

PART F. FISHERIES COMMISSION AND SCIENTIFIC COUNCIL WORKING GROUP ON THE ECOSYSTEM APPROACH FRAMEWORK TO FISHERIES MANAGEMENT, 9-11 JULY 2014

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**Report of Fisheries Commission and Scientific Council Working Group on the
Ecosystem Approach Framework to Fisheries Management
(FC-SC Doc. 14/03)**

9-11 July 2014

1. Opening

The working group (WG) met at the Lord Nelson, Halifax, Canada, during 9-11 July 2014. The meeting was attended by representatives from Canada, EU, Iceland, Japan, Norway, the Russian Federation and the United States of America. The NAFO Executive Secretary, Fisheries Commission (FC) Coordinator and Scientific Council (SC) Coordinator were in attendance. An observer from World Wildlife Fund was present. The meeting was co-chaired by Robert Day (Canada) and Andrew Kenny (EU) representing FC and SC, respectively (See Part I, this volume).

The chairs opened the meeting at 0900 hrs on Wednesday, 9 July.

2. Appointment of Rapporteur

With the agreement of the WG, the FC Coordinator Ricardo Federizon and the SC Coordinator Neil Campbell were appointed as joint rapporteurs.

3. Adoption of Agenda

The previously circulated agenda was adopted with slight modification on the sequence of items: the old item 6.a.ii and 6.a.iii were reversed and item 8 was moved ahead of item 7. Russian Federation requested the opportunity to make a presentation on the splendid alfonso fishery at the Corner Seamount. It was agreed it would be discussed under item 10. The adopted agenda is presented in Part I, this volume).

4. Review of Terms of Reference

The terms of reference of the WG as documented in FC Doc. 13/19 were reviewed. The WG considered membership, work format, reporting procedures, observers and future meetings. Proposed revisions to the Terms of Reference (ToR) are presented in Annex 3. It incorporates the comments from SC during its June 2014 meeting and the recommendation recognizes the need to consider the Risk Based Management Strategies WG ToR to ensure coherence.

5. Engagement with Canada-Newfoundland and Labrador Offshore Petroleum Board

The FC co-chair provided an update on the NAFO submission (submission agreed to at the 2013 Annual Meeting) to the development of the Eastern Newfoundland Strategic Environment Assessment (SEA) which is being conducted by the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB). NAFO comments on the draft SEA were submitted in April 2014. The comments were drafted by the co-Chairs and endorsed by the General Council (GC).

The Secretariat informed participants that after the submission of the comments, additional fisheries information (previously published) were provided to C-NLOPB at their request.

The European Union noted that communication between their research vessel and C-NLOPB's seismic research company has occurred by exchanging details of planned surveys.

Japan noted the interaction between the seismic and fisheries surveys might have occurred in 2013, i.e. large noises by seismic surveys may have caused disruptions in the Greenland halibut surveys resulting in very low CPUE. Due to this low CPUE, SC in 2014 had declared "occurrence of exceptional circumstances" by following the Management Strategy Evaluation (MSE) protocol. Japan further noted that such potential detrimental influences should be monitored carefully.

The SEA is expected to be released in July and August. The WG will track the development of the SEA but will not itself engage directly in any future processes without direction from GC.

6. Consideration of Scientific Advice

a) Review of Vulnerable Marine Ecosystems (VMEs) and fishery closures

At the 2013 Annual Meeting, FC requested SC for scientific advice on VMEs. SC formulated the advice during its 2014 June Meeting (SCS Doc. 14/17). The advice draws on the work of the SC WG on Ecosystem Science and Assessment which met in November 2013 (SCS Doc. 13/24).

The SC co-chair presented the advice on behalf of SC.

i) Summary of data available for identification of VMEs (Request 13a)

The SC co-Chair presented the method of *kernel density analysis* and noted that currently the best approach in identifying VMEs is the application of this method on the data (the detailed metadata can be found in pages 36-38 of SCS Doc 14/17). This analysis identifies “hotspots” in the biomass distribution derived from research vessel trawl survey data, by looking at natural breaks in the spatial distribution associated with changes in local density. These natural breaks allow defining of significant area polygons. The method identifies potential areas of VMEs according to the definition, however has limited spatial resolution, in particular, the delineation of borders for the VME areas are uncertain. If to be used as a basis for making management decisions, e.g. on the closing or opening of areas, these results are to be regarded as a first step. It would be expected that depth contours, type of substrate, current and temperature fields, etc. will shape the fine scale boundary.

