

INTER-AMERICAN TROPICAL TUNA COMMISSION

103<sup>RD</sup> MEETING

Panama City, Panama

1-5 September 2025

PROPOSAL IATTC-103 L-1

SUBMITTED BY THE EUROPEAN UNION

RESOLUTION C-~~1925-08~~ XX

RESOLUTION ON SCIENTIFIC OBSERVERS FOR LONGLINE VESSELS

The Inter-American Tropical Tuna Commission (IATTC), gathered in ~~Bilbao, Spain~~ Panama City, Panama on the occasion of its 103<sup>rd</sup> ~~94<sup>th</sup>~~ Meeting;

Recognizing the need to collect scientific information on target species as well as comprehensive data on interactions with non-target species, in particular, sea turtles, sharks and seabirds;

Noting the need to ensure uniform and equitable treatment of all tuna-fishing vessels operating in the Convention Area;

Noting that all large purse-seine vessels operating in the Convention Area are required to carry scientific observers aboard, in accordance with the Agreement on the International Dolphin Conservation Program, and that the Commission has recommended the extension of observer coverage to smaller purse-seine vessels on a voluntary basis;

Acknowledging that some CPCs' shipowners of purse-seine vessels smaller than Class 6 make economic efforts to provide information on their activities, carrying observers aboard, in support of scientific research and thus Mindful of the need to ensure a level playing field among all tuna-fishing vessels operating in the Convention Area;

and

Taking into account all recommendations of the staff, the SAC, for 2023 in Document SAC-14-16, and the Working Group on Bycatch at their meetings in 2019 and the considerations of the CPCs; ~~Taking into account that IATTC scientific staff and the IATTC Working Group on Bycatch have reiteratedly recommended at least 20% observer coverage on longline vessels fishing for tunas in the Convention Area, and that the Working Group on Bycatch suggested that human observer coverage could be supplemented by electronic monitoring systems (EMS) in order to achieve that goal; and~~

~~Noting that the Scientific Advisory Committee (SAC), at its 10<sup>th</sup> meeting in May 2019, determined that the appropriate measure of longline fishing effort for calculating observer coverage is "number of hooks."~~

Agrees that:

1. Each Member and Cooperating non-Member (CPC) shall ensure that active longline vessels greater than 20 meters length overall carry human observers, in accordance with the following timeline of observation coverage:

|                                    |           |
|------------------------------------|-----------|
| <u>1<sup>st</sup> January 2026</u> | <u>7%</u> |
| <u>1<sup>st</sup> January 2027</u> | <u>9%</u> |

|                                    |            |
|------------------------------------|------------|
| <u>1<sup>st</sup> January 2028</u> | <u>11%</u> |
| <u>1<sup>st</sup> January 2029</u> | <u>13%</u> |
| <u>1<sup>st</sup> January 2030</u> | <u>15%</u> |

~~2.~~ For the purposes of this Resolution, the units to measure observation coverage are number of sets or number of hooks deployed ~~longline fishing effort is defined as the number of effective days of fishing<sup>+</sup> or hooks deployed.~~

3. Following the planned 2027 review of Resolution C 24-09, the Commission shall review this resolution at its 2028 annual meeting and consider - on the basis of CPC experiences with the use of EM in IATTC fisheries - the feasibility of allowing for EM to be used as a partial substitute or a complement for human observers to fulfil certain IATTC observer coverage requirements.

4. The main task of the scientific observers and/or EMS shall be to record, consistent with data standards established by the SAC, any available biological information, the catches of targeted fish species, species composition, size distribution of the catches and any available biological information, as well as any interactions with nontarget species such as sea turtles, seabirds and sharks including their condition when captured and released and, when appropriate and relevant for scientific purposes, to monitor the application of mitigation measures agreed by the Commission in a timely and accurate manner.

~~5.~~ At the latest by the 30<sup>th</sup> of May, each CPC shall update the list of its vessels by specifically indicating which vessels are active and the percentage of observers aboard, in addition to inactive and/or sunk and/or decommissioned vessels.

~~3. Each Member and Cooperating Non-Member (CPC) shall ensure that at least 5% of the fishing effort made by its longline fishing vessels greater than 20 meters length overall carries a scientific observer.~~

6. Each CPC shall endeavour endeavor to ensure that observer coverage is representative of the activities of its fleet, including in terms of gear configuration, target species and fishing areas.

