CMM 2017/01¹

Conservation and Management Measure for the Interim Management of Bottom Fishing in the SIOFA Agreement Area (Interim Management of Bottom Fishing)

The Meeting of the Parties to the Southern Indian Ocean Fisheries Agreement;

RECOGNISING that article 4(a) of the Southern Indian Ocean Fisheries Agreement (the Agreement) calls on the Contracting Parties, in giving effect to the duty to cooperate, to adopt measures on the basis of the best scientific evidence available to ensure the long-term conservation of fishery resources, taking into account the sustainable use of such resources and implementing an ecosystem approach to their management;

FURTHER RECOGNISING articles 4(c), (e) and (f) of the Agreement which call on the Contracting Parties to apply the precautionary approach, that fishing practices and management measures shall take due account of the need to minimise the harmful impact that fishing activities may have on the marine environment and noting that biodiversity in the marine environment shall be protected;

FURTHER RECOGNISING articles 6(1)(d) and (e) of the Agreement which provides that the Meeting of the Parties shall adopt conservation and management measures (CMMs) for ensuring the long-term sustainability of fishery resources, taking into account the need to protect marine biodiversity, based on the best scientific evidence and adopt generally recommended international minimum standards for the responsible conduct of fishing operations;

MINDFUL of Article 16 of the Agreement that calls on Contracting Parties, acting jointly under the Agreement, to cooperate closely with other international fisheries and related organisations in matters of mutual interest;

NOTING United Nations General Assembly (UNGA) Resolution 61/105 and subsequent resolutions of UNGA that call upon RFMOs to assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems (VMEs), and to ensure that if it is

¹ CMM 2017/01 Interim Management of Bottom Fishing supersedes CMM 2016/01 Interim Management of Bottom Fishing

assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorised to proceed;

FURTHER NOTING UNGA Resolution 64/72 which calls upon RFMOs to establish and implement appropriate protocols for the implementation of UNGA Resolution 61/105, including definitions of what constitutes evidence of an encounter with a VME, in particular threshold levels and indicator species; and to implement the FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas (FAO, 2009; FAO Deep-sea Fisheries Guidelines) in order to sustainably manage fish stocks and protect VMEs;

FURTHER NOTING UNGA Resolution 66/68 which encourages RFMOs to consider the results available from marine scientific research, including those obtained from seabed mapping programs concerning the identification of areas containing VMEs, and to adopt conservation and management measures to prevent significant adverse impacts from bottom fishing on such ecosystems, consistent with the FAO Deep-sea Fisheries Guidelines, or to close such areas to bottom fishing until such conservation and management measures are adopted, as well as to continue to undertake further marine scientific research, in accordance with international law as reflected in Part XIII of the United Nations Convention on the Law of the Sea;

AWARE of the steps being taken by the Meeting of the Parties to address the impacts of large-scale pelagic drift nets and deepwater gillnets in the SIOFA Area of Application (the Agreement Area) through the adoption of CMM 2016/05;

COMMITTED to ensuring that bottom fishing undertaken in the Agreement Area is consistent with the long-term sustainability of deep sea fish stocks and the protection of the marine environment; and

DESIRING to progress the development of a SIOFA-wide bottom fishing impact assessment and SIOFA-wide footprint, as recommended by the Scientific Committee at its first ordinary meeting in Fremantle, Australia, in March 2016;

ADOPTS the following CMM in accordance with Article 6 of the Agreement:

Objective

1. The objective of this CMM is to promote the sustainable management of deep-sea fisheries resources in the Agreement Area, including target fish stocks and non-target

species, and to protect the marine ecosystem, including inter alia, the prevention of significant adverse impacts on vulnerable marine ecosystems.

General provisions and definitions

2. This CMM applies to all fishing vessels flying the flag of a Contracting Party, cooperating non-Contracting Party (CNCP) or participating fishing entity (PFE) to the Agreement engaging or intending to engage in bottom fishing in the Agreement Area. A reference in this CMM to fishing and related activities *of* a Contracting Party, CNCP or PFE (such as *its* fishing, *its* catch or *its* effort) is taken to refer to fishing and related activities undertaken by vessels flying its flag.

