SIOFA | APSOI
Southern Indian Ocean Fisheries Agreement
Accord relatif aux Pêches dans le Sud de l'Océan Indien

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MOP-09-INFO-09

Toothfish tagging protocol for the SIOFA Area that is consistent with that of CCAMLR

SC Chairs / SIOFA Secretariat

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Abstract

This paper summarises the toothfish tagging protocol for the SIOFA Area, consistent with the CCAMLR tagging protocol. The SC, at its 7th annual meeting (SC7), endorsed the SERAWG recommendation to adopt the draft SIOFA toothfish tagging instructions (SC7 report). Both the protocol and the information regarding how CCPs can obtain CCAMLR tags and tagging equipment has been supplied in a public accessible section of the SIOFA website, and can be found at http://apsoi.org/management/CMM/15 (the page relevant to the corresponding CMM). The section contains separate documents for the protocol and for the supply of tags.

The SIOFA MoP might want to note the adoption of the protocol.

[1] Restricted documents may contain confidential information. Please do not distribute restricted documents in any form without the explicit permission of the SIOFA Secretariat and the data owner(s)/provider(s).
[2] Documents available only to members invited to closed sessions as per SIOFA RoP 20.

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Background

In paragraph 97 of its 8th annual meeting report (MoP8 report) the SIOFA Meeting of the Parties requested the Secretariat, in consultation with the CCAMLR Secretariat, to develop a toothfish tagging protocol for the SIOFA Area that is consistent with that of CCAMLR, agreed to adopt the use of CCAMLR tags and tagging protocols in the interim, and requested the Secretariat to provide information on the SIOFA website regarding how CCPs can obtain CCAMLR tags and tagging equipment (project SEC2021-08).

This paper is based on the outputs of project SEC2021-08, with a focus on the development of a toothfish tagging protocol for the SIOFA Area that is consistent with that of CCAMLR. The toothfish tagging protocol for the SIOFA Area largely builds up on the work done in CCAMLR through the years, and the protocol is presented here in a synthetic format, trying to provide background information to the MoP without exceeding on the technical details that were already considered by the SC.

The protocol was initially presented to the 4th meeting of the Stock and Ecological Risk Assessment Working Group (SERAWG4) in paper SERAWG-04-16-Rev1. In its SERAWG4 meeting report, The SERAWG endorsed the draft SIOFA toothfish tagging instructions and recommended that the Scientific Committee (SC) adopt it. The SC, at its 7th annual meeting (SC7), endorsed the SERAWG recommendation to adopt the draft SIOFA toothfish tagging instructions (SC7 report). The protocol can be found on the SIOFA website at http://apsoi.org/management/CMM/15 (the page relevant to the corresponding CMM), as a separate document.

During the SERAWG4 meeting, the CCAMLR Science Manager, Dr Steve Parker, noted that CCAMLR had scheduled a workshop later in 2022 to update and revise the toothfish tag instructions and resources, and would undertake to inform the SIOFA Secretariat and the Scientific Committee on any revisions that were made as a result of that workshop.

In the interim, as requested by the MoP8, the information regarding how CCPs can obtain CCAMLR tags and tagging equipment was published on the SIOFA website as a Circular in November 2021 (Circular 2021-36) in the internal communications section. However, this section is not accessible to the public, so to increase its dissemination the information has also been supplied in a public accessible section of the SIOFA website, and can be found at http://apsoi.org/management/CMM/15 (the page relevant to the corresponding CMM), as a separate document.

Aims

This paper summarises the toothfish tagging protocol for the SIOFA Area, consistent with the CCAMLR tagging protocol.

Toothfish tagging protocol for the SIOFA Area that is consistent with that of CCAMLR

1. Tagging program in a nutshell

As for CCAMLR, the main aim of the SIOFA tagging programme is to contribute to toothfish stock assessment. Additional data on fish movements and growth are also utilized to understand the species biology and ecology. Data quality is important for these purposes, as is respecting the tagging rate and size overlap (and ensuring the survival of the tagged fish)

2. Tagging objectives

Tagging objectives include minimizing

- Handling of the fish
- Time out of water

But also need to ensure

- Optimum tag placement
- No effect on fish health
- Accurate records

Vessels must meet the required tagging rate and tagged fish must match the size distribution of captured fish. Tagging should also be accomplished with high survival of tagged fish. These requirements are reflected in paragraph 26 of SIOFA CMM2021/15 (Management of demersal stocks).

