Northwest Atlantic Fisheries Organization (NAFO)



Meeting Proceedings of the General Council and Fisheries Commission for 2012/2013

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Foreword

This issue of the Proceedings contains the reports of all meetings of the General Council (GC) and Fisheries Commission (FC) including their subsidiary bodies held in the twelve months preceding the Annual Meeting in September 2013 (between 1 September 2012 and 31 August 2013). This follows a NAFO cycle of meetings starting with an Annual Meeting rather than by calendar year.

This present 2012/2013 issue is comprised of the following sections:

SECTION I contains the Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME), 11–13 September 2012, Bergen, Norway.

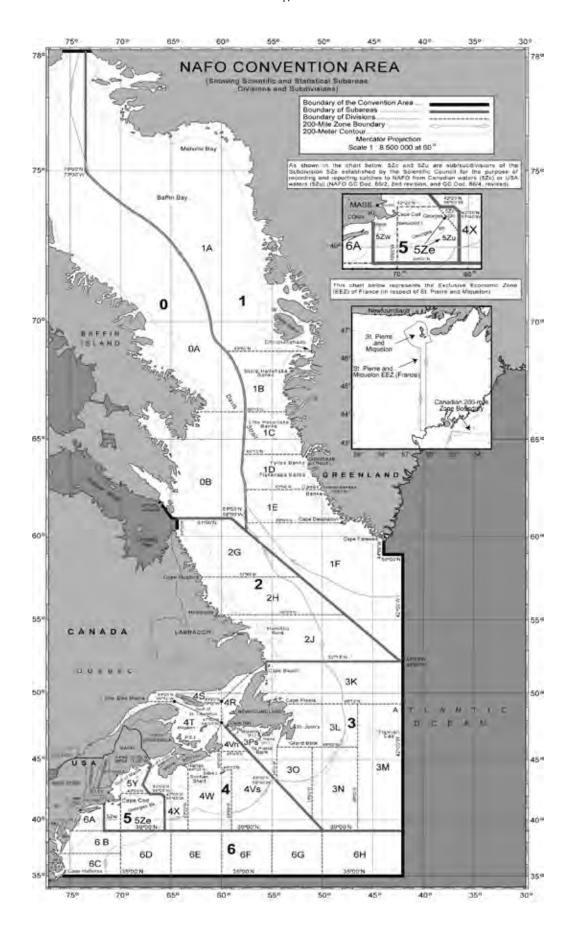
SECTION II contains the Report of the General Council including its subsidiary body (STACFAD, 34th Annual Meeting, 17–21 September 2012, St. Petersburg, Russian Federation.

SECTION III contains the Report of the Fisheries Commission including its subsidiary body (STACTIC), 34th Annual Meeting, 17–21 September 2012, St. Petersburg, Russian Federation.

SECTION IV contains the Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME), 23–25 April 2013, Halifax, Nova Scotia, Canada.

SECTION V contains the Report of the Standing Committee on International Control (STACTIC), 7–9 May 2013, London, UK.

SECTION VI contains the Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS), 9–11 July 2013, Saint-Pierre et Miquelon.



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Structure of the Northwest Atlantic Fisheries Organization (NAFO)

(as at 01 August 2013)

Contracting Parties

Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), European Union (EU), France (in respect of Saint-Pierre et Miquelon), Iceland, Japan, Republic of Korea, Norway, Russian Federation, Ukraine and United States of America (USA).

President

Veronika Veits (ELI)

	Veronika Veits (EU)	
	Constituent Bodies	
General Council	Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), EU, France (in respect of Saint-Pierre et Miquelon), Iceland, Japan, Republic of Korea, Norway, Russian Federation, Ukraine and USA.	Chair – Veronika Veits (EU) Vice-Chair – Stephane Artano (France in respect of Saint-Pierre et Miquelon)
Scientific Council	Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), EU, France (in respect of Saint-Pierre et Miquelon), Iceland, Japan, Republic of Korea, Norway, Russian Federation, Ukraine and USA.	Chair – Carsten Hvingel (Norway) Vice-Chair – Don Stansbury (Canada)
Fisheries Commission	Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), EU, France (in respect of Saint-Pierre et Miquelon), Iceland, Japan, Republic of Korea, Norway, Russian Federation, Ukraine and USA.	Chair – Sylvie Lapointe (Canada) Vice-Chair – Temur Tairov (Russian Federation)
	Standing Committees	
General Council	Standing Committee on Finance and Administration (STACFAD)	Chair – Deirdre Warner-Kramer(USA) Vice-Chair – vacant
Scientific Council	Standing Committee on Fishery Science (STACFIS)	Chair – Jean-Claude Mahé (EU)

Standing Committee on Research Chair – Don Stansbury (Canada)

and Coordination (STACREC)

Standing Committee on Chair - Margaret Treble (Canada

Publications (STACPUB)

Standing Committee on Fisheries Chair - Gary Maillet (Canada)

Environment (STACFEN)

Fisheries Standing Committee on Chair – Gene Martin (USA)

Commission International Control (STACTIC) *Vice-Chair* – Aronne Spezzani (EU)

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Executive Secretary Vladimir Shibanov

Deputy Executive Secretary /

Senior Finance and Staff Administrator Senior Fisheries Commission Coordinator Scientific Council Coordinator

Senior Personal Assistant to the Executive Secretary Administrative Assistant to the Executive Secretary

Senior Information Officer

Senior Fisheries Information Manager

IT Manager Office Manager **Publications Manager** Database Manager NAFO Intern (Feb-May) NAFO Intern (May-Dec)

Stan Goodick Ricardo Federizon Neil Campbell

Bev McLoon (to 31 Mar 2013) Tracey Ward (from 25 Mar 2013)

Barb Marshall Cindy Kerr Matthew Kendall Lisa LeFort Alexis Pacey

Mark Harley (from 15 April 2013)

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SECTION I

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Report of the Fisheries Commission Fisheries Commission Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME)

11-13 September 2012 Bergen, Norway

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Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME)

(FC Doc. 12/30)

11–13 September 2012 Bergen, Norway

1. Opening

The Chair Bill Brodie (Canada) opened the meeting, which was held at the Norwegian Directorate of Fisheries, Bergen, at 1000hrs on Tuesday, 11 September 2012. He welcomed the participants from Canada, European Union, Norway, Russian Federation, and the USA, as well as the Scientific Council (SC) Chair (Annex 1).

2. Appointment of Rapporteur

Ricardo Federizon (NAFO Secretariat) was appointed Rapporteur.

3. Adoption of Agenda

The provisional agenda as previously circulated was adopted (Annex 2).

4. Detailed list of VME indicator species and possibly other VME elements

Drawing on the recommendation from this WG regarding the creation of a detailed list of Vulnerable Marine Ecosystems (VME) indicator species and other VME elements, the Fisheries Commission in September 2011 requested the SC to produce the list. In response, the SC at its June 2012 meeting produced the list basing it on the work of the SC WG on Ecosystem Approach to Fisheries Management (SC-WGEAFM) which met on December 2011 (see pages 37-39 of SCS Doc 12/19).

The SC Chair presented the list of VME indicator species and VME elements (Annex 3). It was noted that in the creation of the list the criteria set forth in the FAO *International Guidelines for the Management of Deep-sea Fisheries in the High Sea* was used. The black coral, although considered "iconic", did not satisfy the criteria in becoming a VME indicator species and thus it is not in the list. It was also noted that the initial intent of the list of VME elements was to inform assessments and not necessarily to establish closures.

The WG agreed to forward the list of VME indicator species and other VME elements to FC with a recommendation for adoption. The list would be included as an Annex in the NAFO Conservation Measures (NCEM) and would be used in conjunction with the provisions in Chapter II of the NCEM – Bottom Fisheries in the NAFO Regulatory Area. Definition of the terms *VME indicator species* and *VME element*" in the NCEM was subsequently updated (see Annex 11).

5. GIS model for the evaluation of bycatch thresholds for sponges and other VME-defining species (e.g. corals)

As requested by FC, the SC developed the GIS model for the evaluation of bycatch thresholds for corals. The SC Chair presented the results (Annex 4; see also pages 39-43 of the SCS Doc 12/19).

The evaluation revealed that both sponges and sea pens produced similar distribution patterns between the actual and simulated fishing by catch. If a 300 kg sponge encounter threshold were in place in 2010, approximately 0.6% of the 2010 VMS-derived trawls would meet this threshold. Similarly for the sea pens, a 7 kg encounter threshold would have affected approximately 0.4% of the VMS-derived trawls.

It was emphasized that the 300- and 7-kg threshold values were used as an illustration of the probabilities of encounters that would trigger the application of move-on rules (see item 6 below).

The WG endorsed the approach of using GIS-model and highlighted the importance of providing the VMS data to the SC. The SC indicated that it would continue utilizing the GIS model in the coming year for the evaluation of bycatch thresholds for large and small gorgonians.

6. Encounter thresholds and move-on rules for groups of VME indicators including sea pens, small and large gorgonian corals, and sponge grounds

In September 2011, FC requested SC to make recommendations for encounter thresholds and move-on rules for

groups of VME indicators including sea pens, small gorgonian corals, large gorgonian corals, sponge grounds and any other VME indicator species that meet the FAO Guidelines.

The SC Chair presented the response to the request (Annex 5; see also pages 43-46 of SCS Doc 12/19). SC recommends 300 kg of sponge per commercial tow (based on the median tow length of 13.8 nm as determined from the 2010 VMS) as the encounter thresholds for sponge grounds. For sea pens, the recommended threshold is 7 kg per commercial tow.

SC noted that sponge grounds are localized in narrow bands along the slope of the Grand Bank and Flemish Cap and their distribution extends to deep waters. It considers move-on rules on slope areas requiring the vessel to move to shallower areas as this will provide the highest likelihood of movement out of sponge grounds. For sea pens the potential move-on rules should include a requirement to move towards shallower waters. SC recognized that the move-on rules are complex and therefore unlikely to be put in practice.

SC noted that the encounter thresholds are a very useful tool to identify VMEs in areas where there is little survey information and the fishing activity is the main source of data. As the locations of benthic VMEs become increasingly well-defined in the NAFO Regulatory Area (NRA) to support informed management though closed areas the need to implement encounter protocols gradually becomes redundant. SC considers a management through the closing of areas with significant concentrations of VMEs is the most effective measure for protecting VMEs in the NRA as it would avoid issues associated with the implementation of complex move-on rules.

The WG took note of the SC advice. It recognized practical difficulties associated with 7-kg sea pen threshold. Considering the distribution of sea pens, the WG recommends the consideration of additional area closures to protect significant concentrations of sea pends and/or introduce a 7 kg encounter threshold inside the footprint. Threshold recommendations to be forwarded to FC are presented in Annex 6.

7. Consideration of a comprehensive map of the location of VME indicator species and elements in the NRA for impact assessments

The WG produced a compilation of maps of the location of VME indicator species and elements in the NRA (Annex 7). Separate plots of the footprint and of the closed areas were included in the compilation. The maps were based on the ones that were produced by SC in response to the FC request in September 2011 (see also pp. 46-50 of the SCS Doc 12/19).

8. Workplan for the reassessments of NAFO bottom fisheries by 2016 and every 5 years thereafter

Reference was made to FC Doc 11/12 which specifies that reassessment of NAFO bottom fisheries will be reassessed in 2016 and every 5 years thereafter. FC in preparation for the reassessments requested SC to develop a workplan for completing the initial reassessment and identifying the resources and information to do so. The SC response to the request is presented in Annex 8 (see also pp. 50-52 of SCS Doc 12/19).

SC noted that many of the elements required for a fisheries assessment in the NCEM are also included in its "Roadmap for the development of an ecosystem approach to fisheries for NAFO" ("Roadmap to EAF"). It proposes the structure of fisheries assessment to be completed by 2016 to be organized in such a way that it would directly map onto the "Roadmap to EAF".

In line with the proposed framework and workplan and in recognition that the assessment of Significant Adverse Impact (SAI) is an element of EAF, the WG agreed to revise Annex I.E Part V of the NCEM (Annex 9).

The WG recognized that in the further development and consolidation of the EAF Roadmap, there is a need to modify the TOR of this WG to expand its mandate and include broader aspects of EAF. The WG agreed to forward a recommendation to this effect (Annex 10).

Also, the WG noted that the scheduled 2016 reassessment and every 5 years thereafter are not stipulated in the NCEM. It was agreed to revise Article 19.5 of the 2012 NCEM to reflect this schedule. This revision now appears as Article 20bis paragraph 2 in the draft revision of Chapter II provisions (Annex 11).

9. Interpretation of the NCEM provisions on Exploratory Fishing

Provisions in Chapter II, particularly Articles 18.2 and Annex I.E Part IV of the NCEM, are ambiguous with regards to requirements for CPs and their vessels intending to engage in exploratory fisheries. It is not clear whether exploratory fisheries can proceed without prior assessment by SC and FC.

The WG noted that the intention of the Chapter II provisions is the requirement of prior assessment. In this regard relevant articles and some definition of terms were revised. The revisions are reflected in Annex 11. It was agreed that these will be forwarded to FC with a recommendation for adoption. The clarified process --- from the application of CP to engage in exploratory fisheries to the submission of the exploratory fishing report, and their assessment by FC and SC --- is illustrated in Figure 1.

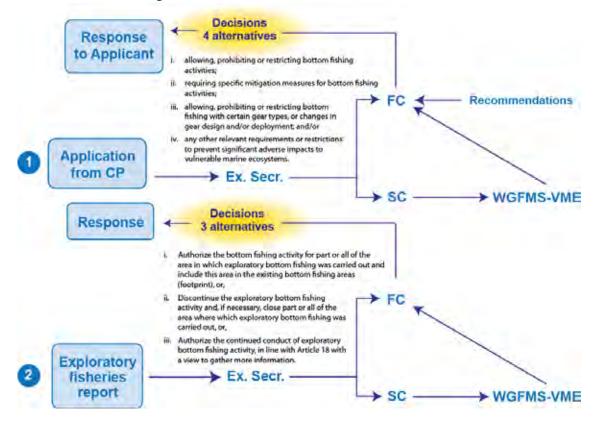


Fig. 1. Flowchart describing the Exploratory Fisheries process.

10. Update from SC on its proposed Roadmap for developing an ecosystem approach to fisheries

The SC-WGEAFM was established in 2008 with the aim of establishing plans and methods for implementing at a practical level the EAFM in the NAFO Regulatory Area. It has had 4 meetings and undertaken in collaboration with the Spanish-led NEREIDA program a considerable amount of inter-sessional assessment work. A conceptual framework has been defined which highlights the essential elements of EAF and how these relate to the fisheries assessment and management needs. From this a number of priority tasks have been identified to support the fisheries assessment needs required by 2016. This includes proposals to define areas of actual and potential fishing activity, combined with an assessment of Significant Adverse Impacts and ecosystem risk.

11. Recommendations to be forwarded to the Fisheries Commission

The following are the agreed recommendations to be forwarded to the FC:

Lists of VME indicator species and elements

 The WG recommends that the list of VME indicator species and VME elements prepared by the Scientific Council (Annex 3) be adopted in conjunction with the proposed revisions to Article 15 of the 2012 NCEM, as contained in FCWG-VME Working Paper 12/3 Revision 4 (Annex 11). These tables should be appended as Annexes in the NCEM.

Assessment of bottom fishing activities

- 2.1 The WG recommends that FC request SC use the revised Annex I.E.V of the NCEM to guide development of their workplan 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 SC.
- 2.2 The WG recommends the adoption of the proposed Annex I.E.V of NCEM as contained in WG WP 12/5 Revised (Annex 9).

Exploratory Fishing

3. The WG recommends the adoption of the revised provisions relating to Exploratory Fishing in Chapter II of the NCEM, as contained in FCWG-VME Working Paper 12/3 Revision 4 (Annex 11).

Thresholds (see Annex 6; FCWG-VME Working Paper 12/7 Revised)

- 4.1. The WG recommends 60 kg of corals excluding sea pens, inside and outside the footprint.
- 4.2. The WG recommends that FC consider adopting revised encounter thresholds outside the fishing footprint of 7 kg of sea pens and 300 kg for sponges.
- 4.3. The WG recommends that the FC, considering the distribution of sea pens and the practical considerations associated with a value of 7 kg for a threshold, consider additional area closures to significant concentration of sea pens, and/or introduce a 7 kg threshold inside the footprint.
- 4.4. The WG recommends 300 kg threshold for sponges inside the fishing footprint. This measure should be reviewed if refinements to the existing closures take place.

Working Group Terms of Reference, Fisheries re-assessment (Annex 10; FCWG-VME Working Paper 12/6 Revision 2)

5. Recognizing that the Performance Review Panel has noted the usefulness of increasing communication between SC and FC, and recommended further development and consolidation of the EAF Roadmap, the WG recommends that FC modify the Terms of Reference for this WG to expand its mandate to include broader aspects of EAF as part of the future dialogue between SC and FC.

12. Other Matters

There was no other matter to discuss.

13. Adoption of Report

This report was adopted through correspondence after the meeting.

14. Adjournment

The meeting was adjourned at 1730 hrs on Thursday, 13 September 2012. The Chair thanked Norway for hosting the meeting and providing excellent facilities, the participants for their input, and the Secretariat for its excellent service.

The Chair indicated that he has been in the position since the inception of the WG in 2008 and that he is stepping down in September 2012. The participants expressed their great appreciation and noted the achievements of the WG during his leadership.

Annex 1. List of Participants

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Annex 2. Agenda

- 1. Opening of the Meeting
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Detailed list of VME indicator species and possibly other VME elements
- 5. GIS model for the evaluation of bycatch thresholds for sponges and other VME-defining species (e.g. corals)
- 6. Encounter thresholds and move-on rules for groups of VME indicators including sea pens, small and large gorgonian corals, and sponge grounds
- 7. Consideration of a comprehensive map of the location of VME indicator species and elements in the NRA for impact assessments
- 8. Workplan for the reassessments of NAFO bottom fisheries by 2016 and every 5 years thereafter
- 9. Interpretation of the NCEM provisions on Exploratory Fishing
- 10. Update from SC on its proposed Roadmap for developing an ecosystem approach to fisheries
- 11. Recommendations to be forwarded to the Fisheries Commission
- 12. Other Matters
- 13. Adoption of Report
- 14. Adjournment

Annex 3. VME indicator species and elements (from pages 37-39 of SCS Doc. 12/19)

Table 1. List of VME Indicator Species.

Benthic Invertebrate V	ME Indicator Species		
Common name of taxonomic group	Known Taxon	Family	Phyllum
Large-sized sponges			Porifera
	Iophon piceum	Acarnidae	
	Stelletta normani	Ancorinidae	
	Stelletta sp.	Ancorinidae	
	Stryphnus ponderosus	Ancorinidae	
	Axinella sp.	Axinellidae	
	Phakellia sp.	Axinellidae	
	Esperiopsis villosa	Esperiopsidae	
	Geodia barretti	Geodiidae	
	Geodia macandrewii	Geodiidae	
	Geodia phlegraei	Geodiidae	
	Mycale (Mycale) lingua	Mycalidae	
	Thenea muricata	Pachastrellidae	
	Polymastia spp.	Polymastiidae	
	Weberella bursa	Polymastiidae	
	Weberella sp.	Polymastiidae	
	Asconema foliatum	Rossellidae	
	Craniella cranium	Tetillidae	
Stony corals (known seamount	Lophelia pertusa	Caryophylliidae	Cnidaria
species may not occur in	Solenosmilia variabilis	Caryophylliidae	
abundance in the NRA)	Enallopsammia rostrata	Dendrophylliidae	
	Madrepora oculata	Oculinidae	
Small gorgonian corals	Anthothela grandiflora	Anthothelidae	Cnidaria
	Chrysogorgia sp.	Chrysogorgiidae	
	Radicipes gracilis	Chrysogorgiidae	
	Metallogorgia melanotrichos	Chrysogorgiidae	
	Acanella arbuscula	Isididae	
	Acanella eburnea	Isididae	
	Swiftia sp.	Plexauridae	
	Narella laxa	Primnoidae	

Large gorgonian corals	Acanthogorgia armata	Acanthogorgiidae	Cnidaria
	Iridogorgia sp.	Chrysogorgiidae	
	Corallium bathyrubrum	Coralliidae	
	Corallium bayeri	Coralliidae	
	Keratoisis ornata	Isididae	
	Keratoisis sp.	Isididae	
	Lepidisis sp.	Isididae	
	Paragorgia arborea	Paragorgiidae	
	Paragorgia johnsoni	Paragorgiidae	
	Paramuricea grandis	Plexauridae	
	Paramuricea placomus	Plexauridae	
	Paramuricea spp.	Plexauridae	
	Placogorgia sp.	Plexauridae	
	Placogorgia terceira	Plexauridae	
	Calyptrophora sp.	Primnoidae	
	Parastenella atlantica	Primnoidae	
	Primnoa resedaeformis	Primnoidae	
	Thouarella grasshoffi	Primnoidae	
Sea pens	Anthoptilum grandiflorum	Anthoptilidae	Cnidaria
	Funiculina quadrangularis	Funiculinidae	
	Halipteris cf. christii	Halipteridae	
	Halipteris finmarchica	Halipteridae	
	Halipteris sp.	Halipteridae	
	Kophobelemnon stelliferum	Kophobelemnidae	
	Pennatula aculeata	Pennatulidae	
	Pennatula grandis	Pennatulidae	
	Pennatula sp.	Pennatulidae	
	Distichoptilum gracile	Protoptilidae	
	Protoptilum sp.	Protoptilidae	
	Umbellula lindahli	Umbellulidae	
	Virgularia cf. mirabilis	Virgulariidae	
Tube-dwelling anemones	Pachycerianthus borealis	Cerianthidae	Cnidaria
Erect bryozoans	Eucratea loricata	Eucrateidae	Bryozoa
Sea lilies (Crinoids)	Trichometra cubensis	Antedonidae	Echinoderma
	Conocrinus lofotensis	Bourgueticrinidae	
	Gephyrocrinus grimaldii	Hyocrinidae	

Sea squirts	Boltenia ovifera	Pyuridae	Chordata
	Halocynthia aurantium	Pyuridae	

Table 2. List of VME indicator elements.

Physical VME indicator elements		
Seamounts	Fogo Seamounts (Div. 3O, 4Vs)	
	Newfoundland Seamounts (Div. 3MN)	
	Corner Rise Seamounts (Div. 6GH)	
	New England Seamounts (Div. 6EF)	
Canyons	Shelf-indenting canyon; Tail of the Grand Bank (Div. 3N)	
	$Canyons\ with\ head > 400\ m\ depth;\ South\ of\ Flemish\ Cap\ and\ Tail\ of\ the\ Grand\ Bank\ (Div.\ 3MN)$	
	Canyons with heads > 200 m depth; Tail of the Grand Bank (Div. 30)	
Knolls	Orphan Knoll (Div. 3K)	
	Beothuk Knoll (Div. 3LMN)	
Southeast Shoal	Tail of the Grand Bank Spawning grounds (Div. 3N)	
Steep flanks > 6.4°	South and Southeast of Flemish Cap. (Div. 3LM)	

Annex 4. GIS modeling of VME indicator species encounters using VMS data (pages 39-43 of SCS Doc. 12/19)

GIS modeling of sponge encounters using VMS data (Item 16)

Fisheries Commission requested:

Given the progress made by Scientific Council on the development of the GIS model for the evaluation of bycatch thresholds for sponges as requested by Fisheries Commission in its 2010 Annual Meeting, and mindful of the need for further refining this modeling framework, as well as exploring its potential utility for its application to other VME-defining species, Fisheries Commission requests the Executive Secretary to provide to the Scientific Council anonymous VMS data in order to further develop the current sponge model as requested by the Fisheries Commission in 2010 and to assess the feasibility of developing similar models for other VME-defining species (e.g. corals).

Scientific Council responded:

The GIS model was refined to include 2010 VMS fishing effort data to generate realistic commercial trawl by-catch estimates for sponge and sea pens. Scientific Council notes the great value that the 2010 VMS data has added to the GIS modeling work and, in particular, to the estimation of biologically-based encounter thresholds. Scientific Council requests that all VMS be made available to update the model and to apply the procedure to estimate encounter thresholds for small and large gorgonian VME indicator species (see response to Request 17 below).

Model Developments

The model was used to identify when a commercial vessel has encountered an aggregation of VME indicator species using data from research vessels and simulated commercial trawl hauls. Simulated hauls are required as the actual fishery is not conducted in VME areas; however the representativeness of the simulated effort has now been checked and improved through use of the VMS data. For both sponges (Fig. 2) and sea pens (Fig. 3) the biomass layers derived from research vessel data and simulated commercial trawls were similar and identified the same high density locations for each VME.

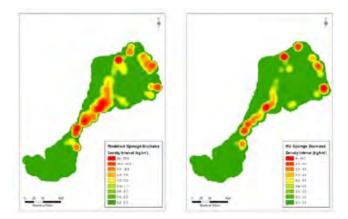


Fig. 2. Sponge biomass (kg/km²) in the NRA estimated from simulated commercial trawls with random start locations and orientation (left) and from Spanish/EU research vessel catches (right). Note that absolute density values cannot be compared between the two areas due to the different sampling methods.

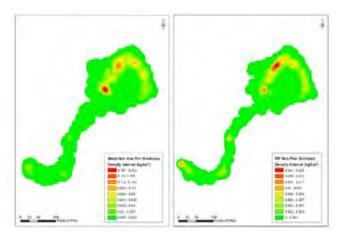
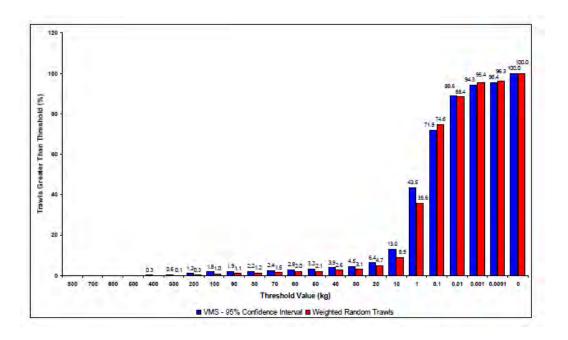


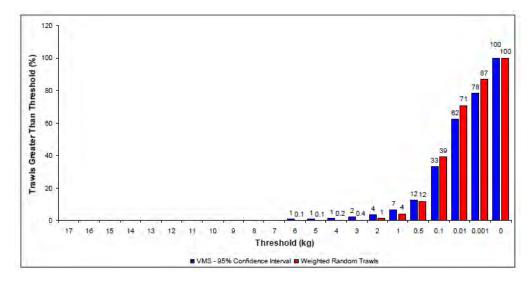
Fig. 3. Sea pen biomass (kg/km2) in the NRA estimated from simulated commercial trawls with random start locations and orientation (left) and from Spanish/EU research vessel catches (right). Note that absolute density values cannot be compared between the two areas due to the different sampling methods.

Commercial fishing tracks derived from VMS data were compared with the simulated commercial fishing tracks by randomly selecting 2000 of the former from within the 95% confidence interval of the trawl distances and comparing the catch at various thresholds with 2000 of the simulated commercial trawls (all 13.8 nm straight lines – the median of the 2010 VMS trawl distance – randomly placed and oriented in the direction of maximum effort). Both sponges (Fig. 4) and sea pens (Fig. 5) produced similar distribution patterns between the actual and simulated fishing by-catch. Figure 4 shows that if a 300 kg encounter threshold were in place in 2010 that approximately 0.6% of the 2010 VMS-derived trawls would have met this threshold. Similarly for the sea pens, a 7 kg encounter threshold would have affected approximately 0.4% of VMS-derived trawls.



	95% C.I. VMS Fishing Tracks		Weighted Random Simulation Trawls	
Threshold	Count Above Threshold	% > Threshold	Count Above Threshold	% > Threshold
800	0	0.0	0	0.0
700	0	0.0	0	0.0
600	1	0.0	0	0.0
500	0	0.0	0	0.0
400	5	0.3	0	0.0
300	11	0.6	1	0.1
200	23	1.2	5	0.3
100	35	1.8	19	1.0
90	38	1.9	22	1.1
80	44	2.2	24	1.2
70	48	2.4	29	1.5
60	55	2.8	39	2.0
50	63	3.2	41	2.1
40	78	3.9	52	2.6
30	89	4.5	62	3.1
20	127	6.4	94	4.7
10	260	13.0	178	8.9
1	869	43.5	712	35.6
0.1	1437	71.9	1492	74.6
0.01	1771	88.6	1767	88.4
0.001	1886	94.3	1908	95.4
0.0001	1907	95.4	1926	96.3
0	2000	100.0	2000	100.0

Fig. 4. Number and percentage of vessels catching sponge at various encounter threshold levels between 2000 randomly selected trawls within the 95% confidence interval of the 2010 VMS fishing track distance (blue) and 2000 simulated straight line trawls of 13. 8 nm and weighted in the direction of maximum fishing effort (red). The 300 kg encounter threshold is indicated in grey in the associated table.



Threshold	95% C.I. VMS Fishing Tracks		Weighted Random 13.8 nm Simulation Trawl	
	Count Above Threshold	% > Threshold	Count Above Threshold	% > Threshold
17	1	0	0	0.0
16	2	0.1	0	0.0
15	5	0.3	1	0.1
14	6	0.3	1	0.1
13	6	0.3	1	0.1
12	6	0.3	1	0.1
11	6	0.3	1	0.1
10	6	0.3	1	0.1
9	8	0.4	1	0.1
8	8	0.4	1	0.1
7	8	0.4	1	0.1
6	15	0.8	1	0.1
5	17	0.9	2	0.1
4	26	1.3	4	0.2
3	41	2.1	7	0.4
2	72	3.6	27	1
1	129	6.5	81	4
0.5	247	12.4	238	12
0.1	662	33.1	779	39
0.01	1245	62.3	1413	71
0.001	1560	78	1736	87
0	2000	100	2000	100

Fig. 5. Number and percentage of vessels catching sea pens at various encounter threshold levels between 2000 randomly selected trawls within the 95% confidence interval of the 2010 VMS fishing track distance (blue) and 2000 simulated straight line trawls of 13.8 nm and weighted in the direction of maximum fishing effort (red). The 7 kg encounter threshold is indicated in grey in the associated table.

The estimated area of sponge and sea pen habitat affected by trawling are illustrated in Fig. 6 and Fig. 7. The red bars mark areas of rapid change in habitat area and indicate potential thresholds for moving out of the VME habitats: \geq 4000 kg/tow, \geq 300kg/tow and \geq 40 kg/tow for sponge grounds and \geq 7 kg/tow sea pen habitats. For sponges (Fig. 2) the analyses distinguished between two types of VME sponge grounds (those dominated by *Geodia* spp. and those by *Asconema* spp.). The potential threshold of 40 kg/tow of sponge was cross referenced to physical specimens from areas where such catches were located and shown to be produced in some cases from non-VME sponges. Therefore this threshold was not considered as a potential VME indicator level.

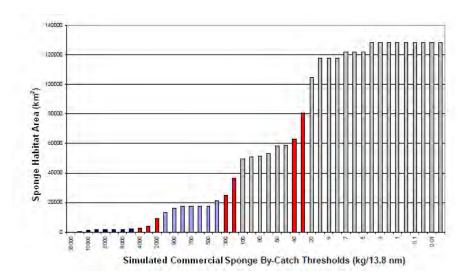


Fig. 6. Sponge habitat area occupied by successive commercial catch thresholds. Red bars indicate the levels where the greatest difference in area occupied occurred between successive catch weight values (greater than 1.3 times the area of the previous threshold). Dark blue bars correspond to the core of the *Geodia*-dominated sponge grounds. Light blue bars correspond to the VME sponge grounds for both *Geodia* -and *Asconema*-dominated habitats.

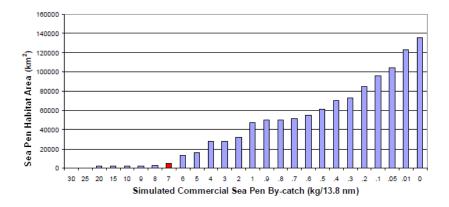


Fig. 7. Sea pen habitat area occupied by successive commercial catch thresholds. Red bars indicate the level where the greatest difference in area occupied occurred between successive catch weight values (≥ 7 kg).

