

## REGIONAL OBSERVER SCHEME DATA FIELD REPORTING RATES

UPDATED: MAY 2024

### PURPOSE

To inform participants at the 4<sup>th</sup> Working Group on Electronic Monitoring Systems (WGEMS04) of the reporting rates of all the Regional Observer Scheme (ROS) data fields based on data submitted to the Secretariat that is available in a format that can easily be extracted for inclusion in the ROS database.

### BACKGROUND

ROS data are received in various format by the Secretariat. Currently data for only some CPCs are uploaded into the ROS database due to issues in importing data in incompatible formats (i.e. pdf or word) or CPC’s access to the ROS online tool.

For years many CPCs have been using pdf/word format which is based on the initial standard reporting requirements of the ROS (Resolution 11/04). Although obsolete, several CPCs are still using these forms, but often include details in more of a summary format.

Since the introduction of excel formats for submission of ROS data, some CPCs use the forms but do not always complete all the required fields. The latest version, which is in line with ROS tool, and is also available in excel is also being used by some CPCs, but again not all fields are completed.

Availability of information from the ROS database depends on: (i) if the requirements are mandatory to report or not; (ii) the fisheries; and (iii) if the information could be obtained from other data sources (e.g. the RAV for vessel information and registration/ports). Currently the ROS repository database contains information for purse seine and longline fisheries only.

Below are overall summaries of proportions of information reported by overall requirement headings. The table shows the reporting of information split by Mandatory, Optional and Mandatory to report when collected data fields as a proportion of the total number of submissions contained within the database. For full details of each data field consult Appendix I.

### 1. General/trip information data fields (common across all gears)

GENERAL VESSEL AND TRIP INFO	Mandatory	Optional
Trip information	100%	23%
Observer identification	90%	16%
Vessel identification	70%	70%
Vessel attributes	90%	2%
Vessel electronics	15%	15%
Waste management (MARPOL agreement, annex 5)	0	0
Observed trip summary	100%	90%

**2. Purse seine specific data fields**

PURSE SEINE - Gear specifications		Mandatory	Optional	Mandatory to report when collected
	Special equipment or machinery	1%		
	General gear attributes	32%	0%	
<b>PURSE SEINE - Fishing events</b>				
	Setting operations	100%	0%	
	Object details	0%	70%	
	Cetaceans and whale shark sighting	0%	0	
	Support vessel details	0%	0	
	Details on the current	0%	0	
	Catch details	75%	0%	50%
	Specimen information	0%	0%	42%
	Biometric information	100%	0%	2%

**3. Longline specific data fields**

LONGLINE - Gear specifications		Mandatory	Optional
	Special equipment or machinery	53%	
	General gear attributes	70%	90%
	Branchline configuration number	1%	1%
	Mitigation devices		75%
	Tori line details	0%	0%
<b>LONGLINE - Fishing events</b>			
	Setting operations	60%	24%
	Mitigation measures	14%	37%
	Hauling operations	99%	42%
	Catch details	67%	
	<b>Specimen information</b>		
	SPECIMEN_NUMBER	100%	
	LL_ADDITIONAL_CATCH_DETAILS	1%	
	ADDITIONAL_SPECIMEN_DETAILS	99%	
	BIOMETRIC_INFORMATION	57%	
	LL_DEPREDATION_DETAIL	44%	
	LL_TAG_DETAIL	0%	

#### 4. Other reporting of ROS data

The other format of data received by the Secretariat, contains more or less the same fields as the data that have been input into the database, although not fully completed. The table below summarises the data that have been provided under each section heading based on the format available.

EMS data are only available from one CPC, and these data have been provided in tables in excel. PDF or word formats, with consistent layouts and fields are most commonly reported. Some CPCs have recently shifted to using the new excel template as opposed to the pdf format. Around three CPCs used the older excel template, although most of trip and operation data are completed, information on catch, particularly the optional fields have not been completed.

