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**SC-11-48**

# Proposal to amend CMM 02 (2025) (Data Standards)-to add light seining fishery

Delegation of China

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<b>Distribution</b>	Public <input checked="" type="checkbox"/> Restricted <sup>1</sup> <input type="checkbox"/> Closed session document <sup>2</sup> <input type="checkbox"/>
<b>Abstract</b>	
<p>China proposes to amend CMM 02 (2025) (Data Standards) to add the light seining fishery vessel logbooks and observer logbooks, which was requested by SC10. The modification mainly added specific data requirements for light seining fishery and submitted relevant data format tables in the future. We only added the light seining fishery relative data format (red font) in the CMM 02 (2025) (Data Standards) to be consider discussing in the SC11.</p>	

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<sup>2</sup> Documents available only to members invited to closed sessions.

**Recommendations**

- For SC11 to confirm the data formats of the light seining fishery
- For CC10 and MoP13 to amend CMM 02 (2025) (Data Standards) and adopt the proposal.

# Proposal to amend CMM 02 (2025) (Data Standards)-to add light seining fishery

China

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**Standards for the Collection, Reporting, Verification and Exchange of Data  
Annexes**

**List of Annexes:**

**Annex A - Vessel Catch and Effort Data**

**Annex B - Observer Data**

**Annex C - Specifications for the Exchange of Data**

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Annex A

Vessel Catch and Effort Data

1. Contracting Parties, CNCPs and PFEs shall ensure that the following data on fishing activities are collected in the Agreement Area:

For all demersal fishing vessels flying their flag:

<p><b>Data Set - Fishing activities General (Trip)</b>                  Vessel flag CCP (ISO 3-apha)                  Name of vessel                  International radio call sign (if any)                  Vessel Registration number (flag CCP)                  Lloyd's / IMO /IHS Fairplay Number (if allocated)                  Vessel size: Gross Tonnage (Gross register tonnage may be used if GT is not available, or both)                  Name of person filling in the data</p>
<p><b>Weight Conversion Factor</b>                  Species                  Processing type                  Conversion factor = live weight/processed weight</p>
<p><b>Haul Information</b>                  Intended Target species (FAO code)                  Type of fishing (C)ommercial; (R)esearch; (S)urvey data                  Haul ID number</p>
<p><b>Set Start date and Time</b> (Based on Coordinated Universal Time (UTC))                  Recorded at start and end of fishing                  For longline vessels - record at start and end of setting, in addition to start and end of haul Date format (YYYY.MON.DD)                  Time format (hh.mm)</p>
<p><b>Position at start and end of fishing</b>                  Latitude                  Longitude</p> <p>For longline vessels: position is recorded at the start and end of setting                  For bottom trawl fishing: "start" is defined as when the groundrope first touch the bottom, and "end" is when the groundrope leaves the bottom at the beginning of hauling.                  For midwater trawl: "start" is defined as when the fishing gear is at target fishing depth, "end" is when the tow haul begins.                  For handline fishing: record the position of the vessels at the start and at the end of the fishing operation</p>
<p><b>Bottom Depth (m)</b>                  As recorded at the start and end of fishing.</p>
<p><b>Fishing / gear depth (m)</b>                  As recorded at the start and end of fishing.                  For trapping/potting, Actual Fishing / gear depth (m) as recorded at start is required.</p>
<p><b>Species retained</b>                  Estimated catch retained on board by taxa (FAO species/group code/scientific name) in green weight (kg).</p>

<p><b>Species Discarded</b> An estimation of the amount of living marine resources discarded by taxa, if possible, in green weight (kg)</p>
<p><b>Incidental bycatch of marine mammals, seabirds, reptiles and 'other species of concern'</b> Presence: Yes / No For each species caught</p> <ul style="list-style-type: none"> <li>• Taxa name</li> <li>• Number alive</li> <li>• Number dead or injured</li> </ul>
<p><b>Incidental bycatch of VME indicator taxa</b> Presence: Yes / No For each species caught</p> <ul style="list-style-type: none"> <li>• Taxa name</li> </ul>

For all pelagic fishing vessels targeting SIOFA species flying their flag:

