>Table 16</i>). [Consistent with IOTC Res 12-04 and IOTC Res. 17/05]	OR
Leader thickness	For SSI only, record the thickness of the leader the individual was hauled on. <i>Note: precise units (preferably millimetres (mm)).</i> [Consistent with IOTC Res 12-04 and IOTC Res. 17/05]	OR
De-hooker/line cutter	Specify de-hooking or line cutting device used to extract the hook (<i>Table 49</i>). [Consistent with IOTC Res 12-04]	OR
Brought on board	Indicate Yes or No, if the specimen was brought on board. [Consistent with IOTC Resolutions 13/04; 13/05; 12/04; 12/06; 12/09]	OR
Hauling method	Detail how the specimen was brought on-board (<i>Table 48</i>). [Consistent with IOTC Res 12-04]	OR
Resuscitation (for turtles only)	For turtles indicate Yes if the release took place with resuscitation and No if not.	---
Photo ID	If a photo is taken, record photo number/code so that it can be linked back to the specimen for onshore examination.	---
BIOMETRIC INFORMATION		
Details concerning any extra biometric measurements, sex, maturity and the collection of biological samples.		
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample (<i>Table 40</i> Error! Not a valid result for table.).	MR
Length code 1	Specify the length code used for the measurement (<i>Table 52</i>).	MR
Length 1	Record the length corresponding to the length type taken rounded to the lower centimetre.	MR
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded (<i>Table 52</i>).	OR
Length 2	When an additional length measurement is taken, the corresponding length should be recorded rounded to the lower centimetre.	OR
Weight code	Record the code corresponding to the type of processing the specimen underwent prior to weighing (<i>Table 43</i>).	OR
Weight	Record the specimen's weight (in kilograms) corresponding to the specified product type recorded in 'weight code'. If the fish has not been processed, record the unprocessed (or round, whole, live) weight (i.e. RD).	OR
Weight estimation method	Specify the weight estimation method used to obtain the weight (<i>Table 42</i>).	OR
Sex	Record the sex of the sampled fish specimen (<i>Table 50</i>). If unknown record UNK.	OR
Maturity stage ⁸	Record the stage of maturity of the sampled fish specimen according to standard maturity scales approved by the IOTC. If unknown record UNK.	OR
Sample collected	Record the following details on the collection of samples: a) type (e.g. otoliths, spine clippings, and genetic samples) b) preservation method (e.g. alcohol, frozen, etc.) c) destination (i.e. location to be sent/stored)	OR

⁸ Until a standard maturity stage has been approved by the Scientific Committee, record both stage and scale used.

TAG DETAILS		
Note that all tagged specimens are to be identified to species level and to be sampled for length. Elasmobranches and turtles are also to be sexed and ascertained for maturity.		
Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR
Tag recovery	Indicate Yes or No, whether a tag was recovered from this individual.	MR
Tag number	Provide the tag number. If a turtle, provide both tag numbers (right and left flipper).	MR
Tag type	Record the type of tag used (<i>Table 51</i>).	MR
Tag finder	Record the name and contact details of the person who recovered the tag.	MR

GILLNET INFORMATION



Gillnet: A vertical panel(s) of netting suspended in the water column which may be attached to free floating buoys and/or a high flier at one end, and tied off to the vessel at the other end. Large mesh netting is stretched between a floatline at the top and a leadline at the bottom, and supported by vertical endlines, or up and down lines on each end. Panels of netting may be separated by a space or escape panel.

Net: A string of panels sewn together. The entire string may be referred to as "the net".

Panel: A section of continuous netting of exactly the same characteristics between two endlines (up and down lines).

Source: Scott.Fish.Inf.Pamp. Fig.30, p.40

Gear specifications

Data field name	Data field description	Rep. Req.
SPECIAL EQUIPMENT OR MACHINERY		
Net drum/hauler	Indicate Yes if on board No if not sighted. Vessels are normally equipped with a hydraulic net hauler; However they can also use net drums to both haul and store the net.	MR
GILLNET ATTRIBUTES		
Detail the specifications of each gillnet present on-board during the observed trip.		
Gillnet sequential number	Specify gillnet sequential number. <i>Note: a unique sequential number is allocated to link each gillnet to its specifications. Any changes to individual gillnet specifications are to be considered a change of gillnet and the "new" gillnet will need to be characterised accordingly.</i>	MR
Total number of panels	Record the number of panels making up the net.	MR
Panels stacked	Indicate Yes or No if there are any panels stacked. <i>Note: stacked panels is defined as two or more panels of netting sewn together vertically, one on top of the other, to intentionally fish "double deep".</i>	MR

Net length	Record the net string length. Usually calculated by multiplying the panel average length by the number of panels used in the net. <i>Note: specify units (preferably kilometres)</i>	MR
Net depth	Record the vertical height of the net (depth). Usually obtained by measuring the length of the end-line, or up and down line, on the end of a net where the meshes are attached. This information may be used to cross check information provided by the crew. <i>Note: specify units (preferably metres)</i>	---
Net material	Record the material of the net webbing (<i>Table 18</i>).	---
Stretched mesh size(s)	Record the mesh average stretched lengths (knot to knot) and range. Usually calculated by measuring at least 10 meshes from 5 panels in different areas of the net. <i>Note: specify units (preferably millimetres)</i>	MR
Mesh count, vertical	Record the number of vertical meshes of a net in this gear. Usually obtained by counting the number of meshes of the end-line, or up and down line, on the end of a net where the meshes are attached. This information may be used to cross check information provided by the crew.	---
Hanging ratio (%)	Record the ratio between the length of the float line and the length of the stretched mesh hanging on the float line. Usually obtained by the following process: 1) counting 10 or 12 meshes horizontally, 2) multiplying the number of counted meshes by average stretched mesh length; 3) measuring the length of the floatline they are attached to, 3) dividing the length of the floatline the meshes are attached to by the length of the stretched meshes counted (see e.g. below). Hanging ratio If a stretched mesh of: 10 cm... ...is hung in the line at:	MR
Net web colour	The colour(s) of the net webbing (<i>Table 19</i>). <i>Note: Different net colours can have an impact on cetacean and turtle bycatch as some colours are more visible than others.</i> [Consistent with SC16.24 (para. 53)].	MR
Float type	Record the type of buoyancy aid that is attached to the head-rope (<i>Table 20</i>).	---
Float number	Record an approximate total number of floats used on this gillnet. This number must include the number of floats across a space that may occur at the bridle at the end of a net. This information may be obtained from the crew.	---
Distance between floats	Record the average distance (measured along the head-rope) between the floats used on this gillnet. <i>Note: specify units (preferably metres).</i>	---
Droplines used	Indicate Yes if droplines are used in this gillnet and No if not.	---
Droplines length	If droplines are used in this gillnet, record the length of the droplines. Usually obtained by measuring the distance from the floats (at the water's surface) to	---

	the float-line. This information may be used to cross check information provided by the crew. <i>Note: specify units (preferably metres).</i>	
Sinker type	Record the sinker type (defined accordingly to the material they are made of) attached to the footrope (<i>Table 21</i>).	---
Sinker Number	Record an approximate total number of sinkers attached to footrope. If more than one type of sinker is used, record approximate total number of sinkers/weights per sinker type. This information may be obtained from the crew.	---
Sinker average weight	Record sinker average weight. If more than one type of sinker is used, record sinker average weight per sinker type. <i>Note: specify units (preferably kilograms).</i>	---

Fishing event

Data field name	Data field description	Rep. Req.						
Set number	Record set number. This should be a four digit numerical code beginning 0001. Set numbers should be consecutive from the start of the first line set to the last line set of the observed trip. A unique number is to be allocated to each individual set.	MR						
Gillnet sequential number	Specify gillnet used on this set by recording its sequential number. <i>Note: a unique sequential number is allocated to link each gillnets to its specifications.</i>	MR						
SETTING OPERATIONS								
Start setting date and time	Record the date and the time that first panel enters the water (i.e. start of the setting of the net). <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR						
Start setting position	Record the position in latitude and longitude for the start of the setting operation. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^{\circ}$).</i>	MR						
End setting date and time	Record the date and the time the gillnet is secured to the vessel, to an anchoring device, or completely deployed (i.e. end of net setting). Gillnet vessels often set dusk and the setting operation may continue beyond midnight and into the following day. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR						
End setting position	Record the position in latitude and longitude for the end of the setting operation <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^{\circ}$).</i>	---						
Vessel speed	Record the vessel's average speed in knots during setting. <i>Note: Collect vessel speed from the GPS several times during the operation and take the average.</i>	---						
Vertical set	Indicate the level the gillnet is set at vertically in the water column, i.e., if the net is set at the surface or sub-surface (<i>Table 27</i>).	MR						
Setting strategy	Indicate how the gillnet was set (<i>Table 29</i> <i>Table 29. Net setting strategy</i>) <table> <tr> <th>Code</th><th>English Descrip.</th><th>French Descript.</th></tr> <tr> <td>NAN</td><td>Net anchored (i.e. remains attached to</td><td>Filet ancré (c'est-à-dire attaché au</td></tr> </table>	Code	English Descrip.	French Descript.	NAN	Net anchored (i.e. remains attached to	Filet ancré (c'est-à-dire attaché au	MR
Code	English Descrip.	French Descript.						
NAN	Net anchored (i.e. remains attached to	Filet ancré (c'est-à-dire attaché au						

		boat or another anchoring method)	bateau ou à une autre méthode d'ancrage)		
	NDR	Net is left drifting	Filet est laissé à la dérive		
	GEN	Encircling	Encerclant		
	DOL	Dolphin associated	Dauphins associés		
	NTA	No tuna associated (blank set)	Pas de thon associé (coup nul)		
	SM	Seamount (common for P&L)	Mont sous-marin (commun pour PL)		
	UNK	Unknown	Inconnu		
	OTH	Other, record on comments	Autre, enregistrer sur les commentaires		
	Table 30. Tuna School first detection method				
	Code	English Descrip.	French Descript.		
	SV	Seen from vessel	Vu du navire		
	MB	Marked with beacon (instrumented buoy)	Marqué avec balise (bouée instrumentée)		
	BR	Bird radar	Radar à oiseau		
	AS	Acoustic – sonar / echo-sounder	Acoustique - sonar / sondeur		
	IV	Info. from other vessel	Info. d'un autre navire		
	OTH	Other (specify)	Autre (précisez)		
	RDR	Radar	Radar		
	UNK	Unknown	Inconnu		
	).				
Setting shape	Indicate the spatial configuration in which the gillnet was set (<i>Table 28</i>). <i>Note: gillnets can be set in a range of configurations such as pulled straight, in a semi-circle or v-shape as well as many others.</i>				---
Mitigation measures					
Mitigation measures	Indicate Yes or No if any bycatch mitigation devices were used during the set.				MR
Mitigation devices	Record any mitigation device(s) used during the set (<i>Table 37</i>).				---
HAULING OPERATIONS					
Start hauling date and time	Record the date and time at the start of net hauling. This is the time when the hauling equipment is put into gear or when the net starts being hauled. Vessels often haul nets in the early morning after a night soak period. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>				MR
Start hauling position	Record the position in latitude and longitude for the start of the hauling operation. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably ±(d)dd.ddd°).</i>				MR

End hauling date and time	Record the date and time at the end of net hauling. This is the time when the gillnet is completely retrieved and onboard the vessel. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	---
End hauling position	Record the position in latitude and longitude for the end of the hauling operation. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	---
Net condition	Indicate the condition of the net at haul-back, even if the condition was the same at setting (<i>Table 26</i>).	MR
Number of net panels retrieved	Record the total number of net panels retrieved at haul.	MR
Number of net panels observed	Record the total number of hauled net panels that are observed.	MR
Sampling protocol	Indicate sampling protocol followed by the observer to select which net panels to observe (<i>Table 38</i>).	MR
CATCH DETAILS		
Set number	Unique within a specific trip	MR
Catch detail number	Unique within a specific set	MR
Species	Record the species code for each specimen observed using FAO three figure alpha codes (<i>Table 1</i> , <i>Table 2</i> , <i>Table 3</i> , <i>Table 4</i> , <i>Table 5</i> , <i>Table 6</i> and <i>Table 7</i>). If species FAO code is not available, the species scientific name. <i>Note: Record "unknown" for species that cannot be positively identified and give it a reference number. Use the same reference number throughout the trip for that species. Retain a sample and / or take a photograph of the unidentified organism for latter identification.</i>	MR
Fate	Specify the fate which includes whether it was retained or discarded and the reason, e.g. "Discarded – too small" (<i>Table 41</i>).	MR
Sampling methods for obtaining total catch estimates per species	Indicate the sampling method used to obtain total catch estimates per species (<i>Table 39</i>).	MR
Number	Record the number of individuals per species for each specified fate. If weight is recorded, insert NA here (for large fish, record number of individuals).	MR
Weight	Record the weight corresponding to the specified species and fate category. If number of individuals is recorded, insert NA here (for small fish, record weight). <i>Note: specify units (preferably tons).</i>	MR
Weight estimation method	Indicate the weight estimation method used to collect weight (<i>Table 42</i>). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
Weight code	Record the type of processing the species underwent prior to weighing (<i>Table 43</i>). If the species has not been processed, record the code for unprocessed (or round, whole, live) weight (i.e. RD). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
Depredation details		
Depredation source	For depredated specimens, indicate the depredation source based on depredation scar characteristics (<i>Table 44</i>). For non-depredated specimens record NA.	MR

Predator Observed	For depredated specimens, record the predator species directly observed and identified (FAO spp. 3-alpha code). If the predator was not observed record UNK (unknown). For non-depredated specimens record NA. <i>Note: species observed in the area may not necessary be associated with depredation unless directly observed. Similarly for shark and squid damage the species may be difficult to determine.</i>	MR
SPECIMEN INFORMATION		
Set number	Unique within a specific trip	MR
Catch detail number	Unique within a specific set	MR
Specimen number	Unique within a specific catch detail	MR
Additional details on non-target spp.	Catch details on non-target species to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Condition at capture	State the condition of the specimen at capture (<i>Table 45</i>).	OR
Condition at release	State the condition of the specimen at the time of release (<i>Table 45</i>).	OR
Additional catch details on SSIs	Additional catch details on Species of Special Interest (<i>Table 46</i>) to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Gear interaction	For SSI only, specify the interaction of the specimen with the fishing gear (<i>Table 47</i>).	OR
Brought on board	Indicate Yes or No, if the specimen was brought on board. [Consistent with IOTC Resolutions 13/04; 13/05; 12/04; 12/06; 12/09]	OR
Hauling method	Specify how the specimen was brought on-board (<i>Table 48</i>). [Consistent with IOTC Res 12-04]	OR
Resuscitation (for turtles only)	For turtles indicate Yes if the release took place with resuscitation and No if not.	---
Photo ID	If a photo is taken, record photo number/code so that it can be linked back to the specimen for onshore examination.	---
BIOMETRIC INFORMATION		
Details concerning any extra biometric measurements, sex, maturity and the collection of samples.		
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample (<i>Table 40</i>).)	MR
Length code 1	Specify the length code used for the measurement (<i>Table 52</i>).	MR
Length 1	Record the length corresponding to the length type taken rounded to the lower centimetre.	MR
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded (<i>Table 52</i>).	OR
Length 2	When an additional length measurement is taken, the corresponding length should be recorded rounded to the lower centimetre.	OR
Weight	Record the weight corresponding to the specified species and fate category. If number of individuals is recorded, insert NA here (for small fish, record weight). <i>Note: specify units (preferably tons).</i>	OR

Weight estimation method	Indicate the weight estimation method used to collect weight (<i>Table 42</i>). <i>Note: If number of individuals is recorded, insert NA here.</i>	OR
Weight code	Record the type of processing the species underwent prior to weighing (<i>Table 43</i>). If the species has not been processed, record the code for unprocessed (or round, whole, live) weight (i.e. RD). <i>Note: If number of individuals is recorded, insert NA here.</i>	OR
Sex	Record the sex of the sampled fish specimen (<i>Table 50</i>).	OR
Maturity stage ⁹	Record the stage of maturity of the sampled fish specimen according to standard maturity scales approved by the IOTC. If unknown record UNK.	OR
Sample collected	Record the following details on the collection of samples: d) type (e.g. otoliths, spine clippings, and genetic samples) e) preservation method (e.g. alcohol, frozen, etc.) f) destination (i.e. location to be sent/stored)	OR
TAG DETAILS Note that all tagged specimens are to be identified to species level and to be sampled for length. Elasmobranches and turtles are also to be sexed and ascertained for maturity.		
Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR
Tag recovery	Indicate Yes or No, whether a tag was recovered from this individual.	MR
Tag number	Provide the tag number. If a turtle, provide both tag numbers (right and left flipper).	MR
Tag type	Record the type of tag used (<i>Table 51</i>).	MR
Tag finder	Record the name and contact details of the person who recovered the tag.	MR

PURSE-SEINE INFORMATION

Gear specifications

Data field name	Data field description	Rep. Req.
SPECIAL EQUIPMENT OR MACHINERY		
Power block	Indicate Yes if on board No if not sighted.	MR
Purse winch	Indicate Yes if on board No if not sighted.	MR
GENERAL GEAR ATTRIBUTES		
Maximum length of the net	Record the maximum length of the net according to the net specifications. This corresponds to the length of the topline. <i>Note: specify units (preferably metres)</i>	MR
Maximum depth of the net	Record the maximum fishing depth according to the net specifications. <i>Note: specify units (preferably metres)</i>	MR
Bag stretched mesh size	Record the mesh average stretched lengths (knot to knot) of the bag of the net. Usually calculated by measuring 3 stretched mesh lengths and calculating the average. <i>Note: specify units (preferably centimetres)</i>	MR

⁹ Until a standard maturity stage has been approved by the Scientific Committee, record both stage and scale used.

