GFCM Draft Contribution to UN-RES 74/18

The GFCM, as one of the existing Regional Fisheries Management Organization (RFMO) having a mandate on bottom fisheries, has been fulfilling its duty to regularly report progress made in connection with relevant decisions by the UNGA (Resolutions: 64/72, 66/68, and 71/123). Analyses and information on relevant technical and scientific issues, relating to the impacts of bottom fishing on vulnerable marine ecosystems (VMEs) and long-term sustainability of deep-sea fisheries (DSF) in the GFCM area of application, are detailed in this document.

Bottom fisheries in the Mediterranean and Black Sea

The narrowness of the continental shelves in the Mediterranean Sea means that most fishing grounds are relatively close to the coast. Bottom fisheries typically operate on the continental shelf and extend down on the shelf slopes to a depth of around 700 1000 m. The two main deep-water bottom fisheries that occur between 400 and 1000 m in the Mediterranean are the directed bottom trawl fishery for various shrimp species, and the multispecies multi-gear fishery for European hake. The first deep-sea bottom trawl fishery in the Mediterranean was for deep-water rose shrimp in the Ligurian Sea in the 1930s, and later spread to other areas for blue and red shrimp and giant red shrimp. Catches in all areas of the Mediterranean have increased more or less steadily since the 1950s, with some notably lower catches through the 1970s and 1990s. Catches in recent years are among the highest rates recorded. The multispecies European hake fishery uses bottom trawls, gillnets and longlines. The trawlers operate mainly in the shal 11.04 Tf 0 6at5/F3 11.isher(t)6(

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found in the Mediterranean Sea, and therefore its protection from fishing activities was considered a

Later in 2016, the GFCM was invited to participate in the FAO workshop on the management of DSFs and VMEs in the Mediterranean. It was regarded as an opportunity to address the management of VMEs by GFCM, by reviewing current global and regional practices and discussing relevant international processes and instruments related to deep-sea fisheries and VMEs. Most importantly, conclusions of this workshop were also reflected in the Resolution GFCM/40/2016/2 adopting a mid-term strategy (2017 2020) towards the sustainability of Mediterranean and Black Sea fisheries that clearly calls in one of its targets to

the impact of fisheries on VMEs. It called for the promotion of the identification and establishment of new FRAs to protect priority areas within VMEs from harmful fishing activities, and the implementation of monitoring and control systems to ensure the efficiency of these spatial measures, encouraging CPCs to be closely involved in the definition of new FRAs. Following this endeavour, the GFCM organised a scientific Working Group on VMEs (WGVME) in 2017, to discuss the development of appropriate measures related to the protection of VMEs according to the UN mandate (UNGA Resolutions 59/25, 61/105 and 64/72) in the GFCM area of application. During the meeting, experts reviewed the current GFCM management measures specific to deep-sea fisheries and biodiversity protection and the relevant associated conclusions and recommendations from previous meetings on area-based management measures in relation to DSF and VMEs. Proposals were formulated including the adoption of VME indicators (features, habitats and taxa) and management elements for the establishment of a VME encounter protocol, of an exploratory deep-sea bottom fishing protocol, and for the mapping of the existing deep-sea fishing areas for the Mediterranean.

In line with measures in place by other RFMOs, the GFCM agreed on the need to further discuss the proposed technical elements, calling for a second WGVME meeting. This latter was held in 2018, reviewing the technical elements for the protection of VMEs in the GFCM area of application, which led to decide on the creation and use of a GFCM VME geodatabase. The WGVME in 2018 also agreed on a process for the establishment and protection of VMEs while determining the fishing footprint. Afterwards, the SAC revised the technical elements for the protection of VMEs, suggesting a phased approach that was later endorsed by the Commission in 2018 which formally adopted the technical elements, namely the Protocols for the protection of VMEs in the GFCM area of application (Appendix). The first phase triggers the voluntary adoption of an encounter reporting protocol while concurrently working towards the determination of the foG[( )] TJETQq0.00000912b590hETQq0.0000069o11the

throughout the Mediterranean Sea, with the final objective of identifying priority areas for which fisheries protection measures would be proposed. Information on sensitive benthic species and habitats in the GFCM area of application is collected and submitted to the GFCM Secretariat though a standard form included in the GFCM geodatabase. Subsequently, the SAC endorsed the development of the GFCM georeferenced database on sensitive benthic species and habitats, aimed to support the identification of priority areas for