<p><b>Data Set - Fishing activities General (Trip)</b> Vessel flag CCP (ISO 3-apha) Name of vessel International radio call sign (if any) Vessel Registration number (flag CCP) Lloyd's / IMO /IHS Fairplay Number (if allocated) Vessel size: Gross Tonnage (Gross register tonnage may be used if GT is not available, or both) Name of person filling in the data</p>
<p><b>Weight Conversion Factor</b> Species Processing type Conversion factor = live weight/processed weight</p>
<p><b>Haul Information</b> Intended Target species (FAO code) Type of fishing (C)ommercial; (R)esearch; (S)urvey data Haul ID number</p>
<p><b>Set Start date and Time</b> (Based on Coordinated Universal Time (UTC)) Recorded at start of fishing Date format (YYYY.MON.DD) Time format (hh.mm)</p>
<p><b>Position at start of fishing</b> Latitude Longitude</p>
<p><b>Species retained</b> Estimated catch retained on board by taxa (FAO species/group code/scientific name) in live weight (kg)</p>
<p><b>Species Discarded</b> An estimation of the amount of living marine resources discarded by taxa, if possible, in live weight (kg)</p>
<p><b>Incidental bycatch of marine mammals, seabirds, reptiles and 'other species of concern'</b> Presence: Yes / No For each species caught</p> <ul style="list-style-type: none"> <li>• Taxa name</li> <li>• Number alive</li> <li>• Number dead or injured</li> </ul>

2. Contracting Parties, CNCPs and PFEs shall ensure that the following gear-specific data on fishing activities, as applicable, are collected from all fishing vessels flying their flag in the Agreement Area.

<b>Data Set – Gear</b>
<p><b>Trawl</b>                  Cod end mesh Size (mm)                  Trawl technique:                  Type of trawl: (S)ingle, (D)ouble or (T)ripple</p>
<p><b>Demersal Longline</b>                  Type of longline (Spanish, Trotline, Autoline)                  Total length (m)                  Type of bait                  Hook size (mm)                  Hook spacing (m)                  Hook code or make Length of line (m)                  Number of hooks set                  Number hooks per cluster (if Trotline)                  Number of hooks lost (attached to lost sections of line)</p>
<p><b>Pelagic Longline</b>                  Total length (m)                  Total number of hooks in the set                  Number of hooks between floats                  Number of light-stick used in the set                  Type of bait used in the set                  Sea surface temperature at noon                  (Length of floating line)                  (Length of branch line)                  (Distance between branch lines)</p>
<p><b>Trap/Pot</b>                  Pot type                  Type of line: Dropline or longline Length of line (m)                  Pot spacing (m)                  Number of pots set                  Number of pots lost                  Type of bait</p>
<p><b>Dahn/Drop Line/</b>                  Total number of hooks in the set                  Total number of line lifts in the set                  Number of hooks lost                  Hook code or make                  Type of leader used                  Type of bait used</p>
<p><b>Handline</b>                  Number of fishermen involved                  Number of line lifts per fisherman                  Number of hooks per line</p>

**Squid Jigging**

Total Power of fish lamp (kw)

Use of the fish finder (Y/N)

Number of fishermen

Number of machines

Fishing duration by hand(h)

Fishing duration by machines(h)

Number of hooks on per line

**Light seining**

Type of light seining gear: (1)light boat seine, (2) lift net and (3) falling gear

Total Power of fish lamp (kw)

Length on mouth net (m)

Width on mouth net (m)

Cod end mesh Size (mm)

Annex B

Observer Data

1. Contracting Parties, CNCPs and PFEs shall, for all observed trips, collect and provide to the Secretariat the data contained in this Annex in accordance with the format set out below.
2. Contracting Parties, CNCPs and PFEs shall, where appropriate, ensure that observers are briefed and provided with documented length-frequency and biological sampling protocols and the specific priorities for the trip for the sampling activities documented below.
3. Contracting Parties, CNCPs and PFEs shall endeavour to collect tissue, otolith and/or stomach samples in accordance with any research programs developed by the Scientific Committee.

<b>Data Set - Observer data</b>
<p><b>Trip Details</b></p> <p>Trip Number                  Cruise details (start and end dates - YYYY.MON.DD) Date report is generated (UTC)                  Current vessel flag CCP (ISO 3-apha)                  Name of vessel</p>
<p><b>Observer Details</b></p> <p>Observer name and ID Nationality (ISO 3-apha)                  Employing organisation                  Contact name in organisation (Address/email/fax)                  Boarding location (UNLOCODE, if applicable or Latitude/Longitude) Boarding Date (UTC:YYYY.MON.DD)                  Disembarkation location (UNLOCODE, if applicable or Latitude/Longitude)                  Disembarkation date (UTC:YYYY.MON.DD)                  Time Zone (UTC +/-)</p>
<p><b>Length Frequency Data</b></p> <p>Representative and randomly sampled length-frequency data shall be collected for the target species (FAO species code)</p> <p>Length data shall be collected and recorded at the most precise level appropriate for the species (cm or mm and whether to the nearest unit or unit below) and the type of measurement used (total length, fork length, or standard length) shall also be recorded.</p> <p>Where possible, total weight of length-frequency samples should be recorded, or estimated and the method of estimation recorded</p> <p>Where possible, Observers should determine and record sex of measured fish to generate length-frequency data stratified by sex</p>