EMS	Availability	PDF/Word	Availability	Excel	Availability
Trip information	Available	Observer trip information	Yes	Trip information	Yes
Vessel information		Scientific observer and vessel details	Yes	Observer information	Yes
Operation details		Scientific observer details	Yes	Vessel details	Yes
Setting		Vessel details	Yes	Vessel Electronic equipment	Yes
hauling		Vessl info	Yes	Gear detail	Yes
Catch details		Electronic equip	Partial	Operation details (LL)	Yes
		Cruise itinerary	Yes	Setting	Yes
		Fishing Operations	Partial	Hauling	Yes
		Summary meteorological details	Rarely	Mitigatin	Yes
		Summary of fishing strategy	Yes	Sampling	
	Summary of incidental catches	Rarely	Catch information	Only mandatory	
	Summary of Biological data collected	Yes			
	Lost fishing gear	no			

#### APPENDICES

##### Appendix I: Breakdown of reporting rates of all data fields

**APPENDIX I**

**Breakdown of reporting rates of all data fields**

**1. General/trip information data fields (common across all gears)**

Data field name	Data field description	Current Reporting requirement	Database entry	% reported
<b>GENERAL VESSEL &amp; TRIP INFO FOR ALL TYPES OF VESSELS</b>				
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	TRIP_NUMBER	100.0%
<b>OBSERVER IDENTIFICATION</b>				
Observer IOTC registration number	Record observer registration number allocated by the IOTC Secretariat to be used on all observer data submissions.	MR	OBSERVER_IOTC_NUMBER	2.5%
Observer name	Record the name of the scientific observer(s) that collected the data on-board the fishing vessel.			
Observer nationality	Record the nationality of the scientific observer as it appears in passport		OBSERVER_NATIONALITY	53.2%
<b>OBSERVER TRIP DETAILS</b>				
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.			
Date / time embarkation	Record the date and time that the observer boarded the vessel.		OBSERVER_IMBARCATION_DATE	4.6%
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.			
Date / time disembarkation	Record the date and time that the observer disembarked from the vessel.		OBSERVER_DISEMBARCATION_DATE	4.6%

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).	MR	NAME	99.5%
Vessel flag state (or where chartering occurs, chartering state)	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.	MR	FLAG_ID	100.0%
Vessel IOTC number	Vessel IOTC number as per the IOTC Record of Authorized Vessels and crosschecked with the number recorded on vessel certificates.	MR	IOTC_NUMBER	100.0%
Vessel IMO or Lloyd's number	Vessel IOTC number as per the IOTC Record of Authorized Vessels and crosschecked with the number recorded on vessel certificates.	OR	IMO_NUMBER	90.9%
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.		IRCS	98.6%
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	PORT_ID	1.8%
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).		REGISTRATION_NUMBER	15.4%
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			
VESSEL OWNER & PERSONNEL				
Registered owner	Record the owner's name, nationality 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 and contact details.			
Fishing master	Record the fishing master name and nationality in full			
Skipper	Record skipper name and nationality in full			
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		VESSEL_DEPARTURE_PORT VESSEL_DEPARTURE_COUNTRY	5.2% 5.2%
Date / time vessel sailed	Record the date and time the vessel departed from port or from a transshipment location.		VESSEL_DEPARTURE_DATE	0.0%
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		VESSEL_RETURN_PORT VESSEL_RETURN_COUNTRY	5.0% 5.0%
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		VESSEL_RETURN_DATE	99.2%