~~4.~~

~~5.~~ 7. CPCs shall:

- a. Ensure that the minimum level of coverage is met;
- b. Take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;
- c. Endeavor to ensure that observers alternate vessels between their assignments;
- d. Ensure that the vessel on which an observer is placed provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible. Vessel masters shall ensure that all necessary cooperation is extended to observers in order for them to carry out their duties safely, including providing access, as required, to the retained catch, and catch which is intended to be discarded.

8. Scientific observers shall submit to their flag CPC authorities a report on these observations at the latest 30 days after the end of each fishing trip.

9. Every year, CPCs shall submit to the Scientific Advisory Committee, through the Director, by 31 March, the scientific observers' information on the previous year's fishery in a format established by the Committee.

10. The Director, in cooperation with the scientific staff and the Scientific Advisory Committee, shall review the existing reporting format detailing the required data to be collected directly by scientific observers and shall communicate it to the Commission at the latest by the 31<sup>st</sup> of December 2026.

~~6. The reporting requirements established by the SAC pursuant to resolution C-11-08 can be found in Annex A. The SAC may decide to modify these reporting requirements or establish new ones whenever deemed necessary and shall notify the Commission as appropriate for endorsement at the subsequent annual meeting of the IATTC.~~

~~7. CPCs shall submit operational data collected by observers from the previous year, consistent with the Minimum Data Reporting Standards (Annex B), to the Director no later than June 30 of each year.~~

~~Unless otherwise specified by the SAC, CPCs shall submit other reporting under this Resolution by 31 March of each year.~~

~~8.~~

~~9. The IATTC Scientific Staff, in consultation with CPCs, shall prepare a draft proposal for the development of minimum standards for the implementation of an EMS for the longline fleets, taking into account the experience of CPCs that are implementing EMS on longline vessels and progress made in other tuna RFMOs, to be submitted to the SAC meeting of 2020.~~

~~10. The SAC, in consultation with the IATTC Scientific Staff, shall present recommendations on this proposal to the Commission for its consideration at its annual meeting in 2020.~~

~~Annex A: Annual Summary Reporting (established by SAC 10)~~

~~Annex B: Minimum Data Reporting Standards (2 options, established by SAC 08)~~

~~— Option 1 (harmonized with WCPFC)~~

~~— Option 2 (IATTC developed longline observer forms)~~

~~Annex A:~~

# Template for annual summary reports on fleet information and observer data for longline vessels operating in the EPO

(adopted by the 10<sup>th</sup> Meeting of the IATTC Scientific Advisory Committee, May 2019)

| CPC  |  |          |               | Name   |          |               |  |
|--|--|----------|---------------|--|----------|---------------|--|
| FLEET INFORMATION (vessels >20 m LOA)  |  |          |               |  |          |               |  |
|  | Both set types combined  |          |               | Shallow sets<br>( $<15$ HPB/HBF <sup>1</sup> or $<100$ m max hook depth)                                     |          |               | ( $\geq 15$ HPB/HBF <sup>1</sup> )   |
| Period covered   | Date range<br>DD-MMM-YY – DD-MMM-YY  |          |               | Date range<br>DD-MMM-YY – DD-MMM-YY  |          |               | DD-MMM-YY – DD-MMM-YY  |
| Area fished  | from (XXX) <sup>o</sup> W to (XXX) <sup>o</sup> W and<br>from (XX) <sup>o</sup> S/N to (XX) <sup>o</sup> S/N |          |               | from (XXX) <sup>o</sup> W to (XXX) <sup>o</sup> W and<br>from (XX) <sup>o</sup> S/N to (XX) <sup>o</sup> S/N |          |               | from (XXX) <sup>o</sup> W to (XXX) <sup>o</sup> W and<br>from (XX) <sup>o</sup> S/N to (XX) <sup>o</sup> S/N |
|  | Total Fleet  | Observed | %<br>observed | Total Fleet  | Observed | %<br>observed | Total Fleet  |
| No. of vessels that fished   |  |          |               |  |          |               |  |
| No. of trips   |  |          |               |  |          |               |  |
| No. of effective days fishing  |  |          |               |  |          |               |  |
| No. of sets  |  |          |               |  |          |               |  |
| No. of hooks (in thousands)<br>(If unknown, approx. no. of hooks/set, using a *) |  |          |               |  |          |               |  |
| Predominant <sup>2</sup> hook type/size (IATTC code)                             |  |          |               |  |          |               |  |
| Predominant bait type <sup>3</sup>   |  |          |               |  |          |               |  |