Mid-net stretched mesh size	Record the mesh average stretched lengths (knot to knot) of the mid-net. Usually calculated by measuring 3 stretched mesh lengths and calculating the average. <i>Note: specify units (preferably centimetres)</i>	MR
Maximum Brail Capacity	Record the maximum weight capacity of a full brail in metric tonnes (Mt).	MR
Skiff Power	Record the skiff engine power. <i>Note: specify units (HP, KW).</i>	---

Fishing event

Data field name	Data field description	Rep. Req.
Set number	Record set number. This should be a four digit numerical code beginning 0001. Set numbers should be consecutive from the start of the first line set to the last line set of the observed trip. A unique number is to be allocated to each individual set.	MR
OPERATIONS		
Start setting date and time	Record the date and time the skiff is launched to start the setting operation. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR
Start setting position	Record the position in latitude and longitude for the start of the setting operation. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	MR
Beaufort	Record the force of the wind according to the Beaufort scale (Table 36).	---
School sighting cue and school type	Report up to the first three cues which lead the vessel to detect the presence of the tuna school and specify the type of tuna school detected (Table 34).	MR
First detection method	Record how the vessel first detects the tuna school, floating object or birds (Table 30). If more than one method is used record only what first made the vessel change course.	---
School size	Provide an estimation of the size of the tuna school being targeted (in tonnes). This information can be requested from the bridge officers.	---
Time net pursed	Record the time (hh:mm) when the net is fully pursed. All rings are up.	MR
Time start brailing	Record the time that brailing starts (hh:mm).	---
Time end brailing	Record the time that brailing ends (hh:mm).	---
Time skiff onboard	Record the time when the skiff comes on board and the set is over (hh:mm).	---
Maximum closing net depth (m)	Record the real, measured, closed net depth (m). To be recorded only if depth gauge is used. Use information from middle gauge if more than one gauge is present.	---
Object Details	For sets conducted on FADs (natural or artificial), the following detailed information should be collected where possible and reported to the IOTC Secretariat.	
Buoy ID	For every activity involving artificial or a natural FADs equipped with a buoy report BUOY ID (i.e. Buoy marking or any information allowing identifying the owner). <i>[Consistent with IOTC Res 18/08]</i>	OR
Buoy equipped with artificial lights	Report if devices equipped with artificial lights are deployed and/or recovered. <i>[Consistent with IOTC Res 16/07]</i>	OR

Artificial FAD design	Characterize artificial FAD design using codes provided to describe raft (floating part) and tail (underwater hanging structure) materials (		OR
	NSC	No sighting cue	
	UTS	Tuna school (no details given on the type of school)	
	CSA	Changes on sea surface appearance. Marks left by the fish on the surface of the water. It can take the form of a zone (i.e. a zone of the surface presenting a different texture), oil marks left by the presence of tuna. It can be a rippling of the sea surface as if produced by the presence of tuna. It can be an area of extremely choppy sea that gives the impression that the sea is boiling, an area of very choppy / foamy sea surface, created by the jumping of small fish. Or the presence of a fish school can be indicated by a jump of individual tuna.	
	DTS	Presence of a deep tuna school	
	BIR	Presence of birds	
	LW	Presence of large live whales (killer whales, sperm whales, baleen whales)	
	DOL	Presence Small toothed whales / dolphins (dolphins, pilot and/or false killer whales)	
	SHA	Presence of shark(s)	
	OVF	Another tuna vessel	
	STS	Same school that escaped the previous set	
	SAV	School associated to the tuna vessel	
	SM	Fishing on a seamount	
	OTH	Other (to detail in the comments)	
	SBV	Supply or bait-boat vessel	
	WSB	Whale shark seen before set	
	WSA	Whale shark seen later during set	
	DFAD	Drifting man-made FAD (bamboo or metallic raft)	
	AFAD	Anchored man-made FAD (huge buoy)	
	LS	Drifting log: Includes natural logs of plant (branches, trunk, palm leaves) or of animal origin (carcasses, live whale sharks); and logs resulting from human activity related or not to fishing activities (nets, wreck, ropes, washed oil tank, etc.)	
	FSB	Feeding on bait fish	
	Signal d'observation de banc / Type de banc		
	Code d'observation	Description de l'observation d'un banc	
	NSC	Pas de signal d'observation	
	UTS	Banc de thons (aucun détail donné sur le type de banc)	
	CSA	Changements d'apparence de la surface de l'eau.	

		Marques laissées par les poissons à la surface de l’eau. Cela peut prendre la forme d’une trace ou de marques d’huile laissées par la présence de thons. Cela peut être une ondulation de la surface de l’eau, une zone de mer extrêmement agitée, une zone de surface d’eau très agitée/mousseuse. La présence d’un banc de poissons peut aussi être indiquée par le saut d’un thon individuel.			
	DTS	Présence d’un banc de thons profond			2
	BIR	Présence d’oiseaux			2
	LWH	Présence de grandes baleines (orques, cachalots, mysticètes)			2
	SWH	Présence de petites baleines à dents / dauphins (dauphins, globicéphale et/ou faux-orque)			2
	SHA	Présence de requin(s)			2
	OVF	Autre navire thonier			1
	STS	Même banc que celui s’étant échappé de l’opération précédente			0
	SAV	Banc associé au navire thonier			1
	SEM	Pêche sur un mont sous-marin			1
	OTH	Autre (à préciser en commentaires)			0
	SBV	Navire de soutien ou canneur			1
	WSB	Requin-baleine aperçu avant l’opération			1
	WSA	Requin-baleine aperçu ultérieurement pendant l’opération			1
	AFAD	DCP artificiel (fabriqué par l’homme)			1
	NFAD	DCP naturel (non fabriqué par l’homme)			1
	FSB	S’alimentant de poissons-appâts			2
	Table 35). [Consistent with IOTC Res. 12/04 and Res 18/08]				
Cetaceans and whale sharks sightings during setting	Details on cetaceans and whale sharks sightings during purse-seine setting are to be collected where possible and reported to the IOTC Secretariat. [Consistent with IOTC Res 13/04 and 13/05]				
Sighting occurred before setting	Indicate YES if the sighting occurred before setting or NO if it occurred after.		OR		
Species	The species code for the sighted specimen/s (FAO spp. 3-alpha code). If species FAO code is not available, the species scientific name.		OR		
N° sighted	The number of individuals sighted per species.		OR		
Caught inside the net	Indicate YES or NO whether sighted specimen/s was/were caught inside the net once the purse line was closed.		OR		
Support vessel details	Details on support vessel/s present/participating to the observed fishing set.				
Support ¹⁰ vessel presence	Record if a supply vessel is present during the observed set.		---		
Support vessel name	Record the name of the support vessel present during the observed set.		---		

¹⁰ As defined in IOTC-2018-WPICMM01-04_Rev2_-_Glossary_of_terms_and_definitions (1): Includes any vessel used equipped to be used, or intended to be used for fishing related activities involving transporting goods, personnel, equipment or other supplies in support of fishing vessels for supporting fishing vessels in the purse seine fishery using drifting FADs, including deploying, monitoring, modifying and retrieving drifting FADs and motherships.

Support vessel participation	Support vessel participation: Record if the Supply Vessel takes part in the setting operation (YES/NO). If YES, describe it (e.g. acting as floating object, etc.).	---
Details on the current	Details on sea current that might influence set performance.	
Current direction	Record current direction using cardinal points (E, W, SW, SSW, etc.). This information is to be requested from bridge officers.	---
Current speed	Record current speed in knots. This information is to be requested from bridge officers.	---
Current depth	Record current depth in metres. This information is to be requested from bridge officers.	---
CATCH DETAILS		
Set number	Unique within a specific set	MR
Catch detail number	Unique within a specific catch detail	MR
Species	Record the species code for each specimen observed using FAO three figure alpha codes (Table 1, Table 2, Table 3, Table 4, Table 5, Table 6 and Table 7). If species FAO code is not available, the species scientific name. <i>Note: Record "unknown" for species that cannot be positively identified and give it a reference number. Use the same reference number throughout the trip for that species. Retain a sample and / or take a photograph of the unidentified organism for latter identification.</i>	MR
Fate	Specify the species fate which includes whether it was retained or discarded and the reason, e.g. "Discarded – too small" (Table 41).	MR
Sampling methods for obtaining total catch estimates per species	Indicate the sampling method used to obtain total catch estimates per species for the catch detail (Table 39).	MR
Number	Record the number of individuals per species for each specified fate. If weight is recorded, insert NA here (for large fish, record number of individuals).	MR
Weight	Record the weight corresponding to the specified species and fate category. If number of individuals is recorded, insert NA here (for small fish, record weight). <i>Note: specify units (preferably tons).</i>	MR
Weight estimation method	Indicate the weight estimation method used to collect weight (Table 42). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
Weight code	The code corresponding to the type of processing the specimen underwent prior to weighing (Table 43). If the fish has not been processed, record code for unprocessed (or round, whole, live) weight (i.e. RD). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
Additional details on non-target spp.	Catch details on non-target species to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Condition at capture	State the condition of the specimens at capture (Table 45).	OR
Condition at release	State the condition of the specimens at the time of release (Table 45).	OR
SPECIMEN INFORMATION		
Set number	Unique within a specific trip	MR
Catch detail number	Unique within a specific set	MR

Specimen number	Unique within a specific catch detail	MR
Additional details on non-target spp.	Catch details on non-target species to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Condition at capture	State the condition of the specimen at capture (<i>Table 45</i>).	OR
Condition at release	State the condition of the specimen at the time of release (<i>Table 45</i>).	OR
Additional catch details on SSIs	Additional catch details on Species of Special Interest (<i>Table 46</i>) to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Gear interaction	For SSI only, specify the interaction of the specimen with the fishing gear (<i>Table 47</i>).	OR
Brought on board	Indicate Yes or No, if the specimen was brought on board. [Consistent with IOTC Resolutions 13/04; 13/05; 12/04; 12/06; 12/09]	OR
Hauling method	Specify how the specimen was brought on-board (<i>Table 48</i>). [Consistent with IOTC Res 12-04]	OR
Resuscitation (for turtles only)	For turtles indicate Yes if the release took place with resuscitation and No if not.	---
Photo ID	If a photo is taken, record photo number/code so that it can be linked back to the specimen for onshore examination.	---
BIOMETRIC INFORMATION Details concerning any extra biometric measurements, sex, maturity and the collection of samples.		
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample (<i>Table 40</i>).	MR
Length code 1	Specify the length code used for the measurement (<i>Table 52</i>).	MR
Length 1	Record the length corresponding to the length type taken rounded to the lower centimetre.	MR
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded (<i>Table 52</i>).	OR
Length 2	When an additional length measurement is taken, the corresponding length should be recorded rounded to the lower centimetre.	OR
Weight code	Record the code corresponding to the type of processing the specimen underwent prior to weighing (<i>Table 43</i>).	OR
Weight	Record the specimen's weight (in kilograms) corresponding to the specified product type recorded in 'weight code'. If the fish has not been processed, record the unprocessed (or round, whole, live) weight (i.e. RD).	OR
Weight estimation method	Specify the weight estimation method used to obtain the weight (<i>Table 42</i>).	OR
Sex	Record the sex of the sampled fish specimen (<i>Table 50</i>).	OR
Maturity stage ¹¹	Record the stage of maturity of the sampled fish specimen according to standard maturity scales approved by the IOTC. If unknown record UNK.	OR
Sample collected	Record the following details on the collection of samples: g) type (e.g. otoliths, spine clippings, and genetic samples)	OR

¹¹ Until a standard maturity stage has been approved by the Scientific Committee, record both stage and scale used.

	h) preservation method (e.g. alcohol, frozen, etc.) i) destination (i.e. location to be sent/stored)	
TAG DETAILS Note that all tagged specimens are to be identified to species level and to be sampled for length. Elasmobranches and turtles are also to be sexed and ascertained for maturity.		
Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR
Tag recovery	Indicate Yes or No, whether a tag was recovered from this individual.	MR
Tag number	Provide the tag number. If a turtle make sure to provide both tag numbers (right and left flipper).	MR
Tag type	Record the type of tag used (<i>Table 51</i> Error! Reference source not found.).	MR
Tag finder	Record the name and contact details of the person who recovered the tag.	MR
Well	The well number from which the tagged fish has been recovered, if the fish is recovered during shifting, transshipping or unloading. (Note: this information will allow tracing back tagged fish to the location where it was caught).	MR

Purse-seine vessel daily activity information

The following information is to be collected on a daily basis for every fishing set and at every 2 hours (from sunrise to sunset) to allow to reconstruct vessel route and for every fishing set.