VESSEL ATTRIBUTES				
Tonnage	The vessel tonnage as specified in vessel registration papers.	MR	TONNAGE_ID	100.0%
Length overall	The vessel overall length (LOA) as specified in vessel registration papers.	MR	LOA_ID	100.0%
Hull material	Record the vessel hull material (s) (steel, wood, aluminium, fibre glass, etc.)	MR	HULL_MATERIAL_ID	95.0%
Main engines (make and power)	The make (brand) and power of the main engines.	MR	MAIN_ENGINE_ID	95.0%
Fish storage capacity	The vessel total maximum capacity to store catches. This should include blast freezer(s) capacity	MR	FISH_STORAGE_CAPACITY_ID	100.0%
Fish preservation methods	Fish preservation methods: Record the method(s) used by the vessel to preserve the catch		FISH_PRESERVATION_METHOD_ID	5.7%
Fish storage type	Record the type of structure(s) present on-board used by the vessel to store the catch		FISH_STORAGE_TYPE_ID	0.1%
Vessel autonomy / range	Record the type of structure(s) present on-board used by the vessel to store the catch			
VESSEL ELECTRONICS				
Global positioning system (GPS)	Indicate Yes if on board No if not sighted.	MR	GPS	26%
Vessel Monitoring Systems (VMS)	Indicate Yes if on board No if not sighted.	MR	VMS	23%
Radars	Indicate Yes if on board No if not sighted.	MR	RADARS	25%
Track plotter	Indicate Yes if on board No if not sighted.	MR	TRACK_PLOTTER	4%
Depth sounder	Indicate Yes if on board No if not sighted.	MR	DEPTH_SOUNDER	21%
Sonar	Indicate Yes if on board No if not sighted.	MR	SONAR	22%
Doppler Current Meter	Indicate Yes if on board No if not sighted.	MR	DOPPLER_CURRENT_METER	2%
Expendable bathythermographs (XBT)	Indicate Yes if on board No if not sighted. XTBs are usually mounted on the bridge wings.	MR	EXPENDABLE_BATHYTHERMOGRAPHS	1%
VHF radios	Indicate Yes if on board No if not sighted.		VHF_RADIOS	0%
HF radios	Indicate Yes if on board No if not sighted.		HF_RADIOS	2%
Satellite communication systems	Indicate Yes if on board No if not sighted.		SATELLITE_COMMUNICATION_SYSTEMS	1%
Sea Surface Temperature (SST) gauge	Indicate Yes if on board No if not sighted. SST gauge is usually mounted on the bridge.		SEA_SURFACE_TEMPERATURE_GAUGE	4%
Weather facsimile	Indicate Yes if on board No if not sighted.		WEATHER_FACSIMILE	100%
Fisheries information services	Indicate Yes or No if the vessel has access to a Fisheries information service		FISHERIES_INFORMATION_SERVICES	2%
			AIS	0%
WASTE MANAGEMENT (MARPOL Agreement Annex 5)				
Waste category	Record the category of the waste produced by the vessel	OR	Waste category	0
Storage / disposal method	Record how the waste was disposed of.	OR	Storage / disposal method	0

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.	MR	NUMBER_OF_CONDUCTED_FISHING_EVENTS_WITH_C	100%
Number of fishing events / sets observed	Record the total number of fishing sets/events monitored by the observer	MR	NUMBER_OF_OBSERVED_FISHING_EVENTS	100%
Number of days searching	Record the total number of days that the vessel was engaged in actively searching for fish (this includes active fishing day	MR	NUMBER_OF_DAYS_SEARCHING	100%
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).	MR	NUMBER_OF_ACTIVE_FISHING_DAYS	99%
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	NUMBER_OF_DAYS_LOST	96%
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_IN_FISHING_AREA	100%
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.		NUMBER_OF_DAYS_TRANSITING	3%

2. Purse seine specific data fields

PURSE SEINE INFORMATION				
PS SPECIAL EQUIPMENT OR MACHINERY				
Power block	Indicate Yes if on board No if not sighted.	MR	POWER_BLOCK	1
Purse winch	Indicate Yes if on board No if not sighted.	MR	PURSE_WINCH	
PS 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.	MR	MAXIMUM_NET_LENGTH_ID	100%
Maximum depth of the net	Record the maximum fishing depth according to the net specifications	MR	MAXIMUM_NET_DEPTH_ID	10%
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.	MR	BUNT_STRETCHED_MESH_SIZE_ID	10%
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	MR	MID_NET_STRETCHED_MESH_SIZE_ID	10%
Maximum brail capacity	Record the maximum weight capacity of a full brail in metric tonnes (Mt)	MR	MAXIMUM_BRAIL_CAPACITY	0
Skiff power	Record the skiff engine power		SKIFF_POWER_ID	0
PS FISHING EVENT				
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		
PS FISHING OPERATIONS				
Start setting date and time	Record the date and time the skiff is launched to start the setting operation.	MR	START_SETTING_DATE_AND_TIME	100%
Start setting position	Record the position in latitude and longitude for the start of the setting operation	MR	START_SETTING_LATITUDE	100%
			START_SETTING_LONGITUDE	100%
Beaufort	Record the force of the wind according to the Beaufort scale		WIND_SCALE_ID	0%
School sighting cues and school types	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	MR	FIRST_SCHOOL_DETECTION_METHOD_ID	0%
First detection method	Record how the vessel first detects the tuna school, floating object or birds. 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		SCHOOL_SIZE	0%
Time net pursed	Record the time (hh:mm) when the net is fully pursed. All rings are up.	MR	TIME_NET_PURSED	0%
Time start brailing	Record the time that brailing starts (hh:mm)		TIME_START_BRAILING	0%
Time end brailing	Record the time that brailing ends (hh:mm)		TIME_END_BRAILING	0%
Time Skiff onboard	Record the time when the skiff comes on board and the set is over (hh:mm)		TIME_SKIFF_ONBOARD	0%
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.		MAXIMUM_CLOSING_NET_DEPTH	0%



