

**Report of the Convener of the COLTO-CCAMLR
Toothfish Catch and Effort Data Workshop
(Cape Town, South Africa, 30 July to 1 August 2019)**

Workshop rationale and report summary

The COLTO-CCAMLR Toothfish Catch and Effort Data Workshop was held at the Kirstenbosch Gardens in Cape Town, South Africa between 30 July and 1 August 2019. The meeting was convened by Mr Rhys Arangio (COLTO) and supported by the CCAMLR Secretariat. Attendees included scientists from 7 CCAMLR member states and industry representatives from 11 COLTO members. A full list of participants is given in Annex 1 and Annex 2 details the Workshop agenda.

The rationale and scope of the Workshop was outlined in Comm. Circ. 19/29, after discussions in the 2018 WG-FSA (paragraphs 2.12 to 2.18) and Scientific Committee Meeting (paragraphs 3.44 to 3.45).

This report is not a formally adopted workshop report, but is a summary by the Convener, which was considered and supported by the workshop participants during the meeting. A series of recommendations were developed for the consideration of the WG-FSA and Scientific Committee.

Summary of recommendations from the workshop

Fishing Vessel data forms

The workshop considered information from industry on how current fields were completed on the C2 form and recommended the following:

- That there needed to be a better facility for recording multiple bait types and the proportion of bait type used per line.
- A detailed description of how baiting percentage was estimated by members was necessary.
- Hook size should be recorded once per voyage as vessels did not change this over the course of a trip. The addition of measurement fields to categorize hook types would be useful.
- The hook code field did not provide useful information given the increasing number of manufacturers and potential differences in hooks. It was recommended that industry should approach gear manufacturers to receive hook specification sheets, that may further inform how this data should best be captured. It was recommended that this information, including photographs of hooks, snoods and swivels would be useful to capture for lost gear identification purposes and for WG-FSA to consider how best to collect and store that data.
- Removal of the 'number of other hooks lost' field as the vast majority of hooks that are lost are those attached to lost sections of line.
- The number of droplines per line be included for trotline gear, which was recommended at WG-SAM-19 (paragraph 6.9).
- Clarity is required in Conservation Measures regarding UTC being the default for season and SSRU openings and closures.
- The workshop reinforced that all setting/hauling positions/times should be based on anchor deployment/retrievals at the surface and recommended that this should be clear in the instructions.
- Hauling positions should also be recorded in the C2 form as per the observer data form.

- A haul interruption field be added for the benefit of data users.
- It was noted that bottom to line distances may be altered during fishing in double line systems with an aim to reduce bycatch rates. The workshop suggested that an analysis be performed and provided to WG-FSA to see if this effect was observed in the data.
- Removal of the 'setting direction (bearing)' field, as the assumption of setting in a straight line is generally not correct.
- Clarity on instructions for vessel requirements to mark gear and report unit segments for VME data were required.

The workshop considered a presentation by N. Gasco on potential additions to the C2 form (WG-FSA 18-29) and concluded that:

- As different product grades could necessitate differing conversion factors, being able to utilise more than three conversion factors in a single line would be useful, and utilising a format similar to the observer longline logbook could achieve this. This could also help with reconciliation of C2 data and CDS data if the ability to record the same product type multiple times was available on a DCD.
- The VME requirements in the C2 form are aggregated from the VME fine scale reports, and it was recommended that the aggregated VME requirements therefore be removed from the C2 forms.
- Consolidation of CE forms and C2 forms would reduce the workload on vessel operators in some fisheries. Support was expressed for form consolidation in fisheries with 5 day and 10 day CE reporting requirements, however, feasibility concerns were expressed in fisheries where daily CE reporting is required, due to the 0600h deadline for daily reports.

In addition, the workshop noted that:

- As tagging data is a vessel responsibility, vessels should report tagging data. Operationally observers can still assist with collection of data and completion of forms.
- At the end of the reporting period, vessels should only report completed hauls rather than partially completed hauls. Any data resubmission should include the full form.

In light of these considerations, the workshop discussed the potential for improving the current C2 form, and discussed a revised version presented by the Secretariat (Annex 3). It was noted that if CCAMLR were to update the C2 form in any significant way, that a one year lead time would be utilised so that members and vessels can adequately prepare for these changes, and as such, the 2020/21 season would be the first opportunity for a revised C2 form to be used.

The workshop agreed that it would be useful for Members to have the scope to either submit the required data within the current C2 Microsoft Excel format, but also have the scope to send the same data directly to the CCAMLR data portal, provided that any submitted data meets CCAMLR requirements.

The workshop considered a presentation by the Secretariat on feedback reports provided to Scientific Observers and how feedback may be provided on C2 data submissions. The workshop concluded that:

- Feedback at the individual vessel level may be a valuable tool to improve vessel data quality, and information on tag overlap statistic and tagging recapture information relative to the overall fleet operating in that fishery would be greatly appreciated by industry.