<sup>1</sup> Hooks per basket / Hooks between floats

<sup>2</sup> 'Predominant' means most common, i.e.,  $>50\%$

<sup>3</sup> Bait codes: SQ – squid; F – fishes (e.g. *Scomber* spp.); A – artificial lure (e.g. plastic jig)

| NON-RETAINED SPECIES (vessels >20 m LOA) |   |                             |      |                   |  |      |                   |  |      |
|--|---|-----------------------------|------|-------------------|--|------|-------------------|--|------|
| Species code                             | Species   | No. of individuals observed |      |                   |  |      |                   |  |      |
|  |   | Both set types combined     |      |                   | Shallow sets<br>(<15 HPB/HBF <sup>1</sup> or <100m max hook depth) |      |                   | Deep sets<br>(≥15 HPB/HBF or ≥100m max hook depth) |      |
|  |   | Released                    |      |                   | Released   |      |                   | Released   |      |
|  |   | Alive                       | Dead | Condition unknown | Alive  | Dead | Condition unknown | Alive  | Dead |
| DKK                                      | Leatherback ( <i>Dermochelys coriacea</i> )                 |                             |      |                   |  |      |                   |  |      |
| TTL                                      | Loggerhead ( <i>Caretta caretta</i> )                       |                             |      |                   |  |      |                   |  |      |
| TUG                                      | Green ( <i>Chelonia mydas</i> )                             |                             |      |                   |  |      |                   |  |      |
| LKV                                      | Olive ridley ( <i>Lepidochelys olivacea</i> )               |                             |      |                   |  |      |                   |  |      |
|  | <a href="#">Add rows for additional species as required</a> |                             |      |                   |  |      |                   |  |      |
| Sharks and rays                          |   |                             |      |                   |  |      |                   |  |      |
| FAL                                      | Silky ( <i>Carcharhinus falciformis</i> )                   |                             |      |                   |  |      |                   |  |      |
| OCS                                      | Oceanic whitetip ( <i>Carcharhinus longimanus</i> )         |                             |      |                   |  |      |                   |  |      |
| BSH                                      | Blue shark ( <i>Prionace glauca</i> )                       |                             |      |                   |  |      |                   |  |      |
| SMA                                      | Shortfin mako ( <i>Isurus oxyrinchus</i> )                  |                             |      |                   |  |      |                   |  |      |
| SPL                                      | Scalloped hammerhead ( <i>Sphyrna lewini</i> )              |                             |      |                   |  |      |                   |  |      |
| SPZ                                      | Smooth hammerhead ( <i>Sphyrna zygaena</i> )                |                             |      |                   |  |      |                   |  |      |
| SPK                                      | Great hammerhead ( <i>Sphyrna mokarran</i> )                |                             |      |                   |  |      |                   |  |      |
| RMB                                      | Giant manta ray ( <i>Manta birostris</i> )                  |                             |      |                   |  |      |                   |  |      |
|  | <a href="#">Add rows for additional species as required</a> |                             |      |                   |  |      |                   |  |      |
| Marine mammals                           |   |                             |      |                   |  |      |                   |  |      |
| FAW                                      | False killer whale ( <i>Pseudorca crassidens</i> )          |                             |      |                   |  |      |                   |  |      |
| DRR                                      | Risso's dolphin ( <i>Grampus griseus</i> )                  |                             |      |                   |  |      |                   |  |      |
| SGF                                      | Guadalupe fur seal ( <i>Arctocephalus townsendi</i> )       |                             |      |                   |  |      |                   |  |      |
|  | <a href="#">Add rows for additional species as required</a> |                             |      |                   |  |      |                   |  |      |
| Seabirds                                 |   |                             |      |                   |  |      |                   |  |      |
| DQS                                      | Antipodean albatross ( <i>Diomedea antipodensis</i> )       |                             |      |                   |  |      |                   |  |      |
| DPK                                      | Waved albatross ( <i>Phoebastria irrorata</i> )             |                             |      |                   |  |      |                   |  |      |
| DIZ                                      | Laysan albatross ( <i>Phoebastria immutabilis</i> )         |                             |      |                   |  |      |                   |  |      |
| DAQ                                      | Short-tailed albatross ( <i>Phoebastria albatrus</i> )      |                             |      |                   |  |      |                   |  |      |
|  | <a href="#">Add rows for additional species as required</a> |                             |      |                   |  |      |                   |  |      |
| Billfishes                               |   |                             |      |                   |  |      |                   |  |      |
| MLS                                      | Striped marlin ( <i>Kajikia audax</i> )                     |                             |      |                   |  |      |                   |  |      |
| SSP                                      | Shortbill spearfish ( <i>Tetrapturus angustirostris</i> )   |                             |      |                   |  |      |                   |  |      |
| BUM                                      | Blue marlin ( <i>Makaira nigricans</i> )                    |                             |      |                   |  |      |                   |  |      |
|  | <a href="#">Add rows for additional species as required</a> |                             |      |                   |  |      |                   |  |      |