- 3. The following definitions apply to this CMM:
 - (a) 'vulnerable marine ecosystem' (VME) means a marine ecosystem identified using the criteria outlined in paragraph 42 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas (FAO, 2009; FAO Deep-sea Fisheries Guidelines).
 - (b) 'bottom fishing' means fishing using any gear type likely to come in contact with the seafloor or benthic organisms during the normal course of operations.
 - (c) 'SIOFA bottom fishing footprint' means a map of the spatial extent of historical bottom fishing in the Agreement Area, for all vessels flagged to all Contracting Parties, CNCPs and PFEs over a period to be defined by the Meeting of the Parties.
 - (d) 'electronic observer program' means a program that uses electronic monitoring equipment in place of, or in conjunction with, a human observer or human observers on board a vessel that is capable of generating, storing and transmitting data to competent authorities.

4. The provisions of this CMM are not necessarily to be considered precedents for future allocation or other decisions in accordance with Articles 6(2), (3) and (4) of the Agreement relating to participation in bottom fisheries in the Agreement Area and adjacent areas of national jurisdiction, as appropriate.

Scientific Committee work on bottom fishing and subsequent consideration by the Meeting of the Parties

5. The Scientific Committee shall, by no later than the close of the ordinary meeting of the Scientific Committee in 2017, 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) a SIOFA Bottom Fishing Impact Assessment Standard (BFIAS) which takes account of the latest scientific information available;
- (b) maps of where VMEs are known to occur, or likely to occur, in the Agreement Area;
- (c) guidelines for evaluating and approving electronic observer programs for scientific data collection for consideration by the Meeting of the Parties; and
- (d) standard protocols for future protected areas designation (areas which should be closed to fishing).

6. The Scientific Committee shall, by no later than the close of the ordinary meeting of the Scientific Committee in 2019, 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; and
- (c) the most appropriate response to a VME encounter, including inter alia closing particular areas to a particular gear type or types.

7. 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) an appropriate SIOFA bottom fishing footprint based on the data provided by Contracting Parties, CNCPs and PFEs to the Secretariat under paragraph 13; and
- (b) a SIOFA Bottom Fishing Impact Assessment (SIOFA BFIA). The SIOFA BFIA shall take into account the activities of all fishing vessels to which this CMM applies that, at the time the SIOFA BFIA is prepared, are engaged in, or intending to engage in, bottom fishing within the agreed SIOFA bottom fishing footprint.

8. Upon receipt of advice and recommendations from the Scientific Committee on the matters listed in paragraphs 5 to 7, the Meeting of the Parties shall act on the Scientific Committee's advice and recommendations at its next ordinary meeting. This may include, when the Meeting of the Parties considers it appropriate, to authorise any document or other output arising from the advice or recommendations, and amendments thereto.

Duties of Contracting Parties, CNCPs and PFEs undertaking bottom fishing activity in the Agreement Area

Interim bottom fishing measures

9. (1) Until such time as the Meeting of the Parties has acted in accordance with paragraph 8 on the advice of the Scientific Committee provided in accordance with paragraph 7, each Contracting Party, CNCP and PFE shall, unless otherwise approved by the Meeting of the Parties, establish and apply specific measures to limit the level and spatial extent of the bottom fishing effort of vessels flying their flag. In particular, such measures shall include:

- (a) for Contracting Parties, CNCPs or PFEs that have fished more than 40 days in a single year, in the Agreement Area, at the time this CMM was adopted:
 - limits on its bottom fishing effort and/or catch, over a 12 month period to its average annual level in active years over a representative period for which reliable data exists;

- ii. constraints on the spatial distribution of its bottom fishing effort, excluding line and trap methods, to recently fished areas to prevent any expansion of such fishing activities;
- iii. provisions to ensure its bottom fishing will not have significant adverse impacts on VMEs and, where applicable, shall take into account its BFIA prepared and submitted pursuant to paragraph 14, and any areas identified under paragraph 36 where VMEs are known to occur, or are likely to occur; and
- iv. provisions ensuring that any vessel flying its flag is not authorised to fish in any areas that the Meeting of the Parties has decided to close to fishing.
- (b) for Contracting Parties, CNCPs or PFEs that have not fished more than 40 days in a single year, in the Agreement Area, at the time this CMM was adopted:
 - limits on its bottom fishing effort and/or catch, and spatial distribution, as disclosed to the Meeting of the Parties in accordance with paragraph 9(2); and
 - ii. provisions as referred to in subparagraphs 9(1)(a)(iii) and (iv).