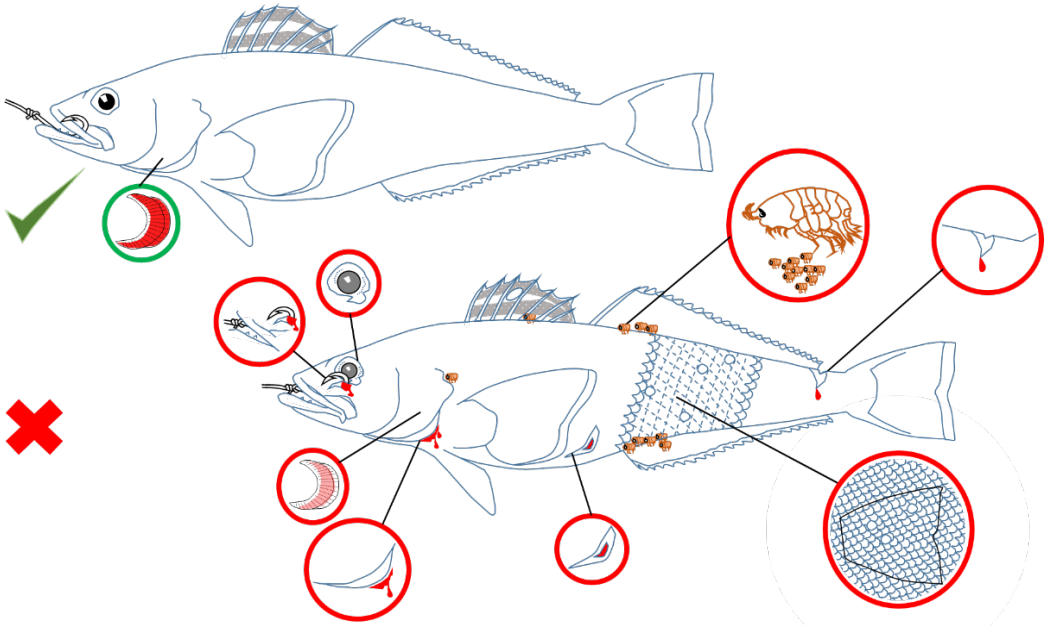
3. Protocol on landing and handling fish to be tagged

Fish to be tagged need to be identified before they arrive on board (i.e., “Decide to tag the next fish”), and should be landed without using a gaff but other handling aids could be used.

Holding tanks could be used for batch tagging, but needs to be carefully utilized.

4. Protocol to assess tagging suitability

Fish to be tagged should not have pre-existing injuries or ectoparasites. The figure and table below are a visual guide to select fish individuals suitable for tagging.



credit: Alan Hart, NIWA

Suitability Assessment

Assessment category	Do not tag	
Hook injuries		Hook injury outside the mouth area (outside the lips, jaw, or cheek), or in the back of the mouth.
Gills		Gills pink or white
Bleeding		Any visible bleeding from gills, or excessive bleeding elsewhere
Body		Visible damage to fish body with open wounds
Organs		Visible damage to eye or penetration of body cavity, including by crustaceans (amphipods/lice)
Scales		Abrasions or single area of recent scale loss equal to or exceeding the area equivalent to the fish tail

5. Protocol on tag placement

Tags should be placed properly, exploiting the fish anatomy to maximize retention.

The figures below illustrate where the tags should be placed relative to the anatomy of the fish.