Annex B, Option 1.

| Data field  | Description/Instructions/Comments  |
|---|--|
| <del>GENERAL VESSEL AND TRIP INFORMATION</del>                                  |  |
| <del>VESSEL IDENTIFICATION</del>  |  |
| Name of vessel  | Name, including all numbers or other characters  |
| Flag Registration Number  | The number issued to the vessel by the authorities of its flag State.                                |
| International Radio Call Sign   | If issued.   |
| Vessel Owner/Company  | Name (individual or company) and contact information, if available, of the vessel owner.             |
| International Maritime Organization<br>'IMO' or Lloyd's Register number<br>'LR' | If issued.   |
| <del>VESSEL TRIP INFORMATION</del>  |  |
| Date and time of departure from port  | The date and time the vessel leaves port to start its fishing trip.                                  |
| Port of departure   | Include both the port name and country.  |
| Date and time of return to port   | The day and time the vessel returns to a port at the completion of its trip.                         |
| Port of return  | Include both the port name and country.  |
| <del>OBSERVER INFORMATION</del>   |  |
| Observer name   | Full name.   |
| Observer provider   | Name of the organization or agency that employs the observer and has placed him on the vessel.       |
| Date, time and location of embarkation  | The date, time, and location where the observer boards the vessel to start his trip.                 |
| Date, time and location of disembarkation                                       | The date, time, and location where the observer leaves the vessel and concludes his observer duties. |
| <del>CREW INFORMATION</del>   |  |
| Name of captain   | Full name.   |
| Name of fishing master  | Full name.   |
| Total number of crew  | Total number of people aboard the vessel, excluding the observer.                                    |
| <del>VESSEL CHARACTERISTICS</del>   |  |

~~Note: These characteristics only need to be noted if what is observed differs from specifications reflected on the IATTC vessel register.~~

|   |  |
|---|--|
| <del>Vessel fish hold capacity</del>      | <del>The total combined capacity, in metric tons (MT), of the vessel freezers, wells, and any other areas that can be used to store catch.</del>           |
| <del>Freezer type</del>                   | <del>Some vessels may have more than one type of freezer. List all types present.</del>  |
| <del>Length Over All (specify unit)</del> | <del>The "LOA" can typically be found in the vessel plans or other documents.</del>  |
| <del>Tonnage (specify unit)</del>         | <del>The vessel tonnage, as recorded in the vessel's registration documents; may be expressed as Gross Tonnage (GT) or Gross Register Tonnage (GRT).</del> |
| <del>Engine power (specify unit)</del>    | <del>The engine power is typically listed in the vessel plans.</del>   |

#### ~~VESSEL ELECTRONICS~~

~~Indicate "Yes" if present, "No" if absent. If more than one of type is present, indicate the total number present.~~

|  |  |
|--|--|
| <del>Radars</del>                          | <del>"Yes" if present, "No" if absent.</del> |
| <del>Depth Sounder</del>                   | <del>"Yes" if present, "No" if absent.</del> |
| <del>Global Positioning System (GPS)</del> | <del>"Yes" if present, "No" if absent.</del> |
| <del>Track Plotter</del>                   | <del>"Yes" if present, "No" if absent.</del> |

