

Overview of the current status of VME knowledge in SIOFA

Prepared by the SIOFA Secretariat for the Workshop on the development of VME management (WS2022-VME1)

Aims

This paper aims to provide the SIOFA Workshop on the development of VME management (WS2022-VME1) with a broad overview of the current management of VMEs in SIOFA.

It also aims to summarize the other background documents, referred to as Annexes, presented to the Workshops. These annexes cover the VME taxa data availability, the methodologies that have been used to analyse this data to inform the setting of VME thresholds, the management of VMEs in other RFMOs and the current SIOFA VME taxa guide.

Current management of VME encounters in SIOFA

[CMM 2020/01](#) specifies the duties of the SIOFA Scientific Committee in relation to the management of VMEs in its paragraph 6, in particular 6b and 6c:

- 6 *The Scientific Committee shall, by no later than the close of the ordinary meeting of the Scientific Committee in 2020, and thereafter whenever a substantial change to the fishery has occurred or new data has otherwise been provided to the Scientific Committee warranting changes, develop and provide advice and recommendations to the Meeting of the Parties on:*
 - a. *the status of stocks of principal deep-sea fishery resources targeted, and, to the extent possible, taken as bycatch and caught incidentally in these deep-sea fisheries, including straddling fishery resources;*
 - b. *criteria for what constitutes evidence of an encounter with a VME, in particular threshold levels and indicator species for all gears;*
 - c. *the most appropriate response to a VME encounter, including inter alia closing particular areas to a particular gear type or types;*
 - d. *the interim SIOFA Standard Protocol for Future Protected Areas Designation adopted by the Meeting of the Parties in 2018; and*
 - e. *research and management plans, to be adopted at MoP6, for each of the protected areas listed in Annex 3. Such plans shall include, inter alia, conservation and management objectives taking socio-economic considerations into account where possible, appropriate measures to implement these objectives and timeframes for evaluation and review.*

Threshold levels have been defined in paragraph 12 of [CMM 2020/01](#), with separate values for longlines (a) and trawls (b):

- 12 *CCPs shall apply to vessels flying their flag the following threshold levels for encounters with VMEs:*
- a. *the threshold that triggers the encounter protocol for longline gears shall be the catch/recovery of 10 or more VME-indicator units³ of species listed in Annex 1 in a single line segment⁴.*
 - b. *the threshold that triggers the encounter protocol for the trawls shall be more than 60 kg of live corals and/or 300 Kg of sponges in any tow.*

The threshold that triggers the encounter protocol for the trawl as defined in paragraph 12b shall be reviewed by the Scientific Committee in 2020.

The [CMM 2020/01](#) Annex 1 lists the following as VME indicator taxa:

Chemosynthetic organisms (CXV) (no taxa specified)

Cnidaria (CNI), which can be, if possible, detailed in recording as: Gorgonacea (GGW) (Order), Anthoathecatae (AZN) (Order), Stylasteridae (AXT) (Family), Scleractinia (CSS) (Order), Antipatharia (AQZ) (Order), Zoantharia (ZOT) (Order), Actiniaria (ATX) (Order), Alcyonacea (AJZ) (Order), Pennatulacea (NTW) (Order)

Porifera (PFR), which can be, if possible, detailed in recording as: Hexactinellida (HXY) (Class), Demospongiae (DMO) (Class)

Ascidiacea (SSX) (Class)

Bryozoans (BZN) (Phylum)

Brachiopoda (BRQ) (Phylum)

Pterobranchia (HET)

Serpulidae (SZS) (Family)

Xenophyophora (XEF) (Phylum)

Bathylasmatidae (BWY) (Family)

Stalked crinoids (CWD) (Class)

Euryalida (OEQ) (Order)

Cidaroida (CVD) (Order)

However, please note that there might be some errors in the CMM wording, as illustrated by the following table:

Potential typos in SIOFA CMM	Proposed changes
Anthoathecatae	Anthoathecata
Bryozoans	Bryozoa
Xenophyophora	Xenophyophorea
Stalked crinoids	Crinoidea

Perhaps the workshop should consider providing a recommendation to SC8 so that in turn this could be recommended to MoP10, if that is the consensus after discussion at SC8.