Data field name	Data field description	Rep. Req.
Date	Record the date. <i>Note: specify units (preferably YYYY/MM/DD).</i>	---
Time	Record time at the start of every fishing activity and every two hours from sunrise to sunset. <i>Note: specify units (preferably hh:mm).</i>	---
Position	Record vessel position at the start of every fishing activity and every two hours from sunrise to sunset. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	---
Activity	Record vessel activity at the start of every fishing activity and every two hours from sunrise to sunset (<i>Table 33</i>).	---
Comments	Record short commentaries on exceptional events that could not be described by the previous data fields.	---

POLE AND LINE INFORMATION

Gear specifications

Data field name	Data field description	Rep. Req.
SPECIAL EQUIPMENT OR MACHINERY		
Live bait tanks capacity	Record the total volume of the tanks used to keep the live bait, in cubic metres (m3).	MR
Number of automatic poles	Record the total number of automatic poles that are fixed on a vessel.	MR
GENERAL GEAR ATTRIBUTES		
Number of anglers	Record the maximum number of anglers observed during the trip.	MR
Pole material	Specify the material the pole is made of: bamboo, fibre glass or carbon. If made of another material, describe it.	MR
Hook type	Indicate the type of hooks used for the observed trip (<i>Table 17</i>).	MR
Type of lures used	Record Yes if the vessel uses lures or jiggers during the observed trip and No if it doesn't. If Yes, record lures or jiggers type, make (brand) and hook type (<i>Table 17</i>).	---

Fishing event

Tuna fishing event

Data field name	Data field description	Rep. Req.
Event number	Record event number. This should be a four digit numerical code beginning 0001. Event numbers should be consecutive from the start to the end of the observed trip. <i>Note: Each time the vessel activates its sprayers, starts chumming and/or actively catching fish, the observer should record this as event even if no fish is caught.</i>	MR
TUNA FISHING OPERATIONS		
Event date and time	Record the data and time that the first line enters the water. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR
Event start position	Record the position in latitude and longitude at the start of the fishing event. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.ddd^\circ$).</i>	MR
Beaufort	Record the force of the wind according to the Beaufort scale (<i>Table 36</i>).	---
Event end time	The time when the last line comes out of the water. <i>Note: If the vessel stops fishing for a period of at least 10 minutes then it should be considered that the fishing event ended, even if fishing is to restart shortly afterwards on the same school.</i>	MR
School sighting cue and school type	Record up to the first three cues which leads the vessel to detect the presence of a tuna school and the type of school detected (<i>Table 30</i>).	MR
Target Species	Record the species in the school being targeted using FAO three figure alpha codes (<i>Table 1</i>).	---
Maximum lines fishing at the same time	Record maximum number of lines fishing at the same time. These should include lines deployed from manual and automatic poles. Specify if other lines are deployed and include them in the total count. <i>Note: This should be one count taken when the fishing activity is well established (not right at the beginning or right at the end).</i>	MR

Bait used	Indicate Yes or No regarding whether any bait was used during the fishing event.	MR
Bait type	Specify the bait type/condition used during the fishing event (<i>Table 25</i>).	MR
Bait species	Record the species of bait used during the fishing event using FAO three figure alpha codes (<i>Table 8</i>).	MR
Number of hooks lost	Record the total number of hooks lost during the poling operation.	MR
Weight of bait used	Record the estimated quantity of bait used in the poling operation (in kg). If no bait was used record zero (0). <i>Note: Request this information from the fishers in charge of live bait.</i>	---
Object ID	For every activity involving artificial FAD (DFAD/AFAD) report FAD identifier (i.e. FAD marking or beacon ID or any information allowing identifying the owner).	OR
Buoys equipped with artificial lights	For every activity involving FADs (natural and/or artificial) report if device is equipped with artificial lights.	OR
Sampling protocol	Indicate sampling protocol followed by the observer to select which lines to observe (<i>Table 38</i>).	MR
CATCH DETAILS		
Event number	Unique within a specific observed trip	MR
Catch detail number	Unique within a specific event	MR
Species	Record the species code for each specimen observed using FAO three figure alpha codes (<i>Table 1</i> , <i>Table 2</i> , <i>Table 3</i> , <i>Table 4</i> , <i>Table 5</i> , <i>Table 6</i> and <i>Table 7</i>). If species FAO code is not available, the species scientific name. <i>Note: Record "unknown" for species that cannot be positively identified and give it a reference number. Use the same reference number throughout the trip for that species. Retain a sample and / or take a photograph of the unidentified organism for latter identification.</i>	MR
Fate	Specify the fate which includes whether it was retained or discarded and the reason, e.g. "Discarded – too small" (<i>Table 41</i>).	MR
Sampling methods for obtaining total catch estimates per species	Indicate the sampling method used to obtain total catch estimates per species for the observed set (<i>Table 39</i>).	MR
Number	Record the number of individuals per species for each specified fate. If weight is recorded, insert NA here (for large fish, record number of individuals).	MR
Weight	Record the weight corresponding to the specified species and fate category. If number of individuals is recorded, insert NA here (for small fish, record weight). <i>Note: specify units (preferably tons).</i>	MR
Weight estimation method	Indicate the method used to estimate weight (<i>Table 42</i>). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
Weight code	The code corresponding to the type of processing the specimen underwent prior to weighing (<i>Table 43</i>). If the fish has not been processed, record code for unprocessed (or round, whole, live) weight (i.e. RD). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
Depredation details	[In agreement with SC18.16 (para. 53)]	
Depredation source	For depredated specimens, indicate the depredation source based on depredation scar characteristics (<i>Table 44</i>). For non-depredated specimens record NA.	MR

Predator Observed	For depredated specimens, record the predator species directly observed and identified (FAO spp. 3-alpha code). If the predator was not observed record UNK (unknown). For non-depredated specimens record NA. <i>Note: species observed in the area may not necessary be associated with depredation unless directly observed. Similarly for shark and squid damage the species may be difficult to determine.</i>	MR
SPECIMEN INFORMATION		
Additional details on non-target spp.	Catch details on non-target species to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Condition at capture	State the condition of the specimen at capture (<i>Table 45</i>).	OR
Condition at release	State the condition of the specimen at the time of release (<i>Table 45</i>).	OR
Additional catch details on SSIs	Additional catch details on Species of Special Interest (<i>Table 46</i>) to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Gear interaction	For SSI only, specify the interaction of the specimen with the fishing gear (<i>Table 47</i>).	OR
Brought on board	Indicate Yes or No, if the specimen was brought on board. [Consistent with IOTC Resolutions 13/04; 13/05; 12/04; 12/06; 12/09]	OR
Hauling method	Specify how the specimen was brought on-board (<i>Table 48</i>). [Consistent with IOTC Res 12-04]	OR
Resuscitation (for turtles only)	For turtles indicate Yes if the release took place with resuscitation and No if not.	---
Photo ID	If a photo is taken, record photo number/code so that it can be linked back to the specimen for onshore examination.	---
BIOMETRIC INFORMATION		
Details concerning possible extra biometric measurements, sex, maturity and the collection of samples.		
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample (<i>Table 40</i>).)	MR
Length code 1	Specify the length code used for the measurement (<i>Table 52</i>).	MR
Length 1	Record the length corresponding to the length type taken rounded to the lower centimetre.	MR
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded (<i>Table 52</i>).	OR
Length 2	When an additional length measurement is taken, the corresponding length should be recorded rounded to the lower centimetre.	OR
Weight code	Record the code corresponding to the type of processing the specimen underwent prior to weighing (<i>Table 43</i>).	OR
Weight	Record the specimen's weight (in kilograms) corresponding to the specified product type recorded in 'weight code'. If the fish has not been processed, record the unprocessed (or round, whole, live) weight (i.e. RD).	OR
Weight estimation method	Specify the weight estimation method used to obtain the weight (<i>Table 42</i>).	OR

Sex	Record the sex of the sampled fish specimen (<i>Table 50</i>).	OR
Maturity stage ¹²	Record the stage of maturity of the sampled fish specimen according to standard maturity scales approved by the IOTC. If unknown record UNK.	OR
Sample collected	Record the following details on the collection of samples: j) type (e.g. otoliths, spine clippings, and genetic samples) k) preservation method (e.g. alcohol, frozen, etc.) l) destination (i.e. location to be sent/stored)	OR

TAG DETAILS

Note that all tagged specimens are to be identified to species level and to be sampled for length. Elasmobranches and turtles are also to be sexed and ascertained for maturity.

Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR
Tag recovery	Indicate Yes or No, whether a tag was recovered from this individual.	MR
Tag number	Provide the tag number. If a turtle make sure to provide both tag numbers (right and left flipper).	MR
Tag type	Record the type of tag used (<i>Table 51</i>).	MR
Tag finder	Record the name and contact details of the person who recovered the tag.	MR

Bait fishing event

Data field name	Data field description	Rep. Req.
Event number	Record event number. This should be a four digit numerical code beginning 0001. Event numbers should be consecutive from the start to the end of the observed trip.	MR
Event start date and time	Record the data and time when chumming for bait starts. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	MR
Event start position	Record the position in latitude and longitude at the start of the fishing event. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^\circ$).</i>	MR
Event end date and time	Record the data and time at the end of the bait fishing event, when the last bait is scooped from the net. <i>Note: specify units (preferably hh:mm and YYYY/MM/DD).</i>	---
Event depth	Record the depth of the place where the net is being deployed. <i>Note: specify units (preferably metres).</i>	MR
Distance from the coast	Record the distance from the coast to which the bait fishing is being carried out. <i>Note: specify units (preferably nautical miles).</i>	---
Beaufort	Record the force of the wind according to the Beaufort scale (<i>Table 36</i>).	---
School sighting cue and school type	Record up to the first three cues which leads the vessel to detect the presence of a tuna school and type of school detected (<i>Table 30</i>).	MR
Detection method	Select the detection method/s used to detect bait fish school (<i>Table 31</i>).	---
Fishing method	Indicate the fishing method during the specific bait fishing event (<i>Table 32</i>).	---
N° of fishers	Number of fishers that participate to the bait fishing event.	---

¹² Until a standard maturity stage has been approved by the Scientific Committee, record both stage and scale used.

Object ID	For every activity involving artificial FAD (DFAD/AFAD) report FAD identifier (i.e. FAD marking or beacon ID or any information allowing identifying the owner).	OR
Buoys equipped with artificial lights	For every activity involving FADs (natural and/or artificial) report if device is equipped with artificial lights.	OR
Sampling protocol	Indicate sampling protocol followed by the observer to select which lines to observe (<i>Table 38</i>).	MR
CATCH DETAILS		
Event number	Unique within a specified trip	MR
Catch detail number	Unique within a specified event	MR
Species	Record the species code for each specimen observed using FAO three figure alpha codes (<i>Table 1, Table 2, Table 3, Table 4, Table 5, Table 6, Table 7 and Table 8</i>). If species FAO code is not available, the species scientific name. <i>Note: Record “unknown” for species that cannot be positively identified and give it a reference number. Use the same reference number throughout the trip for that species. Retain a sample and / or take a photograph of the unidentified organism for latter identification.</i>	MR
Fate	Specify the species fate which includes whether it was retained or discarded and the reason, e.g. “Discarded – too small” (<i>Table 41</i>).	MR
Sampling methods for obtaining total catch estimates per species	Indicate the sampling method used to obtain total catch estimates per species for the observed set (<i>Table 39</i>).	MR
Number	Record the number of individuals per species for each specified fate. If weight is recorded, insert NA here (for large individuals, record numbers).	MR
Weight	Record the weight corresponding to the specified species and fate category. If number of individuals is recorded, insert NA here (for small fish, record weight). <i>Note: specify units.</i>	MR
Weight estimation method	Indicate the method used to estimate weight (<i>Table 42</i>). <i>Note: If number of individuals is recorded, insert NA here.</i>	MR
SPECIMEN INFORMATION		
Event number	Unique within a specified trip	MR
Catch detail number	Unique within a specified event	MR
Specimen number	Unique within a specified catch detail	MR
Additional details on non-target spp.	Catch details on non-target species to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Condition at capture	State the condition of the specimen at capture (<i>Table 45</i>).	OR
Condition at release	State the condition of the specimen at the time of release (<i>Table 45</i>).	OR
Additional catch details on SSIs	Additional catch details on Species of Special Interest (<i>Table 46</i>) to be collected where possible and reported to the IOTC Secretariat as recommended by the Scientific Committee.	
Gear interaction	For SSI only, specify the interaction of the specimen with the fishing gear (<i>Table 47</i>).	OR
Brought on board	Indicate Yes or No, if the specimen was brought on board. [Consistent with IOTC Resolutions 13/04; 13/05; 12/04; 12/06; 12/09]	OR

Hauling method	Specify how the specimen was brought on-board (<i>Table 48</i>). [Consistent with IOTC Res 12-04]	OR
Resuscitation (for turtles only)	For turtles indicate Yes if the release took place with resuscitation and No if not.	---
Photo ID	If a photo is taken, record photo number/code so that it can be linked back to the specimen for onshore examination.	---
BIOMETRIC INFORMATION		
Details concerning any extra biometric measurements, sex, maturity and the collection of samples.		
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample (<i>Table 40</i>).	OR
Length code 1	Specify the length code used for the measurement (<i>Table 52</i>).	OR
Length 1	Record the length corresponding to the length type taken rounded to the lower centimetre.	OR
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded (<i>Table 52</i>).	OR
Length 2	When an additional length measurement is taken, the corresponding length should be recorded rounded to the lower centimetre.	OR
Weight code	Record the code corresponding to the type of processing the specimen underwent prior to weighing (<i>Table 43</i>).	OR
Weight	Record the specimen's weight (in kilograms) corresponding to the specified product type recorded in 'weight code'. If the fish has not been processed, record the unprocessed (or round, whole, live) weight (i.e. RD).	OR
Weight estimation method	Specify the weight estimation method used to obtain the weight (<i>Table 42</i>).	OR
Sex	Record the sex of the sampled fish specimen (<i>Table 50</i>).	OR
Maturity stage	Record the stage of maturity of the sampled fish specimen according to standard maturity scales approved by the IOTC. If unknown record UNK.	OR
Sample collected	Record the following details on the collection of samples: m) type (e.g. otoliths, spine clippings, and genetic samples) n) preservation method (e.g. alcohol, frozen, etc.) o) destination (i.e. location to be sent/stored)	OR
TAG DETAILS		
Note that all tagged specimens are to be identified to species level and to be sampled for length. Elasmobranchs and turtles are also to be sexed.		
Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	OR
Tag recovery	Indicate Yes or No, whether a tag was recovered from this individual.	OR
Tag number	Provide the tag number. If a turtle make sure to provide both tag numbers (right and left flipper).	OR
Tag type	Record the type of tag used (<i>Table 51</i>).	OR
Tag finder	Record the name and contact details of the person who recovered the tag.	OR

Pole and line vessel daily activity information

The following information is to be collected on a daily basis for every fishing event and every 2 hours (from sunrise to sunset)

Data field name	Data field description	Rep. Req.
Date	Record the date. <i>Note: specify units (preferably YYYY/MM/DD).</i>	MR
Time	Record the time every two hours (from sunrise to sunset) and at the start of every fishing activity. <i>Note: specify units (preferably hh:mm).</i>	MR
Position	Record vessel position every two hours (from sunrise to sunset) and at the start of every fishing activity. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^\circ$).</i>	MR
Activity	Record vessel activity every two hours (from sunrise to sunset) and at the start of every fishing activity (<i>Table 33</i>).	MR
Comments	Record short commentaries on exceptional events that could not be described by the previous data fields.	---

VESSEL TRANSHIPMENT INFORMATION¹³

Information on all transshipments that take place during the trip should be collected. Most commonly this will entail transshipping processed catch to a carrier vessel or another fishing vessel. If fish or fish products are move to or from another vessel (carrier or fishing vessel), observers must record details of the transshipment. Transshipment may occur on a purse seine vessel that has pursued more fish than the vessel's capacity that a second vessel will load fish from the net; this need to be recorded on an event basis.

Bear in mind that the collecting this information is not necessary if an observer is present on a carrier vessel monitoring the transshipment for the IOTC Regional Observer Programme (ROP)¹⁴.