Annex 5. Encounter thresholds and move-on rules

(pages 43-463 of SCS Doc. 12/19)

Encounter thresholds and move on rules (Item 17)

Fisheries Commission requested:

Fisheries Commission requests the Scientific Council to make recommendations for encounter thresholds and moveon rules for groups of VME indicators including sea pens, small gorgonian corals, large gorgonian corals, sponge grounds and any other VME indicator species that meet the FAO Guidelines for VME and SAI. Consider thresholds for 1) inside the fishing footprint and outside of the closed areas and 2) outside the fishing footprint in the NRA, and 3) the exploratory fishing area of sea mounts as applicable.

Scientific Council responded:

Candidate biologically-based encounter thresholds were established for sea pens and sponge grounds using GIS methodology applied to research vessel survey data (see response to Request 16). Similar analyses for small and large gorgonian corals and other VME indicators have not yet been performed.

Candidate move-on rules for the different groups of VME indicators were based on information on their spatial distribution. Such information was available for area 1 and parts of area 2 of the request but not for area 3. Therefore the move-on rules presented here are not applicable to the sea mounts. Scientific Council recognizes that these move-on rules are complex and unlikely to be put in practice. In the NAFO Regulatory Area fishing often takes place very close to VME areas and the proposed move-on rules in some cases could effectively remove the vessel from target species fishing ground.

Sponges

Scientific Council recommends 300 kg of sponge per commercial tow (based on the median tow length of 13.8 nm as determined from 2010 VMS data, see answer to request 16 above) as the encounter threshold for sponge grounds.

Sponge grounds are localized in narrow bands along the slope of the Grand Bank and Flemish Cap and their distribution extends to deep waters. Scientific Council therefore considers move-on rules for the slope areas that require the vessel to move to shallower areas will provide the highest likelihood of movement out of sponge grounds.

Sponge grounds occur at different depths in different areas. Different rules could therefore apply based on location (see Fig. 8 for the location of slope areas corresponding to Table 3 and following text). The move-on rule would require the vessel to move from its position to shallow water ≤ 700 m in Slope Area 1, to ≤ 1000 m in Slope Area 2, to ≤ 950 m in Slope Area 3, to ≤ 1050 m in Slope Area 4 or to ≤ 1250 m in the Sackville Spur Area 5 (Table 3). If one rule were to be implemented for all areas it would be: the vessel is required to move to shallower water ≤ 700 m. The maximum move-on distance in the NRA (from 2000 m) would be 18.1 km or 9.8 nm in the shortest direction of shallower water. This would occur in Slope Area 1.

Table 3. Minimum and maximum depth ranges for sponge grounds on the continental slopes of the NRA with a maximum move-on distance based on average slope and a starting point of 2000 m, the maximum depth of the sponge grounds.

Slope Area	Shallow End of Sponge Depth Range (m)	Average Slope over Depth Range of Sponge Grounds	Estimated Maximum Distance to Move (nm)
1) Area 1	700	4.112	9.8
2) Beothuk Knoll	1000	5.011	6.2
3) SE Flemish Cap	950	4.198	7.7
4) E Flemish Cap	1050	3.861	7.6
5) Sackville Spur	1250	3.516	6.6

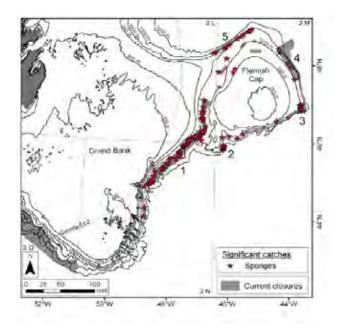


Fig. 8. Map of all significant research vessel trawl sponge catches (> 75 kg) based on Spanish/EU and Canadian bottom trawl groundfish surveys. All areas currently closed to protect significant concentrations of corals and sponges in the Divisions 3LMNO of the NRA are indicated. The numbers 1-5 indicate the areas with large sponge catches evaluated in Table 3.

Sea pens

Scientific Council recommends 7 kg of sea pens per commercial tow (based on the median tow length of 13.8 nm as determined from 2010 VMS data, see answer to request 16 above) as the encounter threshold for sea pen fields.

As for sponge grounds, Scientific Council recommends that potential move-on rules for sea pens should include the requirement to move towards shallower waters.

Scientific Council estimated that the area-specific maximum distance a vessel would have to move after an encounter (shallower direction) would range from 2.4 to 10.7 nm (Table 4). However some of the 2010 VMS fishing tracks are very close to the sea pen fields and so these move-on distances could remove vessels from fishing grounds in some cases.

Table 4. Distance from the center of each sea pen habitat area to the leading edge as illustrated Fig. 9. (note area 1 was too small for these calculations).

Polygon Number (Fig. 9)	Distance from Centre to Shallow Leading Edge (nm)
2	6.9
3	2.4
4	6.6
5	10.7
6	9.9
7	6.8

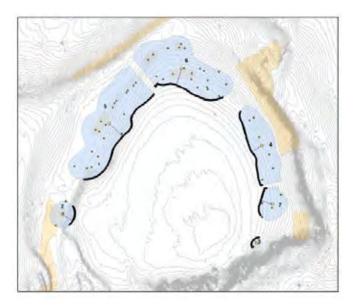


Fig. 9. Location of significant area polygons for sea pens. For each the centroid was calculated (yellow circle) and the distance to the closest edge in shallower water was determined.

Scientific Council notes that the encounter thresholds are a very useful tool to identify VMEs in areas where there is little survey information and the fishing activity is the main source of data. This applies especially to new fishing areas outside of the fishing footprint. However, as the locations of the benthic VMEs become increasingly well-defined in the NRA to support informed management through closed areas the need to implement encounter protocols gradually become redundant. Scientific Council considers a management through the closing of areas with significant concentrations of VME is the most effective measure for protecting VMEs in the NRA as it would avoid issues associated with the implementation of complex move-on rules.

In the NRA there is good annual survey coverage of the area and all of the VME locations identified to date have been defined based on survey data. Scientific Council considers that the survey information is the best source of reliable information to refine the VME locations in the NRA and recommends that the Contracting Parties continue to support all of the scientific surveys which collect these data. Further, new information from the NEREIDA research project has supported the selection of those areas and has provided new information for areas not well covered by the survey, particularly in deeper waters, on rough bottoms and on steep slopes. Scientific Council considers that as the locations of the benthic VMEs become increasingly well-defined through these efforts, appropriate closed areas put in place, and reassessed through the annual surveys, then the need to implement commercial fisheries encounter protocols in the NRA diminishes.

Annex 6. Recommended Threshold Values

(FCWG-VME Working Paper 12/7, Rev.)

Existing measures

The VME WG notes that the 60kg threshold for corals would be retained, other than for sea pens, if the recommendations below are accepted.

Proposed Recommendation from VME WG to FC concerning Thresholds Outside the Fishing Footprint

Recognizing the advice from SC concerning sea pens and sponges, the VME WG recommends that FC consider adopting revised encounter thresholds outside the fishing footprint of 7kg for sea pens and 300 kg for sponges.

$\begin{tabular}{ll} Proposed Recommendation from VME~WG~to~FC~concerning~Thresholds~Inside~the~Fishing~Footprint-seapens \\ \end{tabular}$

The VME WG notes that the situation inside the fishing footprint is more complex, especially in light of advice for a 7kg threshold for sea pens and that two approaches are currently available and being used: closed areas or encounter protocol.

The VME WG also noted the SC observation that as locations of concentrations of benthic VME indicator species become increasingly well-defined through survey and mapping efforts, appropriate closed areas are put in place, and re-assessed through the annual surveys. Under these conditions, the encounter provisions within the footprint become redundant. The VME WG further noted that such a situation may be emerging for corals and sponges within the footprint where management decisions have been taken or are being considered to close areas. The VME WG acknowledged that UNGA Resolution 61/105 calls for encounter provisions within the suite of measures to protect VMEs. The VME WG additionally noted that SC considers that management through the closure of areas with significant concentrations of VMEs is the most effective measure for protecting VMEs in the NRA.

With the time available to the VME WG, mapping of possible refinements to the closed areas for consideration by the FC was not possible. The WG noted however that these closures could be through modifications or refinements of some of the existing closures or some additional targeted closures.

The VME WG recommends that the FC, considering the distribution of sea pens and the practical considerations associated with a value of 7 kg for a threshold, consider additional area closures to protect significant concentrations of sea pens and/or introduce a 7kg encounter threshold.

Proposed Recommendation from VME WG to FC concerning Thresholds Inside the Fishing Footprint – sponges

The VME WG noted the approach recommended for sea pens and recommends that FC consider a similar approach for sponges. The VME WG recommends 300kg as an encounter threshold for sponge. This measure should be reconsidered if refinements to the closed areas are adopted.

Annex 7. Maps of the location of VME indicator species and elements in the NRA, footprint, and closed areas

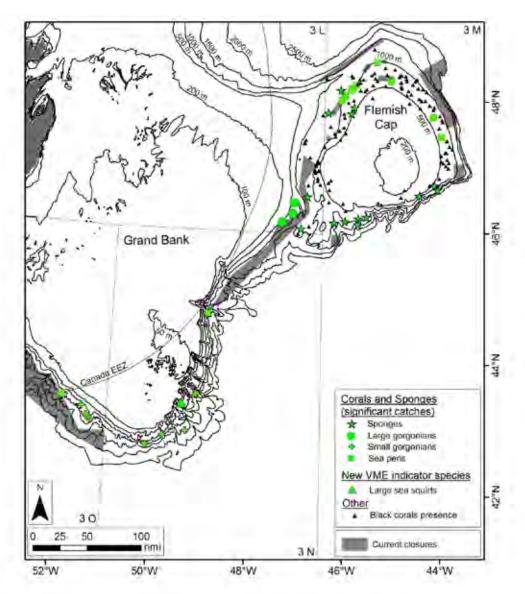


Fig. 10. Map of the location of significant research vessel trawl catches of corals and sponges and presence of black corals (Antipatharia), previously identified by the NAFO SC (NAFO 2008a, 2009) and for the period 2008-2010 and new VME indicator species (NAFO 2011), outside of the closed areas. The locations of all areas currently closed to protect significant concentrations of corals and sponges in the NRA (Divs. 3LMNO) are also indicated.

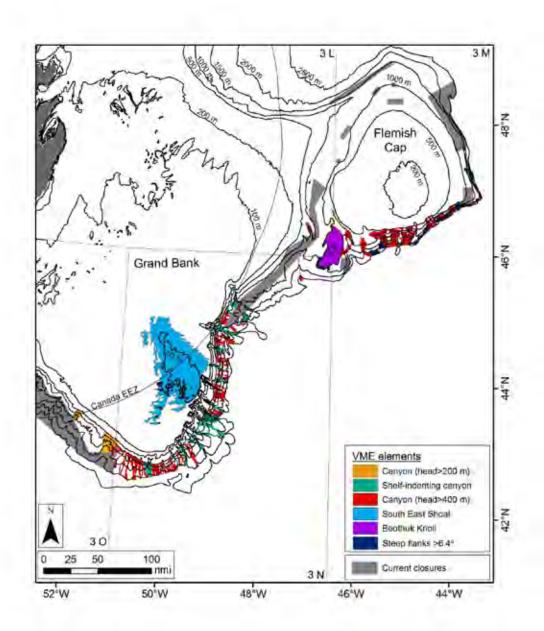


Fig. 11. Map of the VME elements previously identified by the NAFO SC (NAFO 2008b), together with the locations of the new VME elements (NAFO 2012a). The locations of all areas currently closed to protect significant concentrations of corals and sponges in the NRA (Divs. 3LMNO) are also indicated.

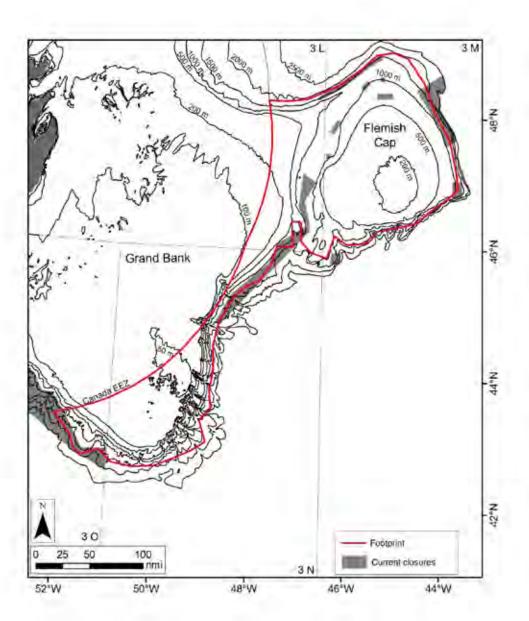


Fig. 12. Map of the footprint (NAFO, 2012b) and the locations of all areas currently closed to protect significant concentrations of corals and sponges in the NRA (Divs. 3LMNO).

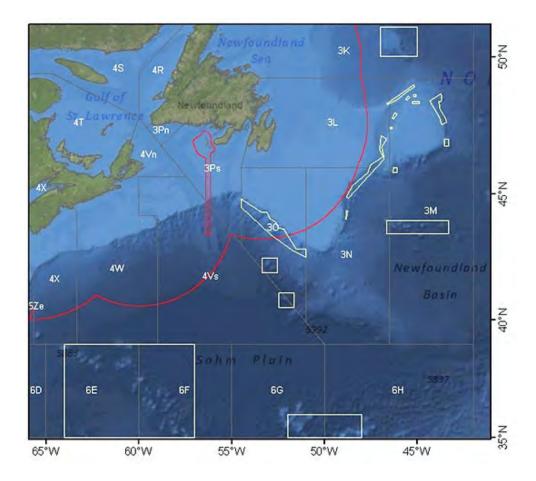


Fig.13. Map of all NAFO protection zones.

References

NAFO. 2008a. Report of the Scientific Council Meeting. 22 - 30 October 2008, Copenhagen, Denmark. Serial No. N5594, NAFO SCS Doc. 08/26, 32 pp.

NAFO. 2008b. Report of the Scientific Council Meeting. 5 - 19 June 2008, Dartmouth, Canada. Serial No. N5553, NAFO SCS Doc. 8/19, 222 pp.

NAFO. 2009. Report of the Scientific Council Meeting. 4 - 18 June 2009, Dartmouth, Canada. Serial No. N5679, NAFO SCS Doc. 9/23, 194 pp.

NAFO. 2011. Report of the NAFO SC Working Group on Ecosystem Approach to Fisheries Management (WGEAFM). 30 November - 10 December 2011, Dartmouth, Canada. Serial No. N6006, NAFO SCS Doc. 11/22, 126 pp.

NAFO. 2012a. Report of the Scientific Council Meeting. 1 - 14 June 2012, Dartmouth, Canada. Serial No. N6072, NAFO SCS Doc. 12/19, 215 pp.

NAFO. 2012b. NAFO Conservation and Enforcement Measures. Serial No. N6001. NAFO/FC Doc. 12/1, 100 pp.

Annex 8. Workplan for the reassessments of NAFO bottom fisheries

(pages 50-52 of SCS Doc 12/19)

Fisheries Commission requested:

As stated in the "Reassessment of the Impact of NAFO Managed Fisheries on known or Likely Vulnerable Marine Ecosystems" (NAFO FC WP 11/24), the Scientific Council in collaboration with the Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems will conduct a reassessment of NAFO bottom fisheries by 2016 and every 5 years thereafter. In preparation for reassessments, the Fisheries Commission requests the Scientific Council to develop a workplan for completing the initial reassessment and identifying the resources and information to do so.

Scientific Council responded:

Scientific Council noted that the request directs the responsibility for the fisheries assessments to Scientific Council, in collaboration with the Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems. The components of an assessment of bottom fishing have already been defined, based on advice from Scientific Council, and are contained in the NCEM (Chapter II, Article 19, plus Annex I.E). These requirements include not only an evaluation of fisheries impacts on VMEs, but also the management of the fisheries themselves and the assessment of their sustainability.

Scientific Council noted that many of the elements required for a fisheries assessment in the NCEM are also included in its "Roadmap for the development of an ecosystem approach to fisheries for NAFO" ("Roadmap to EAF"). Therefore, SC proposes the structure of fisheries assessment to be completed by 2016 to be organized in such a way that it would directly map onto the "Roadmap to EAF". Fig. 14 shows a schematic structure of a) how the fisheries assessments could be organized (inside rectangle in Fig. 14), and b) how it can be made into a process to make operational the "Roadmap to EAF".

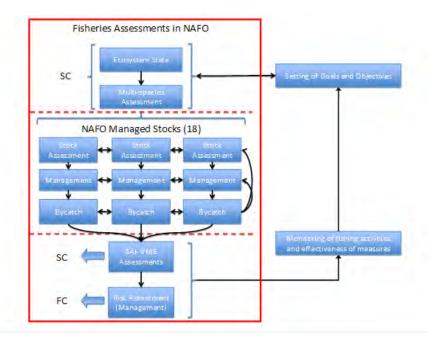


Fig. 14. Schematic representation of the structure and content of SC proposal to develop fisheries assessments. The red rectangle indicates the structure and content for the fisheries assessments themselves, while the boxes outside represent processes/mechanisms to be implemented to transform the static description of the fisheries assessment into a dynamic process to make operational the "Roadmap to EAF". (SAI – significant adverse impact; VME – vulnerable marine ecosystem).

Under this framework, there would be one assessment per ecosystem; in practice for the NRA this would likely mean one for Flemish Cap and one for the Grand Bank (with linkages to the northern NL shelf).

Scientific Council advises that a number of data sources and human resources are necessary to complete the assessments. These include:

- Contracting Parties should submit data from commercial catch, including directed species, by-catch, discards, and catches of VME indicator species, on a tow-by-tow basis.
- Accurate and ongoing maps of fishing effort in the NRA (VMS data from NAFO). This requires making VMS data available to SC in a timely fashion without an explicit FC request (i.e. change in the NCEM needed Article 26, para. 10.d). A major improvement in data quality would be achieved if the catch information could be linked to the VMS data for the specific tow.
- Maintain or enhance research vessel information and surveys (e.g. benthic surveys, multispecies trawl surveys, oceanographic surveys). Maintaining support for programs currently providing complementary ecosystem data and analyses will also be critical.
- Human resources will also be needed to complete the work required for fisheries assessments. It is vital that CPs consider the workloads involved in the assessment process and commit to providing these resources. It is to be expected that additional resources will be needed leading to the completion of fisheries assessments in 2016 (e.g. ad hoc meetings, additional travel, contracting/hiring people, etc.).

Scientific Council encourages further discussion of the proposed Scientific Council EAF framework with Fisheries Commission and/or the FC WGFMS-VME as soon as possible; noting that implementation of this approach will require considerable planning, resources, and data. This will also highlight the need for explicit and detailed objectives and goals as part of the management process.

Annex 9. Assessment of Bottom Fishing Activities

(FCWG-VME Working Paper 12/5, Rev.)

Proposed Recommendation from VME WG to FC concerning Assessments

Recognizing that the current terms of reference of the WGFMS on VMEs is focused on VMEs, the WG would recommend FC consider revising Annex I E V as suggested below. This revision highlights the connections between ecosystem considerations noted by SC and the assessment of SAI on VMEs requested by FC. The WG underscores the specific nature of the assessment being considered while acknowledging how it supports broader application of EAF.

Recommends that FC request SC use the revised Annex I E V to guide development of their workplan related to reassessment of fishing activity with respect to SAI on VME and would note that this assessment is a single component of the broader EAF Roadmap being developed separately by SC.

Proposed Annex I.E. Section V. Assessment of Bottom Fisheries Activities.

V. Assessment of Bottom Fishing Activities

Assessments should consider the best available scientific and technical information on the current state of fishery resources.

Assessments should address, inter alia:

- 1. 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);
- 2. Existing baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;
- 3. Identification, description and mapping of VMEs known or likely to occur in the fishing area;
- 4. Identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs;

4bis Consideration of VME elements known to occur in the fishing area; (New paragraph)

- 5. 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;
- 6. Risk assessment of likely impacts by the fishing operations to determine which impacts on VMEs are likely to be significant adverse impacts; and
- 7. 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.

Broadening of Working Group Terms of Reference (FCWG-VME Working Paper 12/6, Revision 2)

Proposed recommendation from VME WG to FC

Recognizing that the Performance Review has noted the usefulness of increasing communication between SC and FC, and recommended further development and consolidation of the EAF Roadmap

The WGFMS-VME recommends that FC modify the ToR for this working group to expand its mandate to include broader aspects of EAF as part of the future dialogue between SC and FC.

Annex 11. Amendments to Chapter II of the NAFO CEM – clarification of provisions related to the exploratory bottom fishing activities – Chapter II - Bottom Fisheries in the NAFO Regulatory Area

(FCWG-VME Working Paper 12/3, Revision 4)

Article 15 - Purpose and definitions

- 1. The purpose of this Article is to ensure the implementation by NAFO of effective measures to prevent significant adverse impacts of bottom fishing activities on vulnerable marine ecosystems known to occur or likely to occur in the Regulatory Area based on the best available scientific information. For the purposes of this Article, NAFO will take into account the guidance provided by the FAO in the framework of the Code of Conduct for Responsible Fisheries and any other internationally agreed standards, as appropriate.
- 2. The term 'bottom fishing activities' means bottom fishing activities where the fishing gear is likely to contact the seafloor during the normal course of fishing operations.
- 3. The term "existing bottom fishing areas" ("footprint") means that portion of the Regulatory Area where bottom fishing has historically occurred and is defined by the coordinates shown in Table 1 and illustrated in Figure 4.
- 4. The term "exploratory bottom fishing activities" means bottom fishing activities conducted in unfished bottom areas, or bottom fishing activities with significant changes to the conduct or in the technology used in the existing bottom fishing areas.
- 5. The term "unfished bottom areas" means other areas within the Regulatory Area which are not defined as existing bottom fishing areas.
- 6. The term "vulnerable marine ecosystems" has the same meaning and characteristics as those contained in paragraphs 42 and 43 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas.
- 7. The term "VME indicator species" refers to species of coral identified as gorgonians, *Lophelia*, and sea pen fields; crinoids; erect bryozoans; sea squirts; cerianthid anemone fields; and sponges that constitute sponge grounds or aggregations. The current list is attached as Part VI of Annex I.E.
- 8. The term "VME element" refers to topographical, hydrophysical or geological features which potentially support VMEs including slopes, summits and flanks of seamounts and knolls and canyons as described in the Annex of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas. The current list is attached as Part VII of Annex I.E.
- 9. The term "significant adverse impacts" has the same meaning and characteristics as those described in paragraphs 17-20 of the FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas.
- 10. The term "encounter" means catch of a VME indicator species above threshold levels as set out in Article 20.3. Any encounter with a VME indicator species or merely detecting its presence is not sufficient to identify a VME. That identification should be made on a case-by-case basis through assessment by relevant bodies.

Article 16 - Seamount, Coral, and Sponge Protection Zones

- 1. Until December 31, 2014, no vessel shall engage in bottom fishing activities in any of the areas defined by connecting the following coordinates (in numerical order and back to coordinate 1), subject to the exception foreseen in paragraph 2.
- 2. A request to conduct exploratory bottom fishing activities, in any of the areas defined by paragraph 1, shall be in accordance with Article 18 and the Exploratory Protocol (Part IV of Annex I.E).
- 3. If a vessel fishing in any of the areas defined in paragraph 1 encounters a VME indicator species, as defined in Article 20.3, interim encounter provisions as set out in Article 20.2 will apply.
- 4. Until December 31, 2014, no vessel shall engage in bottom fishing activities in the following area in Division 30 defined by connecting the following coordinates (as illustrated in Figure 2).
- 5. Until December 31, 2014, no vessel shall engage in bottom fishing activities in the areas defined by connecting the following coordinates (as illustrated in Figure 3).
- 6. The measures referred to in Article 16.5 shall be reviewed in 2014 by the Fisheries Commission, taking account of the advice from the Scientific Council and the Working Group of Fishery Managers and Scientists, and a decision shall be taken on future management measures.

7. Contracting Parties are encouraged to the extent possible to record all coral and sponge catch in their annual government and/or industry research programs and to consider non-destructive means for the long-term monitoring of coral and sponges in the closed areas.

Article 17 Map of existing bottom fishing areas

Article 18 – Exploratory bottom fishing activities

- 1. Exploratory bottom fishing activities shall be conducted in accordance with the exploratory protocol set out in Parts I-IV of Annex I.E.
- 2. Contracting Parties whose vessels wish to engage in exploratory bottom fishing activities shall communicate a 'Notice of Intent to Undertake Exploratory Bottom Fishing' (Annex I.E, Parts I and IV) to the Executive Secretary together with the assessment required under Article 19(2) (i).
- 3. The exploratory bottom fishing activities may start only after they have been authorized in accordance with Article 19bis.
- 4. Contracting Parties shall ensure that vessels flying their flag and conducting exploratory bottom fishing activities have a scientific observer on board.
- 5. Contracting Parties shall within 3 months of the completion of the fishing trip provide an 'Exploratory Bottom Fishing Trip Report' of the results of such activities to the Executive Secretary for circulation to the Scientific Council and all Contracting Parties.

Article 19 - Assessment of proposed exploratory bottom fishing activities

Assessment for proposed exploratory bottom fishing activities in the Regulatory Area shall follow the procedure below:

- i. The Contracting Party proposing to participate in exploratory bottom fishing activities shall submit to the Executive Secretary information and preliminary assessment of the known and anticipated impacts of the bottom fishing activity which will be exercised by the vessels flying its flag on vulnerable marine ecosystems.
 - That assessment shall be sent no less than two weeks in advance of the opening of the June meeting of the Scientific Council. It shall address the elements as set forth in Part V of Annex I.E.
 - The Executive Secretary shall promptly forward these submissions to the Scientific Council and the Fisheries Commission.
- ii. The elaboration of that assessment shall be carried out in accordance with guidance developed by the Scientific Council, or, in the absence of such guidance, to the best of the Contracting Party's ability.
- iii. At the meeting of the Scientific Council immediately following the submission of the information and preliminary assessment, the Scientific Council shall undertake an assessment of the submitted documentation, according to procedures and standards it develops and, taking into account the risks of significant adverse impacts on vulnerable marine ecosystems. The Scientific Council may use in its assessment additional information available to it, including information from other fisheries in the region or similar fisheries elsewhere.

The Scientific Council shall in line with the precautionary approach, provide advice to the Fisheries Commission on possible significant adverse impacts on vulnerable marine ecosystems and on the mitigation measures to prevent them.

Article 19bis Management measures on exploratory bottom fishing activities and for the protection of Vulnerable Marine Ecosystems

- 1. The Working Group of Fishery Managers and Scientists on VMEs shall examine the advice of the Scientific Council delivered in accordance with Article 19(iii) and shall make recommendations to the Fisheries Commission in accordance with its mandate.
- 2. The Fisheries Commission shall, taking account of advice and recommendations provided by the Scientific Council and the Working Group of Fishery Managers and Scientists on VMEs concerning exploratory bottom fishing activities, including data and information arising from reports pursuant to Article 20 adopt conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems. These may include:

- i. allowing, prohibiting or restricting bottom fishing activities;
- ii. requiring specific mitigation measures for bottom fishing activities;
- iii. allowing, prohibiting or restricting bottom fishing with certain gear types, or changes in gear design and/or deployment; and/or
- iv. any other relevant requirements or restrictions to prevent significant adverse impacts to vulnerable marine ecosystems.

Article 19ter – Evaluation of exploratory bottom fishing activities

- 1. At its meeting immediately following receipt of the 'Exploratory Bottom Fishing Trip Report' circulated in accordance with Article 18(5), the Scientific Council shall evaluate the exploratory bottom fishing activities. Taking into account the risks of significant adverse impacts on vulnerable marine ecosystems, the Scientific Council shall, in line with the precautionary approach, provide advice to the Fisheries Commission on the decision to be taken in accordance with Article 19ter(3).
- 2. The Working Group of Fishery Managers and Scientists on VMEs shall examine the advice of the Scientific Council delivered in accordance with Article 19ter(1) and shall make recommendations to the Fisheries Commission in accordance with its mandate.
- 3. The Fisheries Commission shall, taking account of advice and recommendations provided by the Scientific Council and the Working Group of Fishery Managers and Scientists on VMEs, either to:
 - i. Authorise the bottom fishing activity for part or all of the area in which exploratory bottom fishing was carried out and include this area in the existing bottom fishing areas (footprint), or,
 - ii. Discontinue the exploratory bottom fishing activity and, if necessary, close part or all of the area where which exploratory bottom fishing was carried out, or,
 - iii. Authorise the continued conduct of exploratory bottom fishing activity, in line with Article 18 with a view to gather more information.

Article 20 - Interim Encounter Provision

Contracting Parties shall require that vessels flying their flag and conducting bottom fishing activities within the Regulatory Area abide by the following rules, where, in the course of fishing operations, evidence of vulnerable marine ecosystems is encountered:

- 1. Existing bottom fishing areas
 - i. Vessels shall quantify catch of VME indicator species.
 - ii. if the quantity of VME indicator species caught in a fishing operation (such as trawl tow or set of a gillnet or longline) is beyond the threshold defined in paragraph 3 below, the following shall apply:
 - The vessel master shall report the incident to the flag State Contracting Party, which without delay shall forward the information to the Executive Secretary, including the position that is provided by the vessel, either the end point of the tow or set or another position that is closest to the exact encounter location, the VME indicator species encountered, and the quantity (kg) of VME indicator species encountered. Contracting Parties may if they so wish require their vessels to also report the incident directly to the Executive Secretary. The Executive Secretary shall archive the information and report it to all Contracting Parties. The Contracting Parties shall immediately alert all fishing vessels flying their flag.
 - The vessel master shall cease fishing and move away at least 2 nautical miles from the endpoint of the tow/set in the direction least likely to result in further encounters. The captain shall use his best judgment based on all available sources of information.
 - The Executive Secretary shall make an annual report on single and multiple encounters in discrete areas within existing bottom fishing areas to the Scientific Council. The Scientific Council shall evaluate and, on a case-by-case basis the information and provide advice to the Fisheries Commission on whether a VME exists. The advice shall be based on annually updated assessments of the accumulated information on encounters and the Scientific Council's advice on the need for action, using FAO guidelines as a basis. The Fisheries Commission shall consider the advice in accordance with Article 19.4.

2. Unfished bottom areas

- i. Vessels shall quantify catch of VME indicator species. Observers deployed shall identify corals, sponges and other organisms to the lowest possible taxonomical level. The Exploratory Fishery Data Collection Form found in Part III of Annex I.E shall be used (templates).
- ii. If the quantity of VME indicator species caught in a fishing operation (such as trawl tow or set of a gillnet or longline) is beyond the threshold defined in paragraph 3 below, the following shall apply:
 - The vessel master shall report the incident without delay to its flag state Contracting Party, which shall forward the information to the Executive Secretary, including the position that is provided by the vessel, either the end point of the tow or set or another position that is closest to the exact encounter location, the VME indicator species encountered, and the quantity (kg) of VME indicator species encountered. Contracting Parties may if they so wish require their vessels to also report the incident directly to the Executive Secretary. The Executive Secretary shall archive the information and without delay transmit it to all Contracting Parties. The Contracting Parties shall issue an immediate alert to all vessels flying their flag.
 - The vessel shall cease fishing and move away at least 2 nautical miles from the endpoint of the tow/set in the direction least likely to result in further encounters. The captain shall use his best judgment based on all available sources of information.
 - The Executive Secretary shall at the same time request Contracting Parties to implement a temporary closure of a two mile radius around the reporting position. The reporting position is that provided by the vessel, either the endpoint of the tow/set or another position that the evidence suggests is closest to the exact encounter location.
 - The Executive Secretary shall make an annual report on single and multiple encounters in discrete areas within existing bottom fishing areas to the Scientific Council. This report should also include reports from the exploratory bottom fishing activities conducted in the last year. The Scientific Council at its next meeting shall examine the temporary closure. If the Scientific Council advises that the area consists of a vulnerable marine ecosystem the Executive Secretary shall request Contracting Parties to maintain the temporary closure until such time that the Fisheries Commission has adopted conservation and management measures in accordance with Article 19bis.2. If the Scientific Council does not conclude that the proposed area is a VME, the Executive Secretary shall inform Contracting Parties which may re-open the area to their vessels.
 - The Executive Secretary shall make an annual report on archived reports from encounters in unfished bottom areas to the Scientific Council. This report shall also include reports from the exploratory bottom fishing activities that were conducted in the last year. The Scientific Council shall evaluate the information and provide advice to the Fisheries Commission on the appropriateness of temporary closures and other measures. The advice should be based on annually updated assessments of the accumulated information on encounters as well as other scientific information. The Scientific Council's advice should reflect provisions outlined in the FAO guidelines. The Fisheries Commission shall consider the advice in accordance with Article 19bis.2.
- 3. For both existing bottom fishing areas and unfished bottom areas, an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 60 kg of live coral. For unfished bottom areas, an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 400 kg of sponges. For existing bottom fishing areas (the "footprint"), an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 600 kg of sponges. These thresholds are set on a provisional basis and may be adjusted as experience is gained in the application of this measure.