<p>Where possible, representative and randomly sampled length-frequency data should be collected for other main by-catch species</p>
<p><b>Biological Sampling</b>                  Species                  Length (mm or cm) and the type of length measurement used.                  Skates and rays:  <ul style="list-style-type: none"> <li>• Maximum disk width shall be measured</li> </ul>                 Sharks  <ul style="list-style-type: none"> <li>• Appropriate length measurement to be used should be selected for each species. As a default, total length should be measured.</li> </ul>                 Weight (kg)                  Sex (male, female, immature (optional), unsexed (optional))                  Maturity stage (optional) and criteria/schedule used (optional)                  Gonad weight (g) (optional)                  Otoliths</p>
<p><b>Incidental bycatch of seabirds, mammals, turtles or 'other species of concern'</b>                  The following data shall be collected for all seabirds, mammals, turtles, and other species of concern caught in fishing operations as much as possible:</p> <ul style="list-style-type: none"> <li>• Species (identified taxonomically as far as possible, or accompanied by photographs if identification is difficult) and size</li> <li>• Estimated species abundance around fishing vessel</li> <li>• Species interactions with fishing gear</li> <li>• Count of the number of each species caught per tow or set</li> <li>• Fate of bycatch animal(s) (retained or released/discarded)</li> <li>• If released, life status (vigorous, alive, lethargic, injured, dead) upon release</li> <li>• If injured, what was the cause of injury?</li> <li>• If dead, then collect information or samples for onshore identification in accordance with pre-determined sampling protocols. Where this is not possible, observers may be required to collect sub-samples of identifying parts, as specified in biological sampling protocols                         <ul style="list-style-type: none"> <li>◦ Record the type of interaction (hook/line entanglement/warp strike/net capture/other) if other, describe</li> </ul> </li> <li>• Sex of each individual for taxa where this is feasible from external observation, e.g. pinnipeds, small cetaceans or <i>Elasmobranchii</i> species</li> <li>• identify any circumstances or actions that may have contributed to the bycatch event? (E.g. tori line tangle, high levels of bait loss)</li> </ul>
<p><b>Tag releases</b>                  The following data shall be reported for all tagged fish, seabird, mammal, or reptile</p> <p>Tag type, wording, and colour                  Tag number                  Date and time of tagging                  Species                  Animal length                  Type of length                  Animal sex (F=female, M=male, I=indeterminate, D=not examined)</p> <p>Position (Lat/Lon) of release                  Animal status at release (injured/uninjured)</p>

**Tag Recoveries**

The following data shall be collected for all recovered fish, seabird, mammal or reptile tags if the organism is dead, to be retained, or alive:

- Name of observer
- Name of vessel
- International radio call sign (if any)
- Vessel flag CCP (ISO 3-apha)
- Collect, label (with all details below) and store the actual tags for later return to the tagging agency
- Species from which tag recovered
- Tag colour
- Tag wording and type of tag (spaghetti, archival)
- Tag numbers
- Date and time of capture (UTC)
- Location of capture (Lat/Lon, to the nearest 1 minute)
- Animal length / size (cm or mm) with description of what measurement was taken (such as total length, fork length, etc.)
- Sex (F=female, M=male, I=indeterminate, D=not examined)
- Whether the tags were found during a period of fishing that was being observed (Y/N)

**Hierarchies for Observer Data collection**

**Fishing Operation Information**

All vessel and tow / set / effort information.

**Reporting of Catches**

Record time, weight of catch sampled versus total catch or effort (e.g. number of hooks), and total numbers of each species caught

Identification and counts of seabirds, mammals, reptiles (e.g., turtles), sensitive benthic species and vulnerable species

Record numbers or weights of each species retained or discarded Record instances of depredation, where appropriate

**Biological Sampling**

Check for presence of tags

Length-frequency data for Target species (FAO species code)

Basic biological data (sex, maturity) for Target species (FAO species code)

Length-frequency data for main by-catch species

Otoliths (and stomach samples, if being collected) for Target species (FAO species code)

Basic biological data for by-catch species

Biological samples of by-catch species (if being collected)

Take photos

**For trawl fishing activities ONLY**

***Gear details***

Net ID

Net type (ISSFCV)

Headrope length (m)

Ground rope length (m)