Other data submission requirements

The workshop reviewed data submission requirements and concluded that:

- As the requirement to submit fine scale biological data was now covered under the Scheme of International Scientific Observation (SISO), references to the requirement for vessels to submit B2 data should be removed from the relevant Conservation Measures.
- Requirements on observer and vessel reporting forms should be consistent where relevant, particularly for set/haul positions and tagging data.

Consideration of Scientific Committee recommendations

The workshop agreed with the recommendations of the Scientific Committee (SC-CCAMLR-18 paragraph 3.44) that:

- A fishery data manual be developed to provide clear instructions on how to complete data fields on the C2 forms.
- The specification of the role of fishery data coordinators should be undertaken by members.

Electronic Monitoring

The workshop considered the usefulness of electronic monitoring from both a scientific and compliance perspective.

The workshop noted that:

- from a scientific perspective, that EM could assist in managing observer workloads and improve task prioritisation;
- from a compliance perspective, electronic monitoring can be used to resolve potential disputes or uncertainties that can arise during deliberations at SCIC; and
- a presentation to SCIC on Electronic Monitoring would be useful, which could include proposals on minimum monitoring standards.

Meeting Conclusion

The meeting participants reflected that the workshop was extremely useful for attendees, and commented favourably on the productivity of this and other focussed workshops that have been requested by the Scientific Committee. Participants thanked COLTO for contributing its time, effort and resources to ensure the meeting ran successfully.

Annex 1 – List of participants

Toothfish Catch and Effort Data Workshop (Cape Town, South Africa, 30 July to 1 August 2019)

Name	Affiliation	Country
Dirk Welsford	Australian Antarctic Division	Australia
Tim Lamb	Australian Antarctic Division	Australia
Jacques Combrinck	Austral Fisheries	Australia
Nicolas Gasco	Muséum national d'Histoire naturelle	France
Tugdual Poirier	Cap Bourbon	France
Takeshi Shibata	Taiyo A&F	Japan
Atsuko Negami	Taiyo A&F	Japan
Taebin Jung	SunWoo Corporation	Korea, Republic of
Hyun Joong Choi	SunWoo Corporation	Korea, Republic of
Kunwoong Ji	Jeong Il Corporation	Korea, Republic of
Alexander Slinning	Optimar	Norway
Jack Fenaughty	Silvifish Resources	New Zealand
Johan de Goede	Department of Environment, Forestry and Fisheries	South Africa
Sobahle Somhlaba	Department of Environment, Forestry and Fisheries	South Africa
Deon Durholtz	Department of Environment, Forestry and Fisheries	South Africa
Richard Ball	Ziyabuya	South Africa
Brian Flanagan	Flantrade	South Africa
Pheobius Mullins	Braxton Shipping	South Africa
Niekie Kock	Suidor Fishing	South Africa
Andile Sontundu	Vendicom Pty Ltd	South Africa
Robert Kaye	Kaytrad Commodities Pty Ltd	South Africa
Chris Heinecken	Capricorn Fisheries Monitoring	South Africa
Melanie Williamson	Capricorn Fisheries Monitoring	South Africa
Alistair Burls	Capricorn Fisheries Monitoring	South Africa
Elcimo Pool	Capricorn Fisheries Monitoring	South Africa
Amos Barkai	OLSPS	South Africa
Bradley Khumalo	OLSPS	South Africa
Willem Malherbe	OLSPS	South Africa
Joost Pompert	Pesqueras Georgia	Spain
Peter Thomson	Argos Froyanes	United Kingdom
Illia Slipko	Institute of Fisheries and Marine Ecology	Ukraine
Oscar Pin	DINARA – MGAP	Uruguay
Chris Jones	NOAA	United States of America
Rhys Arangio	COLTO	
Isaac Forster	CCAMLR Secretariat	

Annex 2 – Workshop Agenda

Tuesday 30th July

Time	Topic	Lead
09:00-09:30	Registration	COLTO
	SESSION 1	
9:30-9:45	Meeting Opening	Richard Ball, COLTO Chair
9:45-10:00	Workshop overview	Jack Fenaughty, New Zealand
10:00-10:30	<i>Theme 1 - Current data reporting requirements in CCAMLR</i> - Catch and Effort, Haul by Haul (incl. VME data, tagging data)	Isaac Forster, CCAMLR
10:30-10:45	- Data receipt and quality assurance processes	Isaac Forster, CCAMLR
10:45-11:00	Morning tea	
	SESSION 2	
11:00-11:40	- What are data used for? National and exploratory fisheries examples	Oscar Pin, Uruguay Nicolas Gasco, France Sobahle Somhlaba, South Africa Chris Jones, USA
11:40-12:20	- C2 data fields not currently being used by SC/members	Deon Durholtz, South Africa Jack Fenaughty, New Zealand Tim Lamb, Australia Illia Slypko, Ukraine
12:20-12:40	Theme 1 wrap up	Dirk Welsford, Australia
12:40-13:30	Lunch	
	SESSION 3	
13:30-15:30	<i>Theme 2 - Methods used on vessels for data collection and completion of current data forms.</i> - Members that submit C2 data to provide descriptions of how the data are currently collected and submitted. (Including lost gear, VME data, tagging data)	Rhys Arangio, COLTO

