ADOPTED 2017 29 30

CMM 2016/02

Conservation and Management Measure for the Collection, Reporting, Verification and Exchange of Data relating to fishing activities in the Agreement Area

Contracting Parties to the Southern Indian Ocean Fisheries Agreement:

RECALLING that Article 6(1) (f) of the *Southern Indian Ocean Fisheries Agreement* (the Agreement) calls on the Meeting of the Parties to develop rules for the collection and verification of scientific and statistical data, as well as for the submission, publication, dissemination and use of such data;

FURTHER RECALLING that Articles 10(1)(c) and 11(3) set out the duties relevant to the collection and provision of data and related processes for Contracting Parties and Flag States respectively;

RECOGNISING the importance of developing comprehensive arrangements for data collection, reporting, verification and exchange of data to assist the Scientific Committee in performing its functions as outlined in Article 7 of the Agreement;

NOTING the relevance of Articles 10(e) and 14 of the *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* (UNFSA) which call on States to cooperate through regional fisheries management organisations to agree on the standards for the collection, reporting, verification and exchange of data on fisheries for the stocks, and the specifications and format for the data to be provided and to cooperate in their scientific research;

CONSIDERING the provisions set forth in the *Resolution on data collection concerning the high seas in the Southern Indian Ocean*, adopted by the Conference on the Southern Indian Ocean Fisheries Agreement in the Seychelles from 13-16 July 2004;

NOTING the importance of data collection and catch reporting for the purposes of ensuring scientific stock assessment and implementing an ecosystem approach to fisheries management; and

FURTHER NOTING that the Meeting of Parties has adopted policies and procedures for the maintenance of data confidentiality (CMM 2016/03);

***ADOPTS* the following conservation and management measure (CMM) in accordance with Article 6 of the Agreement**:

Application

1. This CMM applies to all Contracting Parties, cooperating non-Contracting Parties (CNCPs) and Participating Fishing Entities (PFEs).

2. This CMM prescribes the standards for the collection, reporting, verification and exchange of data related to fishing activities by vessels fishing in the SIOFA Area of Application (the Agreement Area) that are flying the flag of a Contracting Party, CNCP or PFE. These data standards shall assist the Meeting of the Parties to fulfil its objectives under the Agreement insofar as it relates to assessing the state of the fisheries within SIOFA's competence, including the status of target and non-target species and the impact of fishing on the marine environment.

Terminology

3. The following definitions apply to this CMM including its annexes:

    a. 'other species of concern' means those species as may be defined by the Scientific Committee from time to time.

    b. 'National Report' means the report defined in paragraph 8 of this CMM.

Vessel Catch and Effort Data

Collection of data

4. Contracting Parties , CNCPs and PFEs shall ensure that data on fishing activities, including for target, non-target and associated and dependent species such as marine mammals, marine reptiles, seabirds or 'other species of concern', are collected from vessels flying their flag that are fishing in the Agreement Area in accordance with the relevant sections of Annex A.

5. The Scientific Committee shall, by no later than the ordinary meeting of the Scientific Committee in 2017, provide advice and recommendations to the Meeting of the Parties on an appropriate spatial resolution for the collection and reporting of data to facilitate effective stock assessment. Until the Meeting of the Parties, based on the advice of the Scientific Committee, determines an appropriate spatial resolution for the collection and reporting of data, Contracting Parties, CNCPs and PFEs shall ensure that data are collected on a haul by haul basis.

Data collection and submission

6. Contracting Parties, CNCPs and PFEs shall report to the Secretariat, by 31 May each year, the data collected under paragraphs 4 and 5 for the previous calendar year, in accordance with the format prescribed in the corresponding annexes.

7. Contracting Parties, CNCPs and PFEs shall provide to the Secretariat, by 31 May each year, annual catch summaries for all species/groups caught in the Agreement Area during the previous calendar year. The catch summaries shall include the following information:
    a. Calendar year (eg 2015)
    b. FAO statistical area (eg FAO87)
    c. Species/group name (common name and scientific name)
    d. Species/group code (FAO3-alpha code 19, EG ORY) (if available)
    e. Annual catch total – tonnes raised to 'live' weight.