(2) The measures established by Contracting Parties, CNCPs and PFEs pursuant to this paragraph shall be disclosed to the next ordinary Meeting of the Parties following the entry into force of this CMM, and shall be made publicly available on the SIOFA website, by the Secretariat, once the website has been developed.²

(3) Contracting Parties, CNCPs and PFEs may revise the measures they establish pursuant to this paragraph provided that any amendments made are consistent with the requirements of paragraph 9(1). Revised measures shall be notified to the Secretariat within 30 days of the amendment, and shall be disclosed at the next ordinary Meeting of the Parties.

(4) The provisions of this paragraph are not necessarily to be considered a precedent for future decisions taken by the Meeting of the Parties pursuant to paragraph 8.

² Until such time as the website is developed, this information will be made available upon request to the Secretariat.

10. Any Contracting Party, CNCP or PFE that has not submitted the measures required pursuant to paragraph 9(1), shall not authorise any vessels flying its flag to bottom fish in the Agreement Area until:

- (a) that Contracting Party, CNCP or PFE has submitted the measures required in paragraph 9(1); or
- (b) it has otherwise been decided by the Meeting of the Parties.

11. Until the Meeting of the Parties has acted on the Scientific Committee's advice on SIOFA threshold levels pursuant to paragraph 6(b), Contracting Parties, CNCPs and PFEs shall establish and apply to vessels flying their flag threshold levels for encounters with VMEs, taking into account paragraph 68 of the FAO Deep-sea Fisheries Guidelines. These threshold levels shall be disclosed in the measures referred to in paragraph 9(1).

12. Until the Meeting of the Parties has acted on the Scientific Committee's advice on the most appropriate response to a VME encounter pursuant to paragraph 6(c), Contracting Parties, CNCPs and PFEs shall require any vessel flying their flag to cease bottom fishing activities within:

- (a) For bottom or mid water trawling, or fishing with any other net two (2) nautical miles either side of a trawl track extended by two (2) nautical miles at each end;
- (b) For longline and trap activities a radius of one (1) nautical mile from the midpoint of the line segment;³
- (c) For all other bottom fishing gear types a radius of one (1) nautical mile from the midpoint of the operation

where evidence of a VME is encountered above threshold levels established under paragraph 11 in the course of fishing operations. Contracting Parties, CNCPs and PFEs shall report any such encounter in their National Reports to the Scientific Committee in accordance with the guidelines at Annex 1, including any action taken by that Contracting Party, CNCP or PFE in respect of the relevant site.

³ Line segment means a 1000 hook section of line or a 1200 metre section of line, whichever is the shorter, and for pot lines a 1200 metre section

Provision of data by Contracting Parties, CNCPs and PFEs

13. Contracting Parties, CNCPs and PFEs shall, at least 30 days prior to the commencement of the ordinary meeting of the Scientific Committee in 2018, submit to the Secretariat:

- (a) relevant data on the spatial extent of its historical bottom fishing effort in the Agreement Area expressed as grid blocks of at least 20 minute resolution or, if available, a finer scale; and
- (b) any other data the Scientific Committee may consider to be useful in developing the SIOFA BFIA referred to in paragraph 7(b), including data relating to recorded encounters with VMEs or indicators of VMEs.

14. (a) Any Contracting Party, CNCP or PFE that authorises or is seeking to authorise any vessel flying its flag to bottom fish in the Agreement Area shall, at least 30 days prior to the commencement of the ordinary meeting of the Scientific Committee in 2018, submit to the Secretariat a Bottom Fishing Impact Assessment for its individual bottom fishing activities in the Agreement Area that, to the extent possible, accords with paragraph 18 (BFIA). Any Contracting Party, CNCP and PFE that has prepared, or prepares, a BFIA prior to this CMM entering into force is encouraged to submit this BFIA to the Scientific Committee as soon as possible.

