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Observer Program Development and Logistical Coordination Workshop

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Observer data:

Uses, importance, common errors and their impact

IOTC ROS OLC TR 9.03

Category: Debriefers Training

[IOTC ROS OLC TR 9]

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Importance of observer data to fisheries management

- **Science-based fisheries management requires accurate independent and fisheries representative information, generally collected from:**
  - commercial fishing logbooks (not independent)
  - research ships (not representative)
  - **onboard fisheries observers (independent and representative)**
- **Collected data is analysed by scientist and insights on the state of the fisheries provided to Fisheries Managers.**
- **Based on these insights, Fisheries Managers take actions required to regulate catch and effort to achieve sustainability goals.**

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Importance of observer data to fisheries management

Observer data

Gathering Data

+

Data Analysis

Fisheries Science

Fisheries Management

Insights

INTERNATIONAL

- ✓ Resolutions
- ✓ CMMs

Actions

NATIONAL

- ✓ Policies
- ✓ Acts & Regulations
- ✓ Permit condition

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Importance of Observer data to fisheries management

Debriefers should be aware of the importance of the debriefing process (data checking + debrief interview) in improving observer data quality.

Poor or falsified data can have an extremely serious impact on the management of a fishery / population and may lead to erroneous decisions in the drafting and implementation of the rules of "Fishery Management".

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Observer data required

❖ **Debriefers should be aware of :**

Categories of information observers are required to collect for:

- ✓ RFMOs;
- ✓ CPC national agencies

Applicable legislation related to the collected data, from:

- ✓ RFMOs
  - **Resolutions (Res.)**
  - **Conservation and management measures (CMMs)**
- ✓ CPC
  - **Policies**
  - **Acts**
  - **Regulations**
  - **Permit conditions**

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Observer data: required by RFMOs

❖ IOTC

➢ **IOTC Res. 11/04** on a Regional Observer Scheme states observers are:

- ✓ to record and report fishing activities, verify positions of the vessel;
- ✓ to observe and estimate catches as far as possible with a view to identifying catch composition and monitoring discards, by-catches and size frequency;
- ✓ to record the gear type, mesh size and attachments employed by the master;
- ✓ to collect information to enable the cross-checking of entries made to the logbooks (species composition and quantities, live and processed weight and location, where available); and
- ✓ To carry out such scientific work (for example, collecting samples), as requested by the IOTC Scientific Committee.

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Observer data: required by CPC

❖ Cooperating Contracting Parties (CPC)

National legislation outlines the basic categories of information that observers must collect while onboard, which may include:

- categories of information requested by RFMOs;
- categories of information requested by national research institutes;
- categories of information requested by national organisations responsible for surveillance, monitoring and compliance.

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Observer data: generalities on data checking

❖ **Debriefer is to analyse observer data under three focal categories:**

- **data for scientific purposes**
- **data for monitoring and compliance purposes**
- **data for surveillance purposes**

❖ **Debriefer is to assess observer data quality by evaluating its:**

- **accuracy**
- **consistency**
- **completeness**
- **integrity** *(= reliability)*
- **validity** *(= independence)*
- timeliness

It is a common occurrence for observers to record information that may not be verifiable or that is incorrectly recorded.

Debriefer needs to pay attention to common errors made by observers, these errors may seem minor, but their impact can be severe.

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Observer data: collected for scientific purposes

❖ KEY ASPECTS TO CHECK

Length type (fork length or any other associated length);

Accuracy of the measurements, check and question abnormal lengths (e.g.: YFT over 200 cm);

Usage of correct length and weight units and symbols are applied as per instructions, and consistency;

Length \ weight regressions to find outlying points.

- **Observers capacity to reliably identify the species they report on** (trough questioning and the use of species ID tests).

