

**42nd ANNUAL MEETING OF NAFO - SEPTEMBER 2020****Recommendations from the WG-EAFFM**

The NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) met via WebEx on 17–19 August 2020 (COM-SC Doc. 20-03) and agreed on the following recommendations:

The WG-EAFFM recommends that:

1. In relation to the re-assessment of VME closures, and acknowledging the Scientific Council advice regarding the status of VMEs, that all closures listed in Chapter 2, Article 17, “Area Restrictions for Bottom Fishing Activities” are rolled over for one year. Consequently,
 - a. Article 17.1 of the NAFO CEM should read: Until 31 December ~~2020~~ 2021, no vessel shall engage in bottom fishing activities in any of the areas illustrated in Figure 3 and defined by connecting the following coordinates specified in Table 5 in numerical order and back to coordinate 1.
 - b. Article 17.2 of the NAFO CEM should read: Until 31 December ~~2020~~ 2021, no vessel shall engage in bottom fishing activities in the area of Division 3O illustrated in Figure 4 and defined by connecting the coordinates specified in Table 6 in numerical order and back to coordinate 1.
 - c. Article 17.3 of the NAFO CEM should read: Until 31 December ~~2020~~ 2021, no vessel shall engage in bottom fishing activities in the areas 1-13 illustrated in Figure 5 and defined by connecting the coordinates specified in Table 7 in numerical order and back to coordinate 1.
2. That Black Coral taxa (Antipatharia) are added to the VME indicator species list. Consequently, Annex IE, part VI of the NAFO CEM “List of VME Indicator Species” should be appropriately amended (see Annex 3).
3. In relation to the 2021 re-assessment of bottom fishing as well as the discussion on the VME fishery closures, that Commission requests Scientific Council provide input and analysis of potential management options, with the goal of supporting meaningful and effective discussions between scientists and managers at the 2021 WG-EAFFM meeting.
4. The Commission, through STACTIC, insert a footnote in Annex II.N Fishing Logbook Information by Haul of the NAFO CEM, to clarify and match the definition of Start and End time of fishing in Annex II.M (see Annex 4).
5. In relation to the Scientific Council’s first recommendation with respect to COM request #5 and recognizing the limited nature of the 2020 virtual working group meeting, the Commission, through the WG-EAFFM, continue to consider this recommendations in 2021, and develop options of how ecosystem advice could inform management decisions, an issue which is directly linked to the results of the foreseen EAFM roadmap workshop.
6. Additionally, that the Commission request the Scientific Council to continue its work to develop models that support implementation of Tier 2 of the EAFM Roadmap.



7. In relation to the development of the ecosystem summary sheets, in particular consideration of non-fishery related activities, that the Commission requests Contracting Parties to proactively provide any relevant research to inform the Scientific Council's work, as well as identify scientific and management experts in non-fisheries related sectors to participate in Scientific Council and WG-EAFFM discussions. Further, that the Secretariat and the Scientific Council work with other international organizations, such as the FAO and ICES, to bring in additional expertise to inform the Scientific Council's work.
8. In relation to Chapter 2, Article 24 of the NAFO CEM, that STACTIC review the implementation of chapter 2, and suggest, as necessary, any revisions to WG-EAFFM with a view to improve the effectiveness of management measures. And that the Commission request the Scientific Council to also review the effectiveness of Chapter 2 from a scientific perspective and to report back at 2022 WG-EAFFM meeting. Consequently, Article 24 of the NAFO CEM should read: The provisions of this Chapter shall be reviewed by the Commission at its Annual Meeting no later than ~~2020~~ 2022.

**Annex 3. Revision to NAFO CEM Annex 1E, Table VI:
List of VME Indicator Species**

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
	<i>Asconema foliatum</i>	Rossellidae	ZBA
	<i>Aphrocallistes beatrix</i>	Aphrocallistidae	
	<i>Asbestopluma (Asbestopluma) ruetzleri</i>	Cladorhizidae	ZAB (Asbestopluma)
	<i>Axinella</i> sp.	Axinellidae	
	<i>Chondrocladia grandis</i>	Cladorhizidae	ZHD (Chondrocladia)
	<i>Cladorhiza abyssicola</i>	Cladorhizidae	ZCH (Cladorhiza)
	<i>Cladorhiza kenchingtonae</i>	Cladorhizidae	ZCH (Cladorhiza)
	<i>Craniella</i> spp.	Tetillidae	ZCS (Craniella spp.)
	<i>Dictyaulus romani</i>	Euplectellidae	ZDY (Dictyaulus)
	<i>Esperiopsis villosa</i>	Esperiopsidae	ZEW
	<i>Forcepia</i> spp.	Coelosphaeridae	ZFR
	<i>Geodia barrette</i>	Geodiidae	
	<i>Geodia macandrewii</i>	Geodiidae	
Large-Sized Sponges (PFR - Porifera)	<i>Geodia parva</i>	Geodiidae	
	<i>Geodia phlegraei</i>	Geodiidae	
	<i>Haliclona</i> sp.	Chalinidae	ZHL
	<i>Iophon piceum</i>	Acarinidae	WJP
	<i>Isodictya palmata</i>	Isodictyidae	
	<i>Lissodendoryx (Lissodendoryx) complicata</i>	Coelosphaeridae	ZDD
	<i>Mycale (Mycale) lingua</i>	Mycalidae	
	<i>Mycale (Mycale) loveni</i>	Mycalidae	
	<i>Phakellia</i> sp.	Axinellidae	
	<i>Polymastia</i> spp.	Polymastiidae	ZPY
	<i>Stelletta normani</i>	Ancorinidae	WSX (Stelletta)
	<i>Stelletta tuberosa</i>	Ancorinidae	WSX (Stelletta)
	<i>Stryphnus fortis</i>	Ancorinidae	WPH
	<i>Thenea muricata</i>	Pachastrellidae	ZTH (Thenea)
	<i>Thenea valdiviae</i>	Pachastrellidae	ZTH (Thenea)
	<i>Weberella bursa</i>	Polymastiidae	