(b) Any Contracting Party, CNCP or PFE that has not submitted a BFIA pursuant to subparagraph (a) may, at least 30 days prior to the commencement of any subsequent ordinary meeting of the Scientific Committee and before the Meeting of the Parties has authorised the SIOFA bottom fishing footprint and the SIOFA BFIA developed by the Scientific Committee in accordance with paragraph 7, submit to the Secretariat a BFIA.

15. The Scientific Committee shall consider all BFIAs received under paragraph 14(a) and 19(b) at its ordinary meeting in 2018 or, if the BFIA is submitted under paragraph 14(b) or 19(b), at the next ordinary meeting of the Scientific Committee, and provide advice in its meeting report as to:

- (a) the likely cumulative impacts of bottom fishing impact activity from vessels flying the flag of a Contracting Party, CNCP or PFE in the Agreement Area; and
- (b) whether each BFIA meets an appropriate standard in light of international standards and the SIOFA BFIAS, where applicable.

16. If the Scientific Committee's advice is that a BFIA does not meet an appropriate standard, the Meeting of the Parties may request that Contracting Party, CNCP or PFE who submitted the BFIA to revise and resubmit its BFIA to the next ordinary meeting of the Scientific Committee, and make a decision to either:

- (a) suspend any vessel flying the flag of that Contracting Party, CNCP or PFE from bottom fishing in the Agreement Area until the Scientific Committee provides advice that the BFIA meets an appropriate standard; or
- (b) undertake any other course of action, as the Meeting of the Parties may decide, taking into account Scientific Committee advice and the objectives of this CMM.

17. Any Contracting Party, CNCP or PFE that has not submitted a BFIA in accordance with subparagraph 14 shall not authorise any vessels flying its flag to bottom fish in the Agreement Area until:

- (a) that Contracting Party, CNCP or PFE has prepared a BFIA, and the Scientific Committee has reviewed that BFIA in accordance with paragraph 15; or
- (b) the Meeting of the Parties has authorised the SIOFA bottom fishing footprint and the SIOFA BFIA developed by the Scientific Committee in accordance with paragraph 7; or
- (c) it has otherwise been decided by the Meeting of the Parties.
- 18. All BFIAs, including the SIOFA BFIA, shall:
 - (a) be prepared, to the extent possible, in accordance with the FAO Deep-sea Fisheries Guidelines;
 - (b) meet the standards of the SIOFA BFIAS (if the BFIA is prepared after the Meeting of the Parties has adopted the BFIAS);
 - (c) take into account areas identified where VMEs are known or are likely to occur in the area to be fished;
 - (d) take into account all relevant information provided pursuant to paragraphs 13 and 36, and in addition, for the SIOFA BFIA, paragraph 14;
 - (e) be updated when a substantial change in the fishery has occurred, such that it is likely that the risk or impacts of the fishery may have changed;

- (f) assess, to the extent possible, the historical and anticipated cumulative impact of all bottom fishing activity in the Agreement Area, if applicable;
- (g) address whether the proposed activities achieve the objectives described in paragraph 1 of this CMM and Article 2 of the Agreement; and
- (h) be made publicly available on the SIOFA website, once developed.

Provision of data by, and interim bottom fishing measures for, new Contracting Parties, CNCPs and PFEs

19. Paragraphs 9 to 12 shall not apply to any State or fishing entity that becomes a Contracting Party, CNCP or PFE after the Meeting of the Parties in 2017. However, prior to authorising any vessels flying its flag to bottom fish in the Agreement Area, each of these new Contracting Parties, CNCPs and PFEs which has fished more or less than 40 days in a single calendar year as referred to in paragraph 9(1)(a) or (b) shall:

- (a) advise the Meeting of the Parties of the measures it intends to take pursuant to paragraph 9(1)(a)(i), (ii), (iii) and (iv);
- (b) 30 days prior to an ordinary meeting of the Scientific Committee after it becomes a Contracting Party, CNCP or PFE, submit the data referred to in paragraph 13 and a BFIA as outlined in paragraph 14 to the Scientific Committee for its consideration in accordance with paragraph15.

20. Subject to agreement of the Meeting of the Parties, based on the advice from the Scientific Committee and the measures submitted in accordance with paragraph 19, a new Contracting Party, CNCP or PFE referred to in paragraph 19 may then authorise vessels flying its flag to bottom fish in the Agreement Area, in accordance with paragraphs 9-12.