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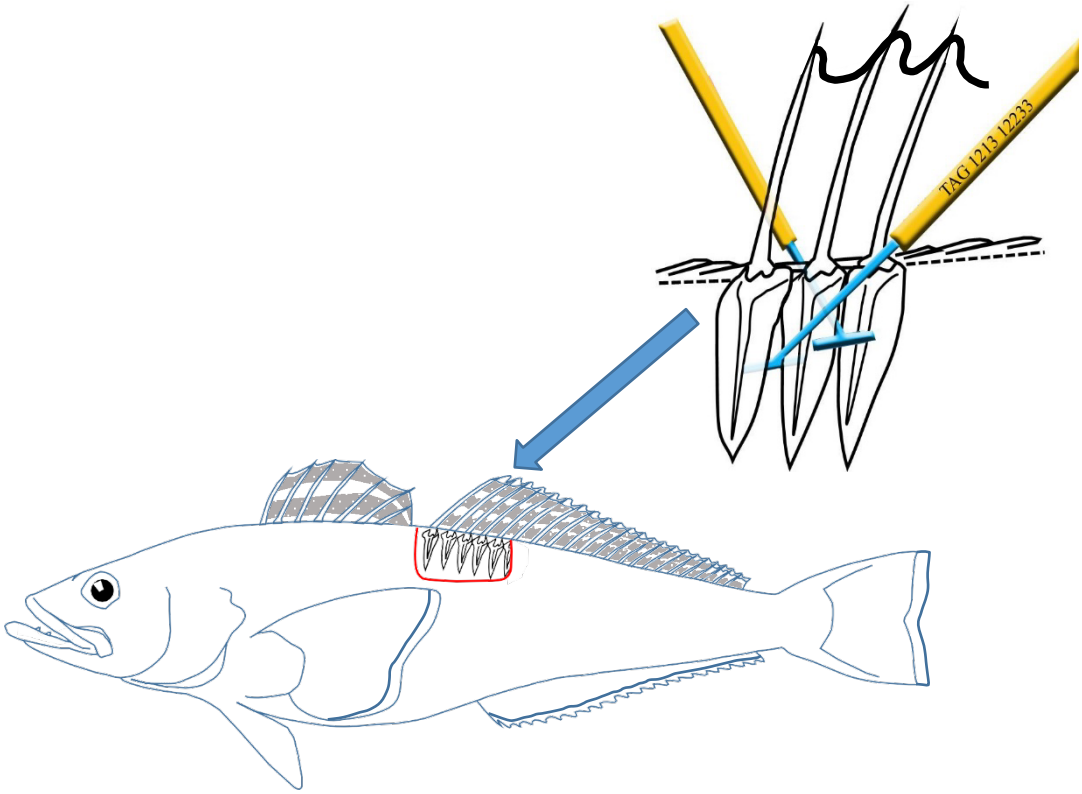
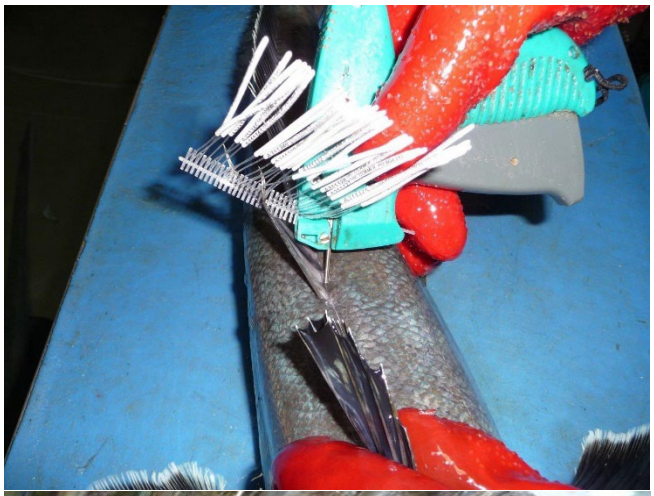




6. Protocol on tagged fish release monitoring

Once released, tagged fish need to be monitored while they swim away.

If the fish doesn't swim away correctly, it must be recorded.

Common problems at the moment of release include e.g., stuck or broken tags, dropping or injuring the fish, forgetting tag codes, predation or attack on release.

7. Protocol on tagged fish recapture

Every captured fish must be examined for previous tags (note pink tags may resemble bruised fin rays). Vessels should remember that not reporting tags does NOT mean obtaining a larger future catch limit. However, fewer tag returns CAN mean more fish need to be tagged

Tasks for crew and observers for this phase have been defined as:

Crew and observers: Develop a routine to thoroughly examine every fish for tags.

Vessel operators: Provide incentives for tags to be recaptured. Make it important to crew. Note that statistical methods now exist to compare recapture rates among vessels.

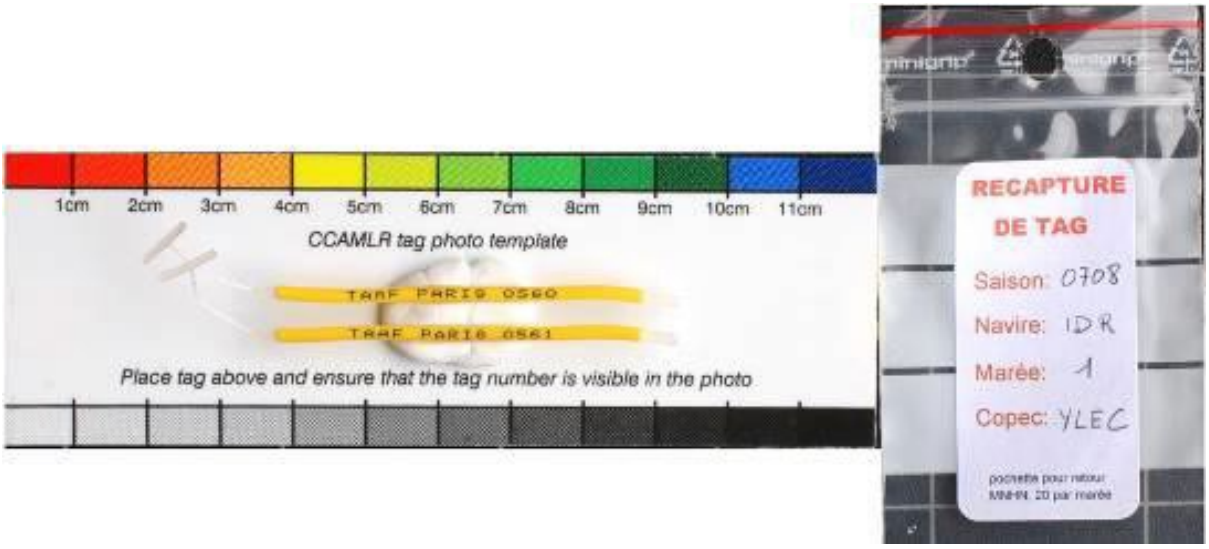
Crew: When a tag is discovered, leave the tag in the fish and notify an observer for sampling.