APPENDIX

Protocols for the protection of VMEs in the GFCM area of application

A VME encounter reporting protocol in the GFCM area of application

1. Introduction

Resolutions of the United Nations General Assembly on sustainable fisheries of 2004[1], 2006[2] and 2009[3] call upon regional fisheries management organizations (RFMOs) to take urgent action to protect vulnerable marine ecosystems (VMEs) from significant adverse impact in areas beyond national jurisdiction.

i. the position of the vessel, either by the start and end point of the tow or set, or by another position that is closest to the exact encounter location;

ii. the fishing characteristics of the vessel;

iii. the groups of the VME Indicator Taxa encountered and the best estimates of their live weight (kg).

6. Reporting to GFCM Secretariat

Upon notification by the vessel captain, as described above, relevant CPCs shall forward, within 30 days, the encounter information reported by the vessel captain, to the GFCM Secretariat, including by electronic means.

7. Review of the information gathered by mean of the VME Encounter Protocol

The GFCM Secretariat shall compile the data received with the encounter protocols and set up maps of the distribution of encounters with VME Indicator Taxa, including their abundance by group. The GFCM Secretariat shall regularly inform the SAC about the reported catches of VME Indicator Taxa in Mediterranean fisheries. The SAC shall review this information and, based upon the best scientific evidence available, evaluate the occurrence of VMEs and propose to the Commission, as appropriate, the establishment of new management measures, including FRAs, to ensure the protection of these ecosystems.

8. Observers

The use of scientific observers to assist the crew in data collection is encouraged in order to allow the identification of the VME Indicator Taxa to the lowest taxonomic level and to obtain information on bycatch composition.

9. CPCs responsibilities

CPCs should consider adopting temporary closures and apply these to their flagged vessels if they consider that the encounter has identified a VME. Any measure adopted in this sense should be reported to the GFCM Secretariat for further notification to the SAC.

Annex 1

Mediterranean VME indicator features, habitats and taxa

(a) Mediterranean VME indicator features

The following features potentially support VMEs:

Seamounts and volcanic ridges
Canyons and trenches
Steep slopes
Submarine reliefs (*slumped blocks, ridges, cobble fields, etc.*)
Cold seeps (*pockmarks, mud volcanoes, reducing sediment, anoxic pools, methanogenetic hard bottoms*)
Hydrothermal vents

(b) Mediterranean VME indicator habitats

The following habitats potentially support VMEs:

Annelida*	Polychaeta	Sedentaria (Canalipalpata) (e.g. *Lamellibrachia anaximandri*, *Siboglinum* spp.)
Arthropoda*	Malacostraca	Eumalacostraca (Amphipoda) (e.g. *Haploops* spp.)

Annex 2

VME encounter reporting in the GFCM area of application

Separate forms to be completed for each deployment of the fishing gear (haul/set) in which VME Indicator Taxa are caught.

A. Fishing Trip Information	
Country:	
Vessel name:	
Captain (name and last name):	
Date of encounter (dd/mm/yyyy):	
B. Fleet and gear information[4]	
Fleet segment:	
Fishing gear:	
C. VME Encounter coordinates	
GSA:	**Statistical grid:**
Point 1 (Start)	**Point 2 (End)**
Latitude:	Longitude:
Latitude:	Longitude:
Fishing depth (average or range, m):	
VME Feature and/or Habitat (Annex 1 a and b)	
D. VME Indicator Taxa catch information (Annex 1 c)	
Total live weight of **corals** in the haul/set (kg):	
Total live weight of **sponges** in the haul/set (kg):	
Total live weight of **other vulnerable benthic taxa** in the haul/set (kg):	
E. VME Indicator Taxa (by trained observers on board)	
Identify VME Taxa to lowest taxonomic level (species if possible) and provide comments.	
F. Pictures of VME Indicator Taxa (by fishers and/or observers on board)	
Take pictures of the different VME Indicator Taxa and submit them as an attachment to the current form.	