Bobbin diameter (cm)

<p>Otter board to wing length (m)  Horizontal Opening (m)  Vertical Opening (m)</p> <p><b>Codend mesh</b>  Mesh size (cm),  codend circumference (cm),  Orientation  Mesh type (diamond, square, etc)</p> <p><b>Otter board</b>  Type, weight (kg)</p> <p><b>Net design</b>  Net design description including make, model etc</p>
<p><b>Trawl details</b>  Trawl Number  Gear  Trawl type: Research or Commercial (R/C)  Observed (Yes/No)  Target Species (FAO species code)  Date Start (YYYY.MON.DD)  Date Finish (YYYY.MON.DD)  Time net deployed (hh:mm)  Time net retrieved (hh:mm)</p> <p><b>Start and End Fishing</b></p> <p>For bottom trawl "start" is defined as when the groundrope is on the bottom, "end" is when the hauling starts.  For midwater trawl "start" is defined as when the fishing gear is at target fishing depth, "end" is when the hauling starts.</p> <p>Time (hh:mm)  Latitude  Longitude  Trawl Depth (m)  Bottom Depth (m)</p> <p><b>Other</b>  Offal discharged during shooting (Y/N)  Offal discharged during hauling (Y/N)  Trawl speed (knots)  Horizontal opening (m)  Total catch (kg)</p> <p><b>Observed catch composition</b>  Observer ID  Was Haul observed for fish/invertebrate by-catch (Y/N):  Record the total weight of all sub-samples for this shot (kg):</p> <p><b>Species:</b>  FAO species code  Scientific name</p>

Estimated retained catch weight (kg) or number of individuals  
 Estimated discarded catch weight (kg) or number of individuals

***Bycatch mitigation measures employed:***

Were bird scaring (tori) lines in use? (Yes/No)

Were bird bafflers in use? (Yes/No)

***Trawl warp strike (to be monitored for 15 minutes immediately after the net has been deployed) (optional):***

Trawl number (optional)

Name of observer (optional)

Start observation time (hh:mm) (optional)

End observation time (hh:mm) (optional)

***Number of heavy warp strikes (record for Albatross, Giant Petrels, White chinned petrels, other petrels):***

Air

Water

Sinker

***Seabird abundance observation:***

Seabirds present in observation area (y/n)

Estimated numbers of abundance (by species)

**For Longline fishing activities ONLY**

***Longline Description:***

Longline Type (FFSSCV)

Period in which the gear was used (YYYY.MON.DD)

Start and end date (YYYY.MON.DD)

Target Species (FAO species code)

***Main Line:***

Material

Diameter (mm)

Integrated weight (g/m)

***Branch Lines:***

Material

Length (M)

Spacing (m)

***Hooks***

Type (e.g.: J shaped, Circular, etc.)

Make

Size (inch)

Total length (mm)

Shank (mm)

Gape (mm)

Throat (mm)

Front length (mm)

Usual setting position

Line off bottom (m) (optional for pelagic longline)

Hooks off bottom (m) (optional for pelagic longline)

Method of baiting (manual/automatic)

Automatic baiting equipment (make and model)

***Hook sinkers***

Size (g)

Position from hook (mm)

Offal dumping position (port, starboard, stern)

Longline setting position (port, starboard, stern)

Offal dumping during hauling (never, occasionally, always)

Propeller rotation direction (clockwise/anti-clockwise)

Detail the weight and distance between the line weights for the longline system used

Single (Auto) Line (kg:m)

Double (Spanish) Line (kg:m)

Trotline (vertical droppers/trots attached to a mainline) (kg:m)

***General Streamer Line Description***

Vessel equipped with a streamer line (y/n)

Number of streamer lines regularly set

Streamer line position (port, starboard, stern)

Streamer line length (m)

Streamer length min/max (m)

Attached height above water (m)

Distance between streamers (m)

Number of streamers

Streamer design (single or paired)

Aerial extent of line (m)

Method used to assess aerial extent

Streamer material

Streamer line diameter (mm)

Streamer colours

Streamer line over bait entry position? (y/n/u)

Distance from stern to bait entry point (m)

Towed object (Y/N)

Horizontal distance from bait entry point to streamer line (m)

***Daily setting observations***

Set Number (as referenced in catch and effort log)

Set Type: Research or Commercial (R/C)

Longline Type Code (FSSCV)

Trotline cetacean exclusion device used (Y/N)

Date of observation (YYYY.MON.DD)

***Setting information***

Vessel setting speed (knots)

Number sets unobserved since last set

***Start and End setting for each haul***

Date (YYYY.MON.DD)