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| <b>Data field</b>  | <b>Description/Instructions/Comments</b>  |
|--|---|
| <del>Weather Facsimile</del>                                   | <del>"Yes" if present, "No" if absent.</del>  |
| <del>Sea Surface Temperature (SST) gauge</del>                 | <del>"Yes" if present, "No" if absent.</del>  |
| <del>Sonar</del>   | <del>"Yes" if present, "No" if absent.</del>  |
| <del>Radio/ Satellite Buoys</del>                              | <del>"Yes" if present, "No" if absent.</del>  |
| <del>Doppler Current Meter</del>                               | <del>"Yes" if present, "No" if absent.</del>  |
| <del>Expendable Bathythermograph (XBT)</del>                   | <del>"Yes" if present, "No" if absent.</del>  |
| <del>Satellite Communications Services (Phone/Fax/Email)</del> | <del>Indicate all the vessel Satellite numbers if the vessel has Satellite communications on board.</del> |
| <del>Fishery information services</del>                        | <del>"Yes" if present, "No" if absent. Please also list the information service used.</del>               |
| <del>Vessel Monitoring System</del>                            | <del>Indicate the type(s) of VMS used on the vessel (e.g. INMARSAT, ARGOS, etc.).</del>                   |
| <del>Refrigeration Method</del>                                | <del>List all refrigerator types used on the vessel.</del>  |

| GENERAL GEAR CHARACTERISTICS                             |  |
|--|--|
| Mainline material  | List the of the mainline used by the vessel (e.g., Kuralon, Braided nylon, Monofilament Nylon, etc.).  |
| Mainline length (specify unit)                           | The total length of the mainline when it is fully set  |
| Mainline diameter (specify unit)                         |  |
| Branch line material(s)                                  | A branch line can consist of one type of material like monofilament or it can be made up of many different materials like braided nylon wire trace and mono-filament, etc. If different types are used in different branch line positions, please describe.  |
| SPECIAL GEAR CHARACTERISTICS                             |  |
| Wire trace   | <b>At the trip level</b> indicate "Yes" or "No" if the vessel uses wire traces on some or all of its lines. If wire traces used on all lines during the trip then record "ALL LINES." If the vessel used wire traces on certain branch line positions during the trip, describe the configuration. For example, "wire traces were used on first and tenth branch lines of each basket". If the proportion of leaders that are wire varies within a trip, record the average based on a sample of ten total baskets from a range of sets. |
| Mainline hauler  | Does the vessel use an instrument to haul in the main line after it is set or is the line hauled by hand?  |
| Branch line hauler                                       | Does the vessel use a special hauler to coil branch lines?   |
| Line shooter   | Does the vessel use a line shooter?  |
| Automatic bait thrower                                   | Does the vessel use a bait thrower or are bait and branch lines thrown overboard manually?   |
| Automatic branch line attached                           | Does the vessel have an automatic branch line mechanism that attaches the branch at regular intervals or is this done manually?  |
| Hook type  | <b>For each set</b> , record the type of hook or hooks used, using the codes in the hook catalogue (e.g., J hooks, circle hooks, offset circle hooks, etc.)  |
| Hook size  | <b>For each set</b> , record the size of the hooks used. If not sure, ask the bosun or refer to a hook catalogue.  |
| Tori Lines   | <b>For each set</b> , record whether the vessel uses Tori lines when setting; if yes, how many and their length.   |
| side setting with bird curtain and weighted branch lines | <b>For each set</b> , record whether the vessel used side setting with a bird curtain in combination with weighted branch lines.   |
| Data field   | Description/Instructions/Comments  |



|  |   |
|--|---|
| <del>Weighted branch lines</del>                           | <del>For each trip</del> where weighted branch lines are used, record the mass of the weight attached to the branch line. If more than one type of weighting is used during a trip, describe each type and indicate the proportion based on a sample of ten baskets from a range of different sets. |
| Shark lines  | <del>For each set</del> , record the number of shark lines (branch lines running directly off the longline floats or drop lines) observed. Where possible, record the length of this line for each set.   |
| Blue dyed bait   | <del>For each set</del> , record whether the vessel used blue dyed bait.  |
| Distance between weight and hook (in meters)               | <del>For each set</del> , record the distance in meters from where the bottom of the weight is attached on the branch line to the eye of the hook.  |
| Deep setting line shooter                                  | <del>For each set</del> , record whether the vessel used a deep setting line shooter.   |
| Management of offal discharge                              | <del>For each set</del> , record whether the vessel used the management of offal discharge.   |
| Date and time of start of set                              | <del>For each set</del> , record the date and time the first buoy is thrown into the water to start the setting of the line.  |
| Latitude and Longitude of start of set                     | <del>For each set</del> , record the GPS reading at the time the first buoy is thrown into the water.   |
| Date and Time of end of set                                | <del>For each set</del> , record the date and time the last buoy (usually has radio beacon attached) at the end of the mainline is thrown into the water.   |
| Latitude and Longitude of end of set                       | <del>For each set</del> , record the GPS reading at the time the last buoy is thrown into the water.  |
| Total number of baskets or floats                          | <del>For each set</del> , record the number of baskets utilized. A basket is the sum of all the hooks set between two buoys on a longline; usually it is the same as the number of floats set minus one.  |
| Number of hooks per basket (number of hooks between buoys) | <del>For each set</del> , record how many hooks set from one buoy to another, the number is usually constant along the line, but can vary in some cases, also if the vessel also sets a branch line on the buoy, count this as a hook between floats as well.                                       |
| Total number of hooks used                                 | <del>For each set</del> , record how many hooks were used. This is typically calculated by multiplying number of baskets by the number of hooks per basket.   |
| Line shooter speed   | <del>For each set</del> where the vessel uses a line shooter, record the shooter speed. The shooter will normally have an indicator to show its running speed, as well as a sound indicator or light,   |