National report

8. Following the entry into force of this CMM, Contracting Parties, CNCPs and PFEs shall provide to the Scientific Committee, at least 30 days prior to the commencement of each ordinary meeting, an annual National Report of their fishing, research and management activities in accordance with the following:
    a. For the first report: the National Report shall include details of activities of the previous five calendar years;

b. For all reports thereafter: the National Report shall include details of activities of the previous calendar year; and
c. In either case, the National Report shall take into account the guidelines prepared by the Scientific Committee for the preparation of such reports.

Historical Data

9. To assist with the development of a bottom fishing footprint and stock assessments, Contracting Parties, CNCPs and PFEs shall provide to the Secretariat, by 31 January 2017,[1] historical catch, effort and, if available, observer data from vessels flying their flag that were fishing in the Agreement Area at any time during the period 2000 to 2015, and any previous years where available, in a format as close as is possible to the annexes to this CMM. The catch, effort and, if available, observer data provided to the Secretariat may initially be provided as unverified data, and updated with verified data any time before 31 January 2018. Any State or fishing entity that becomes a Party to the Agreement, a CNCP or PFE after the date this CMM is adopted shall provide their historical data to the Secretariat within 12 months of becoming Party to the Agreement, or becoming a CNCP or PFE.

10. Where possible, Contracting Parties, CNCPs and PFEs are encouraged to provide relevant, reliable historical data for species caught in waters under their national jurisdiction where such information would assist in understanding the status of the stocks and the impacts of fishing on all target species, non-target and associated and dependent species and the marine environment within the Agreement Area.

Scientific Observer Data

11. All Contracting Parties, CNCPs and PFEs shall implement national scientific observer programmes to collect from activities undertaken by vessels flying their flag:
    a. Vessel information, effort and catch data for its fishing activities in the Agreement Area, including target, non-target and associated and dependent species including marine mammals, marine reptiles, seabirds or 'other species of concern';
    b. Biological or other data and information relevant to the management of fishery resources in the Agreement Area, as specified in this CMM, or as identified from time to time by the Scientific Committee or through processes identified by the Meeting of the Parties; and
    c. Relevant scientific information related to the implementation of the provisions of the CMMs adopted by the Meeting of the Parties.

12. Contracting Parties, CNCPs and PFEs shall, through their National Report, provide to the Scientific Committee an annual observer programme implementation report which should include sections covering: observer training, programme design and coverage, type of data collected, and any problems encountered during the previous calendar year.

[1] If the SIOFA database is not established by this time, Contracting Parties, CNCPs and PFEs shall provide a comprehensive data summary to the ordinary meeting of the Scientific Committee in 2017.

13. Contracting Parties, CNCPs and PFEs shall endeavour, for all observed trips, to collect observer data in accordance with the relevant sections of Annex B. All observer data collected by Contracting Parties, CNCPs and PFEs shall be reported to the Secretariat by 31 May each year for the previous calendar year. Annex B will be reviewed by the Scientific Committee at its ordinary meeting in 2018 based on observer data provided.

Data Verification

14. Contracting Parties, CNCPs and PFEs shall:
    a. ensure that fishery data are verified through an appropriate system of data verification mechanisms;
    b. develop, implement and improve data verification mechanisms, which may include:
        i. Position verification through vessel monitoring systems;
        ii. Independent monitoring, including scientific observer programs and approved electronic observer programs,[2] to verify industry data on catch, effort, catch composition (target and non-target), discards and other details of fishing operations;
        iii. Vessel trip, landing and transhipment reports; and
        iv. Port sampling.
    c. provide to the Scientific Committee, through their National Report, an annual data verification report which should provide information regarding their development and implementation of data verification mechanisms.

Format for data submission

15. Contracting Parties, CNCPs and PFEs shall report all data required to be reported by this measure to the Secretariat in accordance with the formats described in this CMM, including its annexes.

16. Specifications for the submission of data:
    a. times, longitudinal/latitudinal information and units of measure are to be reported in accordance with the format described in Annex C;
    b. Species are to be described using the FAO 3 letter Species Codes;[3]
    c. Fishing methods are to be described using the International Standard Classification of Fishing Gear (ISSCFG - 29 July 1980) codes;[4] and
    d. Types of fishing vessels are to be described using the International Standard Classification of Fishery Vessels (ISSCFV) codes.[5]

Review

[2] Approved electronic observer programs refers to those programs that meet the SIOFA agreed standard and have been reviewed by the Scientific Committee and approved by the Meeting of the Parties as being capable of meeting the data requirements in this CMM.