Time (hh:mm)

Latitude

Longitude

Bottom Depth (m)

Total length of longline set (km)  
Total number of hooks for the set

***For each Observation***

Start date (YYYY.MON.DD)  
Start time (hh:mm)  
End date (YYYY.MON.DD)  
End time (hh:mm)

***Details of Longline Setting***

Main line length (m)  
Number of hooks set  
Number of Baskets/Magazines Set  
Number of hooks per Basket/Magazine  
Percentage hooks baited  
Distance between branches (m)  
Distance of hooks off bottom (m) (optional for pelagic longline)  
Bait species (FAO species code)  
Deck lights during setting (On, Off)  
Streamer lines used (Yes, No)  
Number of streamer lines used Offal dumping during setting (Yes, No)  
Bait entry position (Port, Starboard, Stern)

***Daily hauling observations***

Set number  
Date of observation (YYYY.MON.DD)

***Hauling Information***

Number of hooks observed for seabird and fish by-catch (tally period) Offal dumped during hauling (Yes / No)

***Interactions with marine mammals***

Data is to be collected in accordance with the protocol set out in annex E. For each haul and each species of depredating whales (killer whales *Orcinus orca* and sperm whales *Physeter macrocephalus*):

- Priority 1 data to be collected include:

1. Presence/absence data: Presence / Absence / Not observed;
2. When presence, photo-identification data: photographs of specific body parts (for killer whales: dorsal fin, saddle patch and eye patches; for sperm whales: tail flukes) visible when whales come to the surface.

- Priority 2 data to be collected include:

1. Estimates of the number of individuals present around the vessel in the vicinity of the fishing gear.

- Priority 3 data to be collected include:

1. Information about whether or not whales interact with the gear;
2. Estimate of the time of arrival of whales in the vicinity of the gear.

***Gear lost***

Number of sections lost  
 Number of hooks lost that were attached to lost sections of the longline  
 Number of other hooks lost (excluding hooks attached to lost sections)

***Observed catch composition***

Was Haul observed for fish/invertebrate by-catch (Y/N):  
 Estimate percentage of the haul observed for by-catch (%)

***Species***

Species code (FAO species code)  
 Total retained catch weight (kg) or total number  
 Total discarded catch weight (kg) or total number

***Species Retained***

Observed number retained  
 Observed number retained with tags

***Species Discarded***

Observed number discarded  
 Observed number discarded dead  
 Observed number discarded alive

***Species Lost***

Observed number lost/dropped off at surface

***Specimen cut off (if possible)***

Yes / No  
 For each species caught
 

- Taxa name
- Number alive
- Number dead or injured

**For Trapping/Potting Fishing Activities ONLY**

*Gear type*

pot type (with drawing)  
 mesh size (mm)

***Funnel position***

Orientation  
 Aperture (cm)  
 Number of chambers  
 Escape port present (y/n)  
 Dimensions (cm) of escape port

***Processing Details and Conversion Factors (CF)***

Haul Number  
 Name of observer  
 Species Code (FAO species code)  
 Processing Code  
 Length Range (Minimum Maximum)  
 Number of individuals  
 Live Weight (kg)

Processed Weight (kg)

Grade

Conversion Factor

***Set and haul details***

Set Number

Date of observation YYYY.MON.DD)

Set Type: Research or Commercial (R/C)

Target species (FAO species code)

Offal dumped during setting (Yes / No)

Offal dumped during hauling (Yes / No)

***Start and End setting. Repeat for hauling***

Date (YYYY.MON.DD)

Time (:mm)

Latitude

Longitude

Bottom depth (m)

***Gear Details***

Length of line (m)

Type of line Pot spacing (m)

Bait type

***Setting***

Number of pots set

Number of pots observed

***Hauling***

number of pots hauled

number of pots observed

***Observed interactions with birds or marine mammals***

Species Code (FAO species code)

***At Setting***

Abundance (500m radius)

Gear interaction (y/n)

***At Hauling***

Abundance (500m radius)

Gear interaction (y/n)

***Observed catch composition***

Name of observer

Was Haul observed for fish/invertebrate by-catch (Y/N):

Estimate percentage of the haul observed for by-catch (%):

***Number of pots observed for by-catch:***

Species Code (FAO species code)

Total retained catch weight (kg)

Total discarded catch weight (kg)

***Species Retained***

Observed number retained  
 Observed number retained with tags

***Species Discarded***

Observed number discarded  
 Observed number discarded dead  
 Observed number discarded alive