Article 20bis: Reassessment of bottom fishing activities

- 1. The Scientific Council, with the co-operation of Contracting Parties, shall identify, on the basis of best available scientific information, vulnerable marine ecosystems in the Regulatory Area and map sites where these vulnerable marine ecosystem are known to occur or likely to occur and provide such data and information to the Executive Secretary for circulation to all Contracting Parties.
- 2. Fisheries Commission will in collaboration with the Scientific Council and the Working Group of Fishery Managers and Scientists on VMEs conduct a reassessment in 2016 and every 5 years thereafter of bottom fishing

activities, or when there is new scientific information indicating a VME in a given area. Following the assessment, the Fisheries Commission shall take the necessary actions to protect VMEs.

Article 21 - Review

The provisions of this Chapter shall be reviewed by the Fisheries Commission at its Annual Meeting in 2014.

Annex I.E Templates for the conduct of exploratory bottom fishing activities

IV. Exploratory Protocol

The Exploratory Protocol shall consist of:

- A harvesting plan which outlines target species, dates and areas. Area and effort restrictions should be considered to ensure fisheries occur on a gradual basis in a limited geographical area.
- A mitigation plan including measures to prevent significant adverse impact to vulnerable marine ecosystems that may be encountered during the fishery.
- A catch monitoring plan that includes recording/reporting of all species caught, 100% satellite tracking and 100% observer coverage. The recording/reporting of catch should be sufficiently detailed to conduct an assessment of activity, if required.
- A data collection plan to facilitate the identification of vulnerable marine ecosystems/species in area fished.

V. Assessment of Bottom Fishing Activities < new text of WP 12/5>

VI. List of VME indicator species

VII. List of physical VME indicator elements

SECTION II (pages 35 to 100)

Report of the General Council and its Subsidiary Body (STACFAD) 34th Annual Meeting

17-21 September 2012 St. Petersburg, Russian Federation

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PART I

Report of the General Council (GC Doc. 12/3)

34th Annual Meeting, September 17-21, 2012 St. Petersburg, Russian Federation

I. Opening Procedure (Agenda items 1–6)

1. Opening by the Chair

The 34th Annual Meeting of NAFO was convened on 17 September 2012 at 1000 hrs at the Pribaltiyskaya Park Inn by Radisson, St. Petersburg, Russia, with 160 delegates present from all twelve NAFO Contracting Parties (Annex 1). The NAFO President and GC Chair, Veronika Veits (EU) welcomed all delegates to the meeting.

Igor Golikov, as member of the government of St. Petersburg and Chairman of the Committee of Economic Development, Industrial Policy and Trade welcomed delegates to the meeting and to the city of St. Petersburg on behalf of the Governor of St. Petersburg. (Annex 2).

Statements followed by Russian Federation, Cuba, the European Union, Norway, the United States of America, Denmark (in respect of the Faroe Islands and Greenland), Canada, Japan, and Ukraine. (Annexes 3-11).

Opening statements were also made by the observers from CCAMLR and the World Wildlife Fund - Canada (WWF). A joint opening statement by Pew Environment Group and the Ecology Action Centre (EAC) was unable to be delivered but is included in these proceedings (Annexes 12-14).

2. Appointment of Rapporteur

Vladimir Shibanov, the NAFO Executive Secretary, was appointed as Rapporteur.

3. Adoption of Agenda

The agenda was adopted as circulated (Annex 15).

4. Admission of Observers

In accordance with the Rules for Observers and in advance of the meeting, the Executive Secretary had invited the following intergovernmental organizations to attend: FAO, CCAMLR, CPPS, ICCAT, ICES, NAMMCO, NASCO, NEAFC, NPAFC, PICES, SEAFO.

During the 2012 34th Annual Meeting, ICCAT was represented by the Executive Secretary, Driss Meski, Russia observed on behalf of CCAMLR, Denmark (in respect of the Faroe Islands and Greenland) on behalf of NEAFC, Iceland on behalf of NAMMCO, and EU on behalf of SEAFO. Furthermore, NGOs which had been granted observer status were also present: the World Wildlife Fund (WWF) the PEW Foundation.

5. Publicity

The meeting agreed that no public statements would be made until after the conclusion of the meeting when a Press Release would be prepared by the Executive Secretary in collaboration with the Chairs of the General Council, Fisheries Commission and Scientific Council.

6. Guidance to STACFAD necessary for them to complete their work (Monday)

In addition to items included on the circulated agenda an additional item on funding for the NEREIDA project was asked to be included. This project, which is contributing valuable scientific information used to make NAFO decisions, has recently had some funding sources concluded. The EU indicated their interest to support this project and asked other Contracting Parties to consider also contributing.

STACFAD was also encouraged, in general, to consider financial situations of Contracting Parties and to endeavor to keep budget increases to the minimum amount possible.

STACFAD was also requested to report on the follow-up of the NAFO Performance Review Panel's recommendations addressed to the Secretariat and to the Committee.

II. Supervision and Coordination of the Organizational, Administrative and other Internal Affairs (Agenda items 7–13)

7. Review of membership of the General Council and Fisheries Commission

The membership has not changed since 2008. All twelve NAFO Contracting Parties were present: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), the European Union, France (in respect of St Pierre and Miquelon), Iceland, Japan, Republic of Korea, Norway, the Russian Federation, Ukraine, and the United States of America.

8. Status of Ratification process resulting from the adoption of the amended Convention and presentation of progress reports

To date Norway, Canada, EU and Cuba have completed the ratification process. The Russian Federation reported that they had in fact ratified the amended Convention but there had been a delay with the reporting process to the depositary Government. Other Contracting Parties reported on progress made with their internal processes and several noted they were in the final stages. Contracting Parties were strongly encouraged to continue with the ratification process in their respective governments as soon as possible.

9. Status of the NAFO Headquarters Agreement

Canada reported that its domestic approval process for the Headquarters Agreement is proceeding, and NAFO will be informed of any developments.

10. Report of the GC WG on Development of Plans of Action for the Implementation of Recommendations of the NAFO Performance Review Panel (GC Doc. 12/1) and adoption of the Plans of Action

At the last Annual Meeting, a GC WG on the development of plans of action necessary for the implementation of the recommendations of the NAFO Performance Review Panel was established to investigate the recommendations that involve policy issues and more than one Constituent Body. The WG met during 20-22 March 2012 under the chairmanship of Veronika Veits (GC Chair). The Chair requested that the meeting Report be divided into two parts – the meeting report and the proposed action table. The meeting agreed to adopt the report of the meeting as written in GC Doc. 12/1.

During the course of the Annual Meeting, Scientific Council, Fisheries Commission, STACTIC and STACFAD had reviewed and addressed the proposed action table contained in GC Doc. 12/1. The individual responses are contained in each body's reports. Noting that there were only minor changes suggested by the Scientific Council (GC Working Paper 12/8) it was agreed to adopt the Action Plan subject to the amendments suggested. A revised version of the Action Plan would be circulated by the Secretariat.

It was also noted that significant progress had already been made by all groups in implementing actions. It was agreed that the Secretariat would compile all feedback into a single document for circulation to Contracting Parties.

It was also agreed that a report on the progress in implementing the Plan of Action should become a regular agenda item on the General Council agenda.

11. Report of external experts on Peer Review of the method of catch estimation on NAFO Stocks by STACFIS

The report of the Expert Panel was presented by the Chair, Bruce Atkinson (GC WP 12/3).

Three main tasks were identified by Contracting Parties as important to the way forward:

- 1. the Peer-Review Expert Panel should continue with updated Terms of Reference, if necessary, on the basis of information provided by the Scientific Council.
- 2. Upon request by Fisheries Commission STACTIC would review the recommendations made by the Expert Panel in GC WP 12/4.
- 3. A dialogue between the Fisheries Commission and the Scientific Council should be established. The Fisheries Commission also agreed to develop a single Working Group to address rebuilding plans, consideration of management models, such as Management Strategy Evaluation and the incorporation of the Precautionary Approach

In light of the importance of resolving the discrepancies in catch estimates, members of the Fisheries Commission supported the General Council decision to conclude the peer review process and to have it completed by April.

2013 and be made available to the Scientific Council in June in order to allow Scientific Council to incorporate any changes resulting into their work next year. Contracting Parties also supported the usefulness of ongoing discussions between the constituent bodies and their Chairs to address this issue to help ensure that stock assessments could be effectively conducted in support of the 2013 annual meeting. Additional measures were also tasked to Scientific Council and STACTIC to help address the issue of catch discrepancies. If necessary a short-notice meeting by WebEx could be set-up intersessionally for Contracting Parties to discuss any issues that arise.

12. Administrative Report

The Executive Secretary had presented the Administrative and Financial Report (GC Doc. 12/1) during the STACFAD meeting and there was no need to further discuss it during the General Council.

13. Consideration of the Renewal of the Executive Secretary's contract

It was agreed by Contracting Parties that a recruitment process for the Executive Secretary be launched in 2013 with appointment for the 2014-2017 term.

NAFO Secretariat will work to prepare the necessary follow-up actions.

III. Coordination of External Affairs (Agenda items 14–16)

14. Report of the Executive Secretary on External Meetings

Since the last Annual Meeting, the Executive Secretary was involved in the following external activities: International Fisheries Commission Pension Society (IFCPS) (April 2012), UN Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (May 2012) in observer capacity. Regional Fisheries Management Organisations (RFMO's) Conference – Fit for the Future (June 2012), NEAFC Symposium on management of bottom fishing with a presentation of NAFO management regime of bottom fishing (June 2012), FAO Committee on Fisheries (COFI) in observer capacity (July 2012) and the Regional Fishery Body Secretariats Network (RSN) with a presentation of NAFO practice of VMEs conservation (July 2012).

Available reports from the various meetings are available on the NAFO Member pages of the NAFO website. The EU gave a short report about the Regional Fisheries Management Organisations (RFMO's) Conference – Fit for the Future" and indicated the website on which the report was available (http://ec.europa.eu/maritimeaffairs/events/2012/06/events 20120601 01 en.htm).

15. International Relations

At the last Annual Meeting (September 2011), it was agreed that the previously appointed NAFO observers would continue to observe meetings of the following organizations: Norway would represent NAFO at meetings of the South East Atlantic Fishery Organisation (SEAFO) and the North Atlantic Marine Mammal Commission (NAMMCO), Denmark (in respect of Faroe Islands and Greenland) would represent NAFO at the North East Atlantic Fisheries Commission (NEAFC) and the United States of America would represent NAFO at the North Pacific Anadromous Fish Commission (NPAFC). Reports by Observers were presented.

It was agreed that NAFO Contracting Parties would observe at the following meetings of 2012-2013: European Union at ICCAT; USA at CCAMLR, NPAFC and NASCO; Norway at SEAFO and NAAMCO; and Denmark (in respect of Faroe Islands and Greenland) at NEAFC.

Noting the recommendation by the Review Panel that encouraged NAFO to develop and strengthen cooperation with other international organizations, the Executive Secretary noted that STACTIC had discussed the creation of a joint Advisory Group on Data Communications (AGDC) with NEAFC. This process will be ongoing.

16. Amendment to the NAFO/FIRMS Partnership Arrangement

At the September 2004 Annual Meeting, GC agreed that NAFO join the Fisheries and Agriculture Organization of the UN FIRMS Partnership Arrangement (GC Doc. 04/5, item 11.b). In 2012, an amendment was proposed that recognized NAFO's contribution to the Fishery Module of FIRMS. The amendments as presented were adopted (Annex 16).

IV. Finance (Agenda items 17–18)

17-18. Report of STACFAD at the Annual Meeting and Adoption of the Budget and STACFAD recommendations for 2013

The report of STACFAD was presented by the Interim Chair, Fred Kingston (EU). Mr. Kingston was thanked for his work in Chairing the meeting unexpectedly owing to unforeseen circumstances. The report contained the adoption of the budget for 2013, the Auditor's Report for 2011, personnel matters, including the creation of a new position at the Secretariat, and the creation of a framework to fund special projects. STACFAD recommends that:

- 1. The 2011 Auditors' Report be adopted.
- The Organization choose the International Financial Reporting Standards (IFRS) as its accounting framework as of 2013.
- 3. The amount maintained in the accumulated surplus account be set at \$285,000 of which \$200,000 would be sufficient to finance operations during the first three months of 2013, and of which \$85,000 would be a contingency fund available to be used for unforeseen and extraordinary expenses.
- 4. The General Council endorse the progress achieved by the Secretariat to implement the Performance Review Panel's recommendations in the area of finance and administration
- 5. The adoption of a new position of Data Manager within the NAFO Secretariat.
- 6. That the budget for 2013 of \$1,890,000 (see Part II of this Report, Annex 5) be adopted.
- 7. That General Council appoint the three nominees (to serve as members of the Staff Committee for September 2012-September 2013: Bill Brodie (Canada), Estelle Couture (Canada) and Deirdre Warner-Kramer (USA).
- 8. That the dates of the 2014 and 2015 Annual Meetings (to be held in Halifax, N.S., Canada, unless an invitation to host is extended by a Contracting Party and accepted by the Organization) are as follows:

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- 9. That, taking into account best practices of other RFMOs, General Council request the NAFO Secretariat to establish a framework in order to manage a fund for the NEREIDA project. This fund will be managed in accordance with the rules of the Organization, at no cost to the Organization. Any such framework established must be approved by the General Council.
- 10. That the General Council amend the NAFO Financial Regulations to clarify that NAFO is allowed to receive and disperse funding for projects that fulfill NAFO's objectives.

Contracting Parties thanked the Chair for the work by STACFAD and appreciated the efforts that were made to keep the budget to the lowest possible level

In considering budget restraints, the performance of the Organization in accordance with the Convention should not be compromised. Contracting Parties may reflect on annual provisions, anticipate some costs and spread them over many years.

The STACFAD report and the recommendations were accepted by Contracting Parties.

Due to the unforeseen absence of the Chair of STACFAD, elections for Chair and Vice-Chair of this Committee were carried out in plenary. Deirdre Warner-Kramer (USA) was re-elected Chair and Rasmus Fuglholt (DFG) was elected as Vice-Chair for a two year term.

V. Closing Procedure (Agenda items 19–23)

19. Election of Chair

Mr. Stéphane Artano (France (in respect of St. Pierre et Miquelon)) was elected the Vice-Chair of the General Council.

20. Time and Place of Next Annual Meeting

The 35th Annual Meeting will be in the Halifax-Dartmouth area, Canada. The 2013 Annual Meeting dates of 23-27 September were previously agreed upon.

21. Other Business

a) Retirement of Bev McLoon

The General Council noted that a long-time Secretariat Staff Member, Bev McLoon was due to retire in April 2013. Bev has been a key member of the Secretariat Team, particularly in regards to the Annual Meeting and as the Personal Assistant to four Executive Secretaries. The Council thanked Bev for her hard work and dedication to the Organization over the course of her 32 year career.

b) There was no other business.

22. Press Release

The Press Release of the Meeting was developed by the Executive Secretary through consultations with the Chairs of General Council, Fisheries Commission and Scientific Council. The agreed Press Release (Annex 17) was circulated and posted to the NAFO website at the conclusion of the meeting on Friday, September 21.

23. Adjournment

The Chair thanked everyone for their productive and constructive work throughout the week. She again thanked the host, Russian Federation, for hosting the 34th Annual Meeting and the venue. She especially thanked the Executive Secretary and his team for the excellent support during the meeting and throughout the year.

The meeting was adjourned at 1430 hrs on Friday, 21 September 2012.

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Annex 2. Opening Speech by Igor Golikov, Member of the Government of Saint Petersburg and Chairman of the Committee of Economic Development, Industrial Policy and Trade (on behalf of the Governor of Saint Petersburg, G. S. Poltavchenko)

Dear Friends!

I am happy to welcome the members of the 34th Northwest Atlantic Fisheries Organization session!

For the past years of hard work the International Fisheries Organization has gained an authority in the World Community, brought a huge contribution in development and cooperation in the sector of saving water bio-resources and the protection of ecosystems.

Saint Petersburg is the biggest industrial, scientific and educational center, a marine capital of Russia. The city on the river Neva has leading positions in shipbuilding, reprocessing industry and in preparation qualified staff for fisheries system. That is why this city hosts the second NAFO session. Delegates from various States will discuss the main questions and trends concerning the development of fisheries sector in the northwest Atlantic.

Your forum opens new capabilities for international experience exchange and for the Rule of Law improvement in fisheries sector, for strengthening the cooperation and partnership on International Level.

I wish all the members a successful work and also a pleasant time in our great city!

Annex 3. Opening Statement of the Representative of the Russian Federation

Dear Madam Chair,

Distinguished Delegates, Observers, Ladies and Gentlemen!

On behalf of the delegation of the Russian Federation it is a great pleasure for me to welcome all of the participants of the 34th NAFO Annual Meeting here in Saint Petersburg.

Let me express our deep appreciation to all of you for accepting our invitation to visit this wonderful city.

St. Petersburg is often called the cultural capital of Russia, and, in our view, it is entirely justified. The city is only three hundred years old, but has a rich history and is famous for a variety of museums and theaters, a large number of writers, poets and musicians that bring glory and honor to this place.

It offers monuments of various epochs and styles: different churches and cathedrals, State Hermitage Museum, Kunstkamera, House of the Peter the Great, Peter and Paul Fortress, numerous museums and palaces... You can enumerate endlessly, in whatever direction you go, you will find new thrills, beautiful buildings and interesting acquaintances. We hope that you will find an opportunity to enjoy some sightseeing.

NAFO activities in the period of time from the last annual meeting are marked by a number of important events. We have got a new NAFO Convention with a process of its ratification going on. We continue to work together to develop and adopt Plans of action to improve effectiveness of the NAFO as international fisheries organization.

As Russian fishermen show increasing interest in exploitation of fishery resources in the North West Atlantic, this area remains one of the most important fishing grounds for the Russian Federation.

We believe that despite the fact that a significant progress has been achieved by NAFO over the last years with regard to sustainable management, conservation of fish stocks, scientific research and protection of living marine resources, there are still a number of issues that require further multilateral cooperation.

With this in mind we look forward to working with all Contracting Parties in the week ahead in a constructive way to find the best solutions to the matters on our agenda.

We wish everyone a fruitful and successful meeting.

Thank you for your attention!

Annex 4. Opening Statement by the Representative of Cuba

Good morning.

Madam President,

Dear delegates,

On behalf of the Cuban delegation, let me express our gratitude to the authorities of the Russian Federation and particularly of the Saint Petersburg for the invitation and the opportunity to meet in this beautiful and historical city.

We are looking forward to a constructive meeting and of course, as always, we have ahead of us a very busy week.

Throughout the last decades, NAFO has achieved important milestones to become a modern, efficient and strong fisheries organization and to this end has been taking several steps that we hope will give there fruit in the near future.

The results of the General Council WG on the development of plans of action necessary for the implementation of the recommendations of the NAFO Performance Review Panel, the Amendment to the Convention on Future Multirateral Cooperation in the Northwest Atlantic Fisheries Organization that we hope and urge the Contracting Parties to approve as a sing of their commitment with the Organization and the responsibility for the effects of fisheries on the marine ecosystems in the Convention area, are examples of this important work.

This year, we will again face and discuss important matters, not only from the organizational point of view, but also the situation of stocks in the Convention area, the work and recommendations of the Scientific Council and the plans for the recovery of several stocks that are still under moratoria or rebuilding process and all this need the compromise of all parties to ensure that those stocks have chance to recover.

The Cuban delegation looks forward to work with all Contracting Parties in an understanding atmosphere to achieve the common goal which is the recovery of stocks and the conservation and sustainable use of the marine resources in the Convention Area for the sake of future generations.

Thank you very much.

Annex 5. Opening Statement by the Representative of the European Union

Madam Chair, Distinguished Delegates, Observers, Ladies and Gentlemen,

The EU is very pleased to be here in the beautiful city of St Petersburg for the 34th Annual Meeting of NAFO and I would like to take the opportunity to thank the Russian Federation for hosting this meeting. Let me also extend our thanks to the NAFO Secretariat for the thorough preparation of this meeting.

In last year's Annual Meeting, significant progress has been made on the sustainable management of NAFO stocks with the adoption of Conservation Plans and Rebuilding Strategies for American Plaice 3LNO and cod 3NO, the determination of Total Allowable Catches (TACs) on the basis of Scientific Advice. We progressed again considerably in the protection of Vulnerable Marine Ecosystems with the lowering of thresholds for encounters with sponges and corals, the extension of closed areas and the agreement to reassess bottom fisheries by 2016. And NAFO was largely commended by the Performance Review Panel for the high quality of the organisation.

The EU is firmly committed to continue on this path, to address any deficiencies identified in the performance review and to strive for the highest performance in NAFO in line with the EU's policy orientations for the external dimension of its Common Fisheries Policy.

Accordingly, the EU is very pleased with the progress made by the Performance Review Working Group, which met earlier this year in Halifax. We hope that this action plan will find endorsement this week as well as the first follow-up actions to it.

The EU will be very keen to progress, in particular on science as best science is the precondition for sound management decisions. Best science also require stronger dialogue between fisheries managers and scientists to understand each other's needs better.

The EU is also encouraged by the continuing signs of recovery of some important NAFO stocks, such as cod 3M or redfish 3LN. This shows that our efforts and sacrifices are paying off and that we need to continue our responsible path to fisheries management.

It also confirms that NAFO's enforcement and control system works properly as also commended by the Performance Review. Clearly we need to maintain high compliance and zero tolerance towards infractions and illegal fishing. We need to look into all possibilities on how to further improve control and enforcement. However, this should not prevent us from looking at the same time into possibilities for more cost efficiency in control and enforcement in these difficult economic times. We would therefore like to invite all Contracting Parties to look into ways how cooperation can be further improved. We are sure that STACTIC will be able to report to us by the end of the week on progress that could be made towards even better control and enforcement

The EU is also looking forward towards further progress in the protection of Vulnerable Marine Ecosystems. Although decisive information on these habitats will only become available in 2014 when the NEREIDA seabed mapping project is finished and a full reassessment of bottom fishing is foreseen for 2016, the EU stands ready to support further protective steps till then.

As last point the EU would like to recall the importance to ratify the Amended Convention so to allow NAFO to use the new provisions as soon as possible.

The EU delegation looks forward to working with all Parties around the table in order to achieve the best possible result for NAFO stocks and ecosystems and to make this Annual Meeting a joint success.

Thank you.

Annex 6. Opening Statement by the Representative of Norway

Thank you Chair and good morning everybody.

Let me start by thanking the Russian authorities for hosting this meeting in Saint Petersburg, which probably is the most beautiful city in Europe.

On a personal note, I would say that this is my third visit to the city and I am amazed to be back. I do hope that these historically important surroundings will inspire us in our work in the days ahead of us.

We have a number of difficult tasks to deal with and a major challenge is that our scientists seem to fail to give us the management advice that we need due to the lack of correct catch statistics. I do hope that we will find a common ground to resolve this serious issue. This would be of major importance as too many of the stocks managed by NAFO are in poor shape. We do believe that the establishment of long-term management plans for all stocks would be an important tool in this respect.

We also believe that more transparency and more openness in our proceedings would be decisive to achieve progress. For our part, we are ready to work constructively with all Parties to find mutually acceptable solutions.

Thank you very much.

Annex 7. Opening Statement by the Representative of the United States of America

Chair, distinguished delegates, observers, ladies and gentlemen:

First, we would like to express our appreciation to the beautiful city of St. Petersburg to host NAFO once again. We thank the Russian Federation for its hospitality as well and the great preparations planned and organized by the NAFO Secretariat.

On matters of substance, we want to express our thanks for the intersessional work undertaken on the development of an action plan for implementation of the recommendations of the NAFO Performance Assessment Panel. We were pleased to participate in these efforts, both in the GC working group and in STACTIC, and look forward to a fruitful discussion this week that will result in concrete improvements to the Organization.

We will have some important stock related conservation and management measures to consider this week, including those for 3LMNO Greenland halibut, 3M cod, 3L shrimp, 3LNO skates, and 3NO white hake.

The United States was quite pleased with the results of last week's discussions in the Working Group of Fishery Managers and Scientists (WGFMS) on Vulnerable Marine Ecosystems. The level of collaboration in the Working Group is gratifying and we feel that progress was made in a number of areas. We look forward to further detailed discussions this week regarding recommended steps to more effectively address challenges of detecting and protecting vulnerable marine ecosystems. And we are pleased with the progress made to ensure that NAFO undertakes a timely reassessment of ongoing fisheries and new assessments of future fisheries relative to their impacts on vulnerable marine ecosystems. However, we note that the Scientific Council has underscored the still pressing need for NAFO to increase the quantity and quality of fishery-dependent data for use in these assessments.

Regarding the peer review of STACFIS catch estimate methodology, the Unites State would strongly support further work to address this critical issue. The interim Panel report further illuminates the need to take action to address ongoing data inconsistencies in NAFO and the negative impact that these data shortcomings have on conservation and management of the fisheries under our jurisdiction. It seems clear to the United States that, if we are seeking to address data quality and availability in our Organization, we must act holistically and examine all data sources used to produce scientific advice. Thus, we feel that Norway's proposal to broaden the Panel review to include STATLANT 21A data should be seriously considered at this meeting. We should also examine what help STACTIC and the Scientific Council itself could provide in resolving our data discrepancies.

And I wanted to mention what is a first for the United States. We will have two U.S. vessels in the Regulatory Area next week. One will be the F/V Titan, the first harvesting to fish NAFO-regulated waters in the 16 years of our membership. The second will be the U.S. Coast Guard cutter JUNIPER which will rendezvous with a Canadian cutter, exchange personnel and proceed with the seventh consecutive year of joint patrols in the Regulatory Area, but the first involving two coordinating cutters. We are proud of our contributions to compliance and enforcement in the Regulatory Area and pleased after these many years to enjoy the opportunity to be an active fishery participant in the regulatory area.

I thank you all for your attention and look forward to working with you this week.

Annex 8. Opening Statement by the Representative of Denmark (in respect of the Faroe Islands and Greenland)

Madame Chair, distinguished Delegates, Observers, Ladies and Gentlemen.

The Faroe Islands and Greenland would first of all like to thank the Russian Federation for their hospitality to host this Annual Meeting in St. Petersburg and we appreciate all the hard work our Russian hosts has put in the practical preparations of this meeting. For many in this delegation it is the first time in this country and beautiful and historical city and we are very happy to be here.

After a long and comprehensive process we are now ready to take the last decisions concerning the implementation of the recommendations of the Performance Review Panel Report. A working group meeting this spring in Halifax following a decision at last year's Annual Meeting has prepared a Plan of Action. The Faroe Islands and Greenland can assure that we will work constructively with our NAFO partners in order to facilitate the implementation of the Performance Review Report recommendations. It is in the interest of all contracting parties that this work is carried out as soon as possible as the outcome will entail a more up-to-date and effective NAFO in all aspects of the organization's operations.

The sign of good intentions by all parties to carry out this work in an expedient manner are exemplified by the intercessional decision by mail vote to set up an external peer review panel to look at the discrepancies between the STATLANT and the STACFIS catch estimations as this was deemed a matter of particular urgency by the Performance Review Panel. We are confident that the remaining recommendations, in particular those that are considered high priority, will be expedited in a swift manner at this meeting.

The biological advice on NAFO stocks for next year and beyond is as usual a mixed advice of stocks to be maintained under moratoria, of stocks in decline and of stocks that are healthy and growing. The Faroe Islands and Greenland note with increased concern that the shrimp stocks at Flemish Cap and the Grand Banks shows no sign of recovery and cessation in decline. Only a few years ago the shrimp stock at Grand Banks was in a very good shape.

On the other hand we note with satisfaction that the cod stock in Division 3M continue to exhibit biomass improvements. However, the improvement of this stock may to some extend be at the expense of the declining shrimp stocks as cod prey on these stocks. This issue should be thoroughly examined along with other issues such as the effects of ocean temperature changes on stocks straddling patterns.

Therefore, biological and management efforts should be intensified in order to find out the reasons behind this rather dramatic decline in the shrimp stocks in the last couple of years.

Madame Chair, our delegation would like to take this opportunity to convey our sincere appreciation and warm thanks to the Secretariat for once again having prepared this annual meeting so well.

Finally Madame Chair, the Faroe Islands and Greenland can assure you that we are looking forward to working constructively with all delegations in the week ahead of us to bring the many issues on our agenda to a successful conclusion.

Thank you.

Annex 9. Opening Statement by the Representative of Canada

Good morning. Madam President, distinguished delegates, observers, ladies and gentlemen.

On behalf of Canada, I would like to thank the Russian Federation for hosting the 34th Annual Meeting of the Northwest Atlantic Fisheries Organization. It's a pleasure for the Canadian delegation to participate in the annual meeting in the beautiful city of St. Petersburg.

We come together this year at an important milestone for NAFO. In 2011, NAFO had its first independent performance review. The report of the performance review highlighted the significant improvements NAFO has made over the past several years and opportunities for ongoing improvement. NAFO has grown into a robust, consensus-based organization, whose governing principles have been modernized and enforcement measures are delivered in a cooperative manner.

These improvements are highlighted by the recovery in some groundfish stocks. Contracting Parties that made enormous sacrifices can now look forward to the possibility of re-engaging in their traditional fisheries. At the same time we need to continue to apply a conservative management approach to these stocks to ensure they continue to improve. As indicated in the performance review, NAFO must also continue to work towards the rebuilding of other depleted or moratorium stocks. We have taken important steps towards this with the development of Conservation Plans and Rebuilding Strategies for 3NO cod and 3LNO American plaice.

I am pleased to see that we have taken a suite of measures to manage significant adverse impacts on vulnerable marine ecosystems in the NAFO Regulatory Area, and that we continue to strengthen these measures with the help of the ground-breaking deep-sea research through the NEIRIDA program.

While significant progress has been achieved, the performance review also recommended areas that require further action. Earlier this year, a General Council Working Group met to prioritize these recommendations and to develop an action plan. Some of the priorities include:

- o resolving the discrepancies between STATANT 21 fishing data and STACFIS Data;
- o the timely submission of complete and accurate data and information;
- o timely and effective follow-up on infringements;
- strengthening the working relationship between the Fisheries Commission and the Scientific Council, and;
- o further development and implementation of the ecosystem and precautionary approaches.

We must also remember the importance the performance review attached to the Amendments to the 1978 NAFO Convention. As you know, at least nine of the twelve Contracting Parties must ratify the Amendments before they can come into force. We congratulate Cuba for their recent ratification of the Amendments and encourage others to do so as soon as possible.

The 34th annual meeting of NAFO provides an opportunity to build on the progress outlined in the performance review. Let us work towards the implementation of the recommendations of the review to help ensure a positive future for our precious fisheries and oceans resources, and for those who rely on them. I trust we will have a successful and productive meeting. Thank you.

Annex 10. Opening Statement by the Representative of Japan

Madame Chair, distinguished delegates, observers, Ladies and Gentlemen

It is a pleasure for the delegation of Japan to participate in the thirty-fourth NAFO annual meeting in this beautiful and historical city of Saint Petersburg. We would like to express our deepest gratitude to Russian Federation for hosting this meeting.