Significant discussion ensued on clarifying how the kernel density approach was used to identify hotspots within which it was probable that VMEs would occur but did not actually delineate the boundaries of VMEs.

ii) Occurrence of sea pens around Areas 13 and 14 (Request 15)

SC advice: The available data, including information from the 2013 EU-Spain and Portugal Flemish Cap survey, indicates that areas 13 and 14 are located within the easternmost seapen VME unit of the seapen VME system. Within this unit, three high concentration locations have been identified, two corresponding to the candidate closures, and a third one located in between them, as well as several seapen observations of lower density. This seapen VME unit also encompasses locations of other VME indicator species (crinoids), as well as black corals.

Details of this advice can be found in pages 52- 53 of the SCS Doc. 14/17.

The WG noted that discussions on the candidate Areas 13 and 14 were initiated in the FC WG of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME), the predecessor of this WG. The debate – whether the latest survey information and scientific advice warrant some VME protection management measures, e.g. closure, applied to candidate Areas 13 and 14 – remains unresolved. In this regard, the WG would recommend that FC and SC support the continuing analysis by this WG and that this does not preclude FC from considering possible closure if proposals are made at the Annual Meeting (see item 9).

iii) Extent of current closures and areas for prioritization (Request 13b)

The SC review of the current closures including seamounts is contained in pages 38 – 53 of SCS Doc 14/17. In the review new polygons were drawn indicating where the evidence of VMEs was located. It was emphasized that the polygons were not necessarily proposed closure boundaries but rather hot spots where VMEs could be located, as noted in 6.a.i.

Within the list comprising the current closures, a new area (Tail of the Grand Bank) and two candidate areas (Area 13 and 14), SC identified some high priority (Areas 3 and 4, candidate Areas 13 and 14, and the new area). The details of the existing closed area designation are described in Chapter II of the NAFO Conservation and Enforcement Measures (NCEM). Prioritization was based on multiple VME presence, approximate proportion of the VME that is protected, proximity to an existing area, proximity to high fishing activity, and areas with no current protection (page 50-51 of SCS Doc. 14/17).

The WG noted significant protection of the identified VMEs has been achieved. Yet, some further work can be considered. The WG considered the SC priority list and took note of the presence of VME indicator species adjacent to the existing 3O closure. It was acknowledged area 3O and new area “Tail of the Grand Bank” in the list would entail considerable further work. As short term priorities, Areas 3 (Beothuk Knoll) and 4 (Eastern Flemish Cap) were recommended (see item 9).

Regarding the management recommendations on revised and new areas (Recommendation 6) and encounter thresholds (Recommendation 8), Japan noted: *Japan has some reservations and different views on these two issues (additional closed areas and threshold values), although Japan does not wish to block these recommendations. Japan basically prefers to apply “move-on rules with encounter thresholds” to protect SAI to VME for the following three reasons: (a) In NAFO Convention Area, there have been a number of sporadic and patchy closed areas, which make operations difficult. From recent meeting of the WG Bycatch, Discards and Selectivity, it was also anticipated that more fine scale time-area closed areas will be established to mitigate bycatch and discards in the near future. This may create further difficulty to conduct operations as vessels might mistakenly make operations in closed area. (b) At present, CCAMLR, SEAFO, NEAFC and NPFC (near future) effectively apply “move-on rules with encounter thresholds”, in addition to existing closed areas. Move-on rules are simple, i.e., vessels just keep away 2 nautical miles (NM) from the points where VME exceeding threshold values and then closed areas are instantaneously established and (c) Similar exercise has been also effectively in place in NAFO and Canada, i.e. 10 NM move-away-rule to avoid exploiting excess bycatch and discards.*

Regarding the seamount closures, it was noted the management regimes governing unfished bottom areas (as defined in Chapter II of the NCEM, outside of the fishing footprint) and fisheries in seamount areas are identical, i.e. both are subject to the exploratory bottom fishing protocol. As the fisheries associated with these areas might be different, consideration for different management regimes might be warranted.

In noting the SC advice on seamounts (see page 49-50 of SCS Doc. 14/17), some debate has ensued as to whether management measures concerning fisheries stocks associated with seamounts may be warranted. The WG indicated that FC be mindful of the following points when considering the management of seamount fisheries:

- a. Some CPs proposed that all ongoing fisheries taking place on seamounts should require 100% observer coverage in light of the knowledge and information gaps of the use of midwater trawl on seamount. Some CPs noted that in practice this is currently the case,
- b. Some CPs proposed that any proposed new or expanded midwater trawl fishing activity on the NAFO seamounts outlined in Article 16.1, be subject to the exploratory fisheries protocol outlined in Article 18,
- c. Some CPs expressed a view that the splendid alfonsino fishery be subject to NAFO management.

iv) Consideration of removing candidate VME closures from survey design (Request 14)

SC reported limited progress on this issue. However, it has recognized the issue of scientific surveys potentially impacting VMEs. SC suggested some points for consideration in minimizing the risk of impacts (see page 52 of SCS Doc. 14/17).