***Species Lost***

Observed number lost/dropped off at surface

**For Dahn/Drop lining activity ONLY**

***Dahn/Dropline Description***

Line Type  
 Period in which the gear was used ( ) Start and end date  
 Target species (FAO species code)

***Main Line***

Material  
 Diameter (mm)  
 Integrated weight (g/m)

***Hooks***

Type (e.g.: J shaped, Circular, etc.)  
 Make  
 Size (inch)  
 Total length (mm)  
 Shank (mm)  
 Gape (mm)  
 Throat (mm)  
 Front length (mm)  
 Usual setting position  
 Line off bottom (m)  
 Hooks off bottom (m)  
 Method of baiting (manual/automatic)  
 Automatic baiting equipment (make and model)

***Offal***

Offal dumping position (port, starboard, stern)  
 Offal dumping during hauling (never, occasionally, always)  
 Propeller rotation direction (clockwise/anti-clockwise)

***General Streamer Line Description***

Vessel equipped with a streamer line (y/n)  
 Number of streamer lines regularly set  
 Streamer line position (port, starboard, stern)  
 Streamer line length (m)  
 Streamer length min/max (m)  
 Attached height above water (m)  
 Distance between streamers (m)  
 Number of streamers  
 Streamer design (single or paired)

Ariel extent of line (m)  
Method used to assess aerial extent  
Streamer material  
Streamer line diameter (mm)  
Streamer colours  
Streamer line over bait entry position? (y/n/u)  
Distance from stern to bait entry point (m)  
Horizontal distance from bait entry point to streamer line (m)

***Details of Dahn/Dropline Setting***

Main line length (m)  
Number of hooks set  
Percentage hooks baited  
Distance between branches/snoods (m)  
Distance of hooks off bottom (m)  
Bait species  
Bait size  
Bait proportion  
Deck lights during setting (On, Off)  
Streamer lines used (Yes, No)  
Number of streamer lines used Offal dumping during setting (Yes, No)  
Daylight period  
Moonlight  
Bait entry position (Port, Starboard, Stern)  
Vessel setting speed (knots)

***Start and End setting. Repeat for Start and End of hauling***

Date (YYYY.MON.DD)  
Time (hh:mm)  
Latitude  
Longitude  
Bottom Depth (m)

***Gear lost***

Number of sections lost  
Number of hooks lost that were attached to lost sections of the dahn/dropline  
Number of other hooks lost (excluding hooks attached to lost sections)

***Observed catch composition***

Observer ID  
Was Haul observed for fish/invertebrate by-catch (Y/N):  
Estimate percentage of the haul observed for by-catch (%)  
Species (data shall be collected for each observed species)  
Species code (FAO species code)  
total retained catch weight (kg)  
total discarded catch weight (kg)

***Species Retained***

observed number retained  
observed number retained with tags

***Species Discarded***

observed number discarded  
observed number discarded dead

observed number discarded alive

***Specimen cut off (if possible)***

Yes / No

For each species caught

- Taxa name
- Number alive

Number dead or injured]

***Species Lost***

observed number lost/dropped off at surface

**Handline fishing activity**

**Handline Description**

Target species (FAO species code)

**Main Line**

Material

Diameter (mm)

Integrated weight (g/m)

**Hooks**

Type (e.g.: J shaped, Circular, etc.)

Make

Size (inch)

Total length (mm)

Shank (mm)

Gape (mm)

Throat (mm)

Front length (mm)

Usual setting position

Line off bottom (m)

Hooks off bottom (m)

**Offal**

Offal dumping position (port, starboard, stern)

Offal dumping during hauling (never, occasionally, always)

Propeller rotation direction (clockwise/anti-clockwise)

**Details of Handline Operation**

Main line length (m)

Number of fishermen operating handlines

Number of line lifts per fisherman (average)

Number of hooks per line

Percentage hooks baited

Bait species

Bait size

Bait proportion

Deck lights during setting (On, Off)

**Start and End time of operation.**

(An operation is a defined period of fishing between start and end date)

Date (YYYY.MON.DD)