PS OBJECT DETAILS				
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).	OR	BUOY_IDENTIFIER	100%
Buoy equipped with artificial lights	Report if devices equipped with artificial lights are deployed and/or recovered	OR	EQUIPPED_WITH_ARTIFICIAL_LIGHTS_AT_DEPLOY	100%
			EQUIPPED_WITH_ARTIFICIAL_LIGHTS_ON_RETRIEVAL	100%
Artificial FAD design	Characterize artificial FAD design using codes provided to describe raft (floating part) and tail (underwater hanging structure) materials	OR	FAD_RAFT_DESIGN_ID	
			FAD_TAIL_DESIGN_ID	
PS CETACEANS AND WHALE SHARKS SIGHTINGS DURING			<b>Cetaceans and whale shark sightings duri</b>	<b>0</b>
Sighting occurred before setting	Indicate YES if the sighting occurred before setting or NO if it occurred after.	OR	SIGHTING_OCCURRED_BEFORE_SETTING	
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	SPECIES_ID	
Number sighted	The number of individuals sighted per species	OR	NUMBER_SIGHTED	
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	CAUGHT_INSIDE_THE_NET	
PS SUPPORT VESSEL DETAILS			<b>Support vessel details</b>	<b>0</b>
Support vessel presence	Record if a supply vessel is present during the observed set		SUPPORT_VESSEL_PRESENCE	
Support vessel name	Record the name of the support vessel present during the observed set.		SUPPORT_VESSEL_NAME	
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.)		SUPPORT_VESSEL_PARTICIPATION	
			SUPPORT_VESSEL_PARTICIPATION_DESCRIPTION	
			PS_SETTING_OPERATION_ID	
PS DETAILS ON CURRENT				
Current direction	Record current direction using cardinal points (E, W, SW, SSW, etc.). This information is to be requested from bridge officers.		CURRENT_DIRECTION	
Current speed	Record current speed in knots. This information is to be requested from bridge officers.		CURRENT_SPEED	
Current depth	Record current depth in metres. This information is to be requested from bridge officers		CURRENT_DEPTH	

PS CATCH DETAILS				
Set number	Unique within a specific trip	MR	PS_FISHING_EVENT_ID	100%
Catch detail number	Unique within a specific set	MR	CATCH_DETAIL_NUMBER	100%
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, record the species scientific name	MR	SPECIES_ID	100%
Fate	Specify the fate which includes whether it was retained or discarded and the reason, e.g. "Discarded – too small"	MR	FATES_ID	100%
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	MR	ESTIMATED_WEIGHT_SAMPLING_METHOD_ID	23%
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	ESTIMATED_CATCH_IN_NUMBERS	95%
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)	MR		23%
Weight estimation method	Specify the weight estimation method used to obtain the weight	MR	ESTIMATED_WEIGHT_ID	26%
Weight code	Record the type of processing the species underwent prior to weighing. If the species has not been processed, record the code for unprocessed (or round, whole, live) weight (i.e. RD).	MR		
PS - ADDITIONAL DETAILS ON NON-TARGET SPECIES				
Condition at capture	State the condition of the specimen at capture	OR		
Condition at release	State the condition of the specimen at the time of release	OR		
PS - SPECIMEN INFORMATION				
Set Number	Unique within a specific trip	MR	PS_FISHING_EVENT_ID	0%
Catch detail number	Unique within a specific set	MR	PS_CATCH_DETAIL_ID	100%
Specimen number	Unique within a specific catch detail	MR	SPECIMEN_NUMBER	
PS - ADDITIONAL DETAILS ON NON-TARGET SPECIES				51%
Condition at capture	State the condition of the specimen at capture	OR		
Condition at release	State the condition of the specimen at the time of release	OR		
PS - ADDITIONAL CATCH DETAILS ON SSIs				0%
Gear interaction	For SSI only, specify the type of interaction of the specimen with the fishing gear	OR		
Brought on board	Indicate Yes or No, if the specimen was brought on board	OR		
Handling method	Detail how the specimen was brought on-board	OR		
Revival (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			

