



2023 Observer Trawl Finfish Logbook – Instructions

Form Version: OF_v2024

Introduction

The following instructions cover the 2024 version of the CCAMLR SISO Observer Trawl Finfish logbook, an excel based series of datasheets which SISO observers are required to complete. Even if you are familiar with CCAMLR excel logbooks, please take time to browse through these instructions as the format and content of the trawl finfish logbook has changed significantly from previous versions. General comments that apply to the whole logbook are as follows:

- Data can only be entered into cells with a white background. All other areas of the logbook are locked and cannot be edited. You can fill down data for fields where repetitive information is required to be entered (for example the Haul number for each bycatch record).
- There are numerous data validations and format restrictions that have been applied to data fields. For example the Haul ID field which exists in several worksheets can only be entered as a whole number, and date and time fields must be entered in the format specified. If you attempt to enter an incorrect data type an error message will be displayed with an explanation of why the value cannot be entered.
- In many fields observers select from a series of predefined descriptions of the event appropriate to the data field. This replaces the single letter or number codes that were used in older versions of the logbooks. This makes the logbook much more straightforward to use.
- Comment fields have mostly been removed from the logbook. This is to minimize the unstructured data contained in the logbook. Where comments may be required you can often select an option that refers to the cruise report, in which you can describe the issue in detail and include photos or diagrams if necessary.
- For species and processing codes, drop down reference lists have been included at the top of the sheet, these are cells with a light green background.

In addition to these instructions there is an extensive list of observer resources on the CCAMLR Observer Information webpage: <https://www.ccamlr.org/en/science/information-technical-coordinators-and-scientific-observers>. In particular the common fish species bycatch guide (<https://www.ccamlr.org/en/document/science/common-catch-species-ccamlr-longline-and-trawl-fisheries>), the toothfish and skate tagging guide (<https://www.ccamlr.org/en/document/science/toothfish-and-skate-tagging-methods>), and the Vulnerable Marine Ecosystem Taxa Classification Guide (<https://www.ccamlr.org/en/document/publications/vme-taxa-classification-guide>) should be downloaded for reference if these have not been issued to you by your technical coordinator.

Worksheet - Vessel and Gear

Vessel and Observer Details: To populate the vessel details please enter the vessel IMO number. The vessel name and call sign will be automatically displayed if the IMO number exists in the vessel list. If the number is not recognized please enter the vessel name and call sign into the appropriate cells.

Fishing Details: Upon notification by your technical coordinator of your upcoming CCAMLR trip, the Secretariat or your technical coordinator can provide a copy of the vessel notification details which include gear type and characteristics. Please check these when on board the vessel to ensure that they are correct. If there are differences in the gear type and configuration please describe them in your cruise report. Provide information on monitor cables, offal discards and nets cleaning as indicated.

Worksheet – Set and Haul Details

This sheet contains details for each set and haul that take place during your cruise. The field Set/Haul ID (which is also included in other worksheets as Haul ID) should be a consecutive, unique number that matches the Haul ID used by the vessel for their commercial data forms. Please fill in all set and haul details for your cruise, even if you conduct no catch, bycatch or other observations during their operation. Fill in all other fields as appropriate, selecting an option from the drop-down menus for some fields. Please note that in these forms all times are to be recorded in UTC, rather than local ship time.

Worksheet – Observed Haul Catch

This sheet is for all bycatch species records that you observe from the trawl. You are not required to record the target catch species, as often this is impractical for an observer to calculate without vessel assistance. It is important to note that you only record the weights of bycatch species you personally collect and observe, do not include figures that are vessel derived. If there is only a small quantity of a particular species you would select the source of your estimate as 'total from trawl'. For species where there are large quantities select 'subsample', and record your subsample weight. You should try and collect a representative sample from all bycatch species for each haul

Worksheet – Haul IMAF

Seabird and marine mammal by-catch: Assessing bird catch rates during the haul can only be done accurately by observations made from the outside working deck, because on many vessels a work station on the ship's bridge or factory can obscure visibility. Data-recording tasks to be carried out during hauling include observations of seabird and marine mammal entanglements and the trawl stage during which this occurred. Observers must record whether or not they actually saw the bird come on board, or if they were given the information by a crew member.