<p>Time (hh:mm)                  Latitude                  Longitude                  Bottom Depth (m)</p> <p><b>Gear lost</b>                  Number of hooks lost</p> <p><b>Observed catch composition</b>                  Observer ID                  Was Haul observed for fish/invertebrate by-catch (Y/N):                  Estimate percentage of the haul observed for by-catch (%)                  Species (data shall be collected for each observed species)                  Species code (FAO species code)                  total retained catch weight (kg)                  total discarded catch weight (kg)</p> <p><b>Species Retained</b>                  observed number retained                  observed number retained with tags</p> <p><b>Species Discarded</b>                  observed number discarded                  observed number discarded dead                  observed number discarded alive</p> <p><b>Species Lost</b>                  observed number lost/dropped off at surface</p>
<p><b>Interactions with Vulnerable Marine Ecosystems (VME)</b></p> <p><b>General information</b>                  Name of observer                  Name of vessel                  Date                  Trip number                  Set number</p> <p><b>VME location</b>                  Start and end positions of all gear deployments and/or observations.                  (Latitude/longitude)                  Depth(s) fished (m)</p> <p><b>Fishing Gear</b>                  Indicate fishing gears used at each location</p>
<p><b>VME Taxa</b></p> <p><b>Presence: Yes/No</b></p> <p>a) Species (identified taxonomically as far as possible or accompanied by a photograph where identification is difficult).</p> <p>b) An estimate of the quantity (weight (kg) or volume (m<sup>3</sup>)) of each listed benthic species caught in the tow (and the unit of measurement).</p> <p>c) An overall estimate of the total quantity (weight (kg) or volume (m<sup>3</sup>)) of all invertebrate benthic species caught in the tow (and the unit of measurement).</p> <p>d) Where possible, provide the live or dead status for corals</p> <p>e) Where possible, and particularly for new or scarce benthic species which do not appear in ID guides, whole samples should be collected and suitably preserved for identification on</p>

shore.

e) Collect representative biological samples from the entire VME catch. (Biological samples shall be collected and frozen when requested by the scientific authority in a Contracting Party). For some coral species that are under the CITES list photographs should be taken.

**Other sessile benthos taxa**

Presence: Yes/No

For each catch of taxa

Scientific names (identified to the finest taxon level possible)

FAO code (if available)

Estimation of the amount caught

**For Squid Jigging ONLY**

***Squid Jigging details:***

Squid Jigging Number

Observed (Yes/No)

Target Species (FAO species code)

Time Start (YYYY.MON.DD hh:mm)

Time Finish (YYYY.MON.DD hh:mm)

Latitude Start

Longitude Start

Number of fishermen

Number of machines

Fishing duration by hand(h)

Fishing duration by machine(h)

Fish lamp used during setting (Y/N)

***Observed catch composition***

Was Haul observed for fish/invertebrate bycatch (Y/N):

Estimated percentage of the operation observed for fish/inverts bycatch (%)

***Species:***

FAO species code

Scientific name

Estimated retained catch weight (kg) or number of individuals

Estimated discarded catch weight (kg) or number of individuals

***Seabird & Marine Mammals abundance observation:***

Seabirds & Marine Mammals present in observation area (Y/N)

Estimated numbers of abundance (by species)

**For Light seining activity ONLY**

**Light seining Description**

**Type of light seining gear**

**Light seining activity Number**

**Target species (FAO species code)**

**Observed (Yes/No)**

**Total Power of fish lamp (kw) of water and under water**

**Time Start (YYYY.MON.DD hh:mm)**

**Time Finish (YYYY.MON.DD hh:mm)**

**Latitude Start**

**Longitude Start**

**Fishing duration (h)**

**Fish lamp used during setting (Y/N)**

**Observed catch composition**

**Was Haul observed for fish/invertebrate bycatch (Y/N)**

**Estimated percentage of the observed for fish/inverts bycatch (%)**

**Species:**

**FAO species code**

**Scientific name**

**Estimated retained catch weight (kg) or number of individuals**

**Estimated discarded catch weight (kg) or number of individuals**

**Seabird & Marine Mammals abundance observation:**

**Seabirds & Marine Mammals present in observation area (Y/N)**

**Estimated numbers of abundance (by species)**

Annex C

Specifications for the Exchange of Data

1. Coordinated Universal Time (UTC) shall be used to describe times, using the following submission format: YYYY-MON-DDThh:mm:ss where:
  - a. YYYY - represents a 4-digit year e.g. "2007"
  - b. MON - represents a 3-character month abbreviation e.g. "APR"
  - c. DD - represents a 2-digit day e.g. "05"
  - d. T - is a space separator
  - e. hh - represents hours based on the 24hr clock (length = 2 digits) e.g. "16"
  - f. mm - represents minutes (length = 2 digits) e.g. "05"
  - g. ss - represent seconds (length = 2 digits) e.g. "00"

**Example:** 2003-JUL-17T13:10:00 = 1.10pm (1310h), 17 July 2003

2. Coordinates are to be used to describe precise locations and the following standards shall be used:

Degrees minutes seconds (DD°MM'SS") or Degrees minute decimal (DD°MM.XX) or Decimal degrees (DD.XXXX)

Add N or S to indicated North or South for latitudes. Add E to indicate the Eastern longitude (the SIOFA Area is always in the Eastern longitudes), for decimal degrees, add minus for southern latitudes.