|   |  |
|---|--|
|   | that beeps at a regular interval, when it is time to attach a branch line.   |
| Length of float line  | <del>For each trip,</del> record length of the line that is attached to the floats, get a coil and measure the length. It usually remains the same throughout the trip.                        |
| Distance between branch lines   | <del>For each set,</del> record the distance between branch line attachments to the mainline. This can be determined easily if vessel has a line shooter with electronic attachment indicator. |
| Length of branch lines  | <del>For each set,</del> measure the length of a sample of the majority of branch lines used, some may vary slightly due to repairs.   |
| Time depth recorders (TDRs)   | Does the vessel use TDRs on its line? If yes record the number of TDRs used it may use and their location along the mainline.?   |
| Number of light sticks  | <del>For each set,</del> indicate whether the vessel uses light sticks on its line, record the number used, and where possible, information on   |
|   | the location (e.g. "used on first and tenth branch lines from the float").   |
| Target species  | What species does the vessel target? Tuna (BET YFT), Swordfish, Sharks, etc.   |
| Bait Species  | <del>For each set,</del> record the bait species used Pilchard, Sardine, Squid, artificial bait, etc.  |
| Date and time of start of haul  | <del>For each set,</del> record the date and time the first buoy of the mainline is hauled from the water to start the haul.   |
| Date and time of end of haul  | <del>For each set,</del> record the date and time the last buoy of the mainline is hauled from the water to end the haul.  |
| Total number of baskets, floats monitored by observer in a single set | <del>For each set,</del> record how many floats or baskets were monitored by the observer?   |
| <b>INFORMATION ON CATCH FOR EACH SET</b>                              |  |
| Hook number (location between floats)                                 | For each individual capture, record the hook number that the animal is caught on, counting from the last float hauled on board.  |
| Species   | Use FAO species code.  |
| Length of fish  | Measure length of specimen, using the recommended measurement approach for the species.  |

|   |   |
|---|---|
| <del>Length measurement code</del>  | <del>Reflect the type of length measurement taken using the appropriate measurement code. For example, all tunas are measured from the end of the upper jaw to fork of the tail; measurement code UF.</del> |
| <del>Sex</del>  | <del>Sex the species if possible. If an unsuccessful attempt is made to sex the individual, record "I" for indeterminate. If no attempt to sex the individual is made, record "U" for unknown.</del>        |
| <del>Condition when caught</del>  | <del>For bycatch species (e.g. sharks, sea turtles, seabird, marine mammals, etc.) also reflect hooking location [i.e. hooked in mouth, hooked deeply (throat/stomach), and hooked externally].</del>       |
| <del>Fate</del>   | <del>Record the ultimate disposition of the capture using the appropriate code (e.g. retained, discarded, etc.)</del>   |
| <del>Condition when released</del>  | <del>If released, record the animal's status when returned to the sea.</del>  |
| <del>Tag recovery information</del>   | <del>Record as much as information as possible on any tags recovered</del>  |
| <b>SPECIES OF SPECIAL INTEREST</b><br><b>Sea turtles, marine mammals, sea birds, and sharks</b> |   |
| <b>GENERAL INFORMATION</b>  |   |
| <del>Type of interaction</del>  | <del>Indicate the type of interaction (e.g. entangled, hooked internally, hooked externally, interaction with vessel only, etc.).</del>   |
| <del>Date and time of interaction</del>   | <del>Record ship's date and time of interaction</del>   |
| <del>Latitude and longitude of interaction</del>  | <del>Record position of the interaction.</del>  |
| <del>Species code of sea turtle, marine mammal, or seabird.</del>                               | <del>Use FAO codes for Species.</del>   |
| <b>LANDED ON DECK</b>   |   |
| <del>Length</del>   | <del>Measure length, in centimeters.</del>  |
| <del>Length measurement code</del>  | <del>Measure using the measure method determined for that species.</del>  |
| <del>Sex</del>  | <del>Sex the animal if possible.</del>  |
| <del>Estimated fin weight (for sharks)</del>  | <del>Weigh the fins separately if shark has been finned by crew. If no scales, estimate the weight.</del>   |
| <del>Estimated carcass weight (for sharks)</del>  | <del>Weigh the carcass of a finned shark. If no scales available, carcass is discarded, or if it is too large to handle, estimate the weight.</del>   |
| <del>Condition when landed on Deck</del>  | <del>Record the animal's condition when landed on deck, using</del>   |