21. A Contracting Party, CNCP or PFE seeking to authorise any vessel flying its flag to undertake bottom fishing in the Agreement Area in a manner at variance with the requirements of paragraph 9 to limit the bottom fishing effort of vessels flying its flag shall submit to the Scientific Committee, at least 30 days prior to an ordinary meeting of the Scientific Committee, a proposal to undertake that activity or activities. This proposal shall include an assessment of the impact of the proposed fishing activity in accordance with the requirements for BFIAs outlined in paragraph 18, any proposed measures to mitigate that impact, and any other information as required by the Scientific Committee to undertake the assessment in paragraph 22.

22. On receipt of any proposal developed pursuant to paragraph 21, the Scientific Committee shall, at its next ordinary meeting:

- (a) assess, on the basis of the best available scientific information, whether the proposed bottom fishing would have significant adverse impacts on VMEs;
- (b) if it is assessed that these activities would have significant adverse impacts, consider what measures should be taken to prevent such impacts, or, if those impacts cannot be appropriately mitigated, whether the proposed bottom fishing should proceed or not;
- (c) assess, taking into account, inter alia: the cumulative impacts of other fishing occurring in that area, where such information is available; whether the proposed activities are compatible with the sustainable management of bottom fisheries, including target fish stocks and non-target species; and the protection of the marine environment, including inter alia, the prevention of significant adverse impacts on vulnerable marine ecosystems; and
- (d) provide recommendations and advice to the Meeting of the Parties in its meeting report on each of these matters, as applicable.

23. The Meeting of the Parties shall, taking into account the recommendations and advice of the Scientific Committee, decide whether or not to authorise bottom fishing in accordance with a proposal made pursuant to paragraph 21 including, if applicable, the extent to which such bottom fishing shall be authorised.

24. If applicable, the Meeting of the Parties shall also decide which measures or conditions shall be applied to any activity authorised pursuant to paragraph 23 to ensure that fishing activity is consistent with the objectives of Article 2 of the Agreement and paragraph 1 of this CMM.

General management and conditions for bottom fishing in the Agreement Area

25. Consistently with Article 11(1)(a) of the Agreement, Contracting Parties, CNCPs and PFEs shall only authorise vessels flying their flag to bottom fish in the Agreement Area in accordance with the provisions of the Agreement, this CMM and all other applicable CMMs, and shall ensure that such vessels do not engage in any activity which undermines the effectiveness of these measures.

26. All Contracting Parties, CNCPs and PFEs shall ensure that all vessels flying its flag that participate in bottom fishing in the Agreement Area are equipped and configured to comply with all relevant CMMs.

27. Consistently with Article 11(3)(a) of the Agreement, Contracting Parties, CNCPs and PFEs shall only authorise vessels flying their flag to bottom fish in the Agreement Area where they are able to exercise their responsibilities as a flag State under the Agreement and all CMMs.

28. Contracting Parties, CNCPs and PFEs shall ensure that vessels flying their flag provide the minimum required data to the Secretariat in accordance with SIOFA data standards.

29. Nothing in this CMM shall affect the rights of a Contracting Party, CNCP or PFE to apply additional or more stringent compatible measures to vessels flying their flag that are conducting bottom fishing.

30. Nothing in this CMM exempts a Contracting Party, CNCP or PFE from complying with any other obligations in the Agreement or any CMMs adopted by the Meeting of the Parties.

Scientific observer coverage

31. Each Contracting Party, CNCP and PFE shall ensure that any vessel flying its flag and undertaking bottom fishing in the Agreement Area:

(a) using trawl gear has100 percent scientific observer coverage for the duration of the trip.⁴

⁴ This provision shall enter into force for Japan on 1 January 2017 and for the Cook Islands on 1 June 2017. These Contracting Parties will take all necessary steps towards implementing this provision in the interim.

(b) using any other bottom fishing gear type has 20 percent scientific observer coverage in any fishing year.

32. Consistent with paragraph 13 of the SIOFA Data Standards CMM (CMM 2016/02), the Scientific Committee shall review the observer coverage levels prescribed in paragraph 31 at its ordinary meeting in 2018 and provide advice to the Meeting of the Parties thereon.