NAFO has made a steady progress in the implementation of management strategy for Greenland halibut recent years, in the last annual meeting, we defined the Exceptional Circumstances Protocol for the harvest control rule that may adjust the TAC for Greenland halibut. In this connection, we are urged to clarify the percentage differences between STATLANT-reported catches and the STACFIS catch estimates. It has been recommended by the performance review to resolve any discrepancies between them. I hope that NAFO will lead to a workable solution for this crucial issue during this week.

Although we have struggled with a lot of tasks for many years, there still remains some issues such as VMEs. NAFO is one of the world' leading RFMOs, our discussion and conclusion attract attention and occasionally influence over other RFMOs.

I would like to mention that our vessels have not operated since the year 2009, however one Japanese vessel is now preparing to re-operate in NAFO Convention area by the end of this December.

Lastly, we look forward to working with all the participants around the table for successful results of this meeting. Thank you.

Annex 11. Opening Statement by the Representative of Ukraine

Madam Chair, distinguished delegates, observers,

Ladies and Gentlemen,

On behalf of the Ukrainian delegation, let me express our gratitude to Russia for its hospitality as the host country and the NAFO Secretariat for its professional work and excellent organization of the 34th NAFO Annual Meeting in the marvellous city of Saint-Petersburg.

It is hard to overestimate the contribution of our organization towards conservation, sustainable use and stock replenishment within the Convention Area. Track record of NAFO sets an example for other regional fishing management organisations. NAFO activities prove the feasibility of truly responsible fishing regulated by the international organization.

The Report by Scientific Council contains both encouraging and disturbing information about different categories of fish stock. We hope for the increase of biomass of some commercial species that are subject to moratorium at the moment in order to resume catching in the near future.

On the other hand, effective exploitation of water bioresources is highly affected by some member-states' underutilization of large quota that were allocated to them. This leads to substantial distortion of the results of the modelling and, as a result - to the implementation of deficient management policies. It raises questions about the adequacy of the measures aimed at sustainability of the use and preservation of industrial fishing ecosystems. We think that this threatens the very objectives of NAFO. We believe that this problem should be subject to broader conversation during this working week.

Moreover, according to the opinion of scientific community, lack of information used for fishing stock analysis and population projections is undermined by diminishment of the practice of presence of observers at fishing vessels. As the member states lack funding for independent survey expeditions in the Regulation area, we suggest, as we did at a number of sessions during the last decade, that we should formally recognize the use of observation as a crucial mean to achieve the goals of the Convention.

In this particular case we can make reference to very positive experience of solving this question by another RFMO – the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR or ANTCOM as this organization is customary called in Russia).

Based on the aforementioned arguments, as well as on the results of the materials discussed at the Scientific Council last June related to the historical experience of Ukraine in North-Western Atlantic, we also deem it necessary to work on two issues of present interest to us:

1) An issue of possible reallocation of water bioresources catch quota (if quota allocation approach is chosen to be one of the management methods of such resource) taking into account essential underutilization of quota by certain member-states; 2) An issue of reconsideration of the scheme of management of multiple resource categories in order to move away from quota allocation approach and emphasize on "Olympic" approach in TAC development.

Fishing industry is important for every NAFO member-state. Ukraine is no exception. For centuries and even millennia, fisheries have played an important role in providing Ukrainian population with food. In particular it grew a lot more important as a result of Chernobyl nuclear disaster, as most of the population have been affected by radionuclides. Preserving and revivifying such an important industry as fisheries and building upon the past expertise are crucial for Ukrainian society.

At present, more than 30 thousand people are employed by fishing industry in Ukraine. Many Ukrainian fishermen are forced to work in crews of fishing vessels sailing under flags of foreign nations as, due to a number of reasons, a radical downsizing of the fleet took place in Ukraine in the 1990's, among which was the dramatic decrease of harvesting capacity. As a result, fisheries play very important social role for Ukraine – as they do for some other member-states.

At the end of 2011 the Government of Ukraine adopted National program of fisheries development for 2012-2016. This program is expected to lift the industry.

In order to implement this program, the issues of major repairs, upgrades of old and construction of new fishing vessels are being worked out in detail.

Given this, the level of harvesting capacity of Ukraine becomes a critical issue for Ukrainian fishing industry.

We count on the understanding of member-states.

We hope that this session will be fruitful and wish all of you courage and enthusiasm. We also hope that we will adopt balanced decisions, which will have the best results in future.

Thank you for your attention.

Annex 12. Opening Statement by Andrey Petrov (Russian Federation) on behalf of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)

Ladies and Gentlemen,

Though CCAMLR and NAFO areas of responsibility are geographically isolated, our organizations share a wide range of common interests. Being regional fishery organizations, both CCAMLR and NAFO share the common goal: conservation of marine ecosystems that includes rational use based on ecosystem precautionary approach. CCAMLR and NAFO have related interests in respect of the management of bottom fishing and the protection of Vulnerable Marine Ecosystems (VME's). Since 2008 CCAMLR has been doing an extensive work on elaboration of scientific criteria of identification VME's, on formulating the method of assessment of bottom fishing impact on the benthic communities, on establishing the system of VMEs in the Antarctic Ocean. As a result of this effort, 63 VME areas have been established in the CCAMLR zone, including 47 VME's in the Ross Sea (Area 88.1) and 16 VME's in the Area 88.2 (Amundsen Sea).

Another important task for CCAMLR is the establishment of representative system of Marine Protected Areas (MPAs) in the Antarctic. In 2009 CCAMLR designated the first MPA in Antarctic Ocean, on the southern shelf of the South Orkney Islands. This MPA encompasses an area just under 94000 square kilometers, more than the size of Wales. Last year CCAMLR adopted a general Conservation Measure describing the criteria, procedure, reporting and revision of new MPAs in Antarctic. At present a number of proposals for designating MPA are tabled for consideration and discussion in CCAMLR Scientific Committee.

CCAMLR continues to review the recommendations of the 209 Performance Review Panel at each annual meeting – and is making a good progress in addressing a large body of those recommendations. In line with the Performance Review Panel, CCAMLR increased transparency at its regular meetings, prioritized the recommendations of the Performance Review Panel and developed a concrete course of actions to implement them.

Looking in the future, CCAMLR confirms its desire of cooperation, broad exchange of ideas, experience and knowledge in the areas of common interest with the Northwest Atlantic Fisheries Organization.

Thank you for your attention.

Annex 13. WWF Opening Statement to the 34th NAFO Annual Meeting (Dr. Bettina Saier, Director Oceans, World Wildlife Fund Canada)

Thank you Madam Chair. On behalf of the World Wildlife Fund (WWF), I would like to thank our Russian hosts and NAFO for welcoming us here in the beautiful city of Saint Petersburg.

We have participated in NAFO annual and scientific council meetings for the past seven years because decisions made by NAFO affect the health of the Grand Banks. WWF's vision of a rebuilt Grand Banks is based on good governance and the transition towards it is incentivized by a growing market demand for sustainable seafood and the new field of conservation finance.

Each year WWF undertakes scientific, policy and management analyses. We consult broadly with experts, industry and contracting parties and then make recommendations towards progress in our annual "Measures of Success", which we shared with many of you in this room (www.wwf.ca/conservation/oceans/approach). I'd like to highlight a few main points here.

1. On Science

NAFO's ability to make good fishery management decisions depends on good science. Therefore, all adopted measures during this meeting should adhere to scientific advice that ensures long-term sustainability.

However, for many years, NAFO has noted major discrepancies in the data from various sources. Inaccurate catch data are a fundamental issue that currently undermines NAFO's ability to make good management decisions and, ultimately, to fulfill its mandate of ensuring the long-term conservation and sustainable use of the fishery resources. Until differences can be resolved, the Scientific Council's ability to produce scientific advice on fishery management decisions and actions remains severely compromised.

In order to enable the provision of the best possible assessments and advice from its own Scientific Council and, in accordance with international law and the recommendations of the performance review panel, the Fisheries Commission should, as a matter of highest priority, address the issue of flawed data collection and reporting.

To address this fundamental issue,

- the Scientific Council should be granted access to VMS data more easily
- Sanctions should be considered and, as a long-term solution,
- WWF promotes the introduction of an electronic monitoring system

2. Rebuilding stocks and newly opened fisheries

NAFO made meaningful progress in 2011 towards rebuilding. Conservation plans and rebuilding strategies (CPRS) for 3NO cod and American Plaice should be strengthened and CPRS should be developed for all depleted stocks and newly opened fisheries such as Flemish Cap cod and 3LN redfish. Due to uncertainties in the predictions of newly opened fisheries and based on best practices such as the yellowtail flounder fishery, TACs for 3M cod and 3LN redfish should be set at the lower end of the spectrum.

Furthermore, bycatch continues to jeopardize the recovery of Grand Bank cod and the lucrative fishery it once did – and once again could - support. Bycatch is still a rampant problem slowing the rebuilding of depleted stocks and must be factored into fishery management decisions more prominently, especially if limits are exceeded.

3. Vulnerable Marine Ecosystems

NAFO considers itself to be a front runner in the protection of VMEs. It has closed 12 areas and, last year, agreed to undertake a comprehensive impact assessment by 2016. WWF urges the Fisheries Commission to

- Endorse the VME indicator species and elements identified by the Scientific Council and
- Make available the necessary resources and data required for the completion of the 2016 impact assessment.

4. NAFO's Performance review

NAFO took a major step last year in completing an independent performance review that resulted in 162 recommendations. This goes a long way towards modernizing NAFO. This week, WWF looks to NAFO to adopt the

Action Plan addressing those recommendations in a timely manner.

Last year, we were pleased about the increased transparency in NAFO decision-making. As recommended by the Performance Review Panel, the rationale for all adopted measures should be provided in plenary, especially if such measures are not entirely consistent with scientific advice.

Annex 14. Opening Statement by the PEW Environment Group and the Ecology Action Centre to the 34th Annual Meeting of the Northwest Atlantic Fisheries Organization St. Petersburg, Russia 17-22 September 2012

Madam Chair, Distinguished Delegates, Fellow Observers, it is exciting to be in the beautiful city of St. Petersburg this year. We regret however that some of our colleagues were unable to be here as a result of the visa process. On behalf of the Pew Environment Group and the Ecology Action Centre we appreciate the opportunity to once again attend NAFO as observers.

As many of you know our primary concern is the mitigation of fishing impacts on the marine ecosystem for which NAFO has competence. In 2011, the UN reviewed the progress of all RFMOs in implementing the provisions of UNGA Resolutions 61/105 and 64/72—resolutions aimed at minimizing the impact of fishing activities on deep sea ecosystems and species. The outcome of that review process was a new Resolution 66/68 which reiterated the urgency of protecting vulnerable marine ecosystems and sustainably managing fisheries for deep-sea species, in particular through improving procedures for conducting impact assessments.

Pew and the Ecology Action Center recognize the efforts of Contracting Party scientists to collect data, conduct research cruises with a focus on sea floor communities, and to analyze this data in a manner that can be directly applicable to NAFO management measures.

Both the NAFO WGEAFM, through the Scientific Council and the NAFO WGFMS, have put significant work in over the past year to ensure that data and advice are put forward to further NAFO's compliance with the UNGA Resolutions. Over the years, we have commended NAFO on its significant progress in protecting many VME species and areas.

At this year's meeting we expect NAFO to act on scientific advice and expand existing closures based on new information obtained by data collection and modeling.

We strongly encourage NAFO to ensure that an adequate data collection protocol is put in place so that VME encounters are collected and reported appropriately. However, we continue to advocate for more reliable management measures than existing encounter protocols--measures that would reduce the risk of encounters taking place at all.

We also continue to advocate that any fishing in an existing closed area is met with compliance consequences.

As you know, we are concerned about the slow progress on impact assessments. We urge NAFO immediately begin using available NERIEDA data as well as fishing activity information and the NAFO WGEAFM process and framework for these assessments. It is important that the impact assessments be completed in time for management measures to be adopted in 2014. If this is not done, NAFO will have not made progress on this issue since the 2011 UN General Assembly Review and will have little to report at the next UNGA review in 2015.

In June of this year, the Rio + 20 meeting had a significant focus on the oceans where the protection of biodiversity beyond national jurisdiction was of great concern. Increasingly, NAFO's management measures for marine living resources will be affected by and linked to other international agreements.

As emphasized at last years' NAFO meeting, we strongly encourage NAFO Contracting Parties to collaborate with the Secretariat of the Convention on Biological Diversity to organize a workshop or workshops to identify Ecologically and Biologically Significant Areas. NAFO has already done much of the required work, but there is a conspicuous gap in information in the Northwest Atlantic. We encourage coastal states to take the lead in ensuring that these gaps are filled and that the appropriate information is collected and submitted to the CBD Secretariat.

NAFO Contracting Parties continue to catch deep sea fish species for which there is no regulation. NAFO has yet to adopt a comprehensive bycatch policy or develop TACs for many vulnerable fish species. We know that these species cannot sustain current levels of fisheries exploitation.

We support the recommendations of our colleagues at WWF, particularly on improving the transparency and accountability of NAFO and implementing the recommendations of the performance review in a timely manner.

We urge delegations to read specific recommendations in the written submission from the Ecology Action Centre, the Pew Environment Group, and the Deep Sea Conservation Coalition. We look forward to this week's meeting and seeing progress on our specific recommendations.

Thank you.

Susanna Fuller and Andrea Kavanagh on behalf of the EAC and PEW

Annex 15. Agenda

I. Opening Procedure

- 1. Opening by the Chair, Veronika Veits (EU)
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Admission of Observers
- 5. Publicity
- 6. Guidance to STACFAD necessary for them to complete their work (Monday)

II. Supervision and Coordination of the Organizational, Administrative and other Internal Affairs

- 7. Review of Membership of the General Council and Fisheries Commission
- 8. Status of ratification process resulting from the adoption of the amended Convention and presentation of progress reports
- 9. Status of NAFO Headquarters Agreement
- 10. Report of the GC WG on Development of Plans of Action for the Implementation of Recommendations of the NAFO Performance Review Panel (GC Doc. 12/1) and adoption of the Plan of Action
- 11. Report of external experts on Peer Review of the method of catch estimation of NAFO stocks by STACFIS
- 12. Administrative Report
- 13. Consideration of the Renewal of the Executive Secretary's contract

III. Coordination of External Affairs

- 14. Report of Executive Secretary on external meetings
- 15. International Relations
- 16. Amendment to the NAFO/FIRMS Partnership Agreement

IV. Finance

- 17. Report of STACFAD at the Annual Meeting
- 18. Adoption of the Budget and STACFAD recommendations for 2013

V. Closing Procedure

- 19. Election of Vice-Chair
- 20. Time and Place of Next Annual Meeting
- 21. Other Business
- 22. Press Release
- 23. Adjournment

Annex 16. Amended Annex 2 to the Partnership Arrangement between the Northwest Atlantic Fisheries Organization and the Food and Agriculture Organization of the United Nations (representing the FIGIS-FIRMS Partnership)

1. Data and statistical information

The following applies to the stocks managed by NAFO (Table 1 provides a list of stocks and fisheries managed by NAFO.)

Scope of information to be contributed

NAFO is mandated by its Contracting Parties to provide scientific advice and implement management measures for the NAFO Regulatory Area in the Northwest Atlantic (defined by the NAFO Convention). NAFO will contribute to FIGIS/FIRMS information on stocks for which it provides management advice as provided by NAFO Scientific Council to the NAFO Fisheries Commission. NAFO will also contribute information relating to fisheries taking place in the NAFO Regulatory Area.

Types of information to be contributed:

- Reports: NAFO Scientific Council Summary Sheets containing information on stock status, assessments and management advice for NAFO managed fish stocks (see Table 1) will be made available for upload to FIGIS. Links to supporting scientific documents, such as stock assessment documents, will be provided.
- Data: Catch and fishing effort data will be provided at public domain resolution as determined under the policies of NAFO. These data will be available for use by FIGIS in development of summary plots and statistics elsewhere presented within the FIGIS system.
- Biology, ecology, fisheries, and other information: Summary information from research and investigations
 specific to stocks and resources managed by NAFO will be provided in the form of links to reports available
 on the NAFO website.
- Fishery Regulation and Management Measures: Information on regulation and management of fisheries in the NAFO Regulatory Area will be included on FIGIS with links to relevant sections of the NAFO Conservation and Enforcement Measures and Fisheries Commission reports maintained on the NAFO website.

Documentation and Standards to be used in this Partnership Agreement

Sources of information will be documented, and links to electronic versions of source material will be provided when available. A link to the NAFO website will be provided for detailed information not suitable for posting to FIGIS. The information to be contributed will conform to NAFO policy guidelines for confidentiality and information release and to the Information Management Policy established by the FIRMS Steering Committee.

2. Metadata and information management

Methods of collection and processing: Details of the NAFO data collection and compilation are provided in the various Scientific Council reports, studies, and documents accessible on the NAFO website. NAFO management measures can be found in the NAFO Conservation and Enforcement Measures (NCEM), updated annually and available on the NAFO website

Bibliographical sources: Bibliographical sources for the NAFO reports are listed in the stock summary sheets, the Scientific Council Summary Documents, Fisheries Commission reports and NCEM. Most of the bibliographical source documents are stored on the NAFO website. From the FIGIS fact sheets, links will point to the relevant NAFO source documents.

Ownership and responsibilities: The information contributed to FIRMS resides under the full ownership and responsibility of NAFO. Therefore, the ownership presented as header of each stock fact sheet will clearly include "Northwest Atlantic Fisheries Organization" or its acronym "NAFO" as the organization and data owner institutional entity. The acronym for the Commission used throughout FIGIS-FIRMS will be "NAFO". Further, NAFO will be owner of all descriptions of itself, and all text outlining its responsibilities and accomplishments, wherever presented by pages linked to or referenced by FIGIS-FIRMS, including pages developed by other organizations or entities within such as UN/FAO/FIRMS. This shall be accomplished by establishment of appropriate editorial and ownership security privileges within FIGIS-FIRMS. In cases where an item has joint ownership, all entities shall show a clear indication of ownership on fact sheets.

Transmission protocols and dissemination channels: The NAFO Scientific Council Reports and the NAFO Conservation and Enforcement Measures which serve as background documentation for information published on FIGIS-FIRMS will be published on the NAFO web site. Links to these reports and relevant texts will be added in various topics of the FIGIS-FIRMS fact sheets under NAFO ownership using a combination of the tools offered by the system (XML editing uploading – on-line editing). Transmission schedule is planned to be within three months following publication by NAFO of its reports on the NAFO website.

3. Data and information security

All contributions from NAFO will be on the public domain. Transparency of the information and results on status and trends of stocks and resources presented by NAFO are documented in the course of the scientific peer-review process followed to obtain the results, and the various meetings of the NAFO at which the results, and various options for management and resource conservation, are presented and discussed. Details on these meetings and processes are available at the NAFO website.

4. Collaborative institutions

NAFO works closely together with numerous institutions both national and international on promoting marine science in the North Atlantic.

5. Additional entitlements

NAFO staff and NAFO participants will be entitled to participate in workshops or special courses organized by the FIRMS Secretariat (FAO) in the use of electronic publishing tools used in the FIRMS-FIGIS.

When required, this Annex may be revised by mutual consent.

TABLE 1. Fish stocks and high seas fisheries managed by NAFO. Information on additional stocks may be provided on a year-to-year basis

(+ is full assessment year, i is interim monitor, - no assessment undertaken or currently planned). The i (+) is a specially requested full assessment instead of a planned interim monitoring.

Stock	Frequency (pre-2006)	Frequency (from 2006)	2010	2011	2012	2013	2014
NAFO FI	emish Cap gro	undfish fisheri	es				
Cod in Div. 3M	2	2	+	i (+)	+	i	+
Redfish in Div. 3M	2	2	i	+	i	+	i
American plaice in Div. 3M	2	3	i	+	i	i	+
Greenland halibut in SA 2 + Div. 3KLMNO*	1	1	+	+	+	+	+
NAFO G	rand Bank gro	undfish fisheri	es				
Cod in Div. 3NO	2	3	+	i	i	+	i
Redfish in Div. 3LN	2	2	+	i	+	i	+
Redfish in Div. 30	2	3	+	i	i	+	i
American plaice in Div. 3LNO	2	2	i (+)	+	i	+	i
Witch flounder in Div. 2J + 3KL	2	3	+	i	i	+	i
Witch flounder in Div. 3NO	2	3	i	+	i	i	+
Greenland halibut in SA 2 + Div. 3KLMNO*	1	1	+	+	+	+	+
Yellowtail flounder in Div. 3LNO	2	2	i	+	i	+	i
Squid (Illex) in SA 3+4	2	3	+	i	i	+	i
Capelin in Div. 3NO	2	2	i	+	i	+	i
Thorny skate in Div. 3LNOPs	2	2	+	i	+	i	+
White hake in Div. 3NOPs	2	2	i	+	i	+	i

1	NAFO shrimp	fisheries					
Northern shrimp in Div. 3M	1	1	+	+	+	+	+
Northern shrimp in Div. 3LNO	1	1	+	+	+	+	+
1	NAFO pelagic	fisheries					
Oceanic redfish (not assessed by NAFO)							

^{*} The Greenland halibut fishery takes place over both the Flemish Cap and the Grand Bank

Annex 17. 2012 Annual Meeting Press Release

NAFO CONTINUES TO MOVE FORWARD

FOR IMMEDIATE RELEASE: St. Petersburg, Russian Federation, 21 September 2012

The 34th Annual Meeting of NAFO concluded successfully today, making positive decisions for the management of fish stocks and protection of ecosystems in the Northwest Atlantic Area.

NAFO continues to address issues raised in the Performance Review conducted in 2011 by setting priorities and timelines to implement the recommendations contained in the report and took action to implement them.

Taking into account the scientific advice, Total Allowable Catches (TAC) were set for fishing on ten stocks while a further ten stocks remain under moratoria, including the shrimp on the Flemish Cap.

NAFO has moved to strengthen its protection of vulnerable marine ecosystems (VME) by introducing a raft of measures aimed at clarifying existing provisions, strengthening others and introducing new catch limits for fragile organisms, such as sea pens, on the seabed.

NAFO continues the closure of 11 areas of coral/sponge concentrations and six seamounts to bottom fishing. These areas contain significant concentrations of VME indicator species.

Drawing on the latest scientific information, NAFO expanded the list of VME indicator species (now recognizing 67 species which signal a potential VME) and adopted a new list of VME elements in line with the FAO International Guidelines.

NAFO continues to develop Conservation Plans and Rebuilding Strategies frameworks for commercially important stocks, such as American plaice and Cod on the Grand Bank. When the objectives of the Rebuilding Plan are met these stocks can again be fished by the international community. Efforts will continue to develop frameworks for Witch Flounder on the Grand Bank, and the initial development of CPRS for both northern Grand Bank Redfish and Flemish Cap Cod, which have only recently been re-opened for directed fishing.

NAFO took steps to ensure the quality of its scientific advice for fish stocks by engaging in an independant peer review of the way catches are estimated in stock assessment. This examination will continue with further investigation into the reasons for the discrepancy between official catch figures and scientific estimates.

Additional highlights of the meeting can be found in the attached backgrounder.

For more information contact: Barbara Marshall, NAFO Secretariat – www.nafo.int

Tel: +1-902-468-5590 E-mail: <u>bmarshall@nafo.int</u> Northwest Atlantic Fisheries Organization 2012 Annual meeting Press Release 21 September 2012

Backgrounder

NAFO is an international intergovernmental fisheries science and management body that manages the fishery in the international portion of the Northwest Atlantic. The 34th Annual Meeting was held during 17-21 September 2012 at the Pribaltiyskaya Park Inn Hotel, St. Petersburg, Russian Federation. The meeting was attended by 160 delegates from all Contracting Parties (Canada, Cuba, Denmark (in respect of Faroe Islands and Greenland), European Union, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Republic of Korea, Norway, Russian Federation, Ukraine and United States of America.

The meeting was also attended by observers from the Northeast Atlantic Fisheries Commission (NEAFC), North Atlantic Marine mammal Commission (NAMMCO), International Commission Conservation of the Atlantic Tunas (ICCAT), Southeast Atlantic Fisheries Organisation (SEAFO) and Conservation of Antarctic Marine Living Resources (CCAMLR), the World Wildlife Fund (WWF), and Pew Environment Group.

The three bodies of NAFO, General Council (chaired by Veronika Veits, EU), Fisheries Commission (chaired by Sylvie Lapointe, Canada) and Scientific Council (chaired by Carsten Hvingel, Norway) and their subsidiary bodies met over the course of a week to deliberate on management measures and scientific assessment regarding the international fisheries of the Northwest Atlantic. The scientific advice and a quinquennial review of environmental conditions were presented.

Five NAFO Contracting Parties have now ratified the amended NAFO Convention and others were strongly encouraged to continue their efforts to do so in their respective governments.

The main function of NAFO is to regulate fisheries in the Northwest Atlantic consistent with advice from an international panel of scientists. Total allowable catches (TACs) are set in accordance with the precautionary principle. NAFO agreed on management measures for the 20 fish, shrimp and squid stocks. For the recently reopened stock of Redfish in the northern Grand Bank caution was considered for this slow-growing species. While shrimps on the Flemish Cap remain below their precautionary threshold and are closed to fishing, the latest data on the Grand Bank Shrimp stock suggests the decline in this stock has been halted and a TAC of 8 600 tons was set. For Thorny Skate on the Grand Bank, catch limits were reduced to be more in line with recent catches to encourage stock rebuilding.

Stocks which until recent years have been depleted and closed to fishing are now performing well. Yellowtail Flounder on the Grand Banks was closed to fishing between 1995 and 1997, but is now well above precautionary thresholds and a TAC of 17 000 tons was set. Cod on the Flemish Cap (Div. 3M), which was at very low levels and under a moratorium to fishing between 1994 and 2009 continues to grow at a remarkable rate, and a TAC of 14 113 tons was set. Other stocks are recovering at a slower rate, and fishing on stocks such as American Plaice and Cod on the Grand Bank remains suspended.

NAFO has been amongst the most proactive of RFMOs when it comes to protection of vulnerable marine ecosystems which can be harmed by fishing, closing over 360 000km² to bottom fishing since 2006. At their latest meeting NAFO took steps to enhance this protection, in accordance with UNGA Resolution 61/105, by lowering the catch of sponges and corals needed to trigger "move-on" rules, requiring fishing vessels to move away from areas where there may be high densities of these creatures. Positions of these vulnerable marine indicators must be reported.

Catch thresholds for "sea-pens", a long, frond-like type of soft coral, have been introduced for the first time. NAFO also revised its rules on fishing outside of currently fished areas, requiring national administrations to submit a plan of any bottom fishing in exploratory and new areas to be submitted for review by NAFO's scientific and management bodies, which can result in permission to fish being granted, prohibited or requiring specific measures to protect marine life.

Conservation Plans and Rebuilding Strategies (CPRS) were developed and established in order to bring or maintain the stocks at levels that can support sustainable fishing. Stocks under CPRS are constantly assessed and monitored. Harvesting strategies are determined and adjusted accordingly. Currently two stocks on the Grand Bank, American Plaice and Cod, which have been under moratoria since 1995 are managed under CPRS. The moratoria continue on these stocks.

NAFO also established priorities for developing CPRS for other stocks: continuing efforts for southern Grand bank Witch Flounder which has been under moratorium since 1995, and initial development for both northern Grand Bank Redfish and Flemish Cap Cod which were re-opened in 2010 after a decade of closure.

NAFO has continued the process of reforming itself following the 2011 Performance Assessment Report. Following a working group session, which looked into the best way forward in March 2012, the General Council of NAFO adopted its plans, particularly endorsing those which enable closer working relationships between scientists and managers and ensuring best data and science are available. Consequently, a number of working groups on conservation and

rebuilding of fish stocks, management strategies and vulnerable marine ecosystems, which were previously held under the auspices of the Fisheries Commission, will become joint working groups of the Scientific Council and Fisheries Commission.

The number of fishing vessels in the Regulatory Area has recently increased but still remains much lower than historical numbers. The inspection rate has remained stable since 2006.

NAFO has established a fund to continue to support mapping vulnerable marine ecosystems (VMEs) in the NAFO Regulatory Area (NAFO PotEntial VulneRable Marine Ecosystems Impacts of Deep seA Fisheries – NEREIDA).

NAFO Secretariat updated its website with a modern look and feel. A new "Data" section has been created to provide easier access to statistical and geo-spatial information. Material on frameworks, such as the Precautionary Approach, Ecosystem Approach, CPRS and MSE has been added. A new ICNAF section includes a history of the predecessor of NAFO and the ICNAF publications which have been digitized. ICNAF meeting and research documents are also being scanned and will be uploaded as they are finalized.

A new secured area for NAFO Inspectors was also introduced to allow comprehensive access to important official fisheries documentation.

The 35th Annual Meeting will be held in Halifax, NS, Canada,

Meetings:

Prior to the Annual Meeting, the following NAFO meetings were held: Scientific Council/NIPAG Meeting on Shrimp Assessment, Dartmouth, NS, Canada, 19-26 October 2011; Scientific Council WGEAFM, Dartmouth, NS, Canada, 30 November-09 December 2011; Scientific Council Ad hoc Working Group on Exceptional Circumstances (by correspondence), January-March 2012; GC Working Group on the Development of Plans of Action for the Implementation of the Recommendations of the NAFO Performance Review Panel, Halifax, NS, Canada, 20-22 March 2012; Joint NAFO/ICES Working Group on Deep-water Ecology (WGDEC), Copenhagen, Denmark, 26-30 March 2012; International Fisheries Commissions Pension Society Annual Meeting, Washington, DC, USA, 19-20 April 2012; Standing Committee on International Control (STACTIC), Brussels, Belgium, 2-4 May 2012; Scientific Council Working Group on Reproductive Potential (by correspondence and ad hoc meetings); Scientific Council and its Standing Committees, Dartmouth, Nova Scotia, Canada, 1-14 June 2012. Reports of all NAFO meeting are finalized following the meeting end and are posted on the public NAFO website. Reports from General Council and Fisheries Commission (and Standing Committees) can be accessed at http://www.nafo.int/publications/frames/fish-proc.html and Scientific Council Reports at http://www.nafo.int/science/frames/sci-rep.html.

The table of NAFO TACs and quotas agreed at the 34^{th} Annual meeting can be found at $\underline{\text{http://www.nafo.int/fisheries/quota.pdf}}$

Dr. Vladimir Shibanov

NAFO Executive Secretary – 21 September 2012, St. Petersburg, Russian Federation For more information contact: Barbara Marshall, Information Officer, NAFO Secretariat, www.nafo.int Tel: +1-902-468-5590 – E-mail: bmarshall@nafo.int

Annual Quota Table – 2013

QUOTA TABLE. Total allowable catches (TACs) and quotas (metric tons) for 2013 of particular stocks in Subareas 1-4 of the NAFO Convention Area. The values listed include quantities to be taken both inside and outside the 200-mile fishing zone, where applicable.