For each bird or mammal hauled on board, record species, fate of the animal and the cause of injury. Refer to the identification plates for Southern Ocean seabirds given in the book *Fish the Sea, Not the Sky* (CCAMLR, 1996).

The fate of the animal categories are as follows:

- **Alive:** released alive without injury.
- **Injured:** refers to birds landed on deck alive, but with injuries such as a fracture of the wing bone, a leg bone or beak, more than 2 primary feathers on each wing that have broken feather shafts, substantial damage to the patagial tendon, an open wound with or without the presence of blood, waterlogged or hydrocarbon soiled plumage or any bird released with a hook in situ. For mammals, use this category if any injuries are visible that would be expected to compromise the survival of the animal.
- **Dead:** Any animals which were observed to be killed by direct interaction with fishing gear or landed on the vessel dead

Seabirds that are taken aboard dead may be retained as frozen samples if required by your organization. Label the sample with the date, time taken aboard, species, vessel name, observer's name and a label number which corresponds to that used on the Haul IMAF data sheet. All birds should be checked for bands upon landing. Look at your assignment issued by your employing organization for information on the handling of collected bird samples and/or bands for when you disembark the vessel.

Worksheet – Warp Strike

This form is for recording interactions of seabirds with the trawl warps. Observations shall be conducted for a 15 minute period during daylight hours at a minimum of once per day, immediately following observations of the shot. Select the warp on the side of the vessel where most discharge occurs (based on your familiarity with the vessel). Always monitor the warp on the side of the vessel with the dominant discharge throughout the trip.

Record the start and end time of the 15 minute observation period for heavy warp strikes, see below for the definition of heavy. Ignore warp contacts that do not meet the definition of a heavy contact. After the 15 minute observation period record the abundance of seabirds, the level of offal discharge and the warp distance from the stern of the vessel. Protocols for this and other fields in the worksheet are listed below

Heavy contact

Air: Bird strikes warp in the air and hits the water with little to no control of its flight

Water: Warp strikes bird driving any part of the body beneath the surface of the water, but not fully submerged.

Sinker: Warp strikes bird and the entire body is submerged.

Offal Discharge Level

None: No observations

Minor: Up to three observations of offal during a one minute period

Moderate: Between three and six observations of offal during a one minute period

Continuous: Offal discharged at less than 10 second intervals.

Turn: When the warp entry point is laterally displaced by more than a meter due to a change in the direction of the vessel.

Seabird Abundance: The area to record seabird abundance is a box measured from the midpoint of the stern of the vessel and out to 20 m outboard on the side of the vessel of the warp being

observed, and thence from these two points 40m astern of the vessel. Record seabird abundance as ≤ 50 , $50 < \leq 100$ or > 100

Warp Distance from Stern: The horizontal distance from the stern of the ship at the waterline to the cable/ water entry point. This can be measured by trailing a line from the stern of the vessel.

Worksheet – Biological Sampling

A representative sample of fish should be taken from each haul to record biological data characteristics (e.g. length, weight, sex, etc.). Sampling requirements for toothfish described here can be found on the observer sampling requirements webpage

(<https://www.ccamlr.org/en/science/observer-sampling-requirements-dissostichus-spp>).

To collect a representative sample of all other species, select fish that cover the whole size range of each species caught. If possible sample up to 10 individuals per day for each bycatch species, or up to 100 individuals per bycatch species for your cruise.

For all fish measurements ensure that the snout of the fish is butted up to the end of the measuring board, the mouth is closed and the body is straight. If possible record the weight, sex and maturity stage for each individual sampled, and if otoliths are collected ensure they have a unique serial number. Please note the fish serial number field in column D is optional, and is provided for the observer's benefit as serial numbers are often used when recording measurements and taking samples.

For Toothfish (and most other fish with a distinct tail) measure for standard (SL) and total length (TL). Standard length (SL) is measured from the most anterior part of the snout to the end of the vertebral column (Figure 1). An easy way to determine SL is to bend the tail upwards and a crease will form at the point of the last caudal vertebra. Total length (TL) is defined as the distance from the most anterior part of the snout to the furthest tip of the tail. Lightly 'streamline' the tail before measuring: i.e. the tail should not be spread to its extreme, nor completely compressed.