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Stony Corals (CSS - Scleractinia)	<i>Enallopsammia rostrata*</i>	Dendrophylliidae	FEY
	<i>Lophelia pertusa*</i>	Caryophylliidae	LWS
	<i>Madrepora oculata*</i>	Oculinidae	MVI
	<i>Solenosmilia variabilis*</i>	Caryophylliidae	RZT
Black corals (AOZ-Antipatharia)	<u><i>Stichopathes sp.</i></u>	<u>Antipathidae</u>	<u>QYX</u>
	<u><i>Leiopathes cf. expansa</i></u>	<u>Leiopathidae</u>	
	<u><i>Leiopathes sp.</i></u>	<u>Leiopathidae</u>	
	<u><i>Plumapathes sp.</i></u>	<u>Myriopathidae</u>	
	<u><i>Bathypathes cf. patula</i></u>	<u>Schizopathidae</u>	
	<u><i>Parantipathes sp.</i></u>	<u>Schizopathidae</u>	
	<u><i>Stauropathes arctica</i></u>	<u>Schizopathidae</u>	<u>SOW</u>
	<u><i>Stauropathes cf. punctata</i></u>	<u>Schizopathidae</u>	
	<u><i>Telopathes magnus</i></u>	<u>Schizopathidae</u>	
	Small Gorgonians (GGW)	<i>Acanella arbuscula</i>	Isididae
<i>Anthothela grandiflora</i>		Anthothelidae	WAG
<i>Chrysogorgia sp.</i>		Chrysogorgiidae	FHX
<i>Metallogorgia melanotrichos*</i>		Chrysogorgiidae	
<i>Narella laxa</i>		Primnoidae	
<i>Radicipes gracilis</i>		Chrysogorgiidae	CZN
<i>Swiftia sp.</i>		Plexauridae	
Large Gorgonians (GGW)	<i>Acanthogorgia armata</i>	Acanthogorgiidae	AZC
	<i>Calyptrophora sp.*</i>	Primnoidae	
	<i>Corallium bathyrubrum</i>	Coralliidae	COR (Corallium)
	<i>Corallium bayeri</i>	Coralliidae	COR (Corallium)
	<i>Iridogorgia sp.*</i>	Chrysogorgiidae	
	<i>Keratoisis cf. siemensii</i>	Isididae	
	<i>Keratoisis grayi</i>	Isididae	
	<i>Lepidisis sp.*</i>	Isididae	QFX (Lepidisis)
	<i>Paragorgia arborea</i>	Paragorgiidae	BFU

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	<i>Paragorgia johnsoni</i>	Paragorgiidae	BFV
	<i>Paramuricea grandis</i>	Plexauridae	PZL (Paramuricea)
	<i>Paramuricea placomus</i>	Plexauridae	PZL (Paramuricea)
	<i>Paramuricea</i> spp.	Plexauridae	PZL (Paramuricea)
	<i>Parastenella atlantica</i>	Primnoidae	
	<i>Placogorgia</i> sp.	Plexauridae	
	<i>Placogorgia terceira</i>	Plexauridae	
	<i>Primnoa resedaeformis</i>	Primnoidae	QOE
	<i>Thouarella (Euthouarella) grasshoffi</i> *	Primnoidae	
	<i>Anthoptilum grandiflorum</i>	Anthoptilidae	AJG (Anthoptilum)
	<i>Distichoptilum gracile</i>	Protoptilidae	WDG
	<i>Funiculina quadrangularis</i>	Funiculinidae	FQJ
	<i>Halipteris</i> cf. <i>christii</i>	Halipteridae	ZHX (Halipteris)
	<i>Halipteris finmarchica</i>	Halipteridae	HFM
Sea Pens (NTW – Pennatulacea)	<i>Halipteris</i> sp.	Halipteridae	ZHX (Halipteris)
	<i>Kophobelemnion stelliferum</i>	Kophobelemnidae	KVF
	<i>Pennatula aculeata</i>	Pennatulidae	QAC
	<i>Pennatula grandis</i>	Pennatulidae	
	<i>Pennatula</i> sp.	Pennatulidae	
	<i>Protoptilum carpenteri</i>	Protoptilidae	
	<i>Umbellula lindahli</i>	Umbellulidae	
	<i>Virgularia mirabilis</i>	Virgulariidae	
Tube-Dwelling Anemones	<i>Pachycerianthus borealis</i>	Cerianthidae	WQB
Erect Bryozoans (BZN – Bryozoa)	<i>Eucratea loricata</i>	Eucrateidae	WEL
Sea Lilies (CWD – Crinoidea)	<i>Conocrinus lofotensis</i>	Bourgueticrinidae	WCF
	<i>Gephyrocrinus grimaldii</i>	Hyocrinidae	

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	<i>Trichometra cubensis</i>	Antedonidae	
Sea Squirts (SSX – Ascidiacea)	<i>Boltenia ovifera</i> <i>Halocynthia aurantium</i>	Pyuridae Pyuridae	WBO

Unlikely to be observed in trawls; *in situ* observations only:

Large *Syringamina* sp. Syringamminidae
xenophyophores