Wednesday 31st July

Time	Topic	Lead
	SESSION 4	
8:30-8:45	Day 1 summary	Isaac Forster, CCAMLR
08:45-09:30	<i>Theme 3 - Improvements in data collection and transfer.</i> Gaps in current practices and what can be improved?	Nicolas Gasco, France Jack Fenaughty, New Zealand
09:30-10:30	Introduction or modification of current fields.	Isaac Forster, CCAMLR
10:30-11:00	Morning tea	
	SESSION 5	
11:00-11:20	Industry example 1 – making better use of collected data – Argos Georgia’s Electronic Monitoring	Peter Thomson, UK
[15:00-16:00]	Industry example 2 – making better use of collected data – including Olrac Dynamic Data logger/manager demonstration	Amos Barkai, OLSPS
11:20-11:50	Emerging issues – from discussions so far, what are the emerging issues; requires improvement; or closer investigation	Dirk Welsford, Australia
	<i>Theme 4 - Future developments in data collection and transfer</i>	
11:50-13:00	2min overview from each representative organisation on what they believe will be important developments or improvements in collection/transfer in the future, and what, if any, they are currently investigating, and are able/willing to share	Chris Jones, USA Group discussion
13:00-14:00	Lunch	
	SESSION 6	
14:00-15:00	- Data collection examples of best practice or future developments	Isaac Forster, CCAMLR

Thursday 1st August

Time	Topic	Lead
	SESSION 7	
9:00-9:15	Day 2 summary	Isaac Forster, CCAMLR
9:15-10:15	New C2 form options	Isaac Forster, CCAMLR
10:15-10:40	Workshop feedback	Dirk Welsford, Australia
10:40-11:00	Morning tea	
	SESSION 8	
11:00-11:45	Report consideration	Isaac Forster, CCAMLR
11:45-12:00	Closing remarks	Richard Ball, Rhys Arangio, COLTO

Annex 3 – Proposed C2 Form Changes

The proposed new C2 form would adopt a format similar to the observer e-longline form. The Excel Workbook would contain seven worksheets for entering data, with an eighth code sheet for reference. Fields contained in each worksheet are displayed in the screenshots.

Worksheet 1 – Vessel and Gear

Vessel and Gear Details	
Vessel information	Data
Vessel IMO number	
Vessel name	
Vessel Flag	
Vessel call sign	
Observer Name	
Observer Name 2	
Data Provider Name	
Data Provider Email Address	
Longline Gear Details	
Longline Type	
Mainline Type	
Hook Total Length	
Hook Shank Length	
Hook Gape	
Hook Throat	
Hook Front Length	
Hook Spacing	
Trotline Gear Details	
Spacing between droplines (m)	
Number of hook clusters per dropline	
Spacing between hook clusters (m)	
Number of hooks per cluster	

Worksheet 5 – Tagging

Toothfish and Skate Tagging Details

Tags used during cruise			
Tag ID 1	Tag ID 2	Tag ID 3	
Tag Type			
Tag Colour			
Tag Wording			
Comment			

Duplicate Tag numbers are highlighted in red																											
Tag Release Position						First Tag						Second Tag						Third Tag						Skates and rays only			
Haul Number	Species Code	Latitude degrees (-DD)	Latitude minutes (MM.mm)	Longitude degrees (-DD)	Longitude minutes (MM.mm)	Person Tagging	Tag Number	Tag ID	Tag Number	Tag ID	Tag Number	Tag ID	Total Length (cm)	Pelvic Length (cm)	Wingspan (cm)	Sex	Released Fate	Comments									

Worksheet 6 – Tag Recapture

Tag Recaptures

Duplicate Tag numbers are highlighted in red																									
				First Tag				Second Tag				Third Tag				For skates and rays				For toothfish					
Haul Number	Tag Finder	Species Code	Tag Type	Tag Colour	Tag Number	Tag Wording	Tag Type	Tag Colour	Tag Number	Tag Wording	Tag Type	Tag Colour	Tag Number	Tag Wording	Length (cm)	Pelvic length (cm)	Wingspan (cm)	Maturity Stage	Weight (kg)	Sex	Maturity Stage	Gonad Weight (gm)	Tag Site condition	Samples retained	Comments

Worksheet 7 – VME Date (only for fisheries where CM 22-07 applies)

VME Data - Only required for fisheries where Conservation Measure 22-07 Applies

Line Segment Midpoint										
Haul Number	Line Segment Number	Latitude degrees (-DD)	Latitude minutes (MM.mm)	Longitude degrees (-DD)	Longitude minutes (MM.mm)	Depth (m)	Volume (l)	Weight (kg)	VME Indicator Units	Comment