Refer to: GFCM, 2016. GFCM Data Collection Reference Framework (DCRF) (http://www.fao.org/gfcm/data/dcrf/en/)

B - Mapping existing deep-sea fishing areas in the GFCM area of application

1. Introduction

Resolutions of the United Nations General Assembly on sustainable fisheries of 2004[5], 2006[6] and 2009[7] call upon regional fisheries management organizations (RFMOs) to take urgent action to protect vulnerable marine ecosystems (VMEs) from significant adverse impact in areas beyond national jurisdiction.

2. Objectives

The deep-sea bottom fisheries of the Mediterranean target only a few species that are fished on specific habitats. In order to manage these fisheries sustainably, and prohibit any significant adverse impacts they may cause on non-target species and VMEs, it is necessary to map the distribution of the existing deep-sea bottom fishing areas.

3. Definitions

sea bottom fishing areas within the GFCM area of application. The SAC shall review this information and based upon the scientific evidence available, adopt the map defining the existing bottom fishing areas in the GFCM area of application. The map shall be revised regularly to incorporate any new relevant information.

C - Exploratory deep-sea bottom fishing reporting protocol in the GFCM area of application

1. Introduction

Resolutions of the United Nations General Assembly on sustainable fisheries of 2004[8], 2006[9] and 2009[10] call upon regional fisheries management organizations (RFMOs) to take urgent action to protect vulnerable marine ecosystems (VMEs) from significant adverse impact in areas beyond national jurisdiction.

2. Objectives

To ensure that exploratory or new deep-sea fishing activities are only allowed to expand at a rate consistent with the knowledge and management of that fishery. This will avoid overexploitation of targeted deep-sea fish stocks. Further, great care needs to be taken to ensure that VMEs are mapped and known, and suitable mitigation measures applied to ensure their protection from significant adverse impacts resulting from any new fishery.

3. Definitions

- t portion of the GFCM area of application where deep-sea bottom fishing has occurred according to the map adopted under Section B Paragraph 5.

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iv. the catch, the bycatch, the discards, and fishing effort;

v. VME Indicator Taxa (if any) through the VME Encounter Protocol.

6. Reporting to GFCM Secretariat

Upon notification by the vessel captain, as described above, relevant CPCs shall forward, within 30 days, the exploratory deep-sea bottom protocol form reported by the vessel captain, to the GFCM Secretariat, including by electronic means.

7. Review of the information gathered through the exploratory deep-sea bottom protocol

The GFCM Secretariat shall compile the data received with the exploratory deep-sea bottom protocol and shall regularly inform the SAC. The SAC shall review this information.

8. Observers

The use of scientific observers to assist in data collection and reporting is highly desirable according to the GFCM DCRF[11].

Refer to: GFCM, 2016. GFCM Data Collection Reference Framework (DCRF) (http://www.fao.org/gfcm/data/dcrf/en/).

Annex 3

Exploratory deep-sea fishing reporting in the GFCM area of application (Mediterranean Sea)
Separate forms must be completed for each new exploratory deep-sea fishing trip

A. Fishing Trip Information
Country:
Vessel name:
Captain (name and last name):
Dates of exploratory fishing trip (dd/mm/yyyy format):

B. Fleet and gear information[12]
Fleet segment:
Fishing gear:

Area information	
GSA:	**Statistical grid**[13]**:**
Area fished (coordinates-attach map):	
VME Indicator Feature (if any):	
Depth range fished (m):	
Fishing effort:	

C. Catch summary
List main commercial species and quantities caught during the exploratory deep-sea bottom fishing

D. Bycatch summary
Provide details of bycatch species

D. VME Indicator Taxa
Use the provided VME Encounter Protocol for any catch of VME Indicator Taxa

E. Comments (by fishing crew)

[12]