PS - BIOMETRIC INFORMATION			BIOMETRIC_INFORMATION_ID	100%
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample	MR	BIO_COLLECTION_SAMPLING_METHOD_ID	100%
Length code 1	Specify the length code used for the measurement	MR	MEASURED_LENGTH_ID	100%
Length 1	Record the length corresponding to the length type taken rounded to the lower centimeter	MR		100%
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded	OR	ALTERNATIVE_MEASURED_LENGTH_ID	0
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	OR	ESTIMATED_WEIGHT_ID	2%
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	OR		
Sex	Record the sex of the sampled fish specimen. If unknown record UNK	OR	SEX_ID	0
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	MATURITY_STAGE_ID	0
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	SAMPLE_COLLECTION_DETAIL_ID	0
PS - TAG DETAILS			PS_TAG_DETAIL_ID	0%
Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR		
Tag recovery	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR		
Tag type	Provide the tag number. If a turtle, provide both tag numbers (right and left flipper).	MR		
Tag number	Record the type of tag used	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		
PS - VESSEL DAILY ACTIVITY INFORMATION				
Date	Record the date.			
Time	Record time at the start of every fishing activity and every two hours from sunrise to sunset.			
Position	Record vessel position at the start of every fishing activity and every two hours from sunrise to sunset			
Activity	Record vessel activity at the start of every fishing activity and every two hours from sunrise to sunset			
Comments	Record short commentaries on exceptional events that could not be described by the previous data fields			

**3. Longline specific data fields**

LONGLINE INFORMATION				
LL 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		6%
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		99%
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		0
LL GENERAL GEAR ATTRIBUTES				
Mainline Material	Record the material the mainline is made out of, e.g. kevlar, nylon, nylon multifilament	MR	LINE_MATERIAL_TYPE_ID	40%
Mainline Length	Record the total length of the mainline (i.e. mainline maximum length). This information can be obtained from the Captain or Fishing Mast	MR	MAINLINE_LENGTH_ID	98%
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		MAINLINE_DIAMETER_ID	92%
Branchline configuration number	Unique number for a specific branchline specification as detailed based on the fields below	MR	Branchline configuration number	0%
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		BRANCHLINE_MATERIAL_TYPE_ID	1%
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.	MR	LENGTH_ID	1%
Branchline Diameter value	Red 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.	MR	DIAMETER_ID	1%
Branchline 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).			

LL MITIGATION DEVICES			Mitigation devices	75%
DMDs used	Record depredation mitigation device/s DMDs used by the vessel (if any)			
Tori line length	Record the total length of the tori line (not including streamers).	MR	TORI_LINE_LENGTH_ID	0%
Streamer type	Indicate the type of streamers which are used with the tori line (e.g. paired or single)	MR	STREAMER_TYPE	
Streamer line length	Record length of individual streamer lines (minimum and maximum where lengths vary). Record only one length if they do not vary.	MR	STREAMER_LINE_LENGTH_MAX_ID	
			STREAMER_LINE_LENGTH_MIN_ID	
No. streamers per line	Record the number of streamers that are attached to a single tori line	MR	NUMBER_OF_STREAMERS_PER_LINE	
Distance between streamers	Record the distance between streamers		STREAMER_DISTANCE_ID	
Attached height	Record the height hat the tori line is attached above the water level	MR	ATTACHED_HEIGHT_ID	
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		STREAMERS_REACH_SURFACE	
Towed objects	Record the total number and type of towed objects used to maintain tori line tension and achieve aerial extent when deployed.		TOWED_OBJECTS_NUMBER	
			TOWED_OBJECTS_TYPE	
Diagram	Sketch / complete a diagram containing Tori line key features			
LL FISHING EVENT				
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....	MR	SET_ID & NUMBER OF SETS	100%