Data field name	Data field description	Rep. Req.
Date	Record the date the transshipment takes place. <i>Note: specify units (preferably YYYY/MM/DD).</i>	---
Start time	Record the time the transshipment of fish starts. <i>Note: specify units (preferably hh:mm).</i>	---
End time	Record the time the transshipment of fish ends. Stores, bait or fuel may also be transshipped. The time and details of this must not be confused with the time that fish or fish products are being transshipped. <i>Note: specify units (preferably hh:mm).</i>	---
Position	Record the position of your vessel, during transshipment. <i>Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably $\pm(d)dd.dddd^{\circ}$).</i>	---
Category	Record if your vessel is transshipping to or from, (i.e. receiving fish from) another vessel (carrier/fishing vessel) or if loading or allowing to load fish from the net (this may occur if a purse seiner has pursued more fish than its present loading capacity).	---
Product transhipped	Observers deployed on-board a purse-seine, pole and line or gillnet vessel are to record the quantity of fish products transhipped (per species) using FAO spp.3-Alpha and IOTC "Product" categories (Table 43). Observers deployed on-board longline vessels are only to request to their vessel Captain a copy of the signed declaration form, which will have all the required information. <i>Note: specify units (preferably tonnes).</i>	---
Name of carrier/fishing vessel	Observers deployed on-board a purse-seine, pole and line or gillnet vessel are to record the name and registration details of the carrier/fishing vessel they are transshipping to/from (i.e. name, national registration number, port of registry, flag and call sign). Observers deployed on-board longline vessels are only to request to their vessel Captain a copy of the signed declaration form, which will have all the required information.	---

¹³ Information designed to capture information on all transshipments that take place during the trip.

¹⁴ As per SC14 (para. 104)

IOTC CODE TABLES**FAO species codes¹⁵****Table 1. Tuna and tuna-like species under the IOTC mandate**

Code	English	French	Latin
ALB	Albacore	Germon	<i>Thunnus alalunga</i>
BET	Bigeye tuna	Patudo; Thon obèse	<i>Thunnus obesus</i>
BLM	Black Marlin	Makaire noir	<i>Makaira indica</i>
BUM	Blue Marlin	Makaire bleu	<i>Makaira nigricans</i>
BLT	Bullet tuna	Bonitou	<i>Auxis rochei</i>
FRI	Frigate tuna	Auxide	<i>Auxis thazard</i>
GUT	Indo-Pacific king mackerel	Thazard ponctué indo-pacifique	<i>Scomberomorus guttatus</i>
SFA	Indo-Pacific sailfish	Voilier indo-pacifique	<i>Istiophorus platypterus</i>
KAW	Kawakawa	Thonine orientale	<i>Euthynnus affinis</i>
LOT	Longtail tuna	Thon mignon	<i>Thunnus tonggol</i>
BIL	Marlins, sailfishes, etc. nei	Makaires, marlins, voiliers nca	<i>Istiophoridae</i>
COM	Narrow-barred Spanish mackerel	Thazard rayé indo-pacifique	<i>Scomberomorus commerson</i>
SSP	Short-billed spearfish	Makaire à rostre court	<i>Tetrapturus angustirostris</i>
SKJ	Skipjack tuna	Listao	<i>Katsuwonus pelamis</i>
SBF	Southern bluefin tuna	Thon rouge du Sud	<i>Thunnus maccoyii</i>
MLS	Striped marlin	Marlin rayé	<i>Tetrapturus audax</i>
SWO	Swordfish	Espadon	<i>Xiphias gladius</i>
TUS	True tunas nei	Thons Thunnus nca	<i>Thunnus spp</i>
TUX	Tuna-like fishes nei	Poissons type thon nca	<i>Scombroidei</i>
TUN	Tunas nei	Thonidés nca	<i>Thunnini</i>

Table 2. Other bony fish species that may be caught incidentally in IOTC fisheries

Code	English	French	Latin
BAU	Australian bonito	Bonite bagnard	<i>Sarda australis</i>
BAR	Barracudas nei	Bécunes nca	<i>Sphyræna spp</i>
LEC	Black escolar	Escolier noir	<i>Lepidocybium flavobrunneum</i>
MAA	Blue mackerel	Maquereau tacheté	<i>Scomber australasicus</i>
BUK	Butterfly kingfish	Thon papillon	<i>Gasterochisma melampus</i>
DOL	Common dolphinfish	Coryphène commune	<i>Coryphaena hippurus</i>
DOT	Dogtooth tuna	Bonite à gros yeux	<i>Gymnosarda unicolor</i>
DBM	Double-lined mackerel	Thazard-kusara	<i>Grammatorcynus bilineatus</i>
AMB	Greater amberjack	Sériole couronnée	<i>Seriola dumerili</i>
RAG	Indian mackerel	Maquereau des Indes	<i>Rastrelliger kanagurta</i>
KAK	Kanadi kingfish	Thazard kanadi	<i>Scomberomorus plurilineatus</i>
KOS	Korean seerfish	Thazard coréen	<i>Scomberomorus koreanus</i>
SPF	Longbill spearfish	Makaire à rostre	<i>Tetrapturus pfluegeri</i>
OIL	Oilfish	Rouvet	<i>Ruvettus pretiosus</i>
LAG	Opah	Opah	<i>Lampris guttatus</i>
MZZ	Other marine bony fishes NEI	Autres poissons marins osseux nca	<i>Osteichthyes</i>

¹⁵ February 2018 version of the FAO ASFIS_sp.zip file (<http://www.fao.org/fishery/collection/asfis/en>)

SAP	Pacific saury	Saurie	<i>Cololabis saira</i>
BRA	Pomfrets nei	Castagnoles	<i>Brama spp</i>
CFW	Pompano dolphinfish	Dorade	<i>Coryphaena equiselis</i>
RRU	Rainbow runner	Comète saumon	<i>Elagatis bipinnulata</i>
STS	Streaked seerfish	Thazard cirrus	<i>Scomberomorus lineolatus</i>
BIP	Striped bonito	Bonite orientale	<i>Sarda orientalis</i>
WAH	Wahoo	Thazard bâtard	<i>Acanthocybium solandri</i>

Table 3. Common species of sharks and rays in the Indian Ocean Pelagic Fisheries¹⁶

Code	English	French	Latin
Sharks / Requins			
BSK	Basking shark	Requinpélerin	<i>Cetorhinus maximus</i>
ODH	Bigeye sand tiger shark	Requin noronhai	<i>Odontaspis noronhai</i>
BTH	Bigeye thresher	Renard à gros yeux	<i>Alopias superciliosus</i>
CCA	Bignose shark	Requin babosse	<i>Carcharhinus altimus</i>
BLR	Blacktip reef shark	Requin pointes noires	<i>Carcharhinus melanopterus</i>
CCL	Blacktip shark	Requin bordé	<i>Carcharhinus limbatus</i>
BSH	Blue shark	Peau bleue	<i>Prionace glauca</i>
CCE	Bull shark	Requin-bouledogue	<i>Carcharhinus leucas</i>
ISB	Cookie cutter shark	Squalelet féroce	<i>Isistius brasiliensis</i>
BRO	Copper shark	Requin cuivre	<i>Carcharhinus brachyurus</i>
PSK	Crocodile shark	Requin crocodile	<i>Pseudocarcharias kamoharai</i>
DUS	Dusky shark	Requin de sable	<i>Carcharhinus obscurus</i>
CCG	Galapagos shark	Requin des Galapagos	<i>Carcharhinus galapagensis</i>
SPK	Great hammerhead	grand requin-marteau	<i>Sphyrna mokarran</i>
AML	Grey Reef Shark	Requin dagsit	<i>Carcharhinus amblyrhynchos</i>
LMA	Longfin mako	Petite taupe	<i>Isurus paucus</i>
OCS	Oceanic whitetip shark	Requin océanique	<i>Carcharhinus longimanus</i>
PTH	Pelagic Thresher Shark	Renard pélagique	<i>Alopias pelagicus</i>
POR	Porbeagle	Requin-taupe commun	<i>Lamna nasus</i>
LMD	Salmon shark	Requin-taupe saumon	<i>Lamna ditropis</i>
CCP	Sandbar shark	Requin gris	<i>Carcharhinus plumbeus</i>
SPL	Scalloped hammerhead	Requin marteau halicorne	<i>Sphyrna lewini</i>
SMA	Shortfin mako	Taupe bleue	<i>Isurus oxyrinchus</i>
FAL	Silky shark	Requin soyeux	<i>Carcharhinus falciformis</i>
ALS	Silvertip shark	Requin pointe blanche	<i>Carcharhinus albimarginatus</i>
SPZ	Smooth hammerhead	Requin marteau commun	<i>Sphyrna zygaena</i>
ALV	Thresher Shark	Renard	<i>Alopias vulpinus</i>
TIG	Tiger shark	Requin tigre commun	<i>Galeocerdo cuvier</i>
RHN	Whale shark	Requin-baleine	<i>Rhincodon typus</i>
TRB	Whitetip reef shark	Requin corail	<i>Triaenodon obesus</i>
EUB	Winghead shark	Requin-marteau planeur	<i>Eusphyra blochii</i>
Rays/ Raies			
MRJ	Javanese cownose ray (Flapnose ray)	Mourine javanaise	<i>Rhinoptera jacanica</i>

¹⁶ As per IOTC species identification cards for “Shark and Ray identification in Indian Ocean Pelagic Fisheries”.

RMA	Alfred manta	Manta de récif	<i>Manta alfredi</i>
RMT	Chilean devilray/sicklefin deveilday	Diable du Chili	<i>Mobula tarapacana</i>
RMM	Devil fish	Diable de Méditerranée	<i>Mobula mobular</i>
RMB	Giant manta	Manta géante	<i>Manta birostris</i>
WSH	Great White shark	Grand requin blanc	<i>Carcharodon carcharias</i>
RME	Longhorned mobula	Diable pygmée / Mante diable	<i>Mobula eregoodootenkee</i>
PSL	Pelagic stingray	Pastenague violette	<i>Pteroplatytrygon violacea</i>
RMO	Smoothtail mobula	Mante à queue lisse	<i>Mobula thurstoni</i>
RMJ	Spinetail mobula	Mante aiguillat	<i>Mobula japanica</i>

Table 4. Other species of sharks that may be caught incidentally in IOTC fisheries

Code	English	French	Latin
AGN	Angel shark	Ange de mer commun	<i>Squatina squatina</i>
OXY	Angular rough shark	Centrine commune	<i>Oxynotus centrina</i>
MTM	Arabian smooth-hound	Emissole d'Arabie	<i>Mustelus mosis</i>
SUU	Australian angelshark	Ange de mer australien	<i>Squatina australis</i>
SHBC	Banded cat shark	Holbiche des plages	<i>Halaaelurus lineatus</i>
HXN	Bigeyed sixgill shark	Requin vache	<i>Hexanchus nakamurai</i>
SBL	Bluntnose sixgill shark	Requin gris	<i>Hexanchus griseus</i>
NTC	Broadnose sevengill shark	Platnez	<i>Notorynchus cepedianus</i>
OQX	Brownbanded bambooshark	Requin-chabot bambou	<i>Chiloscyllium punctatum</i>
CWZ	Carcharhinus sharks nei	Requins Carcharhinus nca	<i>Carcharhinus spp</i>
HAY	Cow Shark	Requins gris	<i>Hexanchidae spp</i>
CCY	Graceful shark	Requin gracieux	<i>Carcharhinus amblyrhynchoides</i>
ORR	Grey bambooshark	Requin-chabot gris	<i>Chiloscyllium griseum</i>
CCM	Hardnose shark	Requin nez rude	<i>Carcharhinus macrotis</i>
HCM	Hooktooth shark	Milandre harpon	<i>Chaenogaleus macrostoma</i>
SCK	Kitefin shark	Squale liche	<i>Dalatias licha</i>
GUQ	Leafscale gulper shark	Squale-chagrin de l'Atlantique	<i>Centrophorus squamosus</i>
NGB	Lemon shark	Requin citron	<i>Negaprion brevirostris</i>
CPU	Little gulper shark	Petit squale-chagrin	<i>Centrophorus uyato</i>
RHA	Milk shark	Requin à museau pointu	<i>Rhizoprionodon acutus</i>
CYT	Ornate dogfish	Aiguillat élégant	<i>Centroscyllium ornatum</i>
HXT	Sharpnose sevengill shark	Requin perlon	<i>Heptanchias perlo</i>
DOP	Shortnose spurdog	Aiguillat nez court	<i>Squalus megalops</i>
ORI	Slender bambooshark	Requin-chabot élégant	<i>Chiloscyllium indicum</i>
CLD	Sliteye shark	Requin sagrin	<i>Loxodon macrorhinus</i>
CEM	Smallfin gulper shark	Squale-chagrin cagaou	<i>Centrophorus moluccensis</i>
SMD	Smooth-hound	Emissole lisse	<i>Mustelus mustelus</i>
SLA	Spadenose shark	Requin épée	<i>Scoliodon laticaudus</i>
CCB	Spinner Shark	Requin tisserand	<i>Carcharhinus brevipinna</i>
CCQ	Spot-tail shark	Requin queue tachet	<i>Carcharhinus sorrah</i>
ORZ	Tawny nurse shark	Requin nourrice fauve	<i>Nebrius ferrugineus</i>

GAG	Tope shark	Requin-hâ	<i>Galeorhinus galeus</i>
SSQ	Velvet dogfish	Squale-grogneur velouté	<i>Zameus squamulosus</i>
CCD	Whitecheek shark	Requin joues blanches	<i>Carcharhinus dussumieri</i>
RHA	White-eyed shark	Requin museau pointu	<i>Rhizoprionodon acutus</i>
OSF	Zebra shark	Requin zèbre	<i>Stegostoma fasciatum</i>
SKH	Sharks various NEI	Requins divers nca	<i>Selachimorpha (Pleurotremata)</i>

Table 5. Species of marine turtles that may be caught incidentally in IOTC fisheries

Code	English	French	Latin
FBT	Flatback turtle	Tortue plate	<i>Natator depressus</i>
TUG	Green turtle	Tortue verte	<i>Chelonia mydas</i>
TTH	Hawksbill turtle	Tortue caret	<i>Eretmochelys imbricata</i>
DKK	Leatherback turtle	Tortue luth	<i>Dermochelys coriacea</i>
TTL	Loggerhead turtle	Tortue Caouane	<i>Caretta caretta</i>
LKV	Olive ridley turtle	Tortue olivâtre	<i>Lepidochelys olivacea</i>
TTX	Marine turtles NEI	Tortue marine nca	<i>Testudinata</i>

Table 6. Species of seabirds that may be caught incidentally by IOTC fisheries

Code	English	French	Latin
DAM	Amsterdam Albatross	Albatros d'Amsterdam	<i>Diomedea amsterdamensis</i>
DQS	Antipodean Albatross	Albatros des Antipodes	<i>Diomedea antipodensis</i>
DCR	Atlantic Yellow-nosed Albatross	Albatros atlantique à nez jaune	<i>Thalassarche chlororhynchos</i>
DIM	Black-browed Albatross	Albatros à sourcils noirs	<i>Thalassarche melanophrys</i>
DIB	Buller's Albatross	Albatros de Buller	<i>Thalassarche bulleri</i>
TQW	Campbell Albatross	Albatros de l'île Campbell	<i>Thalassarche impavida</i>
MWE	Cape Gannet	Fou du Cap	<i>Morus capensis</i>
DAC	Cape/Pintado petrel	Damier du cap	<i>Daption capense</i>
DER	Chatham Albatross	Albatros des Chatham	<i>Thalassarche eremite</i>
PCF	Flesh-footed shearwater	Puffin à pieds pâles	<i>Puffinus carneipes</i>
PDM	Great-winged petrel	Pétrel noir	<i>Pterodroma macroptera</i>
PCI	Grey petrel	Pétrel gris	<i>Procellaria cinerea</i>
DIC	Grey-headed Albatross	Albatros à tête grise	<i>Thalassarche chrysostoma</i>
TQH	Indian Yellow-nosed Albatross	Albatros indien à nez jaune	<i>Thalassarche carteri</i>
PHE	Light-mantled Albatross	Albatros fuligineux	<i>Phoebastria palpebrata</i>
MAH	Northern Giant Petrel	Pétrel de Hall	<i>Macronectes halli</i>
DIQ	Northern Royal Albatross	Albatros royal du nord	<i>Diomedea sanfordi</i>
DKS	Salvin's Albatross	Albatros de Salvin	<i>Thalassarche salvini</i>
PFT	Short-tailed Shearwater	Puffin à bec grêle	<i>Puffinus tenuirostris</i>
DCU	Shy Albatross	Albatros timide	<i>Thalassarche cauta</i>
PHU	Sooty Albatross	Albatros brun	<i>Phoebastria fusca</i>
PFG	Sooty Shearwater	Puffin fuligineux	<i>Puffinus griseus</i>
MAI	Southern Giant Petrel	Pétrel géant	<i>Macronectes giganteus</i>
DIP	Southern Royal Albatross	Albatros royal	<i>Diomedea epomophora</i>
DBN	Tristan Albatross	Albatros de Tristan	<i>Diomedea dabbenena</i>
DIX	Wandering Albatross	Albatros hurleur	<i>Diomedea exulans</i>