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Observer data for: scientific purposes

❖ COMMON ERRORS

- **Recording incorrectly against specified units** *(e.g. recording 1.34 in place of 134 where the specified unit requires a length in "cm");*
- **Recording measurements without units** *(e.g. recording 134 in place of 134 cm);*
- **Switching numbers** *(e.g. recording "78" in place of the "87");*
- **Recording length measurement without noting the length type** *(e.g. recording 134 cm in place of 134 cm total length (TL));*
- **Recording the wrong length type** *(e.g. recording 134 cm total length (TL) when the sampling requirement is fork length (FL));*

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Observer data for: monitoring & compliance

❖ KEY ASPECT TO CHECK ON BY-CATCH RELATED DATA

- **Set and catch data for:**
  - **Mitigation measures**
  - **Catch, release and use of best practices** when handling by-catch species classified by the IOTC as Species of Special Interest *(marine turtles, marine mammals, seabirds, shark species with a retention ban, and certain billfish species)*;
- **Observers capacity to reliably identify the species they report** (trough questioning and using a "self-learning" test or "flash cards").

If observer can't reliably ID certain spp., data and report should be amended to a higher taxonomical level.

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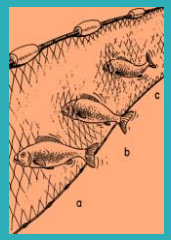
Observer data for: monitoring & compliance (cont.)

❖ KEY ASPECT TO CHECK ON FISHERIES MANAGEMENT RELATED DATA



- **Gear specification and capacity limits**
- **Fishing events**
- **Fishing practices**

- **Management of target species**

- **Proof of actions non-conform with IOTC/CPC regulations** (descriptions, photographs, videos, etc.).

- **Observers awareness of IOTC/CPC regulations** and understanding of the need of supporting information to demonstrate vessel non-conformity.

- **Observers capacity to reliably identify specific target species** they report on. This can be done using a "self-learning" test or "flash cards".

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Observer data for: monitoring & compliance (cont.)

❖ COMMON ERRORS AND IMPACTS

- **Lack of accuracy** (information incorrectly recorded by the observer)

  E.g.: An observer deployed on a longline vessel reported that a weight was attached "2.8" from the hook but does not record the units (cm or m). If the minimum requirement is for weights to be placed not more than 2 m from the hook, this could be an infringement if the recording was actually centimetres and not metres.

- **Lack of supporting information** (information cant be verified)

  E.g.: An observer deployed on a purse-seine vessel reported that the vessel intentionally sett the net around a whale shark. A report that shows vessel non-conformity with IOTC RES. 13/05. Yet the observer hasn't taken any photo of the event, therefore there's no evidence that the whale shark was sighted prior to the commencement of the setting of the net.

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Observer data for: surveillance purposes

❖ KEY ASPECT TO CHECK

Reports on vessel sightings (direct & indirect) **and associated evidence**

- ✓ date, position and time
- ✓ photographs of the vessel sighted or of the radar screen

Reports on fishing gear sightings (FAD included) **and associated info**

- ✓ date, position and time
- ✓ description and photographs of the gear

Observers awareness of the need to collect and report information on IUU activity with accuracy and for providing support information and evidence to be used in follow-up actions.

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Observer data for: surveillance purposes (cont.)

❖ COMMON ERRORS AND IMPACTS

- **Lack of accuracy** (information incorrectly recorded by the observer)

  E.g.: An observer reported having came across a drifting gillnet of a length of 100 but does not record the units (m or Km). The CPC and IOTC forbids the use drifting gillnets of more than 10 Km. This could be an infringement if the recording was actually kilometres and not metres.

- **Lack of supporting information** (information cant be verified)

  E.g.: An observer reported the sighting of a purse-seine vessel in the EEZ of a CPC that hasn't licensed any purse-seine vessel to fish in its waters. Yet the observer forgot to collect supporting information and evidence (photos, data, time and location), on vessel IUU activity, to be used in follow-up actions.

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THANK YOU FOR YOUR PARTICIPATION

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