Available information on VME spatial distribution

At the 4th meeting of the SIOFA PAE Working Group, consultants presented paper [PAEWG-04-10](#) (link to a restricted document, requires access to the SIOFA website) with a draft report on the Bioregionalisation-and-VME-project (PAE2021-02). This paper details the current state of knowledge on the spatial distribution of VME indicator taxa in the SIOFA area, which could provide a background for further projects with the ultimate aim to provide the information necessary for spatial management of significant adverse impacts.

This project has recently concluded, and the final report will be presented in full at the next meeting of the SIOFA SC.

Available VME incidental captures data at the SIOFA Secretariat – Annex 1

Annex 1 of this document is a Secretariat paper that intends to describe, summarize and present the data currently available in SIOFA databases that could be used to derive scientifically informed VME encounter thresholds. It presents these data at 3 different levels of taxonomic aggregation, to provide a guidance on how aggregation/disaggregation affects data availability.

A secondary aim of this paper is to highlight potential issues with the data that can limit the ability for it to be used in analyses aimed at informing VME encounter thresholds.

Methods that can be used to derive scientifically-informed VME indicator taxa thresholds – Annex 2

Annex 2 of this document is a paper submitted by the New Zealand delegation to the SPRFMO Scientific Committee for its 9th meeting. The main purpose of this paper was to develop an authoritative set of candidate encounter thresholds for all VME indicator taxa. However, the paper also contains potentially interesting notes on the process followed in SPRFMO to identify VME indicator taxa thresholds, including the methodologies that could be applied to available data to derive thresholds (see Section 3 and Appendix 4)

Management of VMEs in other RFMOs – Annex 3

At the First Meeting of the Protected Areas and Ecosystems Working Group (PAEWG1), the European Union presented [paper PAEWG-01-16](#), briefly drawing comparisons between management and mitigation measures regarding Vulnerable Marine Ecosystems and their encounters with benthic fisheries and Management Organisations adjacent to SIOFA, with particular focus on those in place in the Commission for Conservation of Antarctic Marine Living Resources (CCAMLR).

Annex 3 of this document includes a preliminary report of project PAE2021-01. Within this project, SIOFA consultants have been reviewing the concept of VME developed by the FAO Guidelines and its practical application. They also reviewed management measures with their advantages and disadvantages, the potential outcomes of their combination, as well as examples of their implementation. A particular focus has been put on the so-called ‘move-on rule’, which is currently the main mechanism to prevent SAIs in SIOFA.

PAEWG-04-INFO-01 Setting Thresholds of Sessile Benthos Bycatch from Benthic-Pelagic Trawling – Annex 4

Annex 4 of this document is a paper presented at the 4th meeting of the SIOFA PAE Working Group by SIODFA. This paper gives an industry perspective as to the amount of bycatch of sessile benthos from benthic-pelagic trawling that ‘constitute evidence of an encounter with a vulnerable marine ecosystem’, and thus provides the basis for setting the threshold value at which the respective fishing vessel must ‘move on’ to another location to continue fishing.

SIOFA VME taxa guide v.0.1 – Annex 5

Annex 5 of this document is a paper presented by the SIOFA Secretariat at the 3rd meeting of the SIOFA SC PAEWG. This paper details a VME taxa guide for SIOFA, adapting the CCAMLR taxa list for use in the SIOFA area.

SIOFA Workshop on the development of VME management (WS2022-VME1)
12 December 2022–16 January 2023

The SIOFA VME taxa list is almost the same as CCAMLR's, only *Andamussium colbecki* was removed as recommended by SC4.