PCW	Westland Petrel	Pétrel de Westland	<i>Procellaria westlandica</i>
TWD	White-capped Albatross	Albatros à cape blanche	<i>Thalassarche steadi</i>
PRO	White-chinned Petrel	Puffin à menton blanc	<i>Procellaria aequinoctialis</i>
ALZ	Albatrosses NEI	Albatros nca	<i>Diomedidae</i>
PTZ	Petrels NEI	pétrels nca	<i>Procellaria spp.</i>
SZV	Boobies and gannets NEI	Fous et fous de Bassan nca	<i>Sulidae</i>
PQW	Shearwaters NEI	Puffins nca	<i>Puffinus spp.</i>
LHX	Seagulls NEI	Mouettes nca	<i>Larus spp.</i>

Table 7. Species of sea mammals that occur within the IOTC Area of Competence

Code	Species English name	Species French name	Species scientific name
BDW	Andrews' beaked whale	Baleine à bec de Bowdoin	<i>Mesoplodon bowdoini</i>
BAW	Arnoux's beaked whale	Berardien d'Arnoux	<i>Berardius arnuxii</i>
BBW	Blainville's beaked whale	Baleine à bec de Blainville	<i>Mesoplodon densirostris</i>
BLW	Blue whale	Rorqual bleu	<i>Balaenoptera musculus</i>
DBO	Bottlenose dolphin	Grand dauphin	<i>Tursiops truncatus</i>
BRW	Bryde's whale	Rorqual de Bryde	<i>Balaenoptera edeni</i>
CMD	Commerson's dolphin	Dauphin de Commerson	<i>Cephalorhynchus commersonii</i>
DCO	Common dolphin	Dauphin commun	<i>Delphinus delphis</i>
BCW	Cuvier's beaked whale	Ziphius	<i>Ziphius cavirostris</i>
DDU	Dusky dolphin	Dauphin sombre	<i>Lagenorhynchus obscurus</i>
DWW	Dwarf sperm whale	Cachalot nain	<i>Kogia simus</i>
FAW	False killer whale	Faux-orque	<i>Pseudorca crassidens</i>
FIW	Fin whale	Rorqual commun	<i>Balaenoptera physalus</i>
PFI	Finless porpoise	Marsouin aptère	<i>Neophocaena phocaenoides</i>
FRD	Fraser's dolphin	Dauphin de Fraser	<i>Lagenodelphis hosei</i>
TGW	Ginkgo-toothed beaked whale	Baleine à bec de Nishiwaki	<i>Mesoplodon ginkgodens</i>
BYW	Gray's beaked whale	Baleine à bec de Gray	<i>Mesoplodon grayi</i>
BHW	Hector's beaked whale	Baleine à bec d'Hector	<i>Mesoplodon hectori</i>
HRD	Hourglass dolphin	Dauphin crucigère	<i>Lagenorhynchus cruciger</i>
HUW	Humpback whale	Baleine à bosse	<i>Megaptera novaeangliae</i>
DHI	Indo-Pacific hump-backed dolphin	Dauphin à bosse de l'Indopacifique	<i>Sousa chinensis</i>
IRD	Irrawaddy dolphin	Orcelle	<i>Orcaella brevirostris</i>
KIW	Killer whale	Orque	<i>Orcinus orca</i>
PIW	Long-finned pilot whale	Globicéphale commun	<i>Globicephala melas</i>
BNW	Longman's beaked whale	Baleine à bec de Longman	<i>Mesoplodon pacificus</i>
MIW	Minke whale	Petit rorqual	<i>Balaenoptera acutorostrata</i>
DPN	Pantropical spotted dolphin	Dauphin tacheté pantropical	<i>Stenella attenuata</i>
KPW	Pygmy killer whale	Orque pygmée	<i>Feresa attenuata</i>
CPM	Pygmy right whale	Baleine pygmée	<i>Caperea marginata</i>
PYW	Pygmy sperm whale	Cachalot pygmée	<i>Kogia breviceps</i>
DRR	Risso's dolphin	Grampus	<i>Grampus griseus</i>
RTD	Rough-toothed dolphin	Sténo	<i>Steno bredanensis</i>
BSW	Sherpherd's beaked whale	Tasmacète	<i>Tasmacetus shepherdi</i>
SHW	Short-finned pilot whale	Globicéphale tropical	<i>Globicephala macrorhynchus</i>
SRW	Southern bottlenose whale	Hyperoodon austral	<i>Hyperoodon planifrons</i>

EUA	Southern right whale	Baleine australe	<i>Eubalaena australis</i>
RSW	Southern right whale dolphin	Dauphin aptère austral	<i>Lissodelphis peronii</i>
SPP	Spectacled porpoise	Marsouin de Lahille	<i>Australophocaena dioptrica</i>
SPW	Sperm whale	Cachalot	<i>Physeter catodon</i>
DSI	Spinner dolphin	Dauphin longirostre	<i>Stenella longirostris</i>
TSW	Strap-toothed whale	Baleine à bec de Layard	<i>Mesoplodon layardii</i>
DST	Striped dolphin	Dauphin bleu et blanc	<i>Stenella coeruleoalba</i>
DLP	Dolphins NEI	Dauphins nca	<i>Delphinidae</i>
ODN	Toothed whales NEI	Baleines odontocètes nca	<i>Odontoceti</i>
MYS	Baleen whales NEI	Baleines à fanons nca	<i>Mysticeti</i>

Table 8. Bait species

Code	Species English name	Species French name	Latin name
ENR	Anchovies nei	Anchois nca	<i>Engraulis spp</i>
MAC	Atlantic mackerel	Maquereau commun	<i>Scomber scombrus</i>
BIS	Bigeye scad	Sélar coulisou	<i>Selar crumenophthalmus</i>
JAA	Blue jack mackerel	Chinchard du large	<i>Trachurus picturatus</i>
BSH	Blue shark	Peau bleue	<i>Prionace glauca</i>
BOC	Boarfish	Sangler	<i>Capros aper</i>
BOG	Bogue	Bogue	<i>Boops boops</i>
BSR	Brazilian sardinella	Sardinelle de Brésil	<i>Sardinella brasiliensis</i>
APO	Cardinal fishes, etc. nei	Apogonidés nca	<i>Apogonidae</i>
MAS	Chub mackerel	Maquereau espagnol	<i>Scomber japonicus</i>
SPD	Delicate round herring	Hareng rond	<i>Spratelloides delicatulus</i>
PIL	European pilchard (=Sardine)	Sardine commune	<i>Sardina pilchardus</i>
CJX	Fusiliers nei	Fusiliers nca	<i>Caesionidae</i>
CLP	Herrings, sardines nei	Harengs, sardines nca	<i>Clupeidae</i>
RAG	Indian mackerel	Maquereau des Indes	<i>Rastrelliger kanagurta</i>
JAX	Jack and horse mackerels nei	Chinchards noirs nca	<i>Trachurus spp</i>
JAN	Japanese anchovy	Anchois japonais	<i>Engraulis japonicus</i>
RSA	Japanese scad	Comète japonaise	<i>Decapterus maruadsi</i>
SNS	Longspine snipefish	Bécasse de mer	<i>Macroramphosus scolopax</i>
MSD	Mackerel scad	Comète maquereau	<i>Decapterus macarellus</i>
MAX	Mackerels nei	Maquereaux nca	<i>Scombridae</i>
SAE	Madeiran sardinella	Grande allache	<i>Sardinella maderensis</i>
MIL	Milkfish	Chano	<i>Chanos chanos</i>
SAP	Pacific saury	Balaou du Japon	<i>Cololabis saira</i>
MSB	River sardine		<i>Mesobola brevianalis</i>
SAA	Round sardinella	Allache	<i>Sardinella aurita</i>
SAX	Sauries nei	Balaous, bananes de mer nca	<i>Scomberesocidae</i>
SIL	Silversides (sand smelts) nei	Athérinidés nca	<i>Atherinidae</i>
SRH	Silver-stripe round herring	Hareng gracile	<i>Spratelloides gracilis</i>
CHP	South American pilchard	Pilchard sudaméricain	<i>Sardinops sagax</i>
OMZ	Squids nei	Encornets nca	<i>Ommastrephidae</i>
SQU	Various squids nei	Calmars, encornets nca	<i>Loliginidae, Ommastrephidae</i>

Country codes/names**Table 9. Country codes/names FAO17 (ISO3)**

Code	English name	French name
AUS	Australia	Australie
BLZ	Belize	Belize
CHN	China	Chine
COM	Comoros	Comores
ERI	Eritrea	Érythrée
FRA	European Union	Union Européenne
GIN	France (EU)	France (UE)
IND	Guinea	Guinée
IDN	India	Inde
IRN	Indonesia	Indonésie
ITA	Iran	Iran
JPN	Italy (EU)	Italie (UE)
KEN	Japan	Japon
KIR	Kenya	Kenya
KOR	Kiribati	Kiribati
AUS	Korea, Republic	Corée, République de
LBR	Lyberia	Liberia
MDG	Madagascar	Madagascar
MYS	Malaysia	Malaisie
MDV	Maldives	Maldives
MUS	Mauritius	Maurice
MOZ	Mozambique	Mozambique
NLD	Netherlands (EU)	Hollande (UE)
OMN	Oman	Oman
PAK	Pakistan	Pakistan
PAN	Panama	Panama
PHL	Philippines	Philippines
PRT	Portugal (EU)	Portugal
SYC	Seychelles	Seychelles
SLE	Sierra Leone	Sierra Leone
SGP	Singapore	Singapore
SOM	Somalia	Somalie
ZAF	South Africa	Afrique du Sud
ESP	Spain (EU)	Espagne (UE)
LKA	Sri Lanka	Sri Lanka
SDN	Sudan	Soudan
TZA	Tanzania	Tanzanie
THA	Thailand	Thaïlande
GBR	United Kingdom (EU)	Royaume Unie (UE)
YEM	Yemen	Yémen

Vessel and gear codes**Table 10. Gear types**

Code	English Descrip.	French Descrip.
GIL	Gillnet	Filet maillant
DLL	Drifting longline	Palangre dérivante
TPL	Pole and line	Pêche à la Canne
TPS	Tuna purse seine	Senne tournante industrielle à thons

Table 11. Vessel hull material

Code	English Descrip.	French Descrip.
STE	Steel	Acier
FRP	Fibre glass reinforced plastic	Plastique renforcé de fibres de verre
WOO	Wood	Bois
ALU	Aluminium	Aluminium
OTH	Other	Autre

Table 12. Fish preservation methods

Code	English Descrip.	French Descrip.
NO	None	Aucun
ST	Salt	Sel
DR	Dried	Séché
SM	Smoked	Fumé
IC	Ice	Glace
CWS	Chilled with sea water (higher temp than refrigerated sea water)	Eau de mer refroidie (température plus élevée que l'eau de mer réfrigérée)
RW	Refrigerated sea water	Eau de mer réfrigérée
BR	Refrigerated brine (cooler than RW)	Saumure réfrigérée (plus froid que RW)
FR	Cold storage between 0 and -30 degrees	Chambre froide entre 0 et -30 degrés
DF	Cold storage below -30 degrees	Chambre froide en-dessous de -30 degrés

Table 13. Fish storage type

Code	English Descrip.	French Descrip.
WL	Well	Cuve
BF	Blast Freezer	Congélateur à air pulsé

¹⁷ <http://www.fao.org/countryprofiles/iso3list/en/>

RC	Refrigeration chamber	Chambre de réfrigération
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Table 14. Waste category

Code	English Descrip.	French Descript.
PL	Plastic	Plastique
CP	Cardboard & paper	Carton et papier
KW	Kitchen waste	Déchets de cuisine
OF	Oil and fuel	Huile et carburant
MG	Metal and glass	Métal et verre
NB	None biodegradable fishing gear	Engin de pêche non-biodégradable

OT	Other (specify)	Autre (spécifié)
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Table 15. Storage/disposal method

Code	English Descrip.	French Descript.
AS	At sea disposal	En mer
IN	Incinerated	Incinéré
RO	Retained on board	Conservé à bord
LD	Land disposal	En terre
UK	Unknown	Inconnu
OT	Other (specify)	Autre (spécifié)

Table 16. Line material types

Code	English Description	French Description
MON	Monofilament nylon	Monofilament nylon
GLW	Galvanized wire (mat)	Câble galvanise (mate)
SSW	Stainless steel wire (bright)	Câble en acier inoxydable (brillant)
TR3	3 strand tarred rope (red or black)	Cordage goudronné à trois torons (rouge ou noir)
BRL	Braided line (kuralon- braided nylon)	Cordage tressé (kuralon- nylon tressé)
SKW	Sekiyama wire (central part of the wire is surrounded by a cotton or synthetic fiber thread, and usually tarred)	Fil Sekiyama (partie centrale du fil est entourée d'un fil de coton ou de fibre synthétique, et généralement goudronné)
MUN	Multifilament nylon	Multifilament nylon
MUC	Multifilament Cremona	Multifilament Cremona
MOC	Monofilament Cremona	Monofilament Cremona
MUD	Multifilament Dyneema	Multifilament Dyneema
MOD	Monofilament Dyneema	Monofilament Dyneema
MUK	Multifilament Kevlar	Multifilament Kevlar
MOK	Monofilament Kevlar	Monofilament Kevlar
MUT	Multifilament Tetoron	Multifilament Tetoron
MOT	Monofilament Tetoron	Monofilament Tetoron

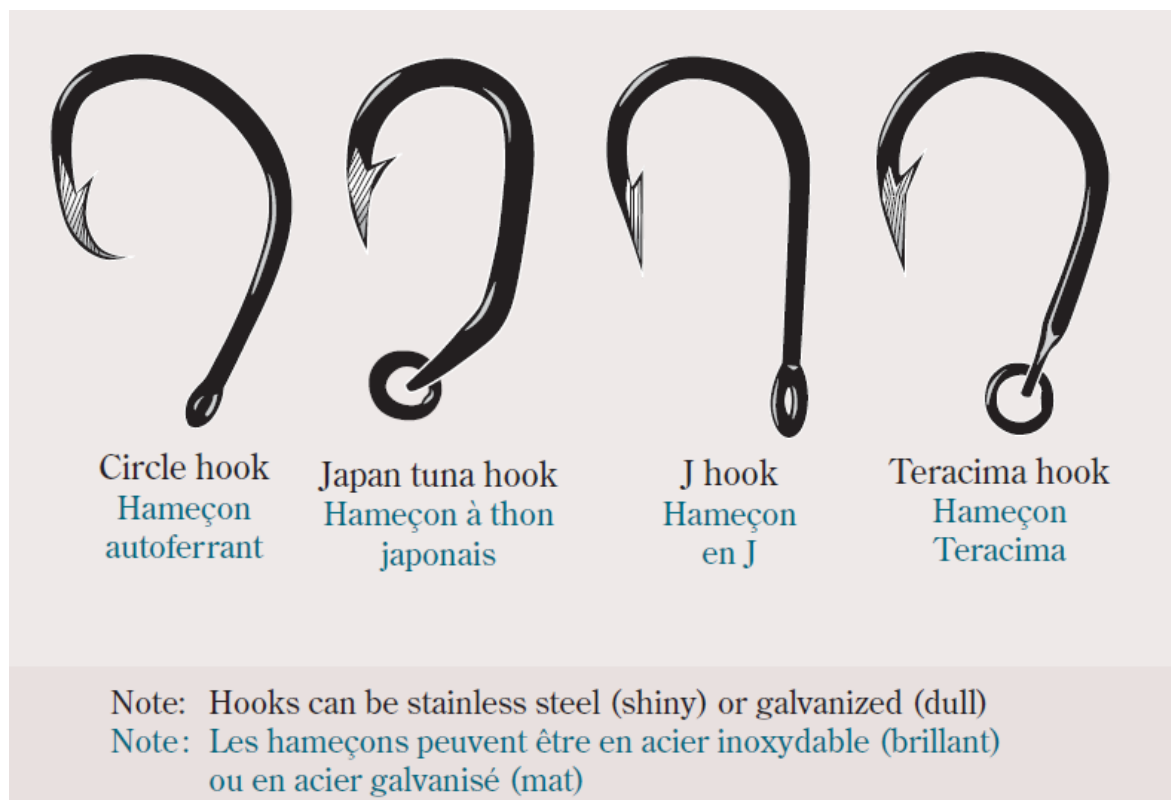
Table 17. Hook type¹⁸

It is important that longline terminal gear is correctly identified as it has an effect, not only on target species catch rates, but on catch rates and post-release survival of bycatch species including marine turtles.