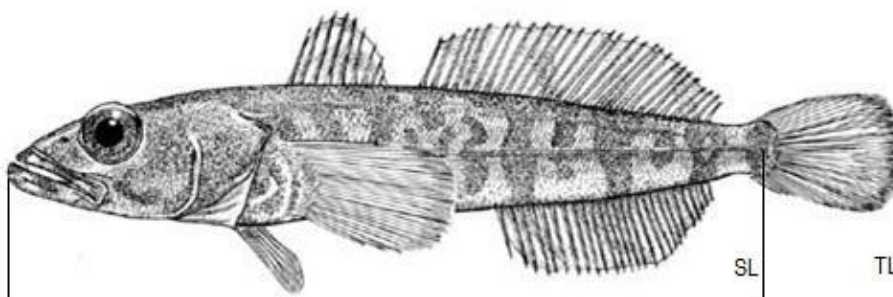


Figure 1: Measurement of Toothfish and most other finfish bycatch species

For *Macrourus spp.* total length and snout to anus (SA) length should also be measured from the tip of the snout to the anus (Figure 2).

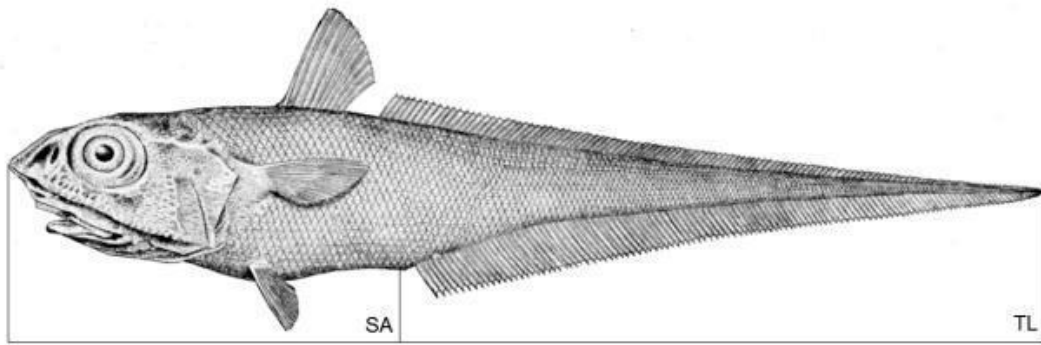


Figure 2: Measurement of *Macrourus spp.*

For skates and rays the wingspan (WS) total length should also be measured (Figure 3).

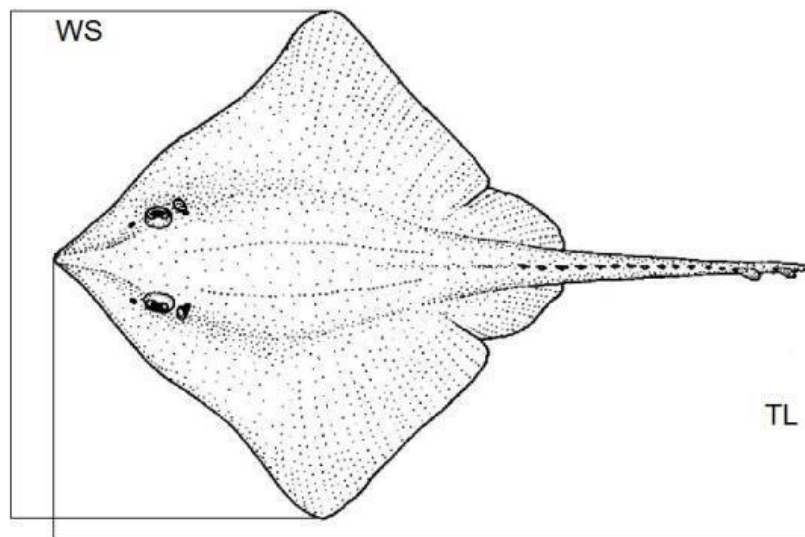


Figure 3: Wingspan measurement for skates and rays.

Worksheet - Conversion Factors

The minimum number of fish sampled for conversion factors are 25 individuals for your cruise. To accurately record the measurements for processed fish that you sample adopt the following procedure:

1. Record total length and weight of toothfish to be processed. If you are sampling multiple fish at a time, then record the minimum and maximum length, and the number of the fish in the sampled group. Length measurements should be taken on the midline of the fish from the tip of the snout to the tail. Fish should be weighted on a motion compensated scale and water must be drained from the stomach prior to weighing (use a sharp knife or tube to achieve this). Weight is recorded in the green weight column.
2. Allow the processing crew to cut the fish in the manner adopted by the vessel, then weigh the processed fish and enter into the processed weight column. The worksheet will automatically calculate the conversion factor.

