

viii) Reassessment of fishing activity with respect to SAI (Item 10)

The Fisheries Commission requests the Scientific Council to use Annex 1.E.V of the NCEM to guide development of their work plan related to reassessment of fishing activity with respect to Significant Adverse Impact (SAI) on VME and would note that this assessment is a single component of the broader EAF Roadmap being developed separately by Scientific Council.

Scientific Council responded:

This is a preliminary work plan to be reviewed in 2014 with regard to content and timeline.

The modified NCEM narrows the scope of assessments of bottom fishing activities, focusing them on the assessment of Significant Adverse Impacts (SAI) on Vulnerable Marine Ecosystems (VME). In this context, Scientific Council has developed a two-step work plan where a first step is centered in the review of the closures for corals, sponges and seamounts (which is due in 2014), and a second step, which builds upon the results of the first, focused on the analysis of SAI on VMEs by 2016.

Following the modifications of the NAFO Conservation and Enforcement Measures (NCEM) in 2012, Scientific Council was requested to develop a work plan to achieve the assessment of all NAFO fisheries by 2016 and every 5 years thereafter, identifying the necessary steps to be taken, as well as the information and resources to do so.

In this context, Scientific Council recognized that the review of the corals, sponges, and seamount closures schedule for 2014 is a necessary step towards the reassessments of bottom fishing activities due in 2016. Therefore, the work plan to achieve the assessments of bottom fishing was developed in two steps, an initial step describing the work towards the review of the closures in 2014, and a second step that uses the output of that review to develop the assessments of bottom fishing.

Step 1. Review of VME fishery closures 2014

A considerable body of evidence has already been reported on VME status in the NRA since 2008 and each year an up-date of the NEREIDA program analysis on VME related work has been conducted and reported. The data associated with these analyses, including RV trawl survey data, are readily available. In addition with already available data and ongoing analyses, new evidence is required through the additional processing of some of the key sample data sets, namely (organization performing action in parentheses):

1. (NEREIDA) New video analysis from the Flemish Cap closures (DFO, Canada).
2. (NEREIDA) Analysis of rock dredge samples against recently produced list of VME indicator species (IEO, Spain).
3. New Canadian and European research trawl survey data for years 2011/12/13 (IEO, Spain; DFO, Canada).
4. (NEREIDA) Box core sample species biomass layer (Cefas, UK)
5. (NEREIDA) Habitat suitability models results of VME indicator species distribution and abundance/biomass (DFO, Canada).
6. (NEREIDA) Examination of VME distributions within the wider biogeographic region of the NW Atlantic (DFO, Canada; IEO, Spain).
7. Analysis of fishing activity VMS data integrated with historic fishing effort maps to generate a map of fishing activity between 1987 and 2012 (NAFO).

Step 2. Assessment of SAI on VMEs by bottom fisheries

The tasks identified in Table 1 is a preliminary work plan to be reviewed in 2014 with regard to content and timeline. The assessment should (as far as possible) address the FAO criteria¹ for assessing Significant Adverse Impacts, namely;

- i. the intensity or severity of the impact at the specific site being affected;
- ii. the spatial extent of the impact relative to the availability of the habitat type affected;
- iii. the sensitivity/vulnerability of the ecosystem to the impact;
- iv. the ability of an ecosystem to recover from harm, and the rate of such recovery;
- v. the extent to which ecosystem functions may be altered by the impact; and
- vi. the timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its life history stages.²

Table 1. Tasks and responsible bodies for assessment of significant adverse impacts on VMEs

NCEM Assessment Task	FAO Criteria	Approach	Lead
Type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan)	i	Information and data is required to describe the fleet activities spatially and temporally. This will require integrating VMS data with information on the fishery e.g. fleet register and catch. The work undertaken to address FC Request 16 (2012) by Scientific Council contributes to this task.	STACFIS
Existing baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes can be compared	i, ii, iii	The outcome of the “review of fisheries closures” should provide much of the seabed habitat data necessary to address this task, but additional input will be required from STACFEN in relation to assessing the physical oceanography	SC WGESA/STACFEN
Identification, description and mapping of VMEs known or likely to occur in the fishing area	iii	The outcome of the “review of fisheries closures” should provide much of the necessary information. In addition further work to develop habitat suitability models for VME in the NRA will be useful	SC WGESA
Identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative	i, ii	The work undertaken to address FC Request 16 (2012) by Scientific Council contributes to this task.	SC WGESA

¹ Food and Agriculture Organization of the United Nations, International Guidelines for the Management of Deep-Sea Fisheries in the High Seas (Rome: FAO, 2009).

² *Ibid*, Para. 18.

NCEM Assessment Task	FAO Criteria	Approach	Lead
impacts of activities covered by the assessment on VMEs			
Consideration of VME elements known to occur in the fishing area	iii	The outcome of the “review of fisheries closures” should provide much of the necessary information	SC WGESA
Data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;	N/A	To be done in due course	SC WGESA
Risk assessment of likely impacts by the fishing operations to determine which impacts on VMEs are likely to be significant adverse impacts	ii, iii, iv, v	The work undertaken to address FC Request 16 (2012) by Scientific Council contributes to this task.	SC WGESA
The proposed mitigation and management measures to be used to prevent significant adverse impacts on VMEs, and the measures to be used to monitor effects of the fishing operations	N/A	To be done in due course	Joint FC/SC Working Group on the Ecosystem Approach