Species		3	Cod				Redfish			America	American plaice	Yellowtail
Division/Contracting Party	3.	3M	% of 3M Cod TAC	3NO	3LN	% of 3LN Redfish TAC	3M	30	Sub-Area 2 and Div. 1F+3K	3LNO	3⊠	3LNO
Canada		113	08.0	0	2769	42.60	200	0009	02,4	0	0	165755
Cuba		522	3.70	,	637	9.80	1750		02,4	1	1	1
Denmark (Faroe Islands and Greenland)		3154	22.35	1	1		6919		02,3	1	1	1
European Union		8049 ²⁵	57.03	011	1185^{26}	18.23	781312	2000	0 ^{2,3} 0 ^{2,15}	0	011	1
France (St. Pierre et Miquelon)		-		1	1		6919		02,4	1	ı	3405
Iceland		-		1	1		1		02,3	1	ı	1
Japan		-		,	1		400	150	02,4	1	1	1
Korea		-		ı	1		6919	100	02,4	1	ı	1
Norway		1305	9.25	1	1		1		02,3	1	ı	1
Russian Federation		913	6.47	0	1870	28.77	9137	6500	02,3	1	0	1
Ukraine								150	02,4			
United States of America		-		1	1		6919		02,4	1	ı	1
Others		57	0.40	0	39	09:0	124	100	-	0	0	855
TOTAL ALLOWABLE CATCH	6	14113^{23}	100.0	*20,9	6500 ²⁴	100.0	6500 ⁸	20000	010,17	*21	*9,16	17000 ^{21,22}

Species	W	Witch	White hake	Capelin	Skates	Greenland halibut	Squid (Illex) ¹	Shrimp	dı
Division/Contracting Party	3L	3NO	3NO	3NO	3LNO	3LMNO	Sub-areas 3+4	31	3NO
Canada		0	294	0	1167	1724	N.S. ⁶	7160	
Cuba		-		0		1	510	96	
Denmark (Faroe Islands and Greenland)		ı				199		96	
European Union		011	588	011	4408	673818	$\frac{N.S.^{6}}{611^{13}}$	48014	
France (St. Pierre et Miquelon)				ı		188	453	96	
Iceland		-		-		1	-	96	
Japan		-		0		1178	510	96	
Korea		-		-		1	453	96	
96*10Norway		-		0		1	-	96	
Russian Federation		0	59	0	1167	1466	749	96	
Ukraine						-		96	
United States of America				ı		•	453	96	
Others		0	59	-	258	0,	794	0	
TOTAL ALLOWABLE CATCH	*9,20	6*	1000²7	*9,20	700016	11493	34000²0	8600	6*

Ban on fishing in force.

Any quota listed for squid may be increased by a transfer from any "coastal state" as defined in Article 1, paragraph 3 of the NAFO Convention, provided that the TAC for squid is not exceeded. Transfers made to Contracting Parties conducting fisheries for squid in the Regulatory Area shall be reported to the Executive Secretary, and the report shall be made as promptly as possible.

The Executive Secretary shall notify without delay all Contracting Parties the dates on which accumulated reported catch taken by vessels of Contracting Parties estimated equal to 50% and then 100% of that allocation.

Quota to be shared by vessels from Denmark (Greenland and Faroe Islands), European Union, Iceland, Norway and Russia. Catches in the NAFO Convention Area shall be deducted from the quotas allocated in the NEAFC Convention Area.

Quota to be shared by vessels from Canada, Cuba, France (St. Pierre et Miquelon), Japan, Korea, Ukraine and USA.

The allocation to these Contracting Parties are as yet undetermined, although their sum shall not exceed the difference between the total of allocations to other Contracting Parties Contracting Parties shall inform the Executive Secretary before 01 December 2012 of the measures to be taken to ensure that total catches do not exceed the levels indicated. and the TAC (= 29.458 tons).

In 2005, the previous 935 t "Others" quota was assigned to three Contracting Parties. When the TAC exceeds 30,000 t the next 1,300 t beyond 30,000 will be allocated to an Others quota which can be accessed by those who do not hold Greenland halibut allocation. In deciding the relevant contributions of Contracting Parties to the 1,300 t Others quota, the

- Fisheries Commission will take into account the fact that some Contracting Parties received a benefit from the 935 t quota which was reassigned in 2005.
- 8. Not more than 3250 tons may be fished before 01 July 2013.
- The provisions of Article 6, paragraph 1.b) of the Conservation and Enforcement Measures shall apply.
- In the case of the NEAFC decision which modifies the level of TAC in 2013 as compared to 2012, these figures shall be accordingly adjusted by NAFO and formalized through a 10
- Including fishing entitlements of Estonia, Latvia, and Lithuania following their accession to the European Union and in accordance with sharing arrangements of the former USSR quota adopted by the Fisheries Commission at its Annual Meeting in 2003 (FC Working Paper 03/7) $\equiv \dot{}$
- Including allocations of 1571 tonnes each for Estonia, Latvia and Lithuania out of a sharing of 20,000 tonnes, following their accession to the European Union. 12.
- Allocations of 128 tonnes each for Estonia, Latvia and Lithuania as well as 227 tonnes for Poland out of a TAC of 34,000 tonnes, following their accession to the European Union 13.
- including allocations of 96 tonnes each for Estonia, Latvia, Lithuania and Poland out of a TAC of 8,600 tonnes, following their accession to the European Union. 4.
- Allocation of 17.85% to Lithuania and 2.15% to Latvia following their accession to the European Union. 15.
- ¹⁶. Applicable to 2013 and 2014.
- The quota shares in footnotes 4 and 15 can only be fished in the NAFO Regulatory Area. If an increase in the overall TAC as defined in footnote 10 leads to an increase in these shares, he first 500 tonnes of that increase shall be added to the quota share referred to in footnote 4. 17.
- Including an allocation of 377tonnes for Estonia, Latvia, and Lithuania following their accession to the European Union. 9.
- Notwithstanding the provisions of footnote 8 and Article 5.2 (b) and without prejudice to future agreements on allocations, these quotas may be fished in their entirety by these Contracting Parties. 19.
- ^{20.} Applicable until at least 2013.
- In lieu of Article 6.1 (a) and (b) of the CEM, the following by-catch provisions for American plaice only in the 3LNO yellowtail fishery shall apply: Contracting Parties fishing for yellowtail flounder allocated under the NAFO allocation table will be restricted to an overall Am. plaice by-catch harvest limit equal to 15% of their total yellowtail fishery as calculated in accordance with Article 6.1 (c). If a Scientific Council projection indicates that this rate is likely to undermine stock recovery or cause an unreasonable delay in reaching B_{im}, this rate may be subject to a reassessment by the Fisheries Commission. 21.
 - Following the NAFO annual meeting and prior to January 1 of the succeeding year, at the request of the USA, Canada will transfer 1000 tonnes of its 3LNO yellowtail quota to the 22...
- The allocation key of this stock is based on the 1998 Quota Table. In 1999, a moratorium on cod in Division 3M was declared. 23.
- The allocation key of this stock is based on the 1997 Quota Table. In 1998, a moratorium on redfish in Division 3LN was declared.

24.

- including fishing entitlements of 157 tons each for Estonia, Latvia, and Lithuania in accordance with sharing arrangements of the former USSR quota adopted by the Fisheries Commission at its Annual Meeting in 2003 (FC Working Paper 03/7) and allocation of 536 tons for Poland following their accession to the European Union. 25.
- Including fishing entitlements of 322 tonnes each for Estonia, Latvia, and Lithuania in accordance with sharing arrangements of the former USSR quota adopted by the Fisheries Commission at its Annual Meeting in 2003 (FC Working Paper 03/7) following their accession to the European Union. 26.
- Should a Contracting Party experience higher than normal catches per unit of effort (CPUE) and conclude that a shift to high availability levels of white hake during the fishing season - such as what apparently was the case in 2002 and 2003 - is taking place, then that Contracting Party shall notify the Executive Secretary. Upon this notification, the TAC is increased to 5,000 metric tons. The Executive Secretary shall notify all Contracting Parties of the increased TAC. Within one month that Contracting Party shall submit a summary of evidence for its conclusion (higher than normal CPUE and any other additional relevant information). On this basis, a mail vote will be submitted to the Fisheries Commission as to whether an exceptional increase in the availability of fish occurs. In case of a positive vote, the TAC is confirmed to be 5,000 metric tons. In case of a negative vote, the TAC is 1,000 metric tons and catches between the notification of high availability and the notification to Contracting Parties of the result of the vote will not be accounted for the catch limitation provided in Article 5 of the NCEM. 27.

PART II

Report of the Standing Committee on Finance and Administration (STACFAD)

34th Annual Meeting, September 17-21, 2012 St. Petersburg, Russian Federation

1. Opening by the Chair

The first session of STACFAD was opened by the GC Chair (Veronika Veits, EU) on 17 September 2012, who informed the Committee that the Chair of STACFAD, Deirdre Warner-Kramer (USA) and the Vice-Chair Olga Sedykh (Russian Federation) were unable to attend this year's meeting. As a result, the Committee elected Fred Kingston (EU) to serve as interim Chair. The Chair welcomed delegates and members of the NAFO Secretariat to the meeting.

Present were delegates from Canada, Denmark (in respect of Faroe Islands and Greenland), European Union, France (in respect of Saint-Pierre et Miquelon), Iceland, Japan, Norway, Russian Federation, and the United States of America and members of the NAFO Secretariat (Annex 1).

2. Appointment of Rapporteur

Stan Goodick of the NAFO Secretariat was appointed Rapporteur.

3. Adoption of Agenda

The provisional agenda was adopted noting that the EU request for STACFAD to consider the establishment of a framework in order to manage a fund for the NEREIDA project would be discussed under agenda item 19 "Other Matters" (Annex 2). STACFAD noted that the issues of controlling the 2013 budget and addressing the Performance Review Panel (PRP) recommendations in the area of finance and administration, which were discussed at General Council, are already anticipated to be addressed in the Agenda.

4. Auditors' Report for 2011

The auditing firm of WBLI Chartered Accountants performed the audit of the financial statements of the Organization for the fiscal year ended December 31, 2011. The financial statements and report to the General Council were circulated to the Heads of Delegation of the General Council and to STACFAD delegates in advance of the Annual Meeting.

The Senior Finance and Staff Administrator for NAFO presented the Draft Independent Auditors' Report and Financial Statements of the Northwest Atlantic Fisheries Organization for the year ended December 31, 2011. Changes to auditing standards in recent years no longer permit Auditors to sign and date the Auditors' Report until after the body responsible for approving the statements has reviewed and approved the statements. The NAFO financial statements as at December 31, 2011 will be shown as draft statements until they are reviewed by STACFAD and approved by the Organization at the Annual Meeting. It was noted that the total expenditures incurred for the fiscal period ending 2011 amounted to \$1,857,610, which was \$28,390 under the approved budget of \$1,886,000. It was also noted that only one Contracting Party had a partial contribution outstanding on December 31, 2011 in the amount of \$2,306.

The balance in the accumulated surplus account at year end amounted to \$518,583. At the 2011 Annual Meeting, General Council approved maintaining the level in the accumulated surplus account for 2012 at \$285,000 of which \$200,000 would be sufficient to finance operations during the first three months of 2012, and of which \$85,000 would be available for use in emergency situations. The remaining \$233,583 (\$518,583 - \$285,000) would be used to reduce annual contributions for 2012.

The Independent Auditors' Report noted that the Organization: (1) has not recorded or met all disclosure requirements for employee future benefits, including the pension plan assets, liabilities and unfunded deficit, and (2) has a policy not to capitalize its capital assets. The audit determined the financial affairs of the Organization had been conducted in accordance with the Financial Regulations and budgetary provisions of NAFO and presented, in all material respects, a fair and accurate accounting of the financial affairs of the Organization.

STACFAD recommends that the 2011 Auditors' Report be adopted.

The Report to the General Council states that the Accounting Standards Board of the Canadian Institute of Chartered Accountants recently issued and implemented new accounting frameworks and Not-For-Profit organizations must

choose between International Financial Reporting Standards (IFRS) and the Accounting Standards for Not-For-Profit Organizations with Accounting Standards for Private Enterprises as the underlying framework.

As NAFO is an international organization, STACFAD recommends that the Organization choose the International Financial Reporting Standards (IFRS) as its accounting framework as of 2013.

5. Administrative and Activity Report by Secretariat

Under this item, the Executive Secretary highlighted NAFO administrative matters and activities for the period September 2010 to August 2011 (GC Doc. 11/1-Revised).

6. Financial Statements for 2012

The NAFO Senior Finance and Staff Administrator presented the Financial Statements for the fiscal year ending 31 December 2012.

Budgetary Expenses

The approved operating budget for 2012 was set at \$1,875,000. It was noted in the financial statements that expenditures for the year are projected to be \$1,908,000, over the approved budget by \$33,000. This was due to the non-budgeted expenses for the creation of an external expert panel to review the issue of catch discrepancy between STATLANT 21A catch estimates and those of STACFIS. The additional funds required to conduct the external review came from the contingency fund, as approved by General Council.

All remaining 2012 operating expenses are anticipated to be on or near budget for the year.

Assessed Contributions

The 2012 operating budget was set at \$1,875,000. The prior years' accumulated surplus balance had \$233,533 deemed to be in excess of the needs of the Organization, which was allocated to the operating budget. As a result, annual contributions issued to Contracting Parties for the 2012 fiscal year were \$1,641,467.

Balance Sheet

The Organization's cash position at December 31, 2012 is estimated to be \$553,315, which is sufficient to finance appropriations in early 2013 pending the receipt of annual payments by Contracting Parties in the spring of 2013.

It was noted that only one Contracting Party (Cuba) had a partial contribution outstanding in the amount of \$1,033.

7. Review of Accumulated Surplus and Contingency Funds

According to the Financial Regulations of the Organization, STACFAD and General Council shall review the amount available in the accumulated surplus account during each annual meeting. The accumulated surplus account shall be set at a level sufficient to temporarily finance operations during the first three months of the year, plus an amount up to a maximum of 10% of the annual budget for the current financial year to be used for unforeseen and extraordinary expenses to the good conduct of the business of the Organization.

The Secretariat noted the accumulated surplus account at December 31, 2012 is estimated to be \$459,000.

STACFAD recommends that the amount maintained in the accumulated surplus account be set at \$285,000 of which \$200,000 would be sufficient to finance operations during the first three months of 2013, and of which \$85,000 would be a contingency fund available to be used for unforeseen and extraordinary expenses.

8. Personnel Matters

It was noted last year that there was the need to update the current Secretariat HR structure for data management and analysis, for instance for catch and effort data analysis and presentation services and to maintain the "footprint" map. The responsibility for these tasks and also for developing and designing NAFO's databases are not properly allocated in the current NAFO job descriptions. Therefore, the Executive Secretary asked STACFAD to consider the creation of a Data Manager position (CS Computer Systems Group Payroll Category) to be implemented in 2013. The Committee requested the Secretariat to draft a proposal for a new Data Manager Job Description for presentation at the 2012 annual meeting.

In line with this request, the Secretariat presented a proposed Data Manager Job Description and Salary Category (Annex 3).

The Committee recognized the urgent need for such a position in light of the diverse and increasing requests made to the Secretariat for data analysis by the various bodies within the Organization and agreed in principal to include the Data Manager Job description and salary category to the Secretariat's HR staff classification system. It was recalled that the establishment of this position was recommended by the PRP. However, due to the world economic climate and the mandate by certain Contracting Parties to maintain expenditures at levels consistent with those of the previous year, the hiring of a Data Manager should be deferred from January 2013 to mid-April 2013.

STACFAD recommends the adoption of a new position of Data Manager within the NAFO Secretariat.

9. Preliminary Decision on Contract Renewal of present Executive Secretary

The contract of the Executive Secretary (ES) will be up for renewal at the 2013 Annual Meeting for the period 2014-2017, therefore a preliminary decision by Heads of Delegation on this matter is needed. A course of action for 2013 (draft renewal contract or recruitment process) may need to be developed dependent on the decision of Heads on this matter. The cost for the recruitment of a new ES and the relocation costs of the incoming and outgoing ES could reach up to \$100,000 which has not been provided for in the 2013 budget estimate.

10. Internship Program

At the last Annual Meeting, a NAFO Internship Program was adopted by the Organization. The Secretariat presented a report on the interns which have been hosted at the Secretariat since the formalization of the Program, including tasks performed. It was noted that the Organization expects to receive an exemption from the Canadian requirement that any non-Canadian intern would have to complete a Labour Market Opinion, which will streamline the process for interns from NAFO member countries to gain entrance in Canada (Citizenship and Immigration Canada, FW1, Temporary Foreign Worker Guidelines).

The Committee endorsed the continuation of the Internship Program. It recognized that there can be substantial benefits to the Secretariat. The Executive Secretary shall be responsible for trying to have a balanced distribution of internships amongst member countries, whenever possible, when selecting future candidates.

11. Rules of Procedure

All members of the Committee agreed on the principle of openness and transparency, however, consensus could not be reached on the meetings which accredited observers shall be permitted to attend. The Committee noted that the Rule 6 of Rules of Procedure for Observers may also require additional clarity on the issues of confidentiality and media communication during meetings. The USA further requested that the requirements for observer accreditation be reviewed at its next meeting to determine if they are too burdensome. Finally, the Committee requested the Secretariat to examine the potential of establishing an attendance fee for observers, including a comparison across RFMOs, and to report on the potential revenue that might arise.

In the interim, in the event of requests by observers to attend a session other than the a plenary session of the NAFO constituent bodies, the Chair of that body, through consultation with all Contracting Parties on a consensus basis, shall determine if that particular session could be deemed "non-restricted" according to Rule 3 of the Rules of Procedure for Observers.

12. Report of the Annual Meeting of the International Fisheries Commission Pension Society (IFCPS)

The Annual Meeting of the IFCPS was held April 19-20, 2012 in Washington, D.C. and the Secretariat provided the Committee with an update on the highlights of the meeting. A backgrounder document of the pension plan and the financing/funding issues, as well as the Annual Statistical Report for NAFO was distributed for the information of members. It was noted that there are two NAFO Staff Members who are eligible for early retirement in 2013 and one Staff Member during 2014. Costs for small plans such as the IFCPS can increase or decrease significantly (by several hundred thousand dollars) as a result of early or late retirement or a premature or late death.

13. Update on implementation of Performance Review Panel recommendations tasked to STACFAD

STACFAD reviewed the progress to date on the implementation of those particular recommendations of the PRP relevant to STACFAD on the basis of a report from the Secretariat. It was noted that most of them are about to be or have already been implemented. The only exceptions relate to exploring areas of possible cost recovery measures and

revisions to NAFO's communication strategy and media policy, which will be addressed at the next Annual Meeting. This progress can be summarized in STACFAD WP 12/5 (Revision 3) (Annex 4).

STACFAD recommends that the General Council endorse the progress achieved by the Secretariat to implement the Performance Review Panel's recommendations in the area of finance and administration.

14. Budget Estimate for 2013

The Secretariat presented the 2013 budget estimate (GC Working Paper 12/1-Revision 3) to the Committee highlighting the following items:

Given the extraordinary economic situation being faced by all Contracting Parties, there was extensive discussion on maintaining the 2013 budget estimate near the 2012 approved budget. However, concern was expressed that NAFO should ensure that it has sufficient resources to meet its mandate.

Approved Budget 2012	Preliminary Budget Forecast 2013	Budget Estimate 2013
\$1,875,000	\$1,984,000	\$1,890,000

The 2013 budget estimate of \$1,890,000 represents a decrease of \$94,000 (4.7%) from the 2013 preliminary budget forecast and an increase of \$15,000 (0.8%) from the 2012 approved budget. It is also only a \$32,390 (1.7%) increase from the 2011 budget expenditures.

Following guidance from the General Council and given that a number of CPs noted that they are faced with reductions within their internal budgets, the Secretariat was also requested to propose reductions to its budget in an attempt to keep the 2013 budget estimate at or near the 2012 approved budget. Canada, reminding delegates of current global economic circumstances, and referencing cutbacks to both programming and human resources within its own civil service, asked the Secretariat to provide a 2013 proposed budget which showed zero budgetary growth over the 2012 approved budget. In an effort to implement the request, reductions to the 2013 budget estimate were made to salaries and benefits, additional help, communications, computer services, equipment, internship, materials and supplies, annual meeting reception, other meetings and travel, professional services and publications. As the salaries and benefits associated with the approved new Data Manager position have a significant impact on the budget, the hiring of the Data Manager was delayed until mid-April 2013.

These adjustments resulted in a reduction of \$103,000 from the original budget estimate proposal. Concerns were raised by some Committee Members of the need to ensure that the core fundamentals and services of what are expected from the Secretariat are still maintained, and to not create any unfunded mandates.

STACFAD recommends that the budget for 2013 of \$1,890,000 (Annex 5) be adopted.

A preliminary calculation of billing for the 2013 financial year is provided in Annex 6. The preliminary calculation of billing is based on the budget estimate of \$1,890,000 and shall be reduced by any amount determined by the General Council to be in excess of the needs of the accumulated surplus account.

The accumulated surplus account at December 31, 2012 is estimated to be \$459,000 and the recommended minimum balance in the accumulated surplus account for operations and emergency use for the 2013 fiscal year is \$285,000. This allows for \$174,000 (\$459,000-\$285,000) to be applied towards the 2013 billing.

Funds required to meet the 2013 administrative budget and appropriated from Contracting Parties are estimated to be \$1,716,000 (\$1,890,000 - \$174,000).

15. Budget Forecast for 2014 and 2015

STACFAD reviewed the preliminary budget forecast for 2014 (\$1,991,000) and 2015 (\$2,008,000) (Annex 7). It was noted that financial crisis may still be ongoing next year and the budget for 2014 will be reviewed in detail at the next Annual Meeting. Canada stated that it will push for an additional zero growth budget in 2014 and 2015. Contracting Parties noted that all future budgets must enable the Organization to achieve its mandate.

16. Adoption of 2013 Staff Committee Appointees

The Secretariat re-nominated the following people to continue to serve as members of the Staff Committee for

September 2012-September 2013: Bill Brodie (Canada), Estelle Couture (Canada) and Deirdre Warner-Kramer (USA).

STACFAD recommends that General Council appoint the three nominees.

17. Time and Place of 2013 – 2015 Annual Meetings

As previously agreed, the 2013 Annual Meeting will be held 23-27 September. The meeting will be held in Halifax, N.S., Canada, unless an invitation to host is extended by a Contracting Party and accepted by the Organization.

STACFAD recommends that the dates of the 2014 and 2015 Annual Meetings (to be held in Halifax, N.S., Canada, unless an invitation to host is extended by a Contracting Party and accepted by the Organization) are as follows:

2014 - 22 - 26 September
 2015 - 21 - 25 September

For budgetary and meeting venue planning purposes, STACFAD urges that any invitations by a Contracting Party to host an Annual Meeting be issued as early as possible. For the annual meeting reception, the Secretariat was encouraged to pursue possible sponsorships.

18. Election of Chair and Vice-Chair

The Committee noted that it is awaiting decision of the Heads of Delegation.

19. Other Matters

The EU requested that NAFO consider a framework for NAFO Secretariat to manage funds for the NEREIDA project as outlined in STACFAD Working Paper 12/10 (Revision 2) (Annex 8).

STACFAD recommends that, taking into account best practices of other RFMOs, General Council request the NAFO Secretariat to establish a framework in order to manage a fund for the NEREIDA project. This fund will be managed in accordance with the rules of the Organization, at no cost to the Organization. Any such framework established must be approved by the General Council.

Contracting Parties are welcome to contribute to the financing of the NEREIDA project through this fund.

STACFAD further recommends that the General Council amend the NAFO Financial Regulations to clarify that NAFO is allowed to receive and disperse funding for projects that fulfil NAFO's objectives.

STACFAD noted that the Senior Personal Assistant to the Executive Secretary, Bev McLoon, will be retiring in 2013 after serving with NAFO for over 32 years. The Committee extended their sincere gratitude to Bev for her many years of devotion and commitment to NAFO, noting that even in sometime strenuous situations Bev always served the Organization in a professional and pleasant manner. We wish her a very long and happy retirement.

20. Adjournment

The final session of the STACFAD meeting adjourned on 20 September 2012.

Annex 1. List of Participants

Name Contracting Party

Doug Twining Canada

Rasmus Fuglholt Denmark (in respect of Faroe Islands

and Greenland)

Fred Kingston European Union

Nicolas Fairise France (in respect of St. Pierre et Miquelon)

Brynhildur Benediksdottir Iceland

Akiko Onodera Japan

Kazutoshi Hayashi

Guri Mæle Breigutu Norway

Julia Badina Russian Federation

Elizabethann English United States of America

Vladimir Shibanov

Stan Goodick NAFO Secretariat

Bev McLoon

Annex 2. Agenda

- 1. Opening by the Chair
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Auditors' Report for 2011
- 5. Administrative and Activity Report by NAFO Secretariat
- 6. Financial Statements for 2012
- 7. Review of Accumulated Surplus and Contingency Funds
- 8. Personnel Matters
- 9. Preliminary Decision on Contract Renewal of present Executive Secretary
- 10. Internship Program
- 11. Rules of Procedure
- 12. Report of the Annual Meeting of the International Fisheries Commission Pension Society
- 13. Update on implementation of PRP recommendations tasked to STACFAD
- 14. Budget Estimate for 2013
- 15. Budget Forecast for 2014 and 2015
- 16. Adoption of 2013 Staff Committee Appointees
- 17. Time and Place of 2013 2015 Annual Meetings
- 18. Election of Chair and Vice-Chair
- 19. Other Matters
 - i. Framework for NAFO Secretariat to manage funds for the NEREIDA project
- 20. Adjournment

Annex 3. Proposed Data Manager Position

(STACFAD Working Paper 12/1)

The Data Manager is responsible for managing data housed at the Secretariat. He/she ensures that data and metadata are appropriately stored, processed and available for dissemination. He/she acts as the main representative of the Secretariat for data related requests, and advises the Executive Secretary on best practices for managing fisheries, geospatial and other data. The Data Manager is responsible for application and web development within the Secretariat, and is responsible for technical aspects of NAFO's VMS. The Data Manager leads the team on Data Management and is a core member on the teams on Science, Fisheries, Information, Fisheries Monitoring and Information Technology. The Data Manager works under the supervision of the Executive Secretary and carries out the following tasks:

- (1) The Data Manager is responsible for the NAFO relational databases, in particular:
 - develops and designs NAFO databases using state-of-the-art software tools in close cooperation with the *Fisheries* and the *Science* teams;
 - coordinates data input, processing and output procedures, ensuring quality assurance and quality control standards are met;
 - establishes and implements general policies and procedures for data access, security and availability;
 - establishes and maintains metadata information on all datasets housed at the Secretariat;
 - manages databases for the compilation of fisheries information and compliance i.e. VMS, inspectors, observers, vessel registry data (IUU, research and active vessels), in close cooperation with the *Fisheries Monitoring* and *Fisheries* teams;
 - assists the Science team with data input procedures and management of the STATLANT21 database;
- (2) The Data Manager is responsible for technical aspects of NAFO's vessel monitoring system, in particular:
 - liaises with the VMS software provider regarding NAFO requirements;
 - manages data authentication, authorization and accounting of NAFO's VMS database, including security certificate management;
 - attends VMS related meetings as requested by the Executive Secretary;
 - oversees NAFO's implementation of the North Atlantic Format (NAF) standard in close cooperation with the *Fisheries and Fisheries Monitoring* teams
- (3) The Data Manager is responsible for geospatial analysis and GIS mapping, in particular:
 - coordinates the dissemination of VMS data for internal and external information purposes;
 - collaborates with the Fisheries team regarding analysis of compliance information;
 - collaborates with the Science team regarding GIS and VMS catch and/or effort analysis;
 - maintains a geospatial database containing area closures, statistical areas, fishing footprint, concentration of effort and catch etc.
- (4) The Data Manager is responsible for web programming and application development, in particular:
 - application development and maintenance of an internal Fisheries Information System in close cooperation with the Fisheries and Fisheries Monitoring teams;
 - web development, including the development and maintenance of NAFO's online inspection extranet;
 - development of scripts and tools for internal workflow automation and report generation;
 - manages an indexed catalog of NAFO and other documents using a web-enabled search, in close cooperation with the *Publications* and *Information* teams;
 - coordinates the NAFO databases for internal and public use, including the development of user-friendly search and reporting tools
- (5) The Data Manager participates in continuous education to update his/her professional knowledge and skills with consent of the Executive Secretary and on his/her own initiative or upon request.

(6) The Data Manager will perform other tasks upon request of the Executive Secretary

Core competencies required by the Data Manager are:

- Successful completion of a post-secondary program in a field related to Computer Science or an acceptable combination of education, training and/or experience.
- At least 5 years of experience as a Data Manager or Data Analyst
- Proven expertise in managing and administering relational database management systems (RDBMS) including: SQL Server, Oracle, and Access
- Ability to create stored procedures, CRUD queries and user-defined functions
- Proficient in GIS mapping and analysis using ArcGIS (Spatial Analyst)
- Ability to programme using Visual Studio in C#, VB.net, ADO.net, ASP.net and HTML
- Background or knowledge relevant for an international fisheries body (e.g. languages, work experience abroad, familiarity with fishery matters, etc.)
- Very good organization and communication skills
- Very good spoken and written command of the English language
- Familiarity with and willingness to work under a teamwork approach

Senior Data Manager

The Data Manager can be promoted to Senior Data Manager based on:

- Excellent over all work performance
- Advanced familiarity with NAFO matters
- Superior expertise in more than one of the qualifications described above
- A minimum of 10 years work experience with at least 5 at the NAFO Secretariat
- Very good team working capabilities (as team leader and team member)
- Ability to work unsupervised
- Advanced university degree in computer sciences or equivalent
- Competence in database development and web design
- Knowledge of statistical analysis and data visualization through GIS applications
- Background or knowledge relevant for an international fisheries body (e.g. work experience abroad, familiarity with fisheries matters, etc.)
- Excellent communication and organization skills

The Senior Data Manager will take added responsibilities according to agreement with the Executive Secretary. These may include:

- Cooperation with other organizations on dissemination of data and IT
- Analysis of fishery and other NAFO data for publication and presentation to NAFO delegates and the general public
- Training of NAFO employees in the use of web and database software
- Liaising with other organizations

The need to implement the option for the Senior Data Manager to be promoted to a Data Coordinator is not considered necessary or an urgent issue at this time and this may be revisited at a later stage, if necessary.

