

**41st ANNUAL MEETING OF NAFO - SEPTEMBER 2019****Recommendations from the WG-EAFFM
to forward to the NAFO Commission and Scientific Council**

The NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) met in 16–18 July 2019 (COM-SC Doc. 19-03) and agreed on the following recommendations from the WG-EAFFM to the NAFO Commission and Scientific Council.

The WG-EAFFM recommends that:

1. In relation to coordination with the International Seabed Authority (ISA), the Secretariat move forward with the informal coordination mechanisms proposed by the ISA. The Commission, through the WG-EAFFM, consider the development of communication channels between ISA and NAFO, including the possible development of a Memorandum of Understanding (MOU) or other appropriate tools, while avoiding any overly cumbersome or costly processes.
2. In relation to scientific surveys in VME closed areas, Contracting Parties are encouraged to continue to avoid closed areas in their scientific trawl surveys, as far as practicable. Further, that SC finalize its work to determine the effect of excluding surveys from these areas on stock assessments as soon as practicable, in accordance with Scientific Council's workplan, and contracting parties should be encouraged to ensure the correct scientific expertise supports this SC process.
3. In relation to the 2020 re-assessment of VME closures and the 2021 re-assessments of the impacts of NAFO bottom fishing, Contracting Parties support the necessary participation of relevant experts to ensure these processes are completed in a timely fashion, bearing in mind resource needs and constraints.
4. In relation to data required under CEM Article 28, reported in accordance with Annex II.N Fishing Logbook Information by Haul, STACTIC clarify how start and end time are defined for bottom contact gear
5. The CEM Annex I.E. Part VI is amended to reflect the correct taxa names and FAO alpha codes.
6. Commission request that the Scientific Council present the Ecosystem Summary Sheet for 3LNO to the Commission at the 2020 Annual Meeting, with a view of informing decision-making processes.
7. Commission develop ecosystem level objectives to inform the Scientific Council's development of the EAF Roadmap, including through a possible intersessional workshop.
8. Commission request that the Scientific Council continues its work to develop the EAF Roadmap.
9. Contracting Parties strongly support participation by the necessary scientific expertise in these processes.



**Updated List of VME Indicator Species for inclusion in Annex I.E of the NCEM,
in relation to WG-EAFFM Recommendation 5**

Table 1. Updated List of VME Indicator Species for inclusion in Annex I.E of the NAFO CEM. Also included are the FAO ASFIS 3-alpha codes. Codes for the genus level are indicated in parenthesis. Blank entries indicate that no code exists for that taxon. Those taxa marked with an asterisk were documented exclusively from the NAFO seamount closures.

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</i>	Cladorhizidae	ZAB
	<i>(Asbestopluma) ruetzleri</i>		(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>	Acarnidae	WJP
	<i>Isodictya palmata</i>	Isodictyidae	
	<i>Lissodendoryx</i>	Coelosphaeridae	ZDD
	<i>(Lissodendoryx) complicata</i>		
	<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	
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
Small Gorgonians (GGW)	<i>Acanella arbuscula</i>	Isididae	KQL (Acanella)
	<i>Anthothela grandiflora</i>	Anthothelidae	WAG
	<i>Chrysogorgia</i> sp.	Chrysogorgiidae	FHX
	<i>Metallogorgia melanotrichos*</i>	Chrysogorgiidae	
	<i>Narella laxa</i>	Primnoidae	
	<i>Radicipes gracilis</i>	Chrysogorgiidae	CZN
	<i>Swiftia</i> sp.	Plexauridae	
Large Gorgonians (GGW)	<i>Acanthogorgia armata</i>	Acanthogorgiidae	AZC
	<i>Calyptrophora</i> sp.*	Primnoidae	
	<i>Corallium bathyrubrum</i>	Coralliidae	COR (Corallium)
	<i>Corallium bayeri</i>	Coralliidae	COR (Corallium)
	<i>Iridogorgia</i> sp.*	Chrysogorgiidae	
	<i>Keratoisis</i> cf. <i>siemensii</i>	Isididae	
	<i>Keratoisis grayi</i>	Isididae	
	<i>Lepidisis</i> sp.*	Isididae	QFX (Lepidisis)
	<i>Paragorgia arborea</i>	Paragorgiidae	BFU
	<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		
Sea Pens (NTW – Pennatulacea)	<i>Anthoptilum grandiflorum</i>	Anthoptilidae	AJG (Anthoptilum)
	<i>Distichoptilum gracile</i>	Protoptilidae	WDG
	<i>Funiculina quadrangularis</i>	Funiculinidae	FQJ
	<i>Halipterus</i> cf. <i>christii</i>	Halipteridae	ZHX (Halipterus)

	<i>Halipterus finmarchica</i>	Halipteridae	HFM
	<i>Halipterus</i> sp.	Halipteridae	ZHX (Halipterus)
	<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	
	<i>Trichometra cubensis</i>	Antedonidae	
Sea Squirts (SSX – Ascidiacea)	<i>Boltenia ovifera</i>	Pyuridae	WBO
	<i>Halocynthia aurantium</i>	Pyuridae	
Unlikely to be observed in trawls; <i>in situ</i> observations only:			
Large xenophyophores	<i>Syringamina</i> sp.	Syringamminidae	