The WG noted that the pros and cons must be balanced: whereas repeated surveys might impact VMEs, the benefits of having long time-series scientific data should not be ignored. The WG encouraged SC to continue to explore measures to mitigate the risk of significant adverse impacts on VMEs from research surveys.

b) Significant Adverse Impact (SAI) on VME elements

i) Risk assessment for SAI on VME elements and species (Request 12)

The WG noted the following SC response to the FC request: Scientific Council notes that work on significant adverse impacts on VME is on-going and that final results are not due until 2016, and indicates that good progress is being made. These analyses involved the production of fishery pressure layers based on VMS data, and VME biomass layers from RV surveys. Preliminary results indicated the important fractions of the recent effort are exerted in relatively small regions within the fishing footprint, and at least for some areas, this fishing effort seems to be concentrated in the near neighborhood of VMEs, suggesting a potential functional connection between some VMEs and commercially exploited fish species. This and other issues will continue to be explored as part of the process of developing the assessment of bottom fishing activities due in 2016. Specifically, the adopted approach has to be refined to take account of known and predicted VME habitat evaluated as part of the review of fishery closures (see page 33 of the SCS Doc. 14/17).

ii) Workplan towards the assessment of NAFO bottom fisheries by 2016

The WG noted the SC-developed workplan which can be found in page 32 of the SCS Doc 14/17. In the workplan, specific tasks, the relevant FAO criteria (the six factors to be addressed when determining the scale and SAI, as enumerated in paragraph 18 of the FAO *International Guidelines for the Management of Deep-Sea Fisheries in the*



High Seas), approach, and the lead body (e.g. SC and its standing committees and working groups) are identified. This WG was identified as the lead in task 8 – proposed mitigation and management measures to be used to prevent SAI on VMEs.

The workplan was noted as being ambitious. SC clarified that many of the tasks identified in the table are in the various stages of accomplishment and that it can be considered that four or five criteria have already been fulfilled. The focus of SC work has been the review of VMEs and it is now moving into the SAI phase. The WG requested that SC continue to provide annual updates on progress of this review including the methods it is employing.

7. Review of the provisions of Chapter II: – Bottom Fisheries in the NAFO Regulatory Area --- of the NAFO Conservation and Enforcement Measures (NCEM) for the implementation of Article 24; and recommendations to the Fisheries Commission

The precursor of this WG, the FC WGFMS-VME, conducted a review and update on Chapter II provisions of the NCEM in 2012. STACTIC is also undertaking an editorial review of the provisions. The UN General Assembly will conduct a review of the implementations of Resolution 61/105 in 2015. In view of these, it was agreed that it would not be necessary at this time to conduct an in-depth review of the provisions that would entail substantive changes. Instead, the WG could focus on the time-sensitive provisions and determine whether they need to be updated accordingly. It was noted that the NCEM are updated on an annual basis to reflect decisions taken by FC at the annual meeting to update management measures. It was also noted that references in Chapter II of the NCEM to the precursor WG should be replaced with this WG.

Regarding STACTIC's editorial review of the provisions, Japan commented that the STACTIC proposed revision of Article 22.1.b and Article 22.2.b – concerning the SC's advice on the need for action, using the FAO *International Guidelines for the Management of Deep-Sea Fisheries in the High Seas* as a basis – weakens the role of the FAO Guidelines. NAFO should follow the FAO Guidelines in defining and identifying VMEs as described in page 39 of the June 2014 SC Report. Japan suggested that this should be discussed in the forthcoming Annual Meeting at FC.

Recommendations 1-4 and 13-14 in item 9 relate to the considerations mentioned above.

8. Input and guidance on the development and application of Ecosystems Approach to Fisheries (EAF) Roadmap

a) Overview of the EAF Roadmap: purpose and goals

The FC Co-Chair highlighted sections in the amended NAFO convention, the FAO Technical Guidelines for Responsible Fisheries: Fisheries Management-2. The Ecosystem Approach and 2011 NAFO Performance Review Recommendations which relate to EAF as a prelude to the SC's presentation of the EAF Roadmap.