Hooks used in pelagic fisheries are correctly identified and characterised based on type, type variations, material and presence/absence of hook ring. Standardization of hook types and characteristics is therefore very important for data recording and analysis and for scientific studies on their effects on catch rates and post-capture survival.

Japan tuna hooks and Teracima hooks are measured in 'sun', a Japanese measurement equivalent to just over 3 cm. This refers to the length of material in the hook from eye to point. Circle hooks and J hooks are sequentially numbered—the larger the number, the larger the hook—but circle hooks and J hooks with the

same number are not the same size. Spanish hooks (a type of J hook) are numbered in a descending order—the larger the hook, the smaller the number.



VARIATIONS ON HOOK TYPE



Code	English Description	French Description
C11	Circle hooks 11/0	Hameçons autoferrants 11/0
C12	Circle hooks 12/0	Hameçons autoferrants 12/0
C13	Circle hooks 13/0	Hameçons autoferrants 13/0
C14	Circle hooks 14/0	Hameçons autoferrants 14/0
C15	Circle hooks 15/0	Hameçons autoferrants 15/0
C16	Circle hooks 16/0	Hameçons autoferrants 16/0
C18	Circle hooks 18/0	Hameçons autoferrants 18/0
H32	Japan tuna hooks 3.2	Hameçons à thons Japonais 3.2
H34	Japan tuna hooks 3.4	Hameçons à thons Japonais 3.4
H36	Japan tuna hooks 3.6	Hameçons à thons Japonais 3.6
H38	Japan tuna hooks 3.8	Hameçons à thons Japonais 3.8
H40	Japan tuna hooks 4.0	Hameçons à thons Japonais 4.0
H42	Japan tuna hooks 4.2	Hameçons à thons Japonais 4.2

J08	J Hooks 8/0	Hameçons en J 8/0
J09	J Hooks 9/0	Hameçons en J 9/0
J10	J Hooks 10/0	Hameçons en J 10/0
J12	J Hooks 12/0	Hameçons en J 12/0
S01	Spanish hooks 1	Hameçons Espagnols 1
S02	Spanish hooks 2	Hameçons Espagnols 2
S03	Spanish hooks 3	Hameçons Espagnols 3
S04	Spanish hooks 4	Hameçons Espagnols 4
T32	Teracima hooks 3.2 sun	Hameçons Teracima 3.2 sun
T34	Teracima hooks 3.4 sun	Hameçons Teracima 3.4 sun
T36	Teracima hooks 3.6 sun	Hameçons Teracima 3.6 sun
T38	Teracima hooks 3.8 sun	Hameçons Teracima 3.8 sun

Table 18. Gillnet web material

Code	English Descrip.	French Descript.
MO	Monofilament	Monofilament
MU	Multifilament	Multifilament
BR	Braided	Tressé
UNK	Unknown	Inconnu
OTH	Other (to be detailed)	Autre (à préciser)

Table 19. Gillnet web colour

Code	English Descrip.	French Descript.
GRE	Green	Vert
CLA	Clear	Claire
WHI	White	Blanc
PIN	Pink	Rose
BLA	Black	Noire
GRY	Grey	Gris
BLU	Blue.	Bleu
MUL	Multi-colour	Multi-couleur
RED	Red	Rouge
OTH	Other	Autre

Table 20. Floats type / material gillnet

Code	English Descrip.	French Descript.
FLF	Floatline with foam core	Ligne de flottaison avec noyau en mousse
HDP	HDPE plastic	Plastique (HDPE)
PVC	PVC plastic	Plastique (PVC)
FOA	Styrofoam (Polystyrene)	Styromousse (polystyrène)
OTH	Other (detail e.g. plastic bottles)	Autre (détail, par exemple bouteilles en plastique)

UNK	Unknown	Inconnu
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Table 21. Sinker materials

Code	English Descrip.	French Descript.
WLL	Weighted footrope	Ralingue inférieure équipée d'une corde lestée
LEA	Lead	Plomb
CEM	Cement	Ciment
STO	Stones	Des pierres
OTH	Other, record on comments	Autre, à détailler sous commentaires
UNK	Unknown	Inconnu

Table 22. Types of light-emitting sources attached to the gear

Code	English Descrip.	French Descript.
CL	Chemical light sticks	Bâtons lumineux chimiques
EL	Electric lights	Lumières électriques
LL	Luminescent lights	Lumières luminescentes
OT	Other (describe)	Autre (décrire)

Table 23. Colour of light-emitting sources attached to the gear

Code	English Descrip.	French Descript.
YL	Yellow	Jaune
RE	Red	Rouge
GR	Green	Vert
BL	Blue	Bleu
OT	Other	Autre

Operation codes**Table 24. Fish stunning methods**

Code	English Descrip.	French Descript.
CO2	Carbon dioxide narcosis	Narcose au dioxyde de carbone
PS	Percussive stunning	Étourdissement percussif
SP	Spiking	Transpercer avec un bâton pointu
ELC	Electrocution	Électrocution

Table 25. Bait type/condition

Code	English Descrip.	French Descript.
BLI	Live bait	Appâts vivants
FRC	Frozen/chopped	Congelé / haché
THC	Thawed/chopped	Décongelé / haché
FRW	Frozen/whole	Congelé / entier
THW	Thawed/whole	Décongelé / entier
BDE	Dead bait (bait that dies during live bait fishing event, kept for chum).	Appâts mort (appâts qui meurent lors de la pêche à l'appât vivant, conservés pour être utilisés pour appâté).
BOT	Other	Autre

Table 26. Gillnet condition at hauling

Code	English Descrip.	French Descript.
NGD	No gear damage or very few small, scattered holes.	Aucun engin endommagé ou très peu de petits trous dispersés.
005	Less than 5% of the net torn	Moins de 5% du filet déchiré
025	Between 5% and 25% of the net torn.	Entre 5% et 25% du filet déchiré.
050	Between 25% and 50% of the net torn.	Entre 25% et 50% du filet déchiré.
075	Greater than 50% of the net torn.	Plus de 50% du filet déchiré.
100	Net totally rolled up.	Filet totalement enroulé.
OTH	Other, specify in comments	Autre, précisez dans les commentaires
UNK	Unknown	Inconnu

Table 27. Depth of gillnet deployment

Code	English Descrip.	French Descript.
SRF	Surface	Surface
SSF	Sub-surface	Sous-surface

Table 28. Net setting shape

Code	English Descrip.	French Descript.	Draw
1	Set pulled straight	Coup de senne tiré droit	----
2	Set in a semi-circle	Coup de senne tiré dans un demi-cercle	)
3	Set in a circle	Coup de senne tiré dans un cercle	O
4	Set in Pi-shape	Coup de senne tiré en forme de Pi	Π
5	Set in N-shape	Coup de senne tiré en « N »	N
6	Set in v-shape	Coup de senne tiré en « V »	V

Table 29. Net setting strategy

Code	English Descrip.	French Descript.
NAN	Net anchored (i.e. remains attached to boat or another anchoring method)	Filet ancré (c'est-à-dire attaché au bateau ou à une autre méthode d'ancrage)
NDR	Net is left drifting	Filet est laissé à la dérive
GEN	Encircling	Encerclant
DOL	Dolphin associated	Dauphins associés
NTA	No tuna associated (blank set)	Pas de thon associé (coup nul)
SM	Seamount (common for P&L)	Mont sous-marin (commun pour PL)
UNK	Unknown	Inconnu
OTH	Other, record on comments	Autre, enregistrer sur les commentaires

Table 30. Tuna School first detection method¹⁹

Code	English Descrip.	French Descript.
SV	Seen from vessel	Vu du navire
MB	Marked with beacon (instrumented buoy)	Marqué avec balise (bouée instrumentée)

¹⁹ Revised accordingly to IOTC ROS OMv1.2, SPC/WCPFC ROP and Observ DB (EU OPs)

BR	Bird radar	Radar à oiseau
AS	Acoustic – sonar / echo-sounder	Acoustique - sonar / sondeur
IV	Info. from other vessel	Info. d'un autre navire
OTH	Other (specify)	Autre (précisez)
RDR	Radar	Radar
UNK	Unknown	Inconnu

Table 31. Bait school detection methods

Code	English Descrip.	French Descript.
EYE	Naked-eye	Œil nu
SNR	Sonar	Sonar
ECS	Echo-sounder	Échosondeur
IV	Info. from other vessel	Info. d'un autre navire
DV	Dive (a crew member dives to detect the live bait school to be captured).	Plongé (un membre de l'équipage plonge pour détecter le banc d'appâts vivants à capturer).
AQC	Aquascope also called bathyscope (device that allows looking underwater)	Batiscope ou aquascope (instrument permettant, depuis

	from the surface, made of a cylinder or a cone, closed at both ends by a glass).	la surface, de regarder sous l'eau constitué d'un cylindre ou d'un cône, fermé à ses deux extrémités par une vitre).
OTH	Other (specify)	Autre (précisez)
UNK	Unknown	Inconnu

Table 32. Bait fishing methods

Code	English Descrip.	French Descript.
PS	Purse seine	Senne tournante
LNB	Lift net operated from the pole and line vessel	Filet à relever utilisé à partir du canneur
LN1	Lift net operated from the support and the pole and line vessels.	Filet à relever utilisé à partir du canneur et du bateau de support
LN2	Lift net operated from two support vessels	Filet à relever utilisé à partir de deux bateaux de support.
OTH	Other (specify)	Autre (précisez)
UNK	Unknown	Inconnu

Table 33. Activity codes for purse seine and pole and line fisheries²⁰

PS/PL	Code	English Description	French Description
PS	ES	End of searching (when the watchers stop searching for fish using binoculars).	Fin de la recherche (lorsque les observateurs cessent de chercher du poisson avec des jumelles).
PS	FI	Fishing (skiff is deployed)	Pêche (skiff est déployé)
PS	IF	Installation or modification of a floating objet (natural or artificial).	Installation ou modification d'un objet flottant (naturel ou artificiel).
PS	SO	Steaming at night towards a floating object (logs or FADs)	Navigation pendant la nuit vers un objet flottant (bûches ou DCP)
PS	TR	Transshipping at sea.	Transbordement en mer.
PS	ZC	EEZ zone change	Changement de zone ZEE
PL	CH	Chasing a tuna school	A la poursuite d'une école de thon
PL	BF	Bait fishing (the net is set or launched)	Pêche à l'appât (le filet est posé ou lancé)
PL	BA	Searching / gathering bait	Recherche / collecte d'appâts
PL	FI	Tuna fishing (Spraying, chumming or poling)	Pêche au thon
PS/PL	DF	Drifting during the day near a tuna school, a log or a FAD	Dérive pendant la journée près d'une école de thon, d'un billot ou d'un DCP
PS/PL	DN	Drifting during the night (engine stopped)	Dérive pendant la nuit (moteur arrêté)
PS/PL	DT	Drifting due to mechanical problems	Dérive due à des problèmes mécaniques
PS/PL	DW	Drifting because of bad weather.	Dérive à cause du mauvais temps.
PS/PL	PO	In port (includes all reasons or being in port including mechanical problems).	Au port (comprend toutes les raisons pour être au port, y compris les problèmes mécaniques).
PS/PL	SE	Searching in general (for tuna schools, logs, or FADs or other vessels)	Recherche en général (pour les bancs de thon, les épaves, les DCPs ou d'autres navires)
PS/PL	SI	Steaming towards (& investigating) observed system (birds, floating object, etc.) associated with the tuna school.	Navigation vers (et/ou enquêtant sur) le système observé (oiseaux, objet flottant, etc.) associé au banc de thon.
PS/PL	ST	Transit (steaming without searching day or night).	Navigation (navigation sans recherche le jour ou la nuit).
PS/PL	OT	Other activities (describe in comments)	Autres activités (décrire dans les commentaires).

Table 34. Observed System (school sighting cue / school type)²¹

School sighting code	School sighting description	School type code	School type description
NSC	No sighting cue	0	Undetermined
UTS	Tuna school (no details given on the type of school)	2	Free school
CSA	Changes on sea surface appearance. Marks left by the fish on the surface of the water. It can take the form of a track (i.e. a zone of the surface presenting a different texture), oil marks left by the presence of tuna. It can be a rippling of the sea surface as if produced by a breeze, an area of extremely choppy sea that gives the impression that the sea surface is boiling, an area of very choppy / foamy sea surface, created by the constant jumping of small fish. Or the presence of a fish school can be indicated by the jump of individual tuna.	2	Free school

²⁰ Revised accordingly to IOTC ROS OMv1.2, SPC/WCPFC ROP and Observ DB (EU OPs).²¹ As per the *Observ Database* developed by the French Research Institute (IRD) and used by EU and Seychelles Observer programmes.