Proposed Data Manager Pay Scale

Position	Category	Salary range (Based on 2009 values)
Data Manager	CS 02	62065 – 75964
	CS 03	73262 – 90922
Senior Data Manager	CS 04	83884 – 104130

CS - Computer Systems Group Annual Rates of Pay

CS-02 - Annual Rates of Pay (in dol	lars)							
Effective Date	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
\$) December 22, 2006	58890	60774	62658	64543	66426	68310	70193	72077
A) December 22, 2007	60244	62172	64099	66027	67954	69881	71807	73735
B) December 22, 2008	61148	63105	65060	67017	68973	70929	72884	74841
C) December 22, 2009	62065	64052	66036	68022	70008	71993	73977	75964

CS-03 - Annual Rates of Pay (in do	llars)							
Effective Date	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
\$) December 22, 2006	69513	71906	74301	76697	79089	81484	83877	86270
A) December 22, 2007	71112	73560	76010	78461	80908	83358	85806	88254
B) December 22, 2008	72179	74663	77150	79638	82122	84608	87093	89578
C) December 22, 2009	73262	75783	78307	80833	83354	85877	88399	90922

CS-04 - Annual Rates of Pay (in do	llars)							
Effective Date	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
\$) December 22, 2006	79592	82338	85080	87824	90568	93313	96058	98803
A) December 22, 2007	81423	84232	87037	89844	92651	95459	98267	101075
B) December 22, 2008	82644	85495	88343	91192	94041	96891	99741	102591
C) December 22, 2009	83884	86777	89668	92560	95452	98344	101237	104130

Annex 4. STACFAD Responses to PRP Recommendations

PA Report Chapter/Numbers	Recommendations	2011 Preliminary Response: STACFAD	2012 Response by the Secretariat to STACFAD: The Secretariat	Committee Response to GC
Chapter 4, 4.4.3	Recommends that the Secretariat develop documentation to outline its data consolidation processes and the steps it takes to check data, including the continuation of communication with data providers after data have been submitted/used, if necessary.	recommends that the Secretariat undertake this work and report back to the Committee on its progress.	notes that during the process of transferring responsibility for maintenance of the STATLANT 21 database of catches from the FC Coordinator to the SC Coordinator, documentation covering the consolidation and checking of data was produced, and communication with data providers to ensure the quality of submissions is ongoing.	Item completed and no further action necessary
Chapter 4	The PRP would like to see a user-friendly NAFO data manual being produced and this could also set out a full meta-data record for all NAFO's data holdings and database.	several elements of this recommendation is already underway and the proposed creation of a new Data Management team within the Secretariat will further support it. STACFAD recommends that the Secretariat determine how best to address the financial and human resources implications of this work.	proposes the creation of a new Data Manager position at the Secretariat to lead Data Management team. The new employee will be responsible for the development of the documentation as recommended.	To create a Data Manager position to be effective mid-April 2013.
Chapter 4, 4.4	Concludes that the potential utility of information presented on the NAFO Website could be enhanced by improving the clarity, and user friendliness, of linkages. In this respect, some thought could be given to providing a clear 'information map' on the Website to direct those seeking specific types of information to their source(s) more efficiently.	endorses the Secretariat's ongoing work in this regard and encourages that the Secretariat seek additional feedback from the Contracting Parties as necessary.	notes that the Secretariat has been working on revamping the public web pages throughout the last year; creating a secure inspectors website area; continuing to digitize historic documents; and that the usage of WebEx and SharePoint by is increasing.	Ongoing process and no further action necessary

PA Report Chapter/Numbers	Recommendations	2011 Preliminary Response: STACEAD	2012 Response by the Secretariat to STACFAD: The Secretariat	Committee Response to GC
Chapter 4, 4.6.2	Concludes that a clearly designated, and easily accessible, area of the NAFO website should set out a brief history of the PAF's development and a detailed explanation of its key contents and use, particularly in relation to recovery plans as well as new and exploratory fisheries.	notes that the Scientific Council Coordinator has already begun this work in cooperation with the Scientific Council and welcomes its conclusion.	notes that a summary of the implementation of the Precautionary Approach in the NAFO context was prepared by the Secretariat and was posted on the revamped NAFO Website in advance of the 34 th Annual Meeting.	Item completed and no further action necessary
Chapter 7, 7.1	Suggests that application of cost-recovery measures could be considered as a way of alleviating potential financial stress on NAFO Contracting Parties.	recommends that the Secretariat provide to STACFAD's next meeting suggestions for areas where cost recovery measures could be implemented.	notes that although any potential cost-recovery measures are negligible, options for observer attendance fees, data access and document user fees for NCPs taking into account transparency concerns and sponsorship for social events, etc. may be explored.	The Secretariat will report to STACFAD at the next Annual Meeting.
Chapter 7, 7.1	Suggests that NAFO apply accrual accounting principles to manage its budget to be in conformity with the international norm as well as to provide a more accurate and contemporary picture of the Organization's financial standing.	requests that the Secretariat provide to STACFAD's next meeting guidance on the pros and cons of this approach.	the use of accrual accounting principles is being used in NAFO's financial records. The general idea is to recognize revenue and expenses at the time in which the transaction occurs rather than when payment is made (or received).	Item already implemented and no further action necessary
Chapter 7, 7.2	Suggests developing a NAFO Staff Contract to provide a more formal standing to the various Staff position descriptions, working conditions and appraisal procedures outlined in NAFO Secretariat Staff Structure (Fischer & Goodick, 2009) document, the PRP. In particular, a Contract would provide an opportunity to formally outline procedures for dealing with Staff grievances and dismissal specifically.	*	that Staff contracts have been implemented for all new employees (SC Coordinator and IT Manager). All current employees have a signed Employment Agreement which outlines the appointment in accordance with the appropriate section of the Rules of Procedure and Staff Rules and it also covers the nature of employment, remuneration, terms and conditions, etc.	Item implemented and no further action necessary

PA Report Chapter/Numbers	Recommendations	2011 Preliminary Response: STACEAD	2012 Response by the Secretariat to STACFAD: The Secretariat	Committee Response to GC
Chapter 7, 7.2	Concludes that there is a need to amend certain NAFO Staff Rules (NAFO, 2010a) provisions pertaining to the rights and obligations of NAFO Secretariat Staff, particularly for dismissal or termination of appointment conditions. Such amendment should take into account relevant existing best practices. Given the Organization's intergovernmental nature, special attention should be given to relevant, and applicable, Canadian legislative provisions, as well as international law, in terms of Secretariat staff employment rights, obligations and conditions.	recognizes the ongoing work to keep the Staff Rules current and requests the Secretariat to compile relevant best practices in this area and provide a report to its next meeting.	notes that the expansion of this particular staff rule is under review by the Secretariat, although, in light of the current legal case before the Supreme Court of Canada; it is felt that this matter should be deferred until after the conclusion of the legal case.	The Secretariat will present proposed changes to the Staff Rules upon conclusion of the current legal case.
Chapter 7, 7.2	Concludes that failure to provide additional Secretariat staff capacity will compromise service delivery in the not-too-distant future and should be addressed as a matter of urgency. The Panel also urges that clear guidance should be given by the General Council to ensure that work priorities can be identified and that the need for any additional resources (human or fiscal) are adequately addressed sooner rather than later.	* Also highlights the recommendations to institute a formal internship program and to create a new Data Management team within the Secretariat. Also consideration could be given to partime employees or service contracts.	notes a comprehensive review of all staff duties/tasks was performed in 2012, that there is an urgent requirement to hire a Data Manager in 2013 to meet needs of the Organization; a Formal Internship program commenced in 2012; Service contracts and temporary help are being utilized when necessary i.e. – archival of historic documents, public relations/web pages, inspectors web page.	To create a Data Manager position to be effective mid-April 2013.
Chapter 7, 7.2	Suggests that metrics be developed for various Secretariat duties/tasks to better determine the efficiency of Secretariat service delivery in particular. The metrics could be based on a schedule of tasks/activities to be undertaken, the completion of tasks against identified guidelines/deadlines, and the final service outputs delivered in terms of delivery efficiency/standards.	* While recognizing the potential benefits of this sort of performance management approach, STACFAD also cautions that any implementation should minimize both resource and bureaucratic burdens.	notes various planning and scheduling tools/methods are being utilized by the Executive Secretary and Secretariat Staff; A Comprehensive review of all staff duties/tasks was performed in 2012.	No further action necessary

Committee Response to GC	No further action necessary	The Secretariat will report to STACFAD at the next Annual Meeting.	In the event that the new Data Manager position is approved, the current budget allows for the Secretariat to make office modifications to accommodate a new staff member.
2012 Response by the Secretariat to STACFAD: The Secretariat	notes the Secretariat recognizes the importance of the team work structure in place, professional development and training of staff in various tasks/departments, and to ensure a well-organized recruitment plan is in place for upcoming staff retirements.	The Secretariat is currently researching the media/press release policies of other RFMO's.	notes as per the NAFO Convention "The headquarters of the Organization shall be in Dartmouth, Nova Scotia, Canada, or at such other place as may be decided by the General Council" The current accommodations are sufficient for the Secretariat to meet the needs of the Organization and to house its current staff members plus one intern. Some office modifications will have to be done to accommodate the proposed additional staff member (Data Manager). Boardroom facilities are sufficient to host a meeting up to a maximum of 20-25 people.
2011 Preliminary Response: STACFAD	*	will review and, as appropriate, recommend revisions to the NAFO media policy at its next meeting.	*
Recommendations	Concludes that there is a need to ensure that a 'critical mass' of essential Secretariat skills is sustained and that functional continuity should be maintained whenever senior staff leave. To this end, the professional development of Staff and the sharing of essential task skills must continue to be encouraged.	Further recommends that NAFO consider enhancing its Organizational communications strategy and media policy. In this context, it should also explicitly clarify the Executive Secretary's responsibilities, along with those of other office bearers, for the communication of such information.	Recommends that the Secretariat be requested to scope and project its future accommodation needs.
PA Report Chapter/Numbers	Chapter 7, 7.2	Chapter 7, 7.2	Chapter 7, 7.2

PA Report Chapter/Numbers	Recommendations	2011 Preliminary Response: STACFAD	2012 Response by the Secretariat to STACFAD: The Secretariat	Committee Response to GC
Chapter 7, 7.4	Recommends timely, and adequate, planning to provide the Secretariat with appropriate human, financial and other resources for its future work.	will continue this process with the input and guidance of the Secretariat.	will continue this process with the input and guidance of STACFAD.	This an ongoing process and no further action necessary.
CTACEAD recommends to	STACEAD recommends that consideration of the recommendations marked with * he addressed as part of an overall review of the Cecretariat's staff structure and	is the soldressed as not	4 of an overall review of the Secre	atomiotic stoff stansense

be addressed as part of an overall review of the Secretariat's staff structure and STACFAD recommends that consideration of the recommendations marked with *needs to ensure that it can continue to meet the growing workload into the future.

Annex 5. Budget Estimate for 2013 (Canadian Dollars)

NORTHWEST ATLANTIC FISHERIES ORGANIZATION

Budget Estimate for 2013 (Canadian Dollars)

	A 1	Projected	Preliminary	Budget
	Approved Budget 2012	Expenditures 2012	Budget Forecast 2013	Estimate 2013
1. Personal Services				
a) Salaries	\$923,000	\$925,000	\$1,010,000	\$983,000
b) Superannuation and Annuities	288,000	288,000	295,000	294,000
c) Medical and Insurance Plans	83,000	83,000	99,000	90,000
d) Employee Benefits	86,000	87,000	68,000	66,000
Subtotal Personal Services	1,380,000	1,383,000	1,472,000	1,433,000
2. Additional Help	20,000	20,000	20,000	15,000
3. Communications	28,000	29,000	28,000	28,000
4. Computer Services	42,000	42,000	42,000	39,000
5. Equipment	36,000	35,000	36,000	31,000
6. Fishery Monitoring	35,000	35,000	35,000	35,000
7. Hospitality Allowance	3,000	3,000	3,000	3,000
8. Internship	21,000	17,000	18,000	16,000
9. Materials and Supplies	34,000	34,000	34,000	30,000
10. NAFO Meetings				
a) Sessional	93,000	96,000	108,000	94,000
b) Inter-sessional Scientific	30,000	30,000	40,000	40,000
c) Inter-sessional Other	30,000	26,000	30,000	30,000
Subtotal NAFO Meetings	153,000	152,000	178,000	164,000
11. Other Meetings and Travel	50,000	50,000	50,000	35,000
12. Performance/External Reviews	0	35,000	0	0
13. Professional Services	56,000	56,000	51,000	46,000
14. Publications	17,000	17,000	17,000	15,000
	\$1,875,000	\$1,908,000	\$1,984,000	\$1,890,000

Notes on Budget Estimate 2013 (Canadian Dollars)

Item 1(a)	Salaries Salaries budget estimate for 2013 including the implementation of a new data manager position.		\$983,000
Item 1(b)	Superannuation and Annuities Employer's pension plan which includes employer's contributions, administration costs and actuarial fees. Also includes the required annual payment towards the pension plan deficit.		\$294,000
Item 1(c)	Group Medical and Insurance Plans Employer's portion of Canada Pension Plan, Employment Insurance, Group Life Insurance, Long Term Disability Insurance and Medical Coverage.		\$90,000
Item 1(d)	Employee Benefits Employee benefits as per the NAFO Staff Rules including overtime, repatriation grant, termination benefits, vacation pay, and travel to home country for internationally recruited members of the Secretariat.		\$66,000
Item 2	Additional Support Digitization of historical documents, translation of NAFO Fisheries Information (e.g. Observer Reports) and other assistance as required.		\$15,000
Item 3	Communications Phone, fax and internet services Postage Courier/Mail service	\$18,000 7,000 3,000	\$28,000
Item 4	Computer Services Computer hardware, software, supplies and support. Inspectors Website (Possible proposal to come from STACTIC to implement a secure website area)	\$26,000 13,000	\$39,000
Item 5	Equipment Leases (print department printer, photocopier and postage meter) Purchases Maintenance	\$21,000 5,000 5,000	\$31,000
Item 6	Fishery Monitoring Vessel Monitoring System (VMS) annual maintenance fee including programming changes as required due to changes to CEM	\$35,000	\$35,000
Item 10(a)	NAFO Sessional Meetings Annual Meeting, September 2013, Halifax, Canada SC Meeting, June 2013, Dartmouth, Canada SC Meeting, September 2013, Dartmouth, Canada		\$94,000

Item 10(b) NAFO Inter-sessional Scientific Meetings

\$40,000

Provision for inter-sessional meetings and a general provision for unforeseen expenses necessarily incurred by SC required for the provision of answering requests for advice from FC.

Item 10(c) NAFO Inter-sessional Other

\$30,000

General provision for GC and FC inter-sessional meetings.

Item 11 Other Meetings and Travel

\$35,000

International Meetings regularly attended by the NAFO Secretariat:

- 1. Aquatic Sciences and Fisheries Abstracts (ASFA)
- 2. Co-ordinating Working Party on Fishery Statistics (CWP),
- 3. Fisheries Resources Monitoring Systems (FIRMS)
- 4. International Fisheries Commissions Pension Society (IFCPS)
- 5. NEAFC Advisory Group for Data Communication (AGDC)
- 6. Regional Fishery Body Secretariats Network (RSN)
- 7. United Nations Fish Stock Agreement (UNFSA)

Item 13 **Professional Services**

\$46,000

Professional Services (audit, consulting, legal fees, and insurance) \$35,000
Professional Development and Training 6,000
Public Relations 5,000

Item 14 **Publications**

\$15,000

Production costs of NAFO publications which may include the following: Conservation and Enforcement Measures, Convention, Inspection Forms, Journal of Northwest Atlantic Fishery Science, Meeting Proceedings, Rules of Procedure, Scientific Council Reports, Staff Rules, Secretariat Structure, etc.

Annex 6. Preliminary calculation of billing for Contracting Parties against the proposed estimate of \$1,890,000 for the 2013 financial year (based on 12 Contracting Parties to NAFO)

(Canadian Dollars)

for comparis on purposes 2012 Billing

	Budget Estimate Deduct: Amoun	Budget Estimate Deduct: Amount from Accumulated Surplus	umulated Surp	snlos	\$1,890,000		Approved Budget 2012 Deduct: Accumulated Surplus	2012 ted Surplus	\$1,875,000
	(pending) Funds required to	(pending approval from General Council) equired to meet 2013 Administrative Budg	approval from General Council) meet 2013 Administrative Budget	Council) ve Budget	\$1,716,000		Funds required 2012 Budget	12 Budget	\$1,641,467
		60% of funds required = 30% of funds required = 10% of funds required =	of funds required = of funds required = of funds required =	\$1,029,600 \$514,800 \$171,600					
		% of Total						% of Total	
	Nominal	Catch in the				2013	Nominal	Catch in the	2012
O metanostias Doutis	Catches for Convention	Convention	700	7007	\00 7	Preliminary D::::::	Catches	Convention	Annual
Condacting raines	2010	Alca	10/0	30.70	00/00	Billing	101 2009	AICa	Assessment
Canada	483,551	57.49%	\$104,723.64	\$42,900.00	\$591,917.04	\$739,540.68	471,942	53.44%	\$660,099.04
Cuba	821	0.10%	1	42,900.00	1,029.60	43,929.60	1,334	0.15%	42,513.99
Denmark (in respect of									
Faroe Islands and Greenland) (1)	166,618	19.81%	36,084.80	42,900.00	203,963.76	282,948.56	171,630	19.44%	266,224.78
European Union	38,057	4.53%	1	42,900.00	46,640.88	89,540.88	37,954	4.30%	83,386.52
France (in respect of									
St. Pierre et Miquelon)	1,190	0.14%	257.72	42,900.00	1,441.44	44,599.16	815	0.09%	42,083.22
Iceland	184	0.02%	ı	42,900.00	206	43,105.92	1	ı	41,036.68
Japan	1	0.00%	1	42,900.00	1	42,900.00	1	1	41,036.68
Republic of Korea	ı	0.00%	1	42,900.00	1	42,900.00	1	ı	41,036.68
Norway	2,755	0.33%	ı	42,900.00	3,397.68	46,297.68	2,948	0.33%	44,286.78
Russian Federation	6,580	0.78%	1	42,900.00	8,030.88	50,930.88	5,175	0.59%	46,847.47
Ukraine	334	0.04%	ı	42,900.00	411.84	43,311.84	334	0.04%	41,430.63
United States of America	140,987	16.76%	30,533.84	42,900.00	172,560.96	245,994.80	190,913	21.62%	291,484.53
	841,077	100.00%	\$171,600.00	\$514,800.00	\$1,029,600.00	\$1,716,000.00	883,045	100.00%	\$1,641,467.00
Funds required to meet 1 January - 31 December 2013 Administrative Budget	31 December 201	3 Administrat	ive Budget		•	\$1,716,000.00			

= 4,995 metric tons = 161,623 metric tons (1) Faroe Islands Greenland

Annex 7. Preliminary Budget Forecast for 2014 and 2015

NORTHWEST ATLANTIC FISHERIES ORGANIZATION

Preliminary Budget Forecast for 2014 and 2015 (Canadian Dollars)

	Preliminary	Preliminary
	Budget Forecast	Budget Forecast
	2014	2015
1. Personal Services		
a) Salaries	\$1,031,000	\$1,069,000
b) Superannuation and Annuities	298,000	301,000
c) Medical and Insurance Plans	95,000	98,000
d) Employee Benefits	103,000	74,000
Subtotal Personal Services	1,527,000	1,542,000
2. Additional Help	15,000	15,000
3. Communications	28,000	29,000
4. Computer Services	41,000	41,000
5. Equipment	32,000	32,000
6. Fishery Monitoring	36,000	36,000
7. Hospitality Allowance	3,000	3,000
8. Internship	16,000	16,000
9. Materials and Supplies	31,000	31,000
10. NAFO Meetings		
a) Sessional	95,000	96,000
b) Inter-sessional Scientific	40,000	40,000
c) Inter-sessional Other	30,000	30,000
Subtotal NAFO Meetings	165,000	166,000
11. Other Meetings and Travel	35,000	35,000
12. Professional Services	46,000	46,000
13. Publications	16,000	16,000
	\$1,991,000	\$2,008,000

Annex 8. NEREIDA project (STACFAD .P. 12/10, Revision 2)

BACKGROUND

The NEREIDA project - NAFO PotEntial VulneRable Marine Ecosystems-Impacts of Deep-seA Fisheries aims at mapping vulnerable marine ecosystems (VMEs) in the NAFO Regulatory Area. This multidisciplinary project commenced in 2009, is led by IEO (Spain) and involves scientists from IEO, Canada, UK (Cefas) and Russia. This mapping project is very useful to guide the NAFO decisions on VMEs.

This mapping has been achieved by carrying out (1) sonar and seismic mapping of the area to identify potential structural features such as canyons, mounds, rock outcrops that may be potential sites of VMEs; (2) sampling of the seabed in selected areas using corers; (3) sampling of the surface organisms in selected areas using dredges; (4) camera surveys of selected sites using a remotely operated vehicle (ROV). The sampling programme has been a success generating 100% acoustic mapping of the seabed with associated ground truth sampling. However, there are many samples which remain to be fully analysed and this is the main purpose for seeking funding.

Funding for Canadian participation is available until March 31st 2014. Cefas funding is not available after 31st March 2012 and funding for IEO terminates in September 2012. Provisionally, it is anticipated that a total of circa 220,000 euro will be required to complete the project (50,000 euro required by Cefas in each of FY2012/13, and 2013/14 and 60,000 euro by IEO in each FY).

The European Union has indicated that it is ready to consider granting part of the funding necessary to complete the project through NAFO.

There are no provisions in the NAFO Financial Regulations to allow NAFO to receive and disperse this type of funding. However, Article II of the NAFO Convention gives the Organization the "legal capacity as necessary to perform its function and achieve its ends". The NEREIDA project should fall under this objective.

DECISION

Taking into account best practices of other RFMOs, STACFAD recommends that General Council request the NAFO Secretariat to establish a framework in order to manage a fund for the NEREIDA project. This fund will be managed in accordance with the rules of the Organization, at no cost to the Organization. Any such framework established must be approved by the General Council.

Contracting Parties are welcome to contribute to the financing of the NEREIDA project through this fund.

STACFAD further recommends that the General Council amend the NAFO Financial Regulations to clarify that NAFO is allowed to receive and disperse funding for projects that fulfil NAFO's objectives.

SECTION III (pages 101 to 220)

Report of the Fisheries Commission and its Subsidiary Body (STACTIC), 34th Annual Meeting

17-21 September 2012 St. Petersburg, Russian Federation

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PART I

Report of the Fisheries Commission

(FC Doc. 12/31)

34th Annual Meeting, 17-21 September 2012 St. Petersburg, Russian Federation

I. Opening Procedure (Agenda items 1-5)

1. Opening by the Chair, Sylvie Lapointe (Canada)

The meeting was opened by the Chair, Sylvie Lapointe (Canada), at 14:05 hrs on Monday 17th September 2012. Representatives from all Contracting Parties were in attendance: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), European Union (EU), France (in respect of St. Pierre et Miquelon), Iceland, Japan, Republic of Korea, Norway, Russian Federation, Ukraine, and the United States of America (USA) (Annex 1). She expressed thanks on behalf of the participants to the Russian Federation for hosting the Annual Meeting.

The presence of the following NGOs which had been granted observer status was also acknowledged: Pew Environment Group, and World Wildlife Fund (WWF).

2. Appointment of Rapporteur

Ricardo Federizon, Fisheries Commission Coordinator (NAFO Secretariat), was appointed Rapporteur. The summary of decisions and actions taken by the Fisheries Commission is presented in Annex 2.

3. Adoption of Agenda

The provisional agenda as previously circulated was adopted (Annex 3).

4. Review of Commission Membership

It was noted that the membership of the Fisheries Commission is currently twelve (12). All Contracting Parties have voting rights in 2012.

5. Guidance to STACTIC necessary for them to complete their work

The Chair of the Standing Committee on International Control (STACTIC), Gene Martin (USA) presented the results of the STACTIC May 2012 intersessional meeting which was held in Brussels, Belgium (FC Doc 12/2). He reported on the status of the proposals on changes in the NAFO Conservation and Enforcement Measures (NCEM), as well as on the feedback from STACTIC on the Performance Review Panel (PRP) recommendations concerning Port State Measures, estimation of total shark weight in relation to shark fins, and product labelling and traceability. These PRP recommendations were forwarded to STACTIC at the 2011 Annual Meeting (FC WP 11/13).

Also at the 2011 Annual Meeting, FC forwarded to STACTIC for evaluation a proposal involving observers in compliance with the reporting requirements during VME encounter incidents in the existing fishing areas (FC WP 11/23). The intent of the proposal was to mandate observers to identify vulnerable marine ecosystem (VME) encounters (below the threshold) requiring observers to identify corals, sponges and other organisms to the lowest possible taxonomical level. The STACTIC Chair reported that it considers the proposal as a policy issue rather than a compliance issue as it would entail additional work for observers beyond existing provisions, and thus it is not in the position to make the evaluation.

The Fisheries Commission forwarded additional PRP recommendations #23, 27 – 31, and 34 (as numbered in Annex 3 of GC Doc 12/1) for feedback (FC WP 12/5).

The recommendations and PRP feedback from the intersessional meeting and from this Annual Meeting would be presented in item 19 (see also Part II of this Report).

The Fisheries Commission commended the work of STACTIC and encouraged the Committee to continue its work.

II. Performance Review Panel Recommendations (Agenda items 6-7)

6. Recommendations addressed to the Fisheries Commission and its subsidiary body STACTIC

The Chair referred to the document GCWG WP 12/2 which outlines the FC action plan in the implementation

of the PRP recommendations exclusively relevant to FC. This document was presented at the meeting of the GC Working Group on the Development of Plans of Action for the Implementation of the Recommendations of the NAFO Performance Review Panel held in March 2012.

There are eight recommendations in the document, three of which had been forwarded to STACTIC for feedback in 2011 (see item 5). It was noted some of the actions and decisions of FC and STACTIC address the PRP recommendations and are in line with plans of action.

The Fisheries Commission would review and discuss the implementation of the recommendations on a yearly basis at the Annual Meeting.

7. Recommendations addressed to more than one NAFO Body including Fisheries Commission

The Chair referred to the document GC Doc 12/1, the Report of the GC Working Group on the Development of Plans of Action for the Implementation of the Recommendations of the NAFO Performance Review Panel, which was adopted by the General Council at this Annual Meeting. Particular reference was made to Annex 3 of that document in which the proposed plans of action for each recommendation were outlined.

The Fisheries Commission welcomed the proposed plans of action, and expressed support particularly in the relationship improvement with the Scientific Council and in the transparency of its operations.

Regarding Recommendation 25 (as numbered in Annex 3 of GC Doc 12/1), the Fisheries Commission and the Scientific Council had a joint meeting on the side to discuss the specific plans of action in the implementation of this recommendation. Short-, medium-, and long-term priorities were agreed to. These priorities included catch discrepancies and estimates, the establishment of management objectives, and further implementation of the precautionary and ecosystem approaches through the various NAFO working groups.

Regarding Recommendation 22 on fishing capacity, Iceland expressed that it does not support this recommendation as it considers effort and capacity management measures are not an efficient tool in the management of fisheries.

Regarding Recommendation 24 on the resolution of the discrepancy between STATLANT 21A catch estimates and those of STACFIS, the Peer Review Panel Chair Dr. Bruce Atkinson presented his report at the General Council (GC WP 12/4 and see also GC Report of this Annual Meeting) and four recommendations specifically addressed to the Fisheries Commission (FC WP 12/8). These recommendations were forwarded to STACTIC. Initial feedback was delivered at this meeting (see Part II of the Report). The Fisheries Commission also invited the Scientific Council to address items 1 to 4 of Annex II of GC WP 12/4 (FC WP 12/26).

In light of the importance of resolving the discrepancies in catch estimates, members of the Fisheries Commission supported the General Council decision to conclude the peer review process and to have it completed by April 2013

Contracting Parties also supported the usefulness of ongoing discussions between the constituent bodies and their Chairs to address this issue to help ensure that stock assessments could be effectively conducted in support of the 2013 annual meeting.

Additional measures were also tasked to STACTIC to help address the issue of catch discrepancies.

A draft table was prepared outlining the actions and decisions made by the Fisheries Commission so far in the implementation of the PRP recommendations (FC WP 12/34). As in the case of the PRP recommendations presented in GCWG WP 12/2, it was noted that the Fisheries Commission has been addressing some of the PRP recommendations in line with the plans of action. These decisions and actions are reflected in the various sections of this Report.

The Fisheries Commission would review and discuss the implementation of the recommendations on a yearly basis at the Annual Meeting.

III. Scientific Advice (Agenda items 8-10)

8. Presentation of scientific advice by the Chair of the Scientific Council

The Scientific Council (SC) Chair, Carsten Hvingel (Norway), presented the comprehensive and detailed scientific advice to the Fisheries Commission. The scientific advice on fish stocks and on other topics is contained in SCS Doc 12/19 from the June 2012 Scientific Council meeting. Advice on shrimps was updated during the SC WebEx meetings between 27 August and 7 September 2012 (SCS Doc 12/20). The scientific advice represents the response of the Scientific Council to the requests from the Fisheries Commission formulated at the previous Annual Meeting (FC Doc 11/9 Rev).

The following is an overview of the scientific advice on the fish stocks which were fully assessed or monitored at the SC meetings, as well as on the selected topics from special request items on Conservation Plans and Rebuilding Strategies (CPRS), Management Strategy Evaluation (MSE), and Vulnerable Marine Ecosystem. The advice may contain special comments and caveats. The Scientific Council Chair urged the Fisheries Commission to consult the details in the relevant SC meeting reports when considering conservation and management measures.

8.1 Scientific advice on fish stocks

- o **Shrimp in Division 3M.** Fishing mortality for 2013 be set as close to zero as possible.
- o Shrimp in Divisions 3LNO. The TAC for 2013 should be less than 8 600 t.
- o **Cod in Division 3M.** In the short term the stock can sustain high values of F, however any fishing mortality over F_{max} will result in an overall loss in yield in the long term. Scientific Council considers that yields at $F_{statusquo}$ are not a viable option.
- o **Redfish in Divisions 3LN.** Fishing mortality in 2013 and 2014 should be kept around the current level. Increases of F above $F_{statusquo}$ should be treated with caution.
- o **Thorny Skate in Divisions 3LNOPs.** Catches in Div. 3LNO in excess of recent levels (2009-11 average = 4 700 t) will increase the risk of the stock failing to rebuild.
- o Cod in Divisions 3NO Re-iterated advice of no directed fishery in 2011-2013.
- o **Redfish in Division 3O** Re-iterated that SC was unable to advice on a TAC.
- o Witch flounder Divisions 2J3KL. Re-iterated advice of no directed fishery in 2012-2014.
- o Northern shortfinned squid SA 3+4. Re-iterated advise that the TAC for 2011 to 2013 be set between 19 000 and 34 000 t.
- o American plaice in Division 3M. Re-iterated advice of no directed fishery in 2012-2014.
- o Witch flounder in Divisions 3NO. Re-iterated advice of no directed fishery in 2012-2014.
- o **Redfish in Division 3M.** Re-iterated advice that all redfish species combined in Div. 3M in 2012 and 2013 should not exceed 6 500 t.
- o **Yellowtail in Divisions 3LNO** (2011). Re-iterated advice that F options of up to 85% F_{msy} are considered to have a low risk of exceeding F_{lim} (= F_{msy}) in 2012 and 2013.
- o Capelin in Divisions 3NO (2011). Re-iterated advice of no directed fishery in 2012-2013.
- o White hake in Divisions 3NO (2011). Re-iterated advice that the current TAC of 5 000 t is unrealistic and that catches of white hake in Div. 3NO in 2012 and 2013 should not exceed their current levels.
- o American plaice in Divisions 3LNO. No directed fishing in 2013 and 2014. Bycatches be kept to the lowest possible levels.

8.2 Conservation Plans and Rebuilding Strategies (CPRS)

The SC Chair presented the responses and advice on the CPRS-related topics of *Reference Points for 3LNO A. plaice and 3NO Cod and B_{ist} Review of rebuilding plans for 3LNO A. plaice and 3NO Cod, Evaluation of Harvest Control Rule for 3LNO A. plaice and 3NO Cod, Full assessment of 3LNO A. plaice, B_{msy} and HCR for 3M Cod, and 3NO Witch flounder stock status and recruitment. The responses and advice are referenced in pages 20-27 and 34-36 of the SCS Doc 12/19.*

The CPRS advice was utilized by the FC Working Group of Fishery Managers and Scientists on CPRS at its meeting in September 2012 (see item 11).

8.3 Greenland Halibut Management Strategy Evaluation (MSE)

On the computation of the TAC according to the adopted Harvest Control Rule (HCR): Averaging the individual survey slopes yields slope = -0.1099. The TAC in 2012 [of 2+3KLMNO GHL] is 16 326 t. Applying the HCR, 16326*[1+2*(-0.1099)] = 12 739t. However, as this change exceeds 5%, the HCR constraint is activated and TAC 2013 = 0.95*16326 = 15 510 t.

The Scientific Council also advises that exceptional circumstances are presently occurring; but that having one survey above the simulated distributions from one suite of operating models does not constitute a conservation concern.

8.4 Vulnerable Marine Ecosystems (VME)

The SC Chair presented the responses and advice on the VME-related topics of VME Indicator Species and Elements, GIS modelling of sponge encounters, Encounter thresholds and move on rules, Mapping of VME indicator species and elements, and Work plan for re-assessment of VMEs. The responses and advice are referenced in pages 39-52 of the SCS Doc 12/19.

The VME advice was utilized by the FC Working Group of Fishery Managers and Scientists on VME at its meeting in September 2012 (see item 15).

8.5 Other issues (as determined by the Chair of the Scientific Council)

The Scientific Council Chair informed the Fisheries Commission of its increasing workload within the last few years such that it is reaching the limits of its resources and capabilities. In 2012 alone, it has conducted full assessment of five (5) stocks, two of which needed an update; an MSE on Greenland halibut; and monitoring of ten (10) stocks. In addition, there were full assessment and monitoring of eight (8) other stocks as requested by the Coastal States. There were also sixteen (16) request items from the Fisheries Commission, covering various topics such as CPRS and VME.

The SC Chair appealed for more support from the Contracting Parties in its capacity building.

The SC Chair also presented the issue of the discrepancy between STATLANT 21A catch estimates and those of STACFIS (PRP recommendation # 24). He indicated that the Scientific Council has cooperated with the group conducting the peer review into catch estimation methods of STACFIS, and will be pleased to support the group in the second part of their work, examining the discrepancy between the STACFIS and STATLANT figures (see item 7).

8.6 Feedback to the SC regarding the advice and its work during this Meeting

The SC Chair's presentation engendered questions and enquiries for further clarification to which the Scientific Council prepared responses during the meeting. The questions from the Fisheries Commission and the responses from the Scientific Council are compiled in Annex 4. These concern the cod in 3M and 3NO, redfish in 3LN, shrimp in 3LNO, thorny skate in 3LNO, and witch flounder in 3NO.