[3] www.fao.org/fi/statist/fisoft/asfis/asfis.asp

[4] http://www.fao.org/fishery/cwp/handbook/M

[5] http://www.fao.org/fishery/cwp/handbook/L

17. This CMM should be reviewed periodically by the Scientific Committee and the Meeting of the Parties, taking into account new information or data requirements as may be decided.

ADOPTED 2017 29 30

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

List of Annexes:

Annex A - Vessel Catch and Effort Data

Annex B – Voluntary Observer Data

Annex C - Specifications for the Exchange of Data

Annex A

Vessel Catch and Effort Data

1. Contracting Parties, CNCPs and PFEs shall ensure that the following data on fishing activities are collected from all fishing vessels flying their flag in the Agreement Area:

Data Set – Fishing activities
General (Trip) Vessel flag State (ISO 3-apha) Name of vessel International radio call sign (if any) Vessel Registration number (flag State) 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
Weight Conversion Factor Species Processing type Conversion factor = live weight/processed weight
Haul Information Intended Target species (FAO code) Type of fishing (C)ommercial; (R)esearch; (S)urvey data Haul ID number
Set Start date and Time (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) Decimal degrees (WGS84 are to be used to describe locations)
Position at start and end of fishing Latitude Longitude Use N and S rather than + and – Use E and W rather than + and – For longline vessels – position is recorded at the start and end of setting For Trawl fishing – for bottom trawl “start” is defined as when the groundrope is on the bottom, “end” is when the tow ends. – for midwater trawl“start” is defined as when the fishing gear is at target fishing depth, “end” is when the tow ends.
Bottom Depth (m) As recorded at the start and end of fishing
Fishing / gear depth (m) As recorded at the start and end of fishing For trapping/potting, Actual Fishing / gear depth (m) as recorded at start is required
Species retained Estimated catch retained on board by species (FAO species/group code/scientific name) in live weight (kg)

Species Discarded An estimation of the amount of living marine resources discarded by species if possible in live weight (kg)
Incidental bycatch of marine mammals, seabirds, reptiles and 'other species of concern' Yes / No For each species caught • Species name • Number alive • Number dead or injured

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.

Data Set - Gear
Trawl Mesh Size (mm) Trawl technique: Type of trawl: (S)ingle, (D)ouble or (T)riple
Longline Type of longline (Spanish, Trotline, Autoline) 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)
Trap/Pot 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
Dahn/Drop Line/ Handline Total number of hooks in the set Number of hooks lost Hook code or make Type of leader used Total number of line lifts in the set Type of bait used

Annex B

Voluntary Observer Data

1. Contracting Parties, CNCPs and PFEs shall endeavour, for all observed trips, to 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 endeavor to collect tissue, otolith and/or stomach samples in accordance with any research programs developed by the Scientific Committee.

Data Set – Observer data
Trip Details Trip Number Cruise details (start and end dates – YYYY.MON.DD) Date report is generated (UTC) Current vessel flag State (ISO 3-apha) Name of vessel
Observer Details 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 +-)
Length Frequency Data Representative and randomly sampled length-frequency data shall be collected for the target species (FAO species code) Where possible, representative and randomly sampled length-frequency data shall be collected for other main by-catch species. 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. Where possible, total weight of length-frequency samples should be recorded, or estimated and the method of estimation recorded Where possible, Observers should determine and record sex of measured fish to generate

length-frequency data stratified by sex

Biological Sampling

Species

Length (mm or cm), with record of the type of length measurement used.

Skates and rays:

• maximum disk width shall be measured

Sharks

• Appropriate length measurement to be used should be selected for each species. As a default, total length should be measured.