A representative from SC presented the EAF Road Map (Annex 4).

b) Operational expectations

This sub-item was discussed together with sub-item a).

c) Consideration of workplan and prioritization

The WG noted the comprehensive coverage of the EAF Roadmap and of the workplan (see slides 8-17 in Annex 4). As a way forward, the WG noted that priorities need to be established to allow allocation of scarce resources. The intention was not to revise the road map but to identify areas for priority work to occur. In Annex 5, the recommended priority areas and their associated tasks were grouped into four headings and timelines were identified:

- External impacts on ecosystem productivity (medium term)
- VMEs and impact s of bottom fishing (ongoing to short term for VMEs, short term for SAI)
- Multispecies interactions (medium term)
- Bycatch and discards (short term, ongoing).

9. Recommendations to forward to Fisheries Commission and Scientific Council

Recognizing the ground-breaking work, significant achievements and ongoing efforts made by NAFO on the identification of VMEs and development of the ecosystem approach to fisheries management, the WG recommends:

1. That the FC maintains the delineated seamounts areas identified in Chapter II, Article 16.1 of the NCEM (Delete or amend “*Until 31 December 2014*”).
2. That the FC maintains the Div. 3O closure identified in Chapter II, Article 16.4 of the NCEM (Delete or amend “*Until 31 December 2014*”).
3. That the FC maintains the closures identified in Chapter II, Article 16.5 of the NCEM (Delete or amend “*Until 31 December 2014*”).
4. That the FC considers deleting Article 16.6 recognizing that the NCEM are regularly updated and the ongoing review envisioned by Article 23.
5. That the FC considers deleting or amending Article 24 (Review) considering the ongoing review and update of the NCEM in general.
6. Recognizing that the scientific advice also noted some gaps in the protection of VMEs, that the FC considers adjustments to Area 4 (Southeastern Flemish Cap – sponge and large gorgonians), and new area 15 (Beothuk Knoll - large gorgonians) (see Annex 6 for maps).
7. That the FC and SC support continuing analysis by the WG of areas on the Tail of the Grand Bank (Div. 3O closure and related areas) (See Annex 6 for maps).
8. That the FC and SC support continuing analysis by the WG of areas 13 and 14 (Eastern Flemish Cap), and FC consider possible closed areas, if proposals are made at the Annual Meeting (see Annex 6 for maps).
9. That the FC further considers whether to withdraw the encounter thresholds within the fishing footprint, taking into account the scientific advice, the review of VME closures and the review of UNGA 61/105 in 2015.
10. That priority attention by FC and SC and their constituent bodies be given to the areas identified in Annex 5 that include external factors (e.g. climate change and oil and gas development), bycatch and discards, multispecies interactions, and VMEs including concluding the assessment of bottom fisheries for 2016.
11. That FC and SC consider the revised Terms of Reference at their September 2014 joint session and have FC and SC adopt the revisions in their respective meetings (see Annex 3). Consideration could also be given to making terms of reference consistent across all joint FC-SC working groups.
12. Request that the SC provide annual updates to the FC-SC Working Group on Ecosystem Approach Framework to Fisheries Management pertaining to the 2016 review of significant adverse impacts of NAFO bottom fisheries on VMEs in the NRA.
13. That the FC amend the text of the NCEM to reflect the replacement of the FC WG-VME with the Joint FC-SC WG-EAFFM,
14. Article 23.1 of the NCEM be rephrased such that the “*Fisheries Commission will request Scientific Council...*”.

10. Other Matters

a) Corner Rise Seamount and the Alfonsino fisheries

The Russian Federation made a presentation on Corner Rise Seamount and the alfonsino fisheries (Annex 7). The summary of the discussion arising from the presentation is also captured in item 6.a.iii.

b) Convention on Biological Diversity

At the request of WG participants, for information purposes, a Canadian representative presented the report of the Convention on Biological Diversity - Northwest Atlantic Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas which was held in Montreal Canada in March 2014 (Annex 8).



c) Dr Enrique de Cardenas (Quique) Retirement

It came to the attention of the WG that a colleague in the SC and in the NEREIDA project, Dr. Enrique de Cardenas, is about to retire. On behalf of the WG, Ricardo Alpoim, as well as the SC WG co-Chair and Ellen Kenchington, delivered the best wishes greetings with the recognition of his significant contributions to the SC and the NEREIDA project (Annex 9).

11. Adoption of Report

This meeting report was adopted by correspondence.

12. Adjournment

The meeting adjourned at 1500 hrs on 11 July. The chairs thanked the participants for their cooperation and input and the Secretariat for its support. The participants in turn expressed their thanks to the Chairs for their leadership.