| <b>Data field</b>                   | <b>Description/Instructions/Comments</b>   |
|-------------------------------------|--|
|                                     | <del>appropriate code.</del>   |
| <del>Condition when released</del>  | <del>If released, record the animal's condition at the time of release, using appropriate code.</del>  |
| <del>Tag recovery information</del> | <del>Record as much as information as possible on any tags recovered</del>                             |
| <del>Tag release information</del>  | <del>Record as much as information as possible on any tags placed on the species before release.</del> |

# LONGLINE GEAR FORM

F2

VESSEL: \_\_\_\_\_ SAMPLE No: \_\_\_\_\_ OBSERVER: \_\_\_\_\_

|                     |  |                        |    |                                   |     |  |     |
|---------------------|--|------------------------|----|-----------------------------------|-----|--|-----|
| Registration        |  | Length                 | m  | Fuel capacity                     | gal | Number of crew   |     |
| Company name        |  | Width                  | m  | Fuel used                         | gal | Water capacity   | gal |
| Captain Name        |  | Draft                  | m  | Type of fuel                      |     | Catch conserve method                                  |     |
| Departure date/time |  | Distance deck to water | m  | Type (fibre-mother ship)          |     | If the vessel is a 'fibre',<br>↓ name of mother ship ↓ |     |
| Arrival date/time   |  | Well capacity          | MT | Number of fibres                  |     |  |     |
| Departure port      |  | Main motor             |    | Navigation and fishing equipment: |     |  |     |
| Arrival port        |  | Aux. motor             |    |                                   |     |  |     |

| Characteristics      | Quantity | Material * | Diameter | Length | Color * | Distance btwn. hooks ↓   | Max. hooks on mainline ↓ | Number of lights ↓ | Number of radio buoys ↓ |
|----------------------|----------|------------|----------|--------|---------|--|--------------------------|--------------------|-------------------------|
| Mainline             |          |            | mm       | Nm     |         | bz   |                          |                    |                         |
| Upper gangion        |          |            | mm       | fath   |         | <u>Mainline weights:</u><br>Yes ( ) No ( )   |                          |                    |                         |
| Middle gangion       |          |            | mm       | fath   |         | <u>Mainline retrieval</u><br>By hand ( )<br>Manual crank ( )   |                          |                    |                         |
| Lower gangion        |          |            | mm       | fath   |         | <u>Dropline connection to mainline:</u><br>Knots ( ) Snaps ( )<br>Hydraulic crank ( )<br>Other _____ ( ) |                          |                    |                         |
| Floatline / dropline |          |            | cm       |        |         | Fishing gear diagram   |                          |                    |                         |
| Buoy                 |          |            | cm       |        |         |  |                          |                    |                         |
| Flag                 |          |            |          |        |         |  |                          |                    |                         |
| Float                |          |            | cm       |        |         |  |                          |                    |                         |

| Hooks  | Type (J / C) | Size | J-straight/ J-curved | Material* | Manufac-turer | Offset | Ring (Yes / No) | Other details | Observations |
|--------|--------------|------|----------------------|-----------|---------------|--------|-----------------|---------------|--------------|
| Hook A |              |      |                      |           |               |        |                 |               |              |
| Hook B |              |      |                      |           |               |        |                 |               |              |
| Hook C |              |      |                      |           |               |        |                 |               |              |