Weight (kg)

Sex (male, female, immature, unsexed)

Maturity stage (and criteria/schedule used)

Gonad weight (g)

Otoliths

Incidental bycatch of seabirds, mammals turtles or 'other species of concern'

The following data shall be collected for all seabirds, mammals, turtles and other species of concern caught in fishing operations:

- Species (identified taxonomically as far as possible, or accompanied by photographs if identification is difficult) and size
- Estimated species abundance around fishing vessel
- Species interactions with fishing gear
- Count of the number of each species caught per tow or set
- Fate of bycatch animal(s) (retained or released/discarded)
- If released, life status (vigorous, alive, lethargic, injured, dead) upon release
- If injured, what was the cause of injury?
- 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
    - Record the type of interaction (hook/line entanglement/warp strike/net capture/other) if other, describe
- Sex of each individual for taxa where this is feasible from external observation, e.g. pinnipeds, small cetaceans or Elasmobranchii species
- identify any circumstances or actions that may have contributed to the bycatch event? (E.g. tori line tangle, high levels of bait loss)

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 State (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 and type (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)
Groundrope length (m)
Bobbin diameter (cm)
Otterboard to wing length (m)
Horizontal Opening (m)
Vertical Opening (m)

Codend mesh
Mesh size (cm), codend circumference (cm), Orientation
Mesh type (diamond, square, etc)

Otterboard
Type, weight (kg)

Net design
Net design description including make, model etc

Trawl details
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)

Start and End Fishing

For Trawl fishing – for bottom trawl "start" is defined as when the groundrope is on the bottom, "end" is when the tow ends.
– for midwater trawl "start" is defined as when the fishing gear is at target fishing depth, "end" is when the tow ends.
Time (hh:mm)

Latitude
Longitude
Trawl Depth (m)
Bottom Depth (m)

Other
Offal discharged during shooting (Y/N)
Offal discharged during hauling (Y/N)
Trawl speed (knots)
Horizontal opening (m)
Total catch (kg)

Observed catch composition
Observer ID
Was Haul observed for fish/invertebrate by-catch (Y/N):
Record the total weight of all sub-samples for this shot (kg):

Species
FAO species code
Scientific name
Total retained catch weight (kg)
Total discarded catch weight (kg)

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).
Trawl number
Name of observer

Start observation time (hh:mm)
End observation time (hh:mm)

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 Wt (g/m)

Branch Lines
Material
Length (M)
Spacing (m)

Hooks
Type
Make
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)

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/DDy)

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)
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)

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)
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 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
Min
Max
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)

Setting
Abundance (500m radius)
Gear interaction (y/n)

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/Handline fishing activity ONLY

Dahn/Dropline Description
Line Type
Period in which the gear was used (YYYY.MON.DD) Start and end date
Target species (FAO species code)

Main Line
Material
Diameter (mm)
Integrated Wt (g/m)

Hooks
Type

Make
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/Handline 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

Species Lost
observed number lost/dropped off at surface

Interactions with Vulnerable Marine Ecosystems (VME)

General information
Name of observer
Name of vessel
Date
Trip number
Set number

VME location
Start and end positions of all gear deployments and/or observations. (Latitude/longitude)
Depth(s) fished (m)

Fishing Gear
Indicate fishing gears used at each location

VME Taxa

a) Species (identified taxonomically as far as possible, or accompanied by a photograph where identification is difficult).

b) An estimate of the quantity (weight (kg) or volume (m3)) of each listed benthic species caught in the tow.

c) An overall estimate of the total quantity (weight (kg) or volume (m3)) of all invertebrate benthic species caught in the tow.

d) 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 shore.

5) 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.

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. Decimal degrees (WGS84) are to be used to describe locations.

3. The following standard shall be used for the submission of latitudinal/ longitudinal information:

    a. Northern latitudes and eastern longitudes should be indicated by the use of [unsigned] positive decimal degree values

    b. Southern latitudes and western longitudes should be indicated by the use of negative decimal degree values

Latitude - Degrees: Represented as positive (unsigned) or negative numbers from 0 to 89.99	E.g. If value = 83.2, this means 83.2° **N** E.g. if value = -83.2, this means 83.2° **S**
Longitude – Degrees: Represented as positive (unsigned) or negative numbers from 0 to 179.99	E.g. If value = 83.2, this means 83.2° **E** E.g. if value = -83.2, this means 83.2° **W**

4. Metric units of measure be used, specifically:

    a. Tonnes or 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