9. Quinquennial Review of Environmental Conditions in the Northwestern Atlantic

The environmental review was presented by Standing Committee on Fisheries Environment (STACFEN) Chair, Gary Maillet (Canada). Highlights of the presentation include:

- Importance of large-scale atmospheric forcing on ocean climate trends in the North Atlantic (Warm Phase).
- Although climate records are currently being set (air and ocean temperatures, sea-ice cover, etc.), similar ocean conditions have occurred and persisted in the North Atlantic during the 20th century (1920's-1960's).
- Satellite data support oceanographic observations of large-scale influence on Sea-Surface Temperature (SST) and ocean productivity trends in the NRA.
- Time series records back to mid-1990's demonstrate a strong trend in warming and saltier conditions in both the upper water column and the layer impacted by convection in the Labrador Sea Basin.
- Climate model projections (IPCC) support a continuation of ocean warming into the next decade.
- Some indices of marine production are correlated with ocean climate trends, however mechanisms are generally unknown.
- Factors such as predator-prey interactions, competition, exploitation, etc., and possibly others often outweigh
 environmental effects.

Details of the environmental review are documented in Appendix I of SCS Doc 12/19.

10. Formulation of Request to the Scientific Council for Scientific Advice on the Management of Fish Stocks in 2014 and on other matters

The Fisheries Commission **adopted** the proposal for an updated framework for the presentations of Scientific Advice based on risk (Annex 5).

The Fisheries Commission **adopted** FC WP 12/21 Rev2 containing its request to the Scientific Council for scientific advice on management in 2013 and beyond of certain stocks in Subareas 2, 3, and 4 and on other matters (Annex 6). The Request includes the application of the updated framework for the presentations of scientific advice.

Recognizing for the need of better transparency and better communication between the Scientific Council and the Fisheries Commission and noting the scope of management issues in NAFO and the associated increase in the workload for the Scientific Council and the need to prioritize work and use of resources of the Scientific Council more efficiently (see item 8.5), the Fisheries Commission **adopted** a new process in developing questions and formulating requests to the Scientific Council. This process is described in Annex 7.

IV. Conservation of Fish Stocks in the Regulatory Area (Agenda items 11-14)

11. Reports and Recommendations of the FC Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS)

The Chair of WGFMS-CPRS Chair Jean-Claude Mahé (EU) presented the Report of the Working Group which met in September 2012 via WebEx (FC Doc 12/5), and forwarded the following recommendations:

- 1. The WG **recommends** that the Fisheries Commission considers as priorities the development of a general CPRS framework for stocks managed by NAFO, on-going development of CPRS for 3LNO American plaice and 3NO cod, continued efforts to develop a CPRS for other stocks including 3NO witch flounder, and initial development of CPRS for both 3LN redfish and 3M cod.
- 2. The WG **recommends** that the Fisheries Commission endorses the following work items for the next meeting of the working group:
 - the elaboration of a general framework including management objectives and performance statistics;
 - the development of alternate strategies for stocks that may not be suited to formulaic rules and/or for stocks where reference points do not exist or cannot be developed.
- 3. The WG recommends that the Fisheries Commission requests the Scientific Council to
 - as a short term priority, develop Limit Reference Points (LRP) Proxy for 3NO witch flounder, e.g. investigate further the approach that was used for 2J3KL witch flounder to estimate B_{im};
 - as an intermediate priority, continue its research on the 3NO Cod productivity, particularly MSY reference points.

The Fisheries Commission adopted all the CPRS recommendations above.

Noting that this working group shall consider the broader use of the Precautionary Approach framework, extension of management strategy evaluation and other risk-based management approaches, the Fisheries Commission **adopted** the proposal for a joint FC-SC WG on CPRS (Annex 8). The Fisheries Commission shall invite the Chair of the Scientific Council and the Chairs of this working group and of the WG on Management Strategy Evaluation to have an intersessional meeting to develop a draft Term of Reference and workplan for a FC-SC working group. The terms of reference and workplan would be considered by both the Scientific Council and the Fisheries Commission at the 2013 Annual Meeting.

12. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2013

The quota table for 2013 and the Effort Allocation Scheme for the shrimp fishery in NAFO Division 3M can be found in Annex 9 of this Report. Allocation schemes for the fish stocks mentioned in items 12 and 13 are the same as in 2012.

12.1 Cod in Division 3M

It was **agreed** to set the Total Allowable Catch (TAC) at 14 113 t.

This stock had been under moratorium since 1999 and was re-opened in 2010. During the deliberation on this stock, Fisheries Commission highlighted the need for precaution when managing newly reopened stocks. In this regard, FC requested SC to provide at this meeting further clarification of the scientific advice on this stock (see item 8.6 and Annex 4).

12.2 Shrimp in Division 3M

It was **agreed** that the fishing moratorium continues. When the scientific advice estimates that the stock shows sign of recovery, the fishery shall be re-opened in accordance with the effort allocation key in place for this fishery at the time of the closure.

Iceland expressed that notwithstanding the closure in 2013, it maintains its position against an effort allocation scheme which is applied to this stock.

13. Management and Technical Measures for Fish Stocks Straddling National Fishing Limits, 2013

13.1 Redfish in Divisions 3LN

It was **agreed** to set the TAC at 6 500 t.

This stock had been under moratorium since 1998 and was re-opened in 2010. During the deliberation on this stock, Fisheries Commission highlighted the need for precaution when managing newly reopened stocks. In this regard, FC requested SC to provide at this meeting further clarification of the scientific advice on this stock (see item 8.6 and Annex 4).

13.2 Redfish in Divisions 3O

It was **agreed** to set the TAC at 20 000 t, the same as in 2012.

13.3 Pelagic Sebastes mentella (oceanic redfish) in the NAFO Convention Area

It was **agreed** that the fishing moratorium on this stock continues in accordance with the most recent NEAFC decision adopted subsequently by NAFO and bearing in mind footnote 10 of the quota table.

Norway reiterated the Scientific Council's recognition of the ICES advice for oceanic pelagic redfish and in particular to the recommendation relating to shallow pelagic redfish. It recalled that ICES had advised that no directed fishery should be conducted on this stock, and that bycatches in non-directed fisheries should be kept as low as possible since the stock is at a very low state.

The Russian Federation maintained its position that there is a single stock of pelagic *Sebastes mentella* in the Irminger Sea and adjacent waters, including the NAFO Convention Area, and expressed its intention to pursue studies into the population structure of pelagic reddish in the Irminger Sea and adjacent waters until agreed recommendations on the stock structure of this species are accepted within the ICES community.

There were different views among Contracting Parties as to how existing management measures for this stock should best be adapted in light of the fact that the relevant Coastal States and NEAFC are endeavoring to develop appropriate management measures for oceanic redfish which is shared by NAFO. While some Contracting Parties were of the opinion that NAFO decisions on this stock should be considered contingent to the NEAFC decision, other Contracting Parties were of the opinion that management measures applied to this stock should be considered as independent NAFO decisions.

13.4 American plaice in Divisions 3LNO

It was **agreed** that the moratorium continues.

It was also noted that the Fisheries Commission had decided in 2011 for the moratorium until 2013. However, the Fisheries Commission requested the Scientific Council for a full assessment of this stock. The decision to continue the moratorium is based on the advice of the Scientific Council. This stock is currently under CPRS.

13.5 Yellowtail flounder in Divisions 3LNO

It was **agreed** to set the TAC at 17 000 t, the same as in 2012.

13.6 Witch Flounder in Divisions 3NO

It was **agreed** that the moratorium continues.

It was also noted that the Fisheries Commission had decided a 1-year measure of a moratorium in 2012 as it was decided to revisit this stock at this Meeting. This stock is considered a candidate to be under CPRS (see item 11).

13.7 White hake in Divisions 3NO

It was **agreed** to set the TAC of 1 000 t.

Footnote 27 of the quota table was **inserted** to account for the possibility of increasing the TAC should the catch rates indicate higher availability levels of the stock (Annex 10).

13.8 Thorny skate in Divisions 3LNO

It was **agreed** to set the TAC at 7 000 t, applicable in years 2013 and 2014.

13.9 Greenland halibut in Subarea 2 and Divisions 3KLMNO

Consistent with the Management Strategy Evaluation (MSE) approach, it was **agreed** to set the TAC at 15 510 t (11 493 t in Divisions 3LMNO).

13.10 Shrimp in Division 3LNO

It was **agreed** to set the TAC at 8 600 t. Fishing is confined in Division 3L.

The reservation of Denmark (in respect of the Faroe Islands and Greenland) to the quota allocation scheme was noted.

Article 9.8 of the NCEM, which stipulated that Canadian allocation for this stock shall be fished within the Canadian zone, was **deleted** (Annex 11).

13.11 Northern shortfin squid in Subareas 3+4

The current measure (decided in 2010) is 34 000 TAC applicable until at least 2013. The Fisheries Commission considered rescheduling the inclusion of this stock in the formulation of the FC request to synchronize it with the Scientific Council's schedule for full assessment.

14. Other Matters pertaining to Conservation of Fish Stocks

Ukraine gave the following statement, which it requested be included in the meeting report:

"Having taken into account the report at the Scientific Council Meeting Ukraine gave grounds for the fact that vessels with the registration ports in the territory of Ukraine did carry out traditional fishing scientific research in the Regulatory area. From 1 to 25 Ukrainian vessels of 660 to 5000 GRT carried out their annual fishery in Northwestern Atlantic (NWA). Annual catch of these vessels floated between 28.0-132.4 thousand tons. It accounted for from 2 % to 12 % of USSR catch in NWA.

The information has been accepted by NAFO member-states.

Proceeding from the aforementioned and on the analysis of quota underutilization having been allocated to some member-states, taking into consideration the importance of fisheries for the economical and social development of Ukraine and bearing in mind increased TAC for 3M Cod and TAC for 3 LN Redfish Ukraine applied to the Fisheries Commission with the proposal on the Ukrainian quota for 2013 (400 t on each resource mentioned). Ukraine being one of the former USSR members noted that it is equally entitled to the quota portion of USSR as the other USSR members do.

As the consensus on this question has not been built Ukraine reserved the right for "objection procedure".

In addition, basing on the Ukraine's historical experience of fishing in the Northwestern Atlantic, Ukraine insisted on placing an item of the former USSR quota allocation amongst post-Soviet states (NAFO member-states) to the Agenda for the 35th Annual Meeting of the Fisheries Commission. With the purpose of thorough preparation for the question consideration at the 35th session of the Commission it has been decided to conduct bilateral consultations and the exchange of the relevant information between Ukraine and Russia during the intersessional period."

The Russian Federation expressed disagreement to Ukraine's statement, citing that issues related to the allocation of block quotas in the NRA between the Russian Federation and the Baltic countries were considered at meetings of the Fisheries Commission Working Groups since 1995, and that the final decision on quota allocation was reached by those countries on June 10, 2003. The reports of those meetings were adopted by FC during the Annual Meeting in 2003. The Russian Federation did not plan any negotiations with Ukraine on this issue in the intersessional period

V. Ecosystem Considerations (Agenda items 15-17)

15. Report and Recommendations of the FC Working Group of Fishery Managers and Scientists on VMEs (WGFMS-VME)

The Chair of the WGFMS-VME Bill Brodie (Canada) presented the recommendations of the working group which met in September 2012 in Bergen, Norway for adoption and consideration (Annex 12). The recommendations concern: 1) List of VME indicator species and elements, 2) Assessment of bottom fishing activities, 3) Exploratory Fishing, 4) Thresholds, and 5) Modification of the Terms of Reference of this working group.

The Fisheries Commission adopted all recommendations.

Regarding Recommendations 1–3, the provisions in Chapter II of the NCEM and their associated annexes would be revised accordingly.

Regarding the recommendation on thresholds, Article 20.3 would be revised to reflect the new values of encounter thresholds (Annex 13). The working group was also instructed to convene as soon as possible after the June 2013 Scientific Council meeting to further consider possible amendments to the closed areas and evaluate the conservation effect of applying thresholds and move-on rules.

Regarding the recommendation on the new Terms of Reference, the Fisheries Commission **adopted** the proposal for a joint FC-SC WG on Ecosystem Approach Framework to Fisheries Management (Annex 14). The Fisheries Commission shall invite the Chair of the Scientific Council and the Chairs of this working group and of the SC WG on an Ecosystem Approach to Fisheries Management to have an intersessional meeting to develop a draft Term of Reference and a workplan for a joint FC-SC working group that would focus on the development and implementation of ecosystem approaches to fisheries management. The terms of reference and workplan would be considered by both the Scientific Council and the Fisheries Commission at the 2013 Annual Meeting.

16. Review of the decision to delete Article 15.6 of the 2011 NCEM

Article 15.6 of the 2011 NCEM was a provision that considers the possibility of providing access to a small scale and restricted exploratory fishery in the closed seamounts. With the review of the WGFMS-VME of the Chapter II provisions (see item 15) and the subsequent adoption of its recommendations, it was confirmed that this article be deleted.

17. Other Matters pertaining to Ecosystem Considerations

The EU brought forward the proposal Resolution on the Sargasso Sea. It resolves to take into account the available information about Sargasso Sea and consider management measures to protect the ecosystem. Some Contracting Parties indicated it is premature to reflect on and adopt the resolution considering that the Convention of Biological Diversity (CBD) has not approved yet the proposal from its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of considering Sargasso Sea as an Ecologically or Biologically Significant Marine Area (EBSA). The proposed resolution was not adopted at this meeting.

The proposal for a *Resolution on the protection of Vulnerable Marine Ecosystems from activities other than fishing* was **adopted** (Annex 15). The resolution urges other international organizations dealing with at-sea human activities and maritime affairs other than fishing to consider, in accordance with their mandate, taking mitigation measures in areas beyond national jurisdictions to reduce the risk of negative impacts of these activities in the closed areas.

VI. Conservation and Enforcement Measures (Agenda items 18-20)

18. Review of Chartering Arrangements

A report on chartering arrangements was presented by the Secretariat (FC WP 12/3). There were four (4) charter arrangements made during 2011 and three (3) during January - September 2012. The Secretariat noted full compliance with all the chartering requirements stipulated in Article 23 of the NCEM.

19. Reports of STACTIC (from May 2012 intersessional meeting and current Annual Meeting) and Recommendations

The May 2012 intersessional meeting report was presented under item 5. The STACTIC Chair presented the results of the STACTIC meeting (see Part II of this Report) and forwarded the following recommendations to the Fisheries Commission:

- a) Definition of mid-water trawl (STACTIC WP 12/4 Rev.3, Annex 16)
- b) Catch recording in logbooks (Tow by tow/Set by set) (STACTIC WP 12/16 Rev.3, Annex 17)
- c) "Cancel" report in the VMS (STACTIC WP 12/20, Annex 18)
- d) Error codes for duplicated reports/messages in the VMS (STACTIC WP 12/21 Rev, Annex 19)
- e) Annual Compliance Review 2012, for fishing year 2011 (STACTIC WP 12/28 Rev., Annex 20)

- f) Vessel Requirements modification of Article 22 of the NCEM (STACTIC WP 12/31 Rev2, Annex 21)
- g) Lost or abandoned Gear (STACTIC WP 12/33 Rev2, Annex 22)
- h) Amendment to NCEM Annex IV.B Surveillance Report Form (STACTIC WP 12/34 Rev. 1, Annex 23)
- i) Product Labelling (STACTIC WP 12/35 Rev.3, Annex 24)
- j) Closure of 3M Redfish Fisheries (STACTIC WP 12/37 Rev.3)
- k) Conversion Factors (STACTIC WP 12/39 Rev3, Annex 25)
- 1) Observer Program Data and Reporting Requirements (STACTIC WP 12/41 Rev, Annex 26)

In addition, a proposal which did not garner consensus in STACTIC was forwarded for further deliberation and consideration at the Fisheries Commission:

m) Amendment to Article 5.2 of the NCEM (STACTIC WP 12/22, Revised).

The Fisheries Commission adopted items a) -d) and f) -i); accepted item e); and approved items k) -i).

Regarding Recommendation j), it was accepted but it was agreed the text to be used would be in the form of an FC proposal rather than a proposal by STACTIC. The new FC proposal, as contained in FC WP 12/31 Rev. was **adopted** (Annex 27). The proposal concerns 3M redfish closure and the amendment of Article 5.2 and footnotes 8 and 19 of the quota table.

Recommendation m) was a proposal which concerns the retention of by-catch after the closure of the fishery. The proposal did not garner consensus in FC.

20. Other Matters pertaining to Conservation and Enforcement Measures

The Fisheries Commission **amended** Article 26.10 (d) of the NCEM, making the VMS data more easily accessible to the Scientific Council and other NAFO constituent bodies (Annex 28). It was noted that this amendment addresses the PRP recommendation # 7 (see Annex 3 of GC Doc 12/1).

The EU brought forward the Proposal for a Conservation Measure to Ensure the Compatibility of Measures adopted for the conservation and management of straddling stocks within the Convention Area. The proposal entails that the Fisheries Commission shall examine the compatibility of the Coastal States' measures with the existing conservation and management measures adopted under NAFO Convention. Some Contracting Parties expressed their reservation on the proposal and that further consultations from their respective governments would be required. The proposed resolution was not adopted at this meeting.

VII. Closing Procedure (Agenda items 21-24)

21. Election of Chair

Temur Tairov (Russian Federation) was elected Vice Chair.

22. Time and Place of the Next Meeting

This item was deferred to the General Council. At the GC closing session, it was noted that the 35th Annual Meeting would be held in the Halifax-Dartmouth area, Canada, 23-27 September 2013.

23. Other Business

No other business was discussed.

24. Adjournment

The meeting was adjourned at 1200 hrs on Friday, 21 September 2012.

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Annex 2. Record of Decisions and Actions by the Fisheries Commission (Annual Meeting 2012)

	Substantive Issues (Agenda item):	Decision/Action:
8.	Presentation of scientific advice by the Chair of the Scientific Council	Noted Scientific Council Chair's presentation of the scientific advice and the SC Meeting Reports that contained the scientific advice (SCS Doc. 12/19 and 12/20).
9.	Quinquennial Review of the Environmental Conditions in the Northwestern Atlantic	Noted STACFEN Chair's presentation of the review of environmental conditions (Appendix I of SCS Doc 12/19).
10.	Formulation of Request to the Scientific Council for Scientific	Adopted an updated framework for the presentation of Scientific Advice based on risk (FC WP 12/27).
	Advice on the Management of Fish Stocks in 2014 and on other matters	Adopted the FC Request to the SC for scientific advice (FC WP 12/21 Rev2).
		Adopted a new process in developing questions and formulating requests to the Scientific Council (FC WP 12/16 Rev).
11.	Report and Recommendations of	Noted the WG Meeting Report of September 2012 (FC Doc 12/5).
	the FC Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS)	Adopted the recommendation regarding the priorities of the CPRS work: development of general CPRS framework, on-going CPRS development for 3LNO American plaice and 3NO cod, continued efforts to develop CPRS for other stocks including 3NO witch flounder, and initial CPRS development for both 3LN redfish and 3M Cod.
		Endorsed the following work items for the next WG Meetings elaboration of general framework including management objectives and performance statistics, and development of alternate strategies for stocks that may not be suited to formulaic rules or for stocks where reference points do not exist or cannot be developed.
		Requested the Scientific Council to: develop Limit Reference Points for 3NO witch flounder, and continue its research on the 3NO cod productivity.
		Adopted a proposal for a joint FC-SC WG on CPRS (FC WP 12/30).
12.	Management and Technical Measures for Fish Stocks in the Regulatory Area, 2013	(see 2013 Quota Table)
	12.1 Cod in Division 3M	Set the TAC at 14 113 t.
	12.2 Shrimp in Division 3M	Agreed that fishing moratorium shall continue in 2013.
13.	Management of Technical Measures for Fish Stocks Straddling National Fishing Limits, 2013	(see 2013 Quota Table)
	13.1 Redfish in Divisions 3LN	Set the TAC at 6 500 t.
	13.2 Redfish in Divisions 3O	Set the TAC at 20 000 t, same level as in 2012.
	13.3 Pelagic <i>Sebastes mentella</i> (oceanic redfish) in the NAFO Convention Area	Agreed that fishing moratorium shall continue in 2013.
	13.4 American plaice in Divisions 3LNO	Agreed that fishing moratorium shall continue in 2013.
	13.5 Yellowtail flounder in Divisions 3LNO	Set the TAC at 17 000 t, same level as in 2012.
	13.6 Witch flounder in Divisions 3NO	Agreed that fishing moratorium shall continue in 2013.

	13.7 White hake in Divisions 3NO	Set the TAC at 1 000 t.							
		Inserted Footnote 27 in the Quota Table to account for the possibility of increasing the TAC should the catch rates indicate higher availability levels of the stock (FC WP 12/33).							
	13.8 Thorny skate in Divisions 3LNO	Set the TAC at 7 000 t, applicable in years 2013 and 2014.							
	13.9 Greenland halibut in Subarea 2 and Divisions 3KLMNO	Set the TAC at 15 510 t (11 493 t in Divisions 3LMNO).							
	13.10 Shrimp in Division 3LNO	Set the TAC at 8 600 t.							
		Deleted Article 9.8 of the 2012 NCEM (FC WP 12/36).							
15.	Report and Recommendations of the FC Working Group of Fishery	Adopted the list of indicator species and elements in conjunction with Article 15 of the NCEM (Annex 1 of FC WP 12/6)							
	Managers and Scientists on VMEs (WGFMS-VME)	Revised the provisions relating to Exploratory Fishing in Chapter II of the NCEM (Annex 2 of the FC WP 12/6).							
		Revised Annex I.E.V of the NCEM – Assessment of Bottom Fishing Activities (Annex 3 of FC WP 12/6).							
		Adopted new encounter threshold values for seapens, corals, and sponges and revised Article 20.3 of the NCEM to reflect the new values (FC WP 12/37).							
		Adopted a proposal for a joint FC-SC WG on Ecosystem Approach Framework to Fisheries Management (FC WP 12/29).							
		Instructed the WG to convene after the June 2013 SC meeting to further consider possible amendments to the closed areas and evaluate the conservation effect of applying thresholds and move-on rules (FC WP 12/37).							
17.	Other Matters pertaining to Ecosystem Considerations	Adopted the <i>Resolution on the protection of Vulnerable Marine Ecosystems from activities other than fishing</i> (FC WP 12/13, Revised).							
19.	Reports of STACTIC (from May 2012 intersessional meeting and	Noted the STACTIC May 2012 Intersessional Meeting Report and the current meeting report (see Part II of this Report).							
	current Annual Meeting) and Recommendations	Adopted Definition of mid-water trawl (STACTIC WP 12/4 Rev.3).							
	Recommendations	Adopted Catch recording in logbooks (Tow by tow/Set by set) (STACTIC WP 12/16 Rev.3).							
		Adopted "Cancel" report in the VMS (STACTIC WP 12/20).							
		Adopted Error codes for duplicated reports/messages in the VMS (STACTIC WP 12/21, Revised).							
		Accepted Annual Compliance Review 2012, for fishing year 2011 (STACTIC WP 12/28 Rev).							
		Adopted Vessel Requirements – modification of Article 22 of the NCEM (STACTIC WP 12/31 Rev.2).							
		Adopted Lost or abandoned Gear (STACTIC WP 12/33 Rev 2).							
		Adopted Amendment to NCEM Annex IV.B – Surveillance Report Form (STACTIC WP 12/34 Rev).							
		Adopted Product Labelling (STACTIC WP 12/35 Rev.3).							
		Approved Conversion Factors (STACTIC WP 12/39 Rev.3).							
		Approved Observer Program Data and Reporting Requirements (STACTIC WP 12/41 Rev).							

	Adopted a proposal regarding 3M redfish closure and amended Article 5.2 and Footnotes 8 and 19 of the Quota Table (FC WP 12/31 Rev).
20. Other Matters pertaining to Conservation and Enforcement Measures	Amended Article 26.10 (d) of the NCEM, making the VMS data more easily accessible to the Scientific Council and other NAFO constituent bodies (FC WP 12/15).
21. Election of Vice Chair	Elected Temur Tairov (Russian Federation) as the Vice Chair of the Fisheries Commission.

Annex 3. Agenda

I. Opening Procedures

- 1. Opening by the Chair, Sylvie Lapointe (Canada)
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Review of Commission Membership
- 5. Guidance to STACTIC necessary for them to complete their work

II. Performance Review Panel Recommendations

- 6. Recommendations addressed to the Fisheries Commission and its subsidiary body of STACTIC
- 7. Recommendations addressed to more than one NAFO Body including the Fisheries Commission

III. Scientific Advice

- 8 Presentation of scientific advice by the Chair of the Scientific Council
 - 8.1 Scientific advice on fish stocks
 - 8.2 Conservation Plans and Rebuilding Strategies (CPRS)
 - 8.3 Greenland halibut Management Strategy Evaluation (MSE)
 - 8.4 Vulnerable Marine Ecosystems (VME)
 - 8.5 Other issues (as determined by the Chair of the Scientific Council)
 - 8.6 Feedback to the SC regarding the advice and its work during this Meeting
- 9. Quinquennial Review of Environmental Conditions in the Northwestern Atlantic
- Formulation of Request to the Scientific Council for Scientific Advice on the Management of Fish Stocks in 2014 and on other matters

IV. Conservation of Fish Stocks in the Regulatory Area

- 11. Report of the Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS
- 12. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2013
 - 12.1 Cod in Division 3M
 - 12.2 Shrimp in Division 3M
- 13. Management and Technical Measures for Fish Stocks Straddling National Fishing Limits, 2013
 - 13.1 Redfish in Div. 3LN
 - 13.2 Redfish in Div. 3O
 - 13.3 Pelagic Sebastes mentella (oceanic redfish) in the NAFO Convention Area
 - 13.4 American plaice in Div. 3LNO
 - 13.5 Yellowtail flounder in Div. 3LNO
 - 13.6 Witch Flounder in Div. 3NO
 - 13.7 White hake in Div. 3NO
 - 13.8 Thorny skate in Div. 3LNO
 - 13.9 Greenland halibut in Subarea 2 and Div. 3KLMNO

- 13.10 Shrimp in Div. 3LNO
- 13.11 Northern Shortfin squid in Subareas 3+4
- 14. Other matters pertaining to Conservation of Fish Stocks

V. Ecosystem Considerations

- 15. Report of the Working Group of Fishery Managers and Scientists on VMEs (WGFMS-VME)
- 16. Review of the decision to delete Article 15.6 of the 2011 NCEM
- 17. Other matters pertaining to Ecosystem Considerations

VI. Conservation and Enforcement Measures

- 18. Review of Chartering Arrangements
- 19. Reports of STACTIC (from May 2012 intersessional meeting and this Annual Meeting)
- 20. Other matters pertaining to Conservation and Enforcement Measures

VII. Closing Procedures

- 21. Election of Vice-Chair
- 22. Time and Place of Next Meeting
- 23. Other Business
- 24. Adjournment

Annex 4. Scientific Council Responses to Questions from the Fisheries Commission

(FC Working Paper 12/12, Revised)

1. 3M cod

Scientific Council noted that the 3M cod Spawning Stock Biomass (SSB) has increased to the highest value of the time series and is now well above Blim. What is the risk of decline in spawning stock biomass to values below Blim in the next two years if fishing mortality is at the level of Fmax in 2013?

SC responded: Based on the current assessment results, the risk of the stock going below Blim by the end of 2013 while fishing at F=0.135 (equal to the 2012 estimate of Fmax) is less than 0.1%.

2. 3LN redfish and 3LNO shrimp

The fishing mortality of 3LN redfish is at historical low levels and biomass is at high levels and well above Blim. The Scientific Council advises that the fishing mortality should be maintained around current levels and that increases should be taken with caution. The Fisheries Commission requests the Scientific Council to provide information on:

- 1) What levels of increase would be considered as cautious by the SC? Could a TAC increase of 15% or 25% be considered as cautious?
- 2) Noting the biological interaction between redfish, cod and shrimp in the Flemish Cap and that such interactions are likely to occur in the Grand Banks, what would be the level of improvement of the 3LNO shrimp stock expected by increasing the harvesting of redfish? By lowering the natural mortality over the 3LNO shrimp stock, could it be expected that sustainable harvesting levels of shrimp would be higher than in previous years?

SC responded:

- 1) SC is at the moment not able to quantify the level of "cautiousness" related to the various TAC increases. This is a newly opened fishery and the information available in the data regarding stock response to exploitation in combination with the limitations in the current modeling framework used does not allow this.
- 2) The available diet information for the Newfoundland shelf and Grand Bank indicates that shrimp is an important prey for redfish, but it is also an important prey for other groundfish species like cod, American plaice, and Greenland halibut. The Grand Bank has a more complex food web structure than the Flemish Cap, so predicting the outcome of a reduction of redfish on shrimp, even in a semi-quantitative manner, is not possible at this time. A reduction of predation mortality from just one of these predators may not necessarily have detectable effects on the shrimp stock. Work towards developing multispecies models to explore these issues is one of the components of the SC Roadmap to EAF.

3. Thorny skate

The scientific council indicated that Canadian spring surveys that cover the NRA show an increasing trend of thorny skate since 1997 and that the autumn surveys are stable. In spite of the increase, survey indices are low compared to historical levels of the 1980s. On the other hand, the index of fishing mortality has been low since 2005 and recruitment index is 50% above average in the last two years. There is no analytical assessment for this stock.

1) Considering the low exploitation rates, has the scientific council identified other sources of mortality besides fishing, which could be driving the dynamics of this stock?

SC responded: no specific causes of natural mortality have been identified for this stock.

2) The high survey values in the 1980s and the lower indices since 1997 were obtained with a distinct survey method (Engel and Campelen). Could this different method be influencing the perception of stock size throughout the whole time series?

SC responded: The biomass index of Div. 3LNO thorny skate showed a large decline from the mid 1980s to the mid 1990s. This decline in population size occurred prior to the change in survey gear which occurred in fall 1995 at the low point in stock size. There has been some increase since that time but the stock remains at a low level. The change in survey gear is not considered a factor in the perception of stock status.

4. 3NO witch

Does SC have information on the by-catch of 3NO witch in the yellowtail fishery, and if so does it consider this level of by-catch to be harmful to the recovery of the 3NO witch stock?

SC responded: The by-catch of 3NO witch in the Canadian yellowtail fishery ranged from 11 to 40 tons/year from 2007-2011 (SCS 12/19, page 28). Over this period, this represents on average, about 8.9% of the total annual estimated by-catch of 3NO witch. SC does not have estimates of fishing mortality for 3NO witch, but considers it unlikely that catches of that magnitude would have a major impact on the recovery of the resource

5. 3NO cod

What is the basis of different survey trends apparent in Div. 3NO cod between Canadian and EU surveys and what are the implications for the view of status of the stock?

SC responded: Div. 3NO Canadian spring and autumn surveys cover most of the total distribution of the stock while the Div. 3NO EU-Spain survey is only outside off the Canadian EEZ (in the NAFO Regulatory Area) and covers only a smaller part of stock distribution.

The EU-Spain survey series is poorly fitted by the assessment model used and is not included in the actual assessment of the stock.

Annex 5. Proposal for the updated framework for the presentations of Scientific Advice based on risk

(FC Working Paper 12/27 now FC Doc. 12/25)

The NAFO Contracting Parties:

Mindful of the NAFO Performance Assessment Review, in particular the recommendation to enhance the application of risk-based assessment approaches when evaluating management strategies;

Recalling the 2011 Plan of Action developed by the General Council Working Group for the Implementation of the Recommendation of the NAFO Performance Review Panel;

Acting upon the Recommendation number 25 of the aforementioned Plan of Action;

Noting the distinct separation of competencies between the Scientific Council and the Fisheries Commission;

Noting the usefulness and importance of the presentation of scientific advice in a tabled risk based approach to managers in order to enable them to take well informed decisions based on best available science;

Request the Scientific Council to present the Scientific Advice for the stocks assessed in 2013 and after following the guidelines indicated as Annex A and B below. These guidelines should replace the current Annex 1 of the Fisheries Commission request for scientific advice.

These guidelines shall be reviewed and adjusted as appropriate based on the experience of its application at the latest in 2016.