33. (a) The scientific observer coverage levels outlined in paragraph 31 shall be fulfilled through the use of human observers, except to the extent authorised by the Meeting of the Parties pursuant to subparagraph (c)(iii).

(b) Once the Meeting of the Parties has adopted Guidelines for evaluating and approving electronic observer programs developed pursuant to paragraph 5(c), a Contracting Party, CNCP or PFE may submit a proposal to the Scientific Committee seeking to use an electronic observer program which uses, entirely or in part, electronic monitoring equipment, human observers and/or a port sampling program. As part of this proposal, that Contracting Party, CNCP or PFE shall submit evidence of, and data relating to, a statistically robust trial of the program that demonstrates it meets the data requirements prescribed in the SIOFA data standards CMM, once adopted by the Meeting of the Parties.

(c) Following the submission of the proposal by the Contracting Party, CNCP or PFE to the Scientific Committee:

- i. The Scientific Committee shall review the proposal and provide recommendations and advice thereon to the Meeting of the Parties, taking into account the Guidelines and whether the program will reliably collect all data required by the SIOFA data standards CMM, once adopted by the Meeting of the Parties.
- ii. The Compliance Committee shall also review the proposal and provide advice and recommendations thereon to the Meeting of the Parties.
- iii. On receipt of the advice by the Scientific Committee and the Compliance
 Committee on the proposal, the Meeting of the Parties shall, at its next meeting,
 consider whether to authorise the use of that program by that Contracting Party,
 CNCP or PFE in place of the exclusive use of human observers.

Position Reporting

34. Each Contracting Party, CNCP and PFE shall, in respect of each vessel flying its flag which participates in bottom fishing in the Agreement Area, submit VMS reports in an electronic format to the Secretariat in accordance with any VMS CMM and data standards CMM adopted by the Meeting of the Parties.

Vulnerable Marine Ecosystem closures

35. Where the Meeting of the Parties, taking into account advice provided by the Scientific Committee, determines that bottom fishing may have significant adverse impacts on VMEs in areas where VMEs are known to occur, or are likely to occur, based on the best available scientific information, the Meeting of the Parties may take a decision to close such areas to bottom fishing, either entirely or with respect to bottom fishing by a particular gear type or types.

36. The Meeting of the Parties shall cooperate to identify, on the basis of the best available scientific information including advice and recommendations provided by the Scientific Committee pursuant to paragraph 5(b), areas where VMEs are known or likely to occur in the Agreement Area and to map these sites, and provide such data and information to all Contracting Parties, CNCPs and PFEs for circulation.

37. The Meeting of the Parties recommends that all Contracting Parties note the advice from the first meeting of the Scientific Committee in relation to Benthic Protected Areas.

Cooperation with other States

38. Contracting Parties resolve, individually or jointly, to request those States and fishing entities that are undertaking bottom fishing in the Agreement Area but are not currently Contracting Parties, CNCPs or PFEs to cooperate fully in the implementation of this measure and to consider participating in the work of SIOFA as a matter of priority.

Review

39. This CMM shall be reviewed no later than at the ordinary Meeting of the Parties in 2019. This review shall take into account, *inter alia*, the latest advice of the Scientific Committee, including advice on those matters listed in paragraphs 5 to 7 and appropriate

catch levels for principal target species, in accordance with the objective described in paragraph 1.

Annex 1 - Guidelines for the Preparation and Submission of Notifications of Encounters with VMEs

1. General Information

Include contact information, nationality, vessel name(s) and dates of data collection.

2. VME location

Start and end positions of all gear deployments and/or observations. Maps of fishing locations, underlying bathymetry or habitat and spatial scale of fishing. Depth(s) fished.

3. Fishing gear

Indicate fishing gears used at each location.

4. Additional data collected

Indicate additional data collected at or near the locations fished, if possible. Data such as multibeam bathymetry, oceanographic data such as CTD profiles, current profiles, water chemistry, substrate types recorded at or near those locations, other fauna observed, video recordings, acoustic profiles etc.

5. VME taxa

For each station fished, provide details of VME taxa observed, including but not limited to their relative density, absolute density, or weight and/or number of taxa.