DTS	Presence of a deep tuna school	2	Free school
BIR	Presence of birds	2	Free school
LW	Presence of large live whales (killer whales, sperm whales, baleen whales)	2	Free school
DOL	Presence Small toothed whales / dolphins (dolphins, pilot and/or false killer whales)	2	Free school
SHA	Presence of shark(s)	2	Free school
OVF	Another tuna vessel	1	Associated school
STS	Same school that escaped the previous set	0	Undetermined
SAV	School associated to the tuna vessel	1	Associated school
SM	Fishing on a seamount	1	Associated school
OTH	Other (to detail in the comments)	0	Undetermined
SBV	Supply or bait-boat vessel	1	Associated school
WSB	Whale shark seen before set	1	Associated school
WSA	Whale shark seen later during set	1	Associated school
DFAD	Drifting man-made FAD (bamboo or metallic raft)	1	Associated school
AFAD	Anchored man-made FAD (huge buoy)	1	Associated school
LS	Drifting log: Includes natural logs of plant (branches, trunk, palm leaf, etc.) and of animal origin (carcasses, live whale sharks); and logs resulting from human activity related or not to fishing activities (nets, wreck, ropes, washing machine, oil tank, etc.)	1	Associated school
FSB	Feeding on bait fish	2	Free school

Signal d'observation de banc / Type de banc

Code d'observation	Description de l'observation d'un banc	Code du type de banc	Description du type de banc
NSC	Pas de signal d'observation	0	Indéterminé
UTS	Banc de thons (aucun détail donné sur le type de banc)	2	Banc libre
CSA	Changements d'apparence de la surface de l'eau. Marques laissées par les poissons à la surface de l'eau. Cela peut prendre la forme d'une trace ou de marques d'huile laissées par la présence de thons. Cela peut être une ondulation de la surface de l'eau, une zone de mer extrêmement agitée, une zone de surface d'eau très agitée/mousseuse. La présence d'un banc de poissons peut aussi être indiquée par le saut d'un thon individuel.	2	Banc libre
DTS	Présence d'un banc de thons profond	2	Banc libre
BIR	Présence d'oiseaux	2	Banc libre
LWH	Présence de grandes baleines (orques, cachalots, mysticètes)	2	Banc libre
SWH	Présence de petites baleines à dents / dauphins (dauphins, globicéphale et/ou faux-orque)	2	Banc libre
SHA	Présence de requin(s)	2	Banc libre

OVF	Autre navire thonier	1	Banc associé
STS	Même banc que celui s'étant échappé de l'opération précédente	0	Indéterminé
SAV	Banc associé au navire thonier	1	Banc associé
SEM	Pêche sur un mont sous-marin	1	Banc associé
OTH	Autre (à préciser en commentaires)	0	Indéterminé
SBV	Navire de soutien ou canneur	1	Banc associé
WSB	Requin-baleine aperçu avant l'opération	1	Banc associé
WSA	Requin-baleine aperçu ultérieurement pendant l'opération	1	Banc associé
AFAD	DCP artificiel (fabriqué par l'homme)	1	Banc associé
NFAD	DCP naturel (non fabriqué par l'homme)	1	Banc associé
FSB	S'alimentant de poissons-appâts	2	Banc libre

Table 35. Artificial FAD design/materials²²

Code	English Description	French Description
RE	Raft covered with ecological materials (Burlap, Canvas of sisal, thick fabric, tarpaulin, raffia, canvas claustra, horticultural felt).	Radeau recouvert de matériaux écologiques (toile de jute, toile de sisal, toile épaisse, bâche, raphia, toile de claustra, feutre horticole).
RNS	Raft covered using a net with a stretched mesh of less than 7 cm.	Radeau recouvert d'un filet avec un maillage étiré de moins de 7 cm.
RNL	Raft covered with large mesh net (stretched mesh of more than 7 cm).	Radeau recouvert d'un filet avec un maillage étiré de plus de 7 cm.
RNC	Raft not covered	Radeau non couvert
TNR	Tail made of nets rolled in "sausages"	Queue faite de filets roulés dans des "saucisses"
TNS	Tail made of nets panels with a stretched mesh of less than 7 cm	Queue faite de panneaux de filets avec un maillage étiré de moins de 7 cm
TRO	Tail made of ropes	Queue faite de cordes
TRC	Tail made of ropes and canvas	Queue faite de cordes et de toile
TNL	Tail made of hanging large mesh net (stretched mesh of more than 7 cm)	Queue faite de filets suspendus ayant un maillage étiré de plus de 7 cm.

²² ISSF GUIDE FOR NON-ENTANGLING FADs, International Seafood Sustainability Foundation (ISSF), 2015

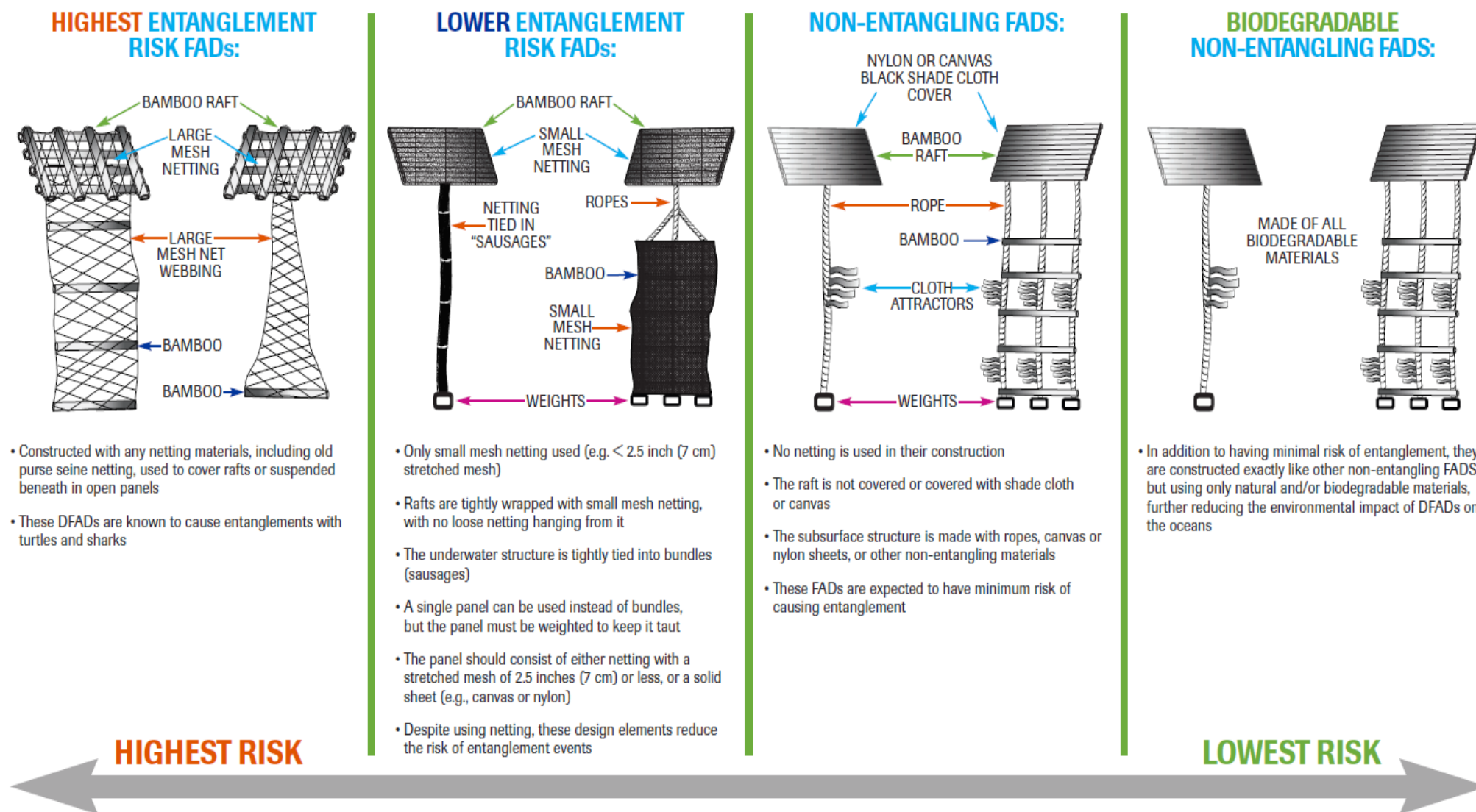


Figure 1 - ISSF Bycatch Steering Committee ranking of FADs according to the risk of entanglement associated with each design. Starting from highest to lowest risk of entanglement, four categories are described and illustrated examples provided of FAD designs.

Table 36. Beaufort wind scale

Beaufort	Name / Termes	Wind Speed/ Vent	Wave Height / Hauteur	Visible Sea State	État de la mer
0	Calm	0 to 1 knots / neuds	0 metres	Sea like a mirror	La mer est comme un miroir
1	Light Air	1 to 3	0.1 to 0.2	Ripples with appearance of scales: no foam crests: sea still has glassy appearance.	Quelques rides ressemblant à des écailles de poisson, mais sans aucune écume
2	Light breeze	4 to 6	0.3 to 0.5	Small wavelets: crests have glassy appearance but do not break.	Vaguelettes ne déferlant pas
3	Gentle breeze	7 to 10	0.6 to 1.0	Large wavelets: crests begin to break: few scattered white horses.	Très petites vagues. Les crêtes commencent à déferler. Écume d'aspect vitreux. Parfois quelques moutons épars
4	Moderate breeze	11 to 16	1.5	Small waves, becoming longer: fairly frequent white horses.	Petites vagues, de nombreux moutons
5	Fresh breeze	17 to 21	2.0	Moderate waves, longer form: many white horses and scattered spray.	Vagues modérées, moutons, éventuellement embruns
6	Strong breeze	22 to 27	3.5	Large waves forming, white foam crests extensive everywhere and spray.	Crêtes d'écume blanches, lames, embruns
7	Moderate gale	28 to 33	5.0	Sea starts to heap up and white foam breaking waves begin to be blown in streaks: spindrift begins to be seen.	Trainées d'écume, lames déferlantes
8	Fresh gale	34 to 40	7.5	Moderately high waves of greater length, edges of crests break into spindrift: foam blown into well-marked streaks.	Tourbillons d'écumes à la crête des lames, trainées d'écume
9	Strong gale	41 to 47	9.5	High waves; dense streaks of foam; sea begins to roll; spray begins to affect visibility.	Lames déferlantes grosses à énormes, visibilité réduite par les embruns
10	Whole gale	48 to 55	12.0	Very high waves with overhanging crests; sea surface takes on white appearance as foam in great patches is blown in very dense streaks; rolling sea and visibility reduced.	Conditions exceptionnelles : Très grosses lames à longue crête en panache. L'écume produite s'agglomère en larges bancs et est soufflée dans le lit du vent en épaisses trainées blanches. Dans son ensemble, la surface des eaux semble blanche. Le déferlement en rouleaux devient intense et brutal. Visibilité réduite
11	Storm	56 to 64	15.0	Exceptionally high waves; sea covered with long white patches of foam. Small and medium sized vessels lost to view between waves. Visibility further reduced.	Conditions exceptionnelles : Lames exceptionnellement hautes (les navires de petit et moyen tonnage peuvent, par instant, être perdus de vue). La mer est complètement recouverte de bancs d'écume blanche élongés dans la direction du vent. Partout, le bord de la crête des lames est soufflé et donne de la mousse. Visibilité réduite
12	Hurricane	64 +	15 +	Air filled with foam and spray; sea completely white with driving spray; visibility greatly reduced.	Conditions exceptionnelles : L'air est plein d'écume et d'embruns. La mer est entièrement blanche du fait des bancs d'écume dérivants. Visibilité fortement réduite

Table 37. Mitigation devices to reduce bycatch and depredation

Code	English Description	French Description
SPD	“Spiders” or “Socks”, physically protects hooked fish from depredation by cetaceans.	Les «araignées» protègent physiquement les poissons de la déprédation par les cétacés.
VID	Visual decoys or deterrents (e.g. dummy buoys)	Leurres visuels ou dissuasifs (p. Ex. Bouées factices)
ACD	Acoustic decoys, transmits acoustic cues to attract animals away from true fishing activity (e.g. hauling noises broadcasted from moored buoys).	Leurres acoustiques que transmettent des signaux acoustiques pour éloigner les animaux de la véritable activité de pêche (par exemple, des bruits de halage diffusés à partir de bouées amarrées).
AAD	Active Acoustic Deterrents transmits sounds that deter animals from the vessels. These can be sounds that provoke physical discomfort (e.g. pingers), an avoidance response (e.g. transient killer whale sounds), or “jam” the biosonar of a species.	Des diapositifs acoustiques dissuasifs actives que transmettent des sons qui dissuadent les animaux de s’approcher des navires. Ceux-ci peuvent être des sons qui provoquent une gêne physique (par exemple, des ‘pingers’), une réponse d’évitement (par exemple, des sons d’orques), ou qui «bloque» le biosonar d’une espèce.
PAD	Passive Acoustic Deterrents, use sonar reflective systems on the fishing gear, such as streamers with reflective spheres, cones, and cylinders.	Des diapositifs acoustiques dissuasifs passifs qu’utilisent les systèmes réfléchissants du sonar sur les engins de pêche, tels que des banderoles avec des sphères, des cônes et des cylindres réfléchissants.
LIS	Light-sticks can be used to illuminate portions of the nets to reduce sea turtle bycatch.	Des bâtons lumineux peuvent être utilisés pour éclairer des portions des filets afin de réduire les prises accessoires de tortues de mer.
LIG	 Lights of different colour (LEDs or UV) are attached to the net headline every 5 m to 10 m. Can be placed on nets to reduce sea turtle and sea-bird bycatch.	Des lumières de couleurs différentes (LED ou UV) sont fixés à la ralingue supérieur du filet tous les 5 à 10 m. Peuvent être placées sur les filets pour réduire les prises accessoires de tortues de mer et d’oiseaux de mer.
OV M	Other Visual Methods used to increase net visibility reduce sea-turtles, cetaceans and sea-birds bycatch. • Reflective material • Solid, high visibility panels • Making the net itself more visible, by using high visibility webbing, weaving colours through nets, using high visibility monofilament (entire net), high contrast rope in mesh, etc. • Streamers	D’autres méthodes visuelles utilisées pour augmenter la visibilité du filet réduisent les prises accessoires de tortues de mer, de cétacés et d’oiseaux de mer. • Matériau réfléchissant • Panneaux solides à haute visibilité • Rendre le filet lui-même plus visible, en utilisant un filet à haute visibilité, en tissant des couleurs à travers les filets, en utilisant un monofilament à haute visibilité (filet entier), en utilisant des cordes à contraste élevé sur le filet, etc. • Banderoles
AW M	Above Water Methods can be used to reduce sea-turtles, cetaceans and sea-birds bycatch. • Tori lines above water over the net • Kites or drones flown over net • Raptor silhouettes	Des méthodes au-dessus de l’eau peuvent être utilisées pour réduire les prises accessoires de tortues de mer, de cétacés et d’oiseaux de mer. • Lignes Tori au-dessus de l’eau sur le filet • Des cerfs-volants ou des drones survolés • Silhouettes de raptor
NTS	Net Type and Setting: the use of sub-surface nets can help to reduce sea-turtles, cetaceans and seabird bycatch.	Type de filet et de filage: l’utilisation de filets maintenus à une certaine distance de la surface de la mer peut aider à réduire les prises accessoires de tortues de mer, de cétacés et d’oiseaux de mer.
OTH	Other (specify)	Autre (précisez)
UNK	Unknown	Inconnu
NON	None	Aucune

Catch and sampling codes**Table 38. Sampling protocol for longlines, gillnets and pole and line**

Code	English Description	French description
EX	<u>Exhaustive Sampling</u> : The totality of the hooks or net panels hauled were observed.	<u>Échantillonnage exhaustif</u> : La totalité des hameçons levés a été observée.
MRS	<u>Random sampling</u> : hooks or panels were sampled randomly (e.g. Batch of 10 hooks selected at random along the line, or all hooks sampled for a period of 10 minutes selected at random during the hauling time).	<u>Échantillonnage aléatoire</u> : les hameçons ont été échantillonnés au hasard (par exemple, un lot de 10 hameçons sélectionnés au hasard le long de la ligne ou tous les hameçons échantillonnés pendant une période de 10 minutes sélectionnée au hasard pendant le temps de halage).
SPS	<u>Systematic sampling</u> : a proportion (%) of the line or net was observed (e.g. Batch of 10 hooks selected at every 100 hooks along the line or all hooks sampled for a period of 10 minutes every hour).	<u>Échantillonnage systématique</u> : une proportion (%) de la ligne a été observée (par exemple, lot de 10 hameçons sélectionnés tous les 100 hameçons le long de la ligne ou tous les hameçons échantillonnés pendant une période de 10 minutes toutes les heures).
EWP	<u>Exhaustive When Present</u> : the observer monitors the totality of hooks or net panels except when, for practical reasons, the observer is not present (e.g. breaking for meals/rest).	<u>Exhaustif quand l'observateur est présent</u> : l'observateur surveille l'ensemble des hameçons, sauf lorsque, pour des raisons pratiques, il n'est pas présent (par exemple, pour se reposer / manger).