LL SETTING OPERATIONS				
Start setting date and time	Record the date/time the first dhan buoy and/or radio buoy is deployed to start the setting of the line.	MR	START_SETTING_DATE_AND_TIME	100%
	Note: specify units (preferably hh:mm and YYYY/MM/DD).			
Start setting position	Record the position in latitude and longitude for the start of the setting operation	MR	START_SETTING_LATITUDE	100%
	Note: latitude and longitude to be recorded mentioning if collected South or North of the equator and specifying units (preferably ±(d)dd.dddd°).		START_SETTING_LONGITUDE	100%
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.	MR	END_SETTING_DATE_AND_TIME	100%
End Setting Position	Record the position in latitude and longitude for the end of the setting operation		END_SETTING_LATITUDE	42%
			END_SETTING_LONGITUDE	42%
Vessel speed	Record the vessel's average speed during setting (knots).		VESSEL_SPEED	31%
Line setter speed	Record the speed setting of the line setter (metres/second).		LINE_SETTER_SPEED	0%
Mainline set length	Record mainline total set length (i.e. the total deployed length of the mainline for	MR	MAINLINE_SET_LENGTH_ID	42%
Branchline clip on time	Record the average time interval in seconds between the "beeps" that indicate to		BRANCHLINE_CLIP_ON_TIME	1%
Buoys clip on time	Record the average time interval in seconds between the "beeps" that indicate to the crew to clip on a buoy		BUOYS_CLIP_ON_TIME	0%
Total number of hooks set	Record the total number of hooks deployed for the set. Usually calculated by multiplying number of baskets by the	MR	TOTAL_NUMBER_OF_HOOKS_SET	100%
Total number of floats set	Record the total number of floats deployed during the set (this should not include the radio/dhan buoys). Usually		TOTAL_NUMBER_OF_FLOATS_SET	41%
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		NUMBER_OF_HOOKS_SET_BETWEEN_FLOATS	42%
Distance between branchlines	Record the distance between branch lines (i.e. the interval at which they were set along the mainline) in metres.		DISTANCE_BETWEEN_BRANCHLINES	28%
Floatline length	Record the different lengths of the floatlines used (1, 2 and 3).			0%
Total radio / dhan buoys set	Record the total number of radio and /or dhan buoys deployed.			41%
Attached lights	Record number of lights attached to the branchlines per type and			0%
Shark lines set	Indicate Yes or No if shark lines were set during the operation	MR	SHARK_LINES_SET	0%
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).		NUMBER_OF_SHARK_LINES_SET	0%
Target species	Record the target species for the set (FAO spp. 3-alpha code)	MR		100%
VMS on	Indicate Yes or No to sign if the VMS was on or not while setting and hauling	OR	VMS_ON	100%

LL SETTING OPERATIONS - 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	NUMBER_OF_TORI_LINES_DEPLOYED	22%
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)	MR	MINIMUM_DECK_LIGHTING_USED	0%
Branchline weighted	Indicate Yes or No if the branch line is weighted.	MR	BRANCHLINE_WEIGHTED	38%
Average sinker weight	Record the average weight of weights or sinkers attached to the branchlines (weights deployed on the snood prior to setting).	MR		
% branchlines weighted	Record the proportion of branchlines weighted (%). If all weighted, record 100%	MR	PERCENTAGE_OF_BRANCHLINES_WEIGHTED	0%
Hook-sinker distance	The distance of the weights/sinkers from the eye of the hook	MR	HOOK_SINKER_DISTANCE_ID	0%
Underwater setting	Indicate Yes or No if the bait is protected on the branchlines until they are a certain depth below the surface		UNDERWATER_SETTING	37%
Other mitigation measures used	Record any other mitigation measures observed			
No. 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.		NUMBER_OF_BRANCHLINES	
Hook type	Record the type of hooks used	MR	HOOK_TYPE_ID	28%
% hooks set by type	Record the percentage (%) of hooks set by type	MR	PERCENTAGE_OF_SET	25%
Variations in hook	Where possible indicate any variations in hook type, hook material and presence/absence of hook ring		VARIATIONS	0%
Bait type	Record bait type/condition used	MR	Bait	24%
Bait species	Record the species of bait used (FAO spp. 3-alpha code)	MR	SPECIES_ID	23%
Bait ratio (%)	Record the approximate proportion of bait species and condition used across all hooks in the set (%).	MR	RATIO	23%
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.		DYE_COLOUR	18%
			BAIT_CONDITION_ID	5%
LL - 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.	MR	START_HAULING_DATE_AND_TIME	100%
Start hauling position	Record the position in latitude and longitude for the start of the hauling operation	MR	START_HAULING_LATITUDE	98%
			START_HAULING_LONGITUDE	98%
End hauling date and time	Record the date and the time when the when the last component of the longline gear (dhan buoy and / or radio buoy) is hauled back on-board		END_HAULING_DATE_AND_TIME	100%
End hauling position	Record the position in latitude and longitude for the end of the hauling operation		END_HAULING_LATITUDE	4%
			END_HAULING_LONGITUDE	4%
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		OFFAL_MANAGEMENT	100%
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			
Bird scaring device at hauler	Indicate Yes if a bird scaring device was deployed during hauling operations and No if not.		BIRD_SCARING_DEVICE_AT_HAULER	3%
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	NUMBER_OF_HOOKS_OBSERVED	100%
Sampling protocol	Indicate sampling protocol followed by the observer	MR	SAMPLING_PROTOCOL_ID	100%