Examples:

Latitude= 42°37'06" S Longitude= 48°03'58" E

Latitude= 35°09.70" S Longitude= 51°12.94"

Latitude= -10.0386 Longitude= 61.7088

3. Metric units of measure be used, specifically:
  - a. kilograms are to be used to describe catch weight
  - b. Metres are to be used to describe height, width, depth, beam, or length
  - c. Cubic metres are to be used to describe volume
  - d. Kilowatts are to be used to describe engine power

## Annex D

### Role and tasks of the scientific observer

1. The function of scientific observers on board vessels engaged in harvesting of marine living resources is to independently observe and report on the operation of fishing activities in the SIOFA Area.
2. In fulfilling this function, scientific observers will undertake the following tasks:
  - a. Record details of vessel operations, including inter alia, times of, searching, fishing, transit etc., and details of hauls;
  - b. Take biological samples of catches;
  - c. Record biological data of species caught;
  - d. Record by-catch information, such as species, quantity, and other biological data [as specified in Annex B]
  - e. Record interactions with seabirds, marine mammals, and marine reptiles
  - f. Record information on catch including data relating to processed conversion factors;
  - g. prepare reports of their observations for their respective national authorities;
  - h. collect and report data on sightings fishing vessels, unmarked fishing gear, and recovery of fishing gear in the SIOFA Area, including vessel type identification, vessel position and activity and gear type;
  - i. collect information on fishing gear loss and waste disposal by the fishing vessels at sea.

## Protocol for documenting whale interaction in deep-sea demersal longline fisheries

**Priority 1 Data to be collected**

## Presence

For every haul and for each species:

Haul	Presence ?	Comment
1	Absent	
2	Present	
3	Present	Night-time, but clearly see them in projectors
4	Not observed	Night-time, can't see them but can't say they are not present around.

Requirement: data mandatory and must be collected for every haul.

“Presence”: Favourable conditions (visibility is at least several hundred meters with sufficient light) and observation by the observer (observer can be alerted by the crew when whales are sighted). The presence of whales is confirmed by direct observation of at least one individual at the surface in the vicinity of the vessel at least once during 1 haul. Note that presence can also be observed at night when killer whales come very close to the boat.

“Absence”: Favourable conditions and no odontocete spotted at any time during the entire haul.

“Not observed” is used either if the observer did not have time to gather information (e.g. if line broke), or if conditions are too bad to observe (either weather conditions, or hauling at night).

## Photos

For every haul and for each species:

Haul	Presence?	Photos?	Comment
1	Absent	No	
2	Present	Yes	
3	Present	No	Night-time: too dark for pictures
4	Not observed	No	Night-time: too dark for pictures

Requirement: data mandatory and must be collected for every haul.

With this additional field, observers indicate whether they took pictures of whales for photo-identification purposes or not during the haul of the set.

**Priority 2 Data to be collected**

Number of individuals

For every haul and for each species:

Haul	Presence?	minimum	maximum	comment
1	Absent	0	0	
2	Present	15	22	
3	Present	1		At least one but too dark for accurate estimate
4	Not observed			

Requirement: data should be collected for every haul to the extent possible.

Providing exact counts of individuals from the surface may be difficult for observers as whales can dive for long periods of time. To account for uncertainty around counts, observers may fill in two fields:

- Minimum estimate of the number of individuals,
- Maximum estimate of the number of individuals.

### Priority 3 Data to be collected

#### Interaction with fishing gear

For every haul and for each species:

Haul	Presence?	Interaction with fishing gear?	Comment
1	Absent	No	
2	Present	Yes	Saw them diving close to the line
3	Present	Yes	Head of fish were observed
4	Not observed		

Requirement: data should be collected for every haul to the extent possible.

When Presence, interaction with fishing gear is taken into account if whales are diving close to the lines or directly observed with fish in their mouths.

#### Estimated Time of Arrival (ETA)

For every haul and for each species:

Haul	Presence?	ETA	Comment
1	Absent	NA	Not applicable
2	Present	0:30	We were able to haul 30 minutes before they arrive
3	Present	0:00	Saw them in projectors even before first hook came on board
4	Not observed	NA	Not applicable

Requirement: data should be collected for every haul to the extent possible.

The Estimated Time of Arrival here corresponds to the time between the first hook of the line hauled on board and the arrival of sperm whales / killer whales. If whales are already present when hauling starts, then ETA is zero.