Table 39. Sampling methods for obtaining total catch estimates by species

Code	English Description	French description
EXS	<u>Exhaustive Sampling</u> : The observer weighed/counted every individual (only feasible if the catch is small)	<u>Échantillonnage exhaustif</u> : L'observateur a pesé / compté chaque individu (possible uniquement si la capture est petite)
RS	<u>Random Sampling</u> : Observer collected random sample/s for a proportion of the catch and raised this to obtain total catch estimates per species.	L'observateur a recueilli <u>échantillon aléatoires</u> . L'observateur a levé les valeurs (nombre/poids) de l'échantillon pour obtenir une estimation de la valeur (nombre/poids) de l'ensemble des prises par espèce (ex: la capacité de l'épuisette x le nombre d'épuisettes; le poids du poisson x le nombre de poissons...).
SS	<u>Systematic Sampling</u> : individuals were weighed/counted in a systematic way to obtain catch composition for a proportion of the catch. Observer raised sample to obtain total catch per species.	<u>Échantillonnage proportionnel systématique</u> : une proportion (%) de la capture ou des individus a été pesé / comptée de manière systématique pour obtenir la composition de la capture. L'observateur a levé les valeurs (nombre/poids) de l'échantillon pour obtenir une estimation de la valeur (nombre/poids) de l'ensemble des prises par espèce.
VES	Observer used <u>Vessel Estimates</u> to estimate catch per species (e.g. logbook, well contents, etc.)	L'observateur utilise les <u>estimations du navire</u> pour estimer les captures par espèce (ex : en consultant le journal de bord, le contenu des cuves...).
OTH	Other. Provide details in comments	Autre. Fournir des détails dans les commentaires

Table 40. Sampling methods for the collection of biological information

Code	English Description	French Description
EXS	<u>Exhaustive Sampling</u> : the totality of the catch or all individuals caught for this species has been subsampled.	<u>Échantillonnage exhaustif</u> : L'observateur a pesé/compté chaque spécimen de la totalité de la capture (possible seulement si la prise est petite)
SPS	<u>Systematic Proportional Sampling</u> : a proportion (%) of the catch or of the individuals caught and brought on-board for this species has been subsampled in a systematic way. (E.g. every 10 th fish is sub-sampled).	<u>Échantillonnage systématique proportionnel</u> : une proportion (%) de la capture ou des spécimens capturés et hissés à bord a été pesé/compté systématiquement pour obtenir la composition de la capture de la calée (par ex. : tous les 3 hameçons/panneaux/salabardages, 10 premiers poissons par section/panneau/salabardage, 20 minutes/heure de remontée/salabardage/pêche, etc.)
SSS	<u>Stratified Sampling</u> of a sample taken via “ <u>Spill method</u> ”. The observer tipped the fish from a pile/receptacle/conveyer belt into a bin to avoid hand selection of individual fish, divided fish into homogeneous subgroups before subsampling. (e.g.: observer sub-sampled 50 fish for large fish (≥15 kg))	<u>Échantillonnage stratifié d'un échantillon prélevé à l'aide de la « méthode de renversement »</u> . L'observateur a renversé les poissons provenant d'une pile/récipient/tapis roulant dans un compartiment de stockage pour éviter de sélectionner manuellement les spécimens de poissons, et a divisé les poissons en sous-groupes homogènes avant le sous-échantillonnage. (Par ex. : l'observateur a sous-échantillonné 50 poissons pour les grands poissons (≥15 kg))
SSG	<u>Stratified Sampling</u> of a sample taken via “ <u>Grab method</u> ”. The observer pulls by hand a selected number of fish from a pile/ receptacle/ conveyer belt and divided fish into homogeneous subgroups before subsampling (e.g.: observer sub-sampled 50 yellowfin tuna).	<u>Échantillonnage stratifié d'un échantillon prélevé à l'aide de la « méthode de saisie »</u> . L'observateur a saisi manuellement un certain nombre de poissons provenant d'une pile/récipient/tapis roulant, et a divisé les poissons en sous-groupes homogènes avant le sous-échantillonnage. (Par ex. : l'observateur a sous-échantillonné 50 albacores).
SRF	<u>Systematic Random</u> sampling of a <u>Fixed</u> number of each species: of the random sample taken, the fish are identified to species level. Once the main species have been determined, a pre-determined number of fish of each species is subsampled.	<u>Échantillonnage aléatoire systématique d'un nombre fixe</u> de chaque espèce : les poissons de l'échantillon aléatoire prélevé sont identifiés au niveau de l'espèce. Une fois que les principales espèces ont été déterminées, un nombre prédéterminé de poissons de chaque espèce est sous-échantillonné.
SRM	<u>Systematic Random</u> sampling of a <u>Mixed</u> species sample: of the random sample taken, a small random subsample is taken and biological information extracted.	<u>Échantillonnage aléatoire systématique d'un échantillon d'espèces mixte</u> : un petit sous-échantillon aléatoire de l'échantillon aléatoire prélevé est prélevé et les données biologiques extraites.
SRP	<u>Systematic Random</u> sampling of <u>Priority</u> species: of the random sample taken, priority species are selected and biological information extracted.	<u>Échantillonnage aléatoire systématique d'espèces prioritaires</u> : les espèces prioritaires de de l'échantillon aléatoire prélevé sont sélectionnées et les données biologiques extraites.
OTH	<u>Other</u> . Provide details in comments	<u>Autre</u> Donner des informations détaillées en commentaires

Table 41. Fate

Code	English Description	French Description
DTS	Discarded - too small. Fish of no commercial value due to being of small size	Rejeté, trop petit. Poisson sans valeur commerciale en raison de sa petite taille
DUS	Discarded - unwanted species (e.g. with no commercial value or other than target species)	Rejeté, espèces indésirables (par exemple sans valeur commerciale ou autres que les espèces cibles)

DRB	Discarded - retention ban on the species due to flag state measures	Rejeté en raison de l'interdiction de rétention de l'espèce (mesures de l'État du pavillon)
DFL	Discarded - vessel fully loaded	Rejeté, navire entièrement chargé
DUD	Discarded – due to IOTC retention ban	Rejeté, en raison de l'interdiction de rétention de la CTOI
DPQ	Discarded – unfit for human consumption	Rejeté, sont impropres à la consommation humaine.
DDL	Discarded - too difficult to land	Rejeté, trop difficile d'embarquer
DFR	Discarded - trunk - fins retained (shark only)	Tronc jeté - ailerons conservés (requin seulement)
DTR	Discarded - trunk retained, fins discarded (shark only)	Ailerons jetés - tronc conservé (requin seulement)
RCC	Retained - crew consumption	Conservé, consommation de l'équipage
RFL	Retained - for landing / sold	Conservé, pour être débarqué / vendue
RFR	Retained trunk - fins retained (shark only)	Tronc retenu - ailerons retenus (requin seulement)
RFT	Retained for at-sea-transshipment	Retenu pour le transbordement en mer
ESC	Escaped	Échappé
UNK	Unknown fate	Inconnue

Table 42. Weight estimation method

Code	English Description	French Description
EB	Electronic balance	Balance électronique
SB	Spring balance	Balance à ressort
MB	Mechanical balance	Balance mécanique
EM	Eye measurement (observer)	Mesure oculaire (observateur)
LO	Vessel logbook (eye measurement crew)	Journal de bord du navire (mesure oculaire équipage)
LW	Length weight relationship	Relation longueur / poids

Table 43. Processing/product type

Code	English Description	French Description
RD	Unprocessed; Round	Poids vif (entier)
GG	Gilled-and-gutted (bill-off)	Poids éviscéré (sans branchies et sans
HD	Headed-and-gutted	Poids étêté et éviscéré
PD	Headed and caudal peduncle-off	Poids étêté, éviscéré et sans pédoncule caudal
HT	Headed and tailed	Poids étêté, éviscéré et
HG	Headed, gutted and tailed	Etêté, éviscéré et sans nageoire caudale
FL	Fish loins	Longes de poisson
GT	Gilled, gutted and tailed	Poids éviscéré, sans branchies et sans
GO	Gutted only (gills left)	Poids éviscéré avec branchies
FW	Fillet	Filet

FT	Fins and trunk (shark)	Ailerons et tronc (requin)
SF	Fins (shark)	Ailerons (requin)

Table 44. Depredation source

Code	English Description	French Description
SH	Shark	Requin
TW	Toothed whales	Baleines à dents
SW	Sharks/toothed whales	Requins / baleines à dents
MM	Marine mammal	Mammifère marin
CC	Cookie-cutter shark	Requin emporte-pièce
BA	Depredation on bait	Depredation sur appât
SQ	Squid	Calamar
SB	Birds	Des oiseaux
OT	Other (specify)	Autre (précisez)
UNK	Unknown	Inconnu

Table 45. Condition

Code	English description	French description
A0	Alive - condition unknown	Vivant - etat inconnu
A1	Alive - active, healthy	Vivant - actif, en bonne santé
A2	Alive - injured, distressed	Vivant - blessé, en détresse
A3	Alive - very weak, dying	Vivant - très faible, mourant

D	Dead	Mort
U	Condition unknown	Etat inconnu

Table 46. Species of special interest (SSI)

- ☐ All marine turtles / toutes les tortues marines
- ☐ All marine mammals / tous les cétacés
- ☐ All seabirds / tous les oiseaux de mer
- ☐ Designated shark species / requins désignés
 - Species with a retention ban: Whale sharks (Res 13/05), oceanic white tip sharks (Res 13/06) and thresher sharks (Res 12/09.)
- ☐ Designated billfish species (species included in Res 18/05): striped marlin, black marlin, blue marlin and Indo-Pacific sailfish.

Table 47. Gear interaction

Code	English Descrip	French Description
HB	Hooked in the beak or mouth	Accroché au bec ou bouche
HR	Hooked in the rostrum (billfish only)	Accroché au rostrum (porte-épée seulement)
HJ	Hooked in the fish/shark jaw (include jaw hinge, lower and upper jaw).	Accroché à la mâchoire du poisson/requin (inclue l'articulation de la mâchoire inférieure et supérieure).
HL	Hooked in the fish/shark lip	Accroché à la lèvre (poisson / requin)
HG	Hooked in the gills / gill plate / gill slits.	Accroché dans les branchies / plaque branchiale / fentes branchiales
HI	Hooked in the throat (internal including gullet)	Accroché à la gorge (interne, y compris l'œsophage)
HT	Hooked in the gut (internal)	Accroché au boyau (interne)
HO	Any other external location	Tout autre emplacement externe
EN	Entangled in the net	Enchevêtré dans le filet
EL	Entangled in the line	Enchevêtré dans la ligne
EF	Entangled with FAD	Enchevêtré dans le DCP
EG	Entangled in ghost fishing gear	Enchevêtré dans des engins de pêche fantômes
OT	Other (describe)	Autre (décrire)
UK	Unknown	Inconnu

Table 48. Hauling methods

Code	English Description	French Description
HD	By hand	Amené à bord à la main
GR	Using the gear	Avec l'engin de pêche
GF	Using a gaff	Avec un crochet (gaffe)
BR	Using a brailler	Avec l'épuisette du senneur
SN	Using a scoop net	Avec une épuisette
ON	Using another net	Avec une autre type d'épuisette
OT	Using another method (describe)	Avec une autre méthode (décrire)

Table 49. De-hook line cutting device

Code	English Description	French Description
LC	Line cutter	Coupe-fil
WC	Rebar wire cutter	Coupe-câble
HD	Hook disgorging	Dégorgeoir
KN	Knife	Couteau

Table 50. Sex

Code	English Description	French Description
M	Male	Mâle
F	Female	Femelle
J	Juvenile	Juvénile
UNK	Not determined	Non déterminé

Table 51. Tag type

Code	English description	French description
TC	Conventional (plastic spaghetti tags inserted through fish first dorsal fin)	Conventionnel (marque spaghetti en plastique insérée dans la 1 ^{ère} dorsale)
TR	Rototags (a two-piece plastic tag inserted through fish first dorsal fin)	Rototags (marque plastique en deux morceaux insérée dans la 1 ^{ère} dorsale)
TS	Sonic tags (implanted in the body cavity).	Marques soniques (implantées dans la cavité corporelle).
TP	Pop-up tags (inserted into the dorsal musculature).	Marques pop-up (insérées dans la musculature dorsale).
TI	Internal archival tags (implanted in the body cavity).	Marques archive internes (implantées)

		dans la cavité corporelle).
TT	Smart Position/ Temperature Transmitting tags (attached to the dorsal fin)	Marques de transmission de position / temp. intelligentes (attachées à la 1ère dorsale)

MB	Metal legband tag (seabirds)	Bande en métal (oiseaux de mer)
MT	Metal tag (turtles - a different tag number for each flipper).	Marques en métal (utilisées sur les tortues de mer).
ST	External satellite tag (placed in turtle / bird back).	Marque satellite externe (sur le dos des tortue / oiseau).
TO	Other (specify)	Autre (précisez)

Table 52. Length measurement descriptions²³²⁴²⁵

Code	Tools	Type	Description (all rounded to the lowest cm)
FL	Caliper	Fork length	Tip of the snout to the fork of the tail
FT	Tape measure	Curved fork length	Tip of the snout to the fork of the tail
FB	Board	Board fork length	Tip of the snout to the fork of the tail
EF	Caliper	Eye fork length	Caudal margin of eye to the fork of the tail
ET	Tape measure	Curved eye fork length	Caudal margin of eye to the fork of the tail
PF	Caliper	Pectoral fork length	Anterior insertion of the pectoral fin to the fork of the tail
PT	Tape measure	Curved pectoral fork length	Anterior insertion of the pectoral fin to the fork of the tail
DF	Caliper	Dorsal fork length	Anterior insertion of the dorsal fin to the fork of the tail
DT	Tape measure	Curved dorsal fork length	Anterior insertion of the dorsal fin to the fork of the tail
CK	Caliper	Cleithrum-keel length	Posterior point of cleithrum to the anterior point of the caudal keel
KT	Tape measure	Curved cleithrum keel length	Posterior point of cleithrum to the anterior point of the caudal keel
CF	Caliper	Cleithrum-fork length	Posterior point of cleithrum to the fork of the tail
CT	Tape measure	Cleithrum-fork length	Posterior point of cleithrum to the fork of the tail
PAL	Caliper	Pectoral-anal length	Anterior insertion of pectoral fin to the posterior rim of the anal fin
PAT	Tape measure	Curved pectoral anal length	Anterior insertion of pectoral fin to the posterior rim of the anal fin
Billfish			
LJFL	Caliper	Lower Jaw Fork Length	Tip of the lower jaw to the fork of the tail
LJFT	Tape measure	Curved Lower Jaw Fork Length	Tip of the lower jaw to the fork of the tail
Sharks			
PCL	Caliper	Precaudal Length	Tip of the head to the anterior portion of the caudal keel
PCT	Tape measure	Curved Precaudal Length	Tip of the head to the anterior portion of the caudal keel
Rays			
TW	Caliper	Total width	Total disc width
TT	Tape measure	Curved Total width	Total disc width

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24 Collette, B.B. and C.E. Nauen, 1983. FAO species, catalogue. Vol. 2. Scombrids of the world. An annotated and illustrated catalogue of tunas, mackerels, bonitos and related species known to date. FAO Fish.Synop., (125)Vol. 2: 137 p.

25 Nakamura, I., 1985. FAO species catalogue. Vol.1.5. Billfishes of the World. An annotated and illustrated catalogue of marlins, sailfishes, spearfishes and swordfishes known to date. FAO Fish.Synop., (125)Vol.1.5:65 p.

Turtles			
CL	Caliper	Carapace Length	Total carapace length - notch to notch
CT	Tape measure	Curved Carapace Length	Total carapace length - notch to notch
Birds			
TL	Caliper	Total length	Tip of bill to tip of tail
WL	Caliper	Wing length	Bend of the wing to the tip of the longest primary feathers

Insert French version of table