3. Complete the rest of the fields on the conversion factor sheet, using the drop-down menus for fields where appropriate. The Grade will be a product quality code used by the factory manager. A description of the grades used during your cruise can be completed in the conversion factor section of your cruise report.

Worksheet - Tagging

A SISO observer or appropriately trained crew member on each trawl vessel should tag and release toothfish. As the vessel is responsible for ensuring tagging and tag recovery protocols are correctly followed, several crew will most likely be trained in tagging procedures, however the vessel is expected to cooperate with the observer if you feel the procedures are not being undertaken correctly. Any tagging procedures should follow the CCAMLR toothfish and skate tagging guide (<https://www.ccamlr.org/en/document/science/common-catch-species-ccamlr-longline-and-trawl-fisheries>). Fish should never be tagged and released if any of the following characteristics are present:

- Gills are pink or white
- Gills have visible bleeding, or if excessive bleeding is present anywhere on fish
- There is visible damage to fish body with open wounds
- There is visible damage to eye or penetration of body cavity, including by crustaceans (amphipods/lice)
- Abrasions or recent scale loss equal to or exceeding the area equivalent to the fish tail is present
- No movement of fish is detected

Complete the tagging worksheet ensuring that the tag ID header fields details are recorded. Note that particular fields are required for skates and rays. The worksheet contains conditional formatting to highlight if tag numbers are duplicated. Try to ensure accurate tagging release positions are recorded rather than just haul start or end positions. If extra details are required with regard to any tagging information please use the cruise report to detail these, for example if there are frequent tag breakages it is useful to document these in a table.

Worksheet – Tag Recapture

All tagged fish and skates must be retained by the vessel regardless of their time at liberty, it is good practice to encourage crew to look for tags, particularly as an annual prize is offered by the coalition of legal toothfish operators (COLTO) for tag finders! For each fish caught an electronic time-stamped photograph must be taken of the tags in situ using the “CCAMLR tag photo template”. Please check that the photograph clearly shows the tag numbers and that the number is readable. Attach these photos in your cruise report, or zip up the photos and send them separately to the Secretariat through your technical coordinator. Fill out the required biological measurements in the worksheet, noting the specific fields required for skate and rays and toothfish. The worksheet contains conditional formatting to highlight if tag numbers are duplicated.

Worksheet - Waste Disposal

This form is designed to collect summary information relating to the loss, retention and discarding of fishing gear and waste products at sea. Please select the option from the drop-down menu for each field. Definitions for each item are as follows:

Fishing Gear: This refers to all fishing gear that is no longer usable due to damage or loss.

General Waste: This refers to all other waste such as plastics, metal, packaging material, oil and sewage.

Lost: Refers to gear or waste that was unintentionally swept into the sea; e.g. washed into the sea due to rough weather or the loss of a longline or trawl net etc.

Discarded: Refers to the intentional dumping of gear or waste into the sea; e.g. the dumping of galley waste, plastics or damaged fishing gear.

For items that are either lost or discarded there are three categories to select from regarding the frequency for which this occurs. Occasionally (less than once a week or once a month), weekly (up to several times a week) and daily (every day).

The retained column refers to how the waste is retained for disposal back on shore: non-incinerated or incinerated.

Please use your cruise report to detailed specific concerns or problems in detail.

Worksheet - IUU Sightings

This worksheet is for reporting sightings by observers of unknown gear, refuse or vessels, or those vessels suspected to be engaging in IUU fishing activities. Please only include sightings and their details that you personally observe. It is a vessel responsibility to report any IUU sightings to the Secretariat as soon as practicable, however information collected by observers also provides important information, particularly supplementary photographs and comments on vessel appearance and activity.

Fill out the details for each gear or vessel sighting as instructed in the worksheet. If necessary provide a more detailed description in the Cruise Report, as well as attaching photos if any are taken. If a vessel is sighted several times within a day complete a record for each time. Vessel name, call sign and flag are to be obtained from what is seen on the vessel or from radio contact with the vessel (the source of this information must be reported). For recovered gill nets please provide measurements of mesh size.