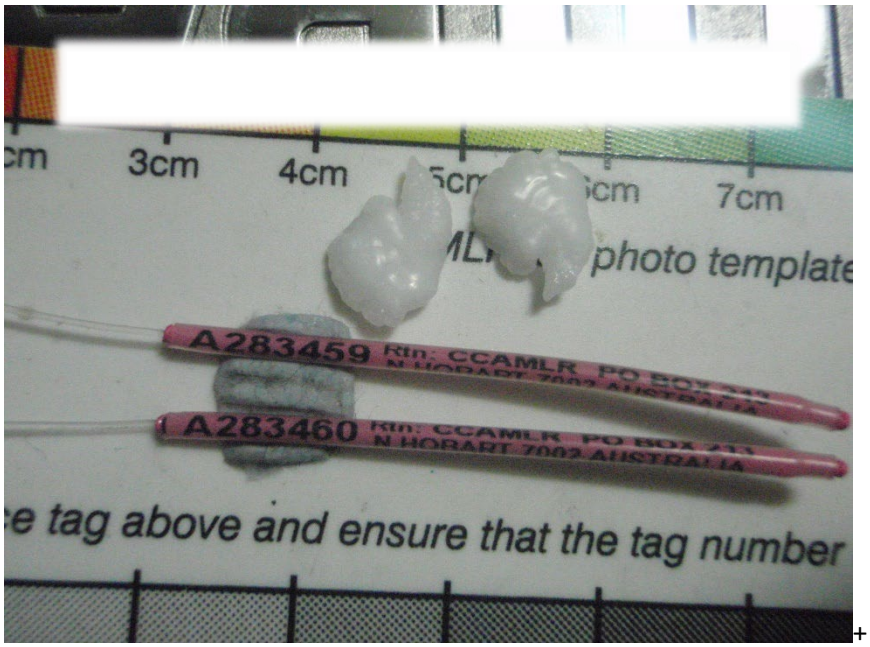
Observers: Check logbook after each haul. Coordinate the return of physical tag and otoliths to SIOFA Secretariat

8. Protocol on tag records

Recording recovered tags should be accompanied by supporting information, like pictures (using an appropriate colour and dimension scales) or associated otoliths. As other tag types exist, particular

care should be taken to try and identify/record the type of tag. The images below illustrate some examples of supporting pictures to record the recovered tags.





9. Tagging program administration

SIOFA Tagging programmes are coordinated by the SIOFA Secretariat.

The method of supply of tags and tagging equipment for all tagging operations carried out in the SIOFA area are detailed in Circular 2021-36. In summary, the vessel operators need to acquire tags from the CCAMLR Secretariat. Protocols and Forms are identical to those adopted in CCAMLR.

All recaptured tags should be returned to the SIOFA Secretariat.

Your attention is drawn to the fact that this directive is different from the instructions on the CCAMLR issued tags. SIOFA will exchange each year with CCAMLR regarding the recaptured tags in SIOFA area.

General requirements for tagging programmes are detailed in SIOFA CMM 2021-15 and information on the SIOFA tagging programme is available in the SC circulars (http://www.apsoi.org/scientific-committee/sc-circulars).

10. Tasks for different actors involved in the tagging programme

CCPs:

- Ensure vessel compliance
- Report tagging programme data to the Secretariat concerned.

Vessel operators:

- Ensure tagging supplies are obtained (from CCAMLR)
- Ensure taggers are appropriately trained to tag fish
- Ensure fish are tagged following protocols and SIOFA Conservation and Management Measures (Tagging suitability criteria, tagging rate and fish size as indexed by the tag size overlap statistic)
- Check all fish for tags
- Report tag release and recapture data to SIOFA Secretariat (Ref CMM 2021/02 data standards).

Observers:

- Keep a record of tag releases, tag recaptures, and tracking unused tags
- Perform Biological sampling (length, weight, sex, gonad weight, otoliths extraction) of recaptured fish and manage collected tags and otoliths
- Observers are responsible for returning recaptured tags to the SIOFA Secretariat and unused tags to CCAMLR.