LL - CATCH DETAILS			LL_CATCH_DETAIL_ID	100%
Set number	Unique within a specific trip	MR		100%
Catch detail number	Unique within a specific set	MR	CATCH_DETAIL_NUMBER	100%
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, record the species scientific name	MR	SPECIES_ID	99%
Fate	Specify the fate which includes whether it was retained or discarded and the reason, e.g. "Discarded – too small"	MR	FATES_ID	92%
			ESTIMATED_CATCH_IN_NUMBERS	100%
			ESTIMATED_WEIGHT_SAMPLING_METHOD_ID	23%
			ESTIMATED_WEIGHT_ID	23%
LL - SPECIMEN INFORMATION				
Set Number	Unique within a specific trip	MR		100%
Catch detail number	Unique within a specific set	MR	CATCH_DETAIL_NUMBER	100%
Specimen number	Unique within a specific catch detail	MR	SPECIMEN_NUMBER	100%
LL - DEPREDATION DETAILS				
Depredation source	For depredated specimens, record the depredation source based on depredation scar characteristics (Table 44). For non-depredated specimens record NA	MR	LL_DEPREDATION_DETAIL_ID	44%
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	MR		NULL
LL - ADDITIONAL DETAILS ON NON-TARGET SPECIES			LL_ADDITIONAL_CATCH_DETAILS_ON_SIS_ID	1%
			ADDITIONAL_SPECIMEN_DETAILS_NON_TARGET_SPE	99%
Condition at capture	State the condition of the specimen at capture	OR		
Condition at release	State the condition of the specimen at the time of release	OR		



LL - ADDITIONAL CATCH DETAILS ON SSIs				
Gear interaction	For SSI only, specify the type of interaction of the specimen with the fishing gear	OR		
Hook type	For SSI only, record the type of hook the individual was hauled on	OR		
Bait type	For SSI only, record the type/condition of bait the individual was hauled on	OR		
Leader material	For SSI only, record the leader material the individual was hauled on	OR		
Leader thickness	For SSI only, record the thickness of the leader the individual was hauled on	OR		
De-hooker / line cutter	Specify de-hooking or line cutting device used to extract the hook	OR		
Brought on board	Indicate Yes or No, if the specimen was brought on board	OR		
Handling method	Detail how the specimen was brought on-board	OR		
Revival (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			
LL - BIOMETRIC INFORMATION			BIOMETRIC_INFORMATION_ID	57%
Sampling methods for the collection of biological information	Indicate the sampling method used for the collection of biological sub-sample	MR		
Length code 1	Specify the length code used for the measurement	MR		
Length 1	Record the length corresponding to the length type taken rounded to the lower centimeter	MR		
Length code 2	When an additional length measurement is taken, the corresponding length code should be recorded	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	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	OR		
Sex	Record the sex of the sampled fish specimen. If unknown record UNK	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: 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		
LL - TAG DETAILS			LL_TAG_DETAIL_ID	0%
Tag release	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR		
Tag recovery	Indicate Yes or No, whether this individual was re-released with a tag attached.	MR		
Tag type	Provide the tag number. If a turtle, provide both tag numbers (right and left flipper).	MR		
Tag number	Record the type of tag used	MR		
Tag finder	Record the name and contact details of the person who recovered the tag	MR		

**4. Transshipment data fields (common across all gears)**

VESSEL TRANSHIPMENT INFORMATION				
Start date	Record the date the transshipment takes place			
Start time	Record the time the transshipment of fish starts			
End date and time	Record the time the transshipment of fish ends. Stores, bait or fuel may also be transhipped. The time and details of this must not be confused with the time that fish or fish products are being transhipped.			
Position	Record the position of your vessel, during transshipment.			
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.3Alpha and IOTC "Product" categories. 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			
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			