\* Use numbers from code tables

F2s v2: 02/2012

# LONGLINE SET FORM

F3

VESSEL: \_\_\_\_\_ SAMPLE No: \_\_\_\_\_ OBSERVER: \_\_\_\_\_

| Set number     |            | SET                      |                     | RETRIEVAL                |                        | Number of hooks in the set by type: | Hook. A   | Hook. B | Hook. C | Type of bait | % of total |
|----------------|------------|--------------------------|---------------------|--------------------------|------------------------|-------------------------------------|---|---------|---------|--------------|------------|
|                |            | Start                    | End                 | Start                    | End                    |                                     |   |         |         |              |            |
| ↓ Date ↓       | LAT        |                          |                     |                          |                        | Total no. of hooks in set:          |   |         |         | Bait 1       |            |
|                | LON        |                          |                     |                          |                        |                                     |   |         |         | Bait 2       |            |
|                | TIME       |                          |                     |                          |                        |                                     |   |         |         | Bait 3       |            |
| Target Fishery | Set        | Yes                      | Retrieval direction | Sea surf. temp.          | No. hooks btwn. floats | Avg. hook depth                     | Bottom longline?                                  |         |         |              |            |
|                | Special?   | <input type="checkbox"/> | Start to end        | <input type="checkbox"/> |                        |                                     | Yes No  |         |         |              |            |
|                | Patrolled? | <input type="checkbox"/> | End to start        | <input type="checkbox"/> |                        | fath                                | <input type="checkbox"/> <input type="checkbox"/> |         |         |              |            |

Observations:

| Set number     |            | SET                      |                     | RETRIEVAL                |                        | Number of hooks in the set by type: | Hook. A   | Hook. B | Hook. C | Type of bait | % of total |
|----------------|------------|--------------------------|---------------------|--------------------------|------------------------|-------------------------------------|---|---------|---------|--------------|------------|
|                |            | Start                    | End                 | Start                    | End                    |                                     |   |         |         |              |            |
| ↓ Date ↓       | LAT        |                          |                     |                          |                        | Total no. of hooks in set:          |   |         |         | Bait 1       |            |
|                | LON        |                          |                     |                          |                        |                                     |   |         |         | Bait 2       |            |
|                | TIME       |                          |                     |                          |                        |                                     |   |         |         | Bait 3       |            |
| Target Fishery | Set        | Yes                      | Retrieval direction | Sea surf. temp.          | No. hooks btwn. floats | Avg. hook depth                     | Bottom longline?                                  |         |         |              |            |
|                | Special?   | <input type="checkbox"/> | Start to end        | <input type="checkbox"/> |                        |                                     | Yes No  |         |         |              |            |
|                | Patrolled? | <input type="checkbox"/> | End to start        | <input type="checkbox"/> |                        | fath                                | <input type="checkbox"/> <input type="checkbox"/> |         |         |              |            |

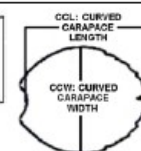
Observations:

| Set number     |            | SET                      |                     | RETRIEVAL                |                        | Number of hooks in the set by type: | Hook. A   | Hook. B | Hook. C | Type of bait | % of total |
|----------------|------------|--------------------------|---------------------|--------------------------|------------------------|-------------------------------------|---|---------|---------|--------------|------------|
|                |            | Start                    | End                 | Start                    | End                    |                                     |   |         |         |              |            |
| ↓ Date ↓       | LAT        |                          |                     |                          |                        | Total no. of hooks in set:          |   |         |         | Bait 1       |            |
|                | LON        |                          |                     |                          |                        |                                     |   |         |         | Bait 2       |            |
|                | TIME       |                          |                     |                          |                        |                                     |   |         |         | Bait 3       |            |
| Target Fishery | Set        | Yes                      | Retrieval direction | Sea surf. temp.          | No. hooks btwn. floats | Avg. hook depth                     | Bottom longline?                                  |         |         |              |            |
|                | Special?   | <input type="checkbox"/> | Start to end        | <input type="checkbox"/> |                        |                                     | Yes No  |         |         |              |            |
|                | Patrolled? | <input type="checkbox"/> | End to start        | <input type="checkbox"/> |                        | fath                                | <input type="checkbox"/> <input type="checkbox"/> |         |         |              |            |

Observations:

F3s v1: 02/2012

## F4

[illegible]

F4s v1: 02/2012



## F5

VESSEL: \_\_\_\_\_ SAMPLE No: \_\_\_\_\_ OBSERVER: \_\_\_\_\_

[illegible]

F5s v1: 02/2012



## F6

[illegible]

F6s v1: 07/2014