ANNEX A: Guidance for providing advice on Stocks Assessed with an Analytical Model

The Fisheries Commission request the Scientific Council to consider the following in assessing and projecting future stock levels for those stocks listed above. These evaluations should provide the information necessary for the Fisheries Commission to consider the balance between risks and yield levels, in determining its management of these stocks:

- 1. For stocks assessed with a production model, the advice should include updated time series of:
 - Catch and TAC of recent years
 - Relative Biomass
 - Relative Fishing mortality
 - Stock trajectory against reference points
 - And any information the Scientific Council deems appropriate.

Stochastic short-term projections (3 years) should be performed under the following conditions:

- For stocks opened to direct fishing:
 - Projections based on constant fishing mortality at: $2/3 F_{MSY}$, $3/4 F_{MSY}$, $85\% F_{MSY}$, F_{SQ} (status quo);
 - Projections based on constant yield at: Current TAC and relevant percentage above and/or below the current TAC;
- For stocks under a moratorium to direct fishing: F_{so} , F = 0.

Results from stochastic short term projection should include:

- The 10%, 50% and 90% percentiles of the yield and total biomass;
- The risks of stock population parameters increasing above or falling below available biomass and fishing mortality reference points. The table indicated below should guide the Scientific Council in presenting the short term projections.

				Limit	referen	ce point	ts									
				F <flir< td=""><td>n</td><td></td><td>B>Blir</td><td>m</td><td></td><td>F<fm< td=""><td>sy</td><td></td><td>B>Bn</td><td>nsy</td><td></td><td>By+2 > By-2**</td></fm<></td></flir<>	n		B>Blir	m		F <fm< td=""><td>sy</td><td></td><td>B>Bn</td><td>nsy</td><td></td><td>By+2 > By-2**</td></fm<>	sy		B>Bn	nsy		By+2 > By-2**
Constant fishing mortality levels or																
yield as indicated	Yield in y*	Yield in y+1	Yield in y+2													
above**	(50%)	(50%)	(50%)	у	y+1	y+2	у	y+1	y+2	у	y+1	y+2	у	y+1	y+2	
F or Yield	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
Options	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%

^{*}y = First year of the projections

The Scientific Council might consider other projections options.

- 2. For stock assessed with an age-structured model, information should be provided on stock size, spawning stock sizes, recruitment prospects, historical fishing mortality. Graphs and/or tables should be provided for all of the following for the longest time-period possible:
 - Catch and TAC of recent years
 - historical yield and fishing mortality;
 - spawning stock biomass and recruitment levels;
 - Stock trajectory against reference points

And any information the Scientific Council deems appropriate

Stochastic short-term projections (3 years) should be performed with the following constant fishing mortality levels:

- For stocks opened to direct fishing:
 - o Projections based on constant fishing mortality at: $F_{0.1}$, F_{MAX} , F_{MSY} , F_{SO} ;
 - o Projections based on constant yield at: Current TAC and relevant percentage above and/or below the current TAC;
- For stocks under a moratorium to direct fishing: F_{so} , F = 0.

Results from stochastic short term projection should include:

- The 10%, 50% and 90% percentiles of the yield, total biomass, spawning stock biomass and exploitable biomass for each year of the projections
- The risks of stock population parameters increasing above or falling below available biomass and fishing mortality reference points. The table indicated below should guide the Scientific Council in presenting the short term projections.

^{**} y-2 = Last year of the stock assessment

Limit reference points

				Lilliti		pomi				,							-	
				F <flim< td=""><td>ı</td><td></td><td>B>Blii</td><td>m</td><td></td><td></td><td>F<f0.1< td=""><td></td><td></td><td>F<fm< td=""><td>ıax</td><td></td><td></td><td>By+2 > By-2</td></fm<></td></f0.1<></td></flim<>	ı		B>Blii	m			F <f0.1< td=""><td></td><td></td><td>F<fm< td=""><td>ıax</td><td></td><td></td><td>By+2 > By-2</td></fm<></td></f0.1<>			F <fm< td=""><td>ıax</td><td></td><td></td><td>By+2 > By-2</td></fm<>	ıax			By+2 > By-2
Constant fishing mortality levels or yield as																		
indicated	Yield	Yield	Yield															
above**	in y*	in y+1	in y+2	у	y+1	y+2	у	y+1	y+2		у	y+1	y+2	у	y+1	y+2		
F or Yield	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
Options	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%

^{*}y = First year of the projections

The Scientific Council might consider other projections options.

^{**} y-2 = Last year of the stock assessment

ANNEX B: Guidance for providing advice on Stocks Assessed without a Population Model

For those resources for which only general biological and/or catch data are available, few standard criteria exist on which to base advice. The stock status should be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with the precautionary approach.

The following graphs should be presented, for one or several surveys, for the longest time-period possible:

- a) time trends of survey abundance estimates
- b) an age or size range chosen to represent the spawning population
- c) an age or size-range chosen to represent the exploited population
- d) recruitment proxy or index for an age or size-range chosen to represent the recruiting population.
- e) fishing mortality proxy, such as the ratio of reported commercial catches to a measure of the exploited population.
- f) Stock trajectory against reference points

And any information the Scientific Council deems appropriate

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Annex 6. Fisheries Commission's Request for Scientific Advice on Management Options in 2014 and Beyond of Certain Stocks in Subareas 2, 3 and 4 and Other Matters

(FC Working Paper 12/21, Revision 2 now FC Doc. 12/24)

- 1. The Fisheries Commission with the concurrence of the Coastal State as regards to the stocks below which occur within its jurisdiction ("Fisheries Commission") requests that the Scientific Council provide advice in advance of the 2013 Annual Meeting, for the management of Northern shrimp in Div. 3M, 3LNO in 2014. The advice should be provided as a range of management options and a risk analysis for each option (rather than a single TAC recommendation) in accordance to Annex A or B as appropriate.
- 2. Fisheries Commission requests that the Scientific Council provide advice for the management of the fish stocks below according to the assessment frequency presented below. The advice should be provided as a range of management options and a risk analysis for each option (rather than a single TAC recommendation).

Two year basis

American plaice in Div. 3LNO

Capelin in Div. 3NO

Cod in Div. 3M

Redfish in Div 3LN

Redfish in Div. 3M Thorny skate in Div. 3LNO

White hake in Div. 3NO

Yellowtail flounder in Div. 3LNO

Three year basis

American plaice in Div. 3M

Cod in Div. 3NO

Northern shortfin squid in SA 3+4

Redfish in Div. 3O

Witch flounder in Div. 2J+3KL

Witch flounder in Div. 3NO

To continue this schedule of assessments, the Scientific Council is requested to conduct the assessment of these stocks as follows:

In 2013, advice should be provided for 2014 and 2015 for Capelin in Div. 3NO, Cod in Div. 3M, Redfish in Div. 3M, White hake in Div. 3NO and Yellowtail flounder in Div. 3LNO and for 2014, 2015 and 2016, Cod in Div. 3NO, Northern shortfin squid in SA 3+4, Redfish in Div. 3O and Witch Flounder in div. 2J+3KL.

Advice should be provided using the guidance provided in Annexes A or B as appropriate.

The Fisheries Commission also requests the Scientific Council to continue to monitor the status of all these stocks annually and, should a significant change be observed in stock status (e.g. from surveys) or in bycatches in other fisheries, provide updated advice as appropriate.

- 3. The Fisheries Commission adopted in 2010 an MSE approach for Greenland halibut stock in Subarea 2 + Division 3KLMNO (FC Working Paper 10/7). This approach considers a survey based harvest control rule (HCR) to set a TAC for this stock on an annual basis. The Fisheries Commission requests the Scientific Council to:
 - Monitor and update the survey slope and to compute the TAC according to HCR adopted by the Fisheries Commission according to Annex 1 of FC Working Paper 10/7.
 - b) Advise on whether or not an exceptional circumstance is occurring.
- 4. With respect to Northern shrimp (*Pandalus borealis*) in Div. 3LNO, noting the NAFO Framework for Precautionary Approach and recognizing the desire to demonstrate NAFO's commitment to applying the precautionary approach, Fisheries Commission requests the Scientific Council to:
 - a) identify F_{msv}
 - b) identify B_{msv}
 - c) provide advice on the appropriate selection of an upper reference point for biomass (e.g. B_{but})
- 5. Fisheries Commission requests the Scientific Council to examine the consequences resulting from a decrease in mesh size in the mid-water trawl fishery for redfish in Div. 3LN to 90mm or lower.
- 6. The Fisheries Commission requests the Scientific Council to provide Bmsy and Fmsy for cod in Div. 3M.

- 7. Recognizing the work accomplished by the Scientific Council in 2012 on sea pens and sponges, Fisheries Commission requests the Scientific Council to complete request 17 of 2011 by making recommendations for encounter thresholds and move on rules for small gorgonian corals, large gorgonian corals, sea squirts, erect bryozoans, crinoids and cerianthid anemone which are VME indicator species that meet the FAO Guidelines for VME and SAI. Consider thresholds for 1) inside the fishing footprint and outside of the closed areas and 2) outside the fishing footprint in the NRA, and 3) for the exploratory fishing area of seamounts if applicable. In the case of sea pens and sponges make recommendations for encounter thresholds and move on rules for the exploratory fishing area of seamounts.
- 8. In the medium term, the Fisheries Commission requests the Scientific Council to continue research on the productivity of 3NO Cod and define MSY reference points.
- 9. With regards to witch flounder in Div. 3NO, the Fisheries Commission requests the Scientific Council to provide reference points or proxies, including Blim.
- 10. The Fisheries Commission requests the Scientific Council to use Annex 1.E.V of the NCEM to guide development of their workplan 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 SC.
- 11. With regards to witch flounder in Div. 3NO, the Fisheries Commission requests the Scientific Council to provide estimates for exploitable biomass and for spawning stock biomass, or appropriate proxies, as well as smoothing, as appropriate.
- 12. With regards to stocks without reference points and that cannot be developed, the Fisheries Commission requests the Scientific Council to provide advice on:
 - a) considerations for reopening stocks under moratorium.
 - b) what would constitute a sustainable harvest rate for healthy stocks.
- 13. Report on the progress of the "Roadmap for developing an Ecosystem Approach to Fisheries for NAFO" regarding:
 - a) The general progress of the Roadmap;
 - b) Further developments on the stock interactions studies between cod, redfish and shrimp in the Flemish Cap by applying multi species models and by quantifying potential yield and biomass tradeoffs with different fishing mortalities in the multispecies context. The predation of cod over cod juveniles should be taken into account;
 - c) Developments on stock interaction studies for the Grand Banks (NAFO Divisions 3KL and 3NO). The spatial overlap between these stocks should be considered.
 - These developments should be considered as exploratory and be part of the progress on the "Roadmap for developing an Ecosystem Approach to Fisheries for NAFO".
- 14. The Scientific Advice for 3LNO shrimp is based on the assessment of fishable biomass and the trends of exploitation rates. The basic assumption is that exploitation levels are driving the dynamic of this stock. However, interactions between stocks-are likely to occur and may substantially contribute to the total mortality of shrimp.
 - The Fisheries Commission requests the scientific council to incorporate as much as possible information on stock interaction between these stocks in the management advice of 3LNO shrimp and to provide sustainable exploitation rates on that basis.
- 15. The Fisheries Commission requests the Scientific Council to comment and advise on whether the Sargasso Sea provides forage area or habitat for living marine resources that could be impacted by different types of fishing; and on whether there is a need for any management measure including a closure to protect this ecosystem. The polygon to be considered is the following:-46.844711060999884 35.722427393000203,-46.32415425899984 35.369106151000096,-45.844178761598414 35.0,-62.202511155429988 35.0,-62.632567558331232 35.258234148636177,-63.272355558926961 35.512762148873321,-63.959640559567163 35.669259149019013,-64.673394560231941 35.722388149068536,-65.385178560894815 35.670316149019982,-66.072834561535274 35.514837148875188,-66.875051562282238 35.198759148580848,-67.211147449541443 35.0,-71.448964644661828 35.0,-71.377610283999786 35.483190472000047,-70.697710570999789 35.847831353000117,-69.781329499999856

 $36.285738255000183, -68.818622663999804 \ 36.688934769000298, -67.810633268999936 \ 37.057011529000135, -66.767771029999835 \ 37.386320105000095, -65.000031260999833 \ 37.838698970000223, -63.160524424999892 \ 38.183166102000087, -61.276399190999882 \ 38.41419272700017, -59.376124598999866 \ 38.528701613000123, -57.575810995999859 \ 38.528867480000258, -55.796226233999846 \ 38.422925564000195, -54.062624079999807 \ 38.211871163000239, -52.399638263999805 \ 37.898770146000288, -50.826090381999791 \ 37.487278854000067, -49.360484950999876 \ 36.981801336000103, -48.028343332999839 \ 36.39115303900013, -46.844711060999884 \ 35.722427393000203$

16. Assessment of risk of significant adverse impacts on VME indicator aggregations and VME elements in the NAFORA

Fishing effort is not uniformly distributed throughout the NAFO Regulatory Area (NRA) and within the fishing footprint there is considerable variation in the intensity of fishing effort. Defining and mapping the high intensity fishing areas within the NRA would by definition represent low risk areas in terms of significant adverse impacts and therefore encounter protocols and move on rules would have little utility in these areas. Furthermore, an understanding of the relationship between the high intensity fishing areas and the environmental characteristics could be used to identify potential new low risk fishing areas. Further categories of risk should be assessed in relation to known and potential mapped VME areas and the maps of fishing intensity to support a risk based spatial management approach for all areas.

- a) The Fisheries Commission requests the SC for an analysis of fishing effort (VMS data) in the NRA to define areas of different levels of fishing intensity (e.g a map of 90%, 80%, 70%... effort) and assess these in conjunction with habitat data in order to map out areas where fishing activities would therefore have no or little significant adverse impact on VMEs and where encounter protocols and move on rules would therefore have little utility. To achieve this, high resolution data is required, (derived from the 2003-present time series of VMS records and logbook records of fishing activity provided by the secretariat and NEREIDA data). The Fisheries Commission requests therefore to the Executive Secretary to provide to the Scientific Council anonymous VMS data and logbook records of fishing activity from 2003 to present.
- b) In view of the area management currently implemented and to facilitate evaluation of the need for further protective measures in response to UNGA 61/105, the SC is requested to provide an assessment of risk of significant adverse impacts on VME indicator aggregations and VME elements in the NAFO RA. This assessment should consider spatial and temporal distribution of fishing activity (derived from the 2003-present time series of VMS records and logbook records of fishing activity provided by the secretariat), and the best available knowledge on the spatial distribution of VME indicators and VME indicator elements.

ANNEX A: Guidance for providing advice on Stocks Assessed with an Analytical Model

The Fisheries Commission request the Scientific Council to consider the following in assessing and projecting future stock levels for those stocks listed above. These evaluations should provide the information necessary for the Fisheries Commission to consider the balance between risks and yield levels, in determining its management of these stocks:

- 1. For stocks assessed with a production model, the advice should include updated time series of:
 - Catch and TAC of recent years
 - Relative Biomass
 - Relative Fishing mortality
 - Stock trajectory against reference points
 - And any information the Scientific Council deems appropriate.

Stochastic short-term projections (3 years) should be performed under the following conditions:

- For stocks opened to direct fishing:
 - o Projections based on constant fishing mortality at: 2/3 F_{MSY}, 3/4 F_{MSY}, 85% F_{MSY}, F_{SO} (status quo);
 - Projections based on constant yield at: Current TAC and relevant percentage above and/or below the current TAC;
- For stocks under a moratorium to direct fishing: F_{so} , F = 0.

Results from stochastic short term projection should include:

- The 10%, 50% and 90% percentiles of the yield and total biomass;
- The risks of stock population parameters increasing above or falling below available biomass and fishing mortality reference points. The table indicated below should guide the Scientific Council in presenting the short term projections.

Limit reference points

				F <flir< th=""><th>n</th><th></th><th>B>Blii</th><th>m</th><th></th><th>F<fm< th=""><th>sy</th><th></th><th>B>Bn</th><th>nsy</th><th></th><th>By+2 > By-2**</th></fm<></th></flir<>	n		B>Blii	m		F <fm< th=""><th>sy</th><th></th><th>B>Bn</th><th>nsy</th><th></th><th>By+2 > By-2**</th></fm<>	sy		B>Bn	nsy		By+2 > By-2**
Constant fishing mortality levels or yield as indicated	Yield in y*	Yield in y+1	Yield in y+2													
above**	(50%)	(50%)	(50%)	у	y+1	y+2	у	y+1	y+2	У	y+1	y+2	у	y+1	y+2	
F or Yield	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
Options	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%

^{*}y = First year of the projections

The Scientific Council might consider other projection options.

^{**} y-2 = Last year of the stock assessment

- 2. For stock assessed with an age-structured model, information should be provided on stock size, spawning stock sizes, recruitment prospects, historical fishing mortality. Graphs and/or tables should be provided for all of the following for the longest time-period possible:
 - Catch and TAC of recent years
 - historical yield and fishing mortality;
 - spawning stock biomass and recruitment levels;
 - Stock trajectory against reference points

And any information the Scientific Council deems appropriate

Stochastic short-term projections (3 years) should be performed with the following constant fishing mortality levels:

- For stocks opened to direct fishing:
 - o Projections based on constant fishing mortality at: $F_{0.1}$, F_{MAX} , F_{MSY} , F_{SO} ;
 - o Projections based on constant yield at: Current TAC and relevant percentage above and/or below the current TAC;
- For stocks under a moratorium to direct fishing: F_{so} , F = 0.

Results from stochastic short term projection should include:

- The 10%, 50% and 90% percentiles of the yield, total biomass, spawning stock biomass and exploitable biomass for each year of the projections
- The risks of stock population parameters increasing above or falling below available biomass and fishing mortality reference points. The table indicated below should guide the Scientific Council in presenting the short term projections.

Limit reference points

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				F <flin< td=""><td>1</td><td></td><td>B>Blii</td><td>m</td><td></td><td>F<f0.1< td=""><td>-</td><td></td><td>F<fm< td=""><td>ıax</td><td></td><td></td><td>By+2 > By-2</td></fm<></td></f0.1<></td></flin<>	1		B>Blii	m		F <f0.1< td=""><td>-</td><td></td><td>F<fm< td=""><td>ıax</td><td></td><td></td><td>By+2 > By-2</td></fm<></td></f0.1<>	-		F <fm< td=""><td>ıax</td><td></td><td></td><td>By+2 > By-2</td></fm<>	ıax			By+2 > By-2
Constant fishing mortality levels or yield as indicated	Yield	Yield	Yield														
above**	in y*	in y+1	in y+2	у	y+1	y+2	у	y+1	y+2	у	y+1	y+2	у	y+1	y+2		
F or Yield	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%		%
Options	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%		%
	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%		%
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^{*}y = First year of the projections

The Scientific Council might consider other projection options.

^{**} y-2 = Last year of the stock assessment

ANNEX B: Guidance for providing advice on Stocks Assessed without a Population Model

For those resources for which only general biological and/or catch data are available, few standard criteria exist on which to base advice. The stock status should be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with the precautionary approach and include risk considerations as much as possible.

The following graphs should be presented, for one or several surveys, for the longest time-period possible:

- a) time trends of survey abundance estimates
- b) an age or size range chosen to represent the spawning population
- c) an age or size-range chosen to represent the exploited population
- d) recruitment proxy or index for an age or size-range chosen to represent the recruiting population.
- e) fishing mortality proxy, such as the ratio of reported commercial catches to a measure of the exploited population.
- f) Stock trajectory against reference points

And any information the Scientific Council deems appropriate.

Annex 7. Proposal for the improvement of the process to develop questions to the Scientific Council

(FC Working Paper 12/16, Revised now FC Doc. 12/26)

The NAFO Contracting Parties:

Mindful of the NAFO Performance Assessment Review that took place in 2011;

Recalling the Plan of Action developed by the GC Working Group for the Implementation of the Recommendations of the NAFO Performance Review Panel;

Acting upon the 2011 Recommendation number 25 of the aforementioned Plan of Action;

Recognising the need for better transparency and better communication between the Scientific Council and the Fisheries Commission highlighted in the Report of the Panel of the Performance Assessment Review;

Noting the increase in scope of management issues in NAFO and the associated increase in workload for the Scientific Council

Noting the need to prioritize work and use the resources of Scientific Council more efficiently;

NAFO Contracting Parties resolve to establish a clear and transparent process for developing the Fisheries Commissions document entitled "Fisheries Commission Request For Scientific Advice On Management In 20XX And Beyond Of Certain Stocks In Subareas 2, 3 And 4 And Other Matters" as follows:

1) A Steering Committee composed of the Scientific Council Coordinator and members of Contracting Parties

¹should be established to coordinate all requests for advice and serve as the contact point between the
Scientific Council and the Fisheries Commission regarding any need of clarification on the FC requests for
scientific advice during the June Scientific Council meeting or whenever necessary during the year.

This Steering Committee should be in place during an interim period until the process is well established within NAFO. After the interim period, consideration should be given to having the Scientific Council Coordinator assume the tasks of the Steering Committee.

- 2) Prior to the Annual Meeting, the Steering Committee should:
 - i. Update the above FC Request for Scientific Advice document to:
 - o reflect the stock assessment schedule and requests that remain unanswered from the previous year;
 - o include requests received from Contracting Parties in Advance of the Annual Meeting²;
 - o include requests originating from the various FC Working Groups (WG);

Distribute to Contracting Parties all requests as a draft FC document three days prior to the Annual Meeting.

- 3) During the Annual Meeting, the Steering Committee should:
 - i. Update the FC Request document with additional requests³ and distribute to all Contracting Parties.
 - ii. Consult with Scientific Council on the feasibility (e.g. workload, expertise, etc.) of the complete list of requests and ensures that intent of requests is clear and aligned with what SC can produce. The FC Request for Scientific Advice should be updated in order to reflect any necessary changes to improve clarification.
 - iii. Prior to the conclusion of the Annual Meeting, the FC document is discussed in FC Plenary with the SC Chair present. Should the workload exceed SC capacity, prioritization may need to take place.

¹ Maximum two members should be nominated by the Fisheries Commission.

² A first set of questions should be submitted by Heads of Delegation or their designate to NAFO Secretariat minimum of one week prior to the start of the Annual Meeting.

Additional requests may result from the unfolding of the meeting. These requests should be provided to the Coordinator no later than Wednesday COB and before the request for scientific advice is discussed in the Scientific Council.

Annex 8. Proposal for a Joint Fisheries Commission-Scientific Council Working Group on Conservation Plans and Rebuilding Strategies

(FC Working Paper 12/30 now FC Doc. 12/27)

Recognizing that the Performance Review noted the usefulness of increasing communication between the Scientific Council and the Fisheries Commission;

Recalling the Performance Review suggests that NAFO consider enhancing its application of risk-based assessment approaches (e.g. the Greenland Halibut Management Strategy Evaluation and Kobe Matrix) when evaluating management strategies;

Noting the General Council Working Group recommends in its Action Plan that the Fisheries Commission task the Working Group of Fisheries Managers and Scientists on Conservation Plans and Rebuilding Strategies to consider the broader use of the Precautionary Approach framework, extension of management strategy evaluation and/or other risk-based management approaches including conservation plans and rebuilding strategies, as appropriate;

Further recognizing the related ongoing work of the Working Group on Management Strategy Evaluation and the Working Group on Conservation Plans and Rebuilding Strategies;

It is proposed that the Fisheries Commission invite the Chair of the Scientific Council and the Chairs of the Working Group on Conservation Plans and Rebuilding Strategies and the Working Group on Management Strategy Evaluation to have an intersessional meeting in 2013 (possibly via webex) to develop a draft Terms of Reference and workplan for a joint Fisheries Commission – Scientific Council working group on both conservation plans and rebuilding strategies for NAFO stocks and the application of management strategy evaluation. The terms of reference and workplan would be considered by both the Scientific Council and the Fisheries Commission at the 2013 annual meeting.

It is recommended that the Terms of Reference include a mandate for the consideration of all matters related to use of the Precautionary Approach framework, the development of proposed management objectives for all NAFO managed stocks and the extension of management strategy evaluation and/or other risk-based management approaches, including conservation plans and rebuilding strategies, as appropriate.

It is also recommended that the mandate incorporate the responsibilities outlined in the revised terms of reference for the Working Group on Management Strategy Evaluation and the Working Group on Conservation Plans and Rebuilding Strategies, and that these two working groups be disbanded.

QUOTA TABLE. Total allowable catches (TACs) and quotas (metric tons) for 2013 of particular stocks in Subareas 1-4 of the NAFO Convention Area. The values listed include quantities to be taken both inside and outside the 200-mile fishing zone, where applicable. Annex 9. Quota Table 2013 and Effort Allocation Scheme 2013

	,)					
Species)	Cod				Redfish			America	American plaice	Yellowtail
Division/Contracting Party	31	3M	% of 3M Cod TAC	3NO	3LN	% of 3LN Redfish TAC	3M	30	Sub-Area 2 and Div. 1F+3K	3LNO	3M	3LNO
Canada		113	08.0	0	2769	42.60	200	0009	02,4	0	0	165755
Cuba		522	3.70	1	637	9.80	1750		02,4	ı	1	1
Denmark (Faroe Islands and Greenland)		3154	22.35	1	1		6919		02,3	1	1	1
European Union		804925	57.03	011	118526	18.23	781312	7000	<u>0^{2.3}</u> 0 ^{2,15}	0	011	1
France (St. Pierre et Miquelon)		1		1	1		6919		02,4	ı	1	3405
Iceland		1		1	1		1		02,3	ı	1	1
Japan		-		-	1		400	150	02,4	ı	ı	1
Korea		-		-	-		6919	100	02,4	-	-	-
Norway		1305	9.25	1	1		1		02,3	ı	1	ı
Russian Federation		913	6.47	0	1870	28.77	9137	6500	02,3	1	0	1
Ukraine								150	02,4			
United States of America		1		1	1		6919		02,4	ı	1	ı
Others		57	0.40	0	39	09:0	124	100	1	0	0	855
TOTAL ALLOWABLE CATCH	6	14113²³	100.0	*9,20	6500 ²⁴	100.0	6500 ⁸	20000	010,17	*21	*9,16	17000 ^{21,22}

Species	8	Witch	White hake	Capelin	Skates	Greenland halibut	Squid (Illex) ¹	Shrimp	du
Division/Contracting Party	31	3NO	3NO	3NO	3LNO	3LMNO	Sub-areas 3+4	3L	3NO
Canada		0	294	0	1167	1724	N.S. ⁶	7160	
Cuba		1		0		1	510	96	
Denmark (Faroe Islands and Greenland)		1		1		199	1	96	
European Union		011	588	011	4408	673818	N.S. ⁶ 611 ¹³	48014	
France (St. Pierre et Miquelon)		1				188	453	96	
Iceland		1		1		1	1	96	
Japan		1		0		1178	510	96	
Korea		1				1	453	96	
Norway		1		0		1	1	96	
Russian Federation		0	59	0	1167	1466	749	96	
Ukraine						-		96	
United States of America		1		1		1	453	96	
Others		0	59		258	0,	794	0	
TOTAL ALLOWABLE CATCH	*9,20	6*	1000²7	*9,20	700016	11493	34000²0	8600	6 *

* Ban on fishing in force.

Any quota listed for squid may be increased by a transfer from any "coastal state" as defined in Article 1, paragraph 3 of the NAFO Convention, provided that the TAC for squid is not exceeded. Transfers made to Contracting Parties conducting fisheries for squid in the Regulatory Area shall be reported to the Executive Secretary, and the report shall be made as promptly as possible.

The Executive Secretary shall notify without delay all Contracting Parties the dates on which accumulated reported catch taken by vessels of Contracting Parties estimated equal to 50% and then 100% of that allocation.

Quota to be shared by vessels from Denmark (Greenland and Faroe Islands), European Union, Iceland, Norway and Russia. Catches in the NAFO Convention Area shall be deducted from the quotas allocated in the NEAFC Convention Area.

Quota to be shared by vessels from Canada, Cuba, France (St. Pierre et Miquelon), Japan, Korea, Ukraine and USA.

Contracting Parties shall inform the Executive Secretary before 01 December 2011 of the measures to be taken to ensure that total catches do not exceed the levels indicated.

The allocation to these Contracting Parties are as yet undetermined, although their sum shall not exceed the difference between the total of allocations to other Contracting Parties and the TAC (= 29.458 tons).

In 2005, the previous 935 t "Others" quota was assigned to three Contracting Parties. When the TAC exceeds 30,000 t the next 1,300 t beyond 30,000 will be allocated to an Others quota which can be accessed by those who do not hold Greenland halibut allocation. In deciding the relevant contributions of Contracting Parties to the 1,300 t Others quota, the Fisheries Commission will take into account the fact that some Contracting Parties received a benefit from the 935 t quota which was reassigned in 2005.

8. Not more than 3250 tons may be fished before 01 July 2013.

The provisions of Article 6, paragraph 1.b) of the Conservation and Enforcement Measures shall apply

Including fishing entitlements of Estonia, Latvia, and Lithuania following their accession to the European Union and in accordance with sharing arrangements of the former USSR quota adopted In the case of the NEAFC decision which modifies the level of TAC in 2013 as compared to 2012, these figures shall be accordingly adjusted by NAFO and formalized through a mail vote. by the Fisheries Commission at its Annual Meeting in 2003 (FC Working Paper 03/7). Ξ 0

European Union. Including allocations of 1571 tonnes each for Estonia, Latvia and Lithuania out of a sharing of 20,000 tonnes, following their accession to the 15.

Allocations of 128 tonnes each for Estonia, Latvia and Lithuania as well as 227 tonnes for Poland out of a TAC of 34,000 tonnes, following their accession to the European Union. 13.

Including allocations of 96 tonnes each for Estonia, Latvia, Lithuania and Poland out of a TAC of 8,600 tonnes, following their accession to the European Union. 4. 15.

Allocation of 17.85% to Lithuania and 2.15% to Latvia following their accession to the European Union.

Applicable to 2013 and 2014.

The quota shares in footnotes 4 and 15 can only be fished in the NAFO Regulatory Area. If an increase in the overall TAC as defined in footnote 10 leads to an increase in these shares, the first 500 tonnes of that increase shall be added to the quota share referred to in footnote 4. 17.

Including an allocation of 377 tonnes for Estonia, Latvia, and Lithuania following their accession to the European Union.

Notwithstanding the provisions of footnote 8 and Article 5.2(b) and without prejudice to future agreements on allocations, these quotas may be fished in their entirety by these Contracting Parties. 19.

Applicable until at least 2013. 20. 21.

8

with Article 6.1 (c). If a Scientific Council projection indicates that this rate is likely to undermine stock recovery or cause an unreasonable delay in reaching B_{lim}, this rate may be subject to a In lieu of Article 6.1 (a) and (b) of the CEM, the following by-catch provisions for American plaice only in the 3LNO yellowtail fishery shall apply: Contracting Parties fishing for yellowtail flounder allocated under the NAFO allocation table will be restricted to an overall Am. plaice by-catch harvest limit equal to 15% of their total yellowtail fishery as calculated in accordance eassessment by the Fisheries Commission

Following the NAFO annual meeting and prior to January 1 of the succeeding year, at the request of the USA, Canada will transfer 1000 tonnes of its 3LNO yellowtail quota to the USA. 22.. 23.

The allocation key of this stock is based on the 1998 Quota Table. In 1999, a moratorium on cod in Division 3M was declared.

The allocation key of this stock is based on the 1997 Quota Table. In 1998, a moratorium on redfish in Division 3LN was declared.

24.

Including fishing entitlements of 157 tons each for Estonia, Latvia, and Lithuania in accordance with sharing arrangements of the former USSR quota adopted by the Fisheries Commission at its Annual Meeting in 2003 (FC Working Paper 03/7) and allocation of 536 tons for Poland following their accession to the European Union. 25.

including fishing entitlements of 322 tonnes each for Estonia, Latvia, and Lithuania in accordance with sharing arrangements of the former USSR quota adopted by the Fisheries Commission at its Annual Meeting in 2003 (FC Working Paper 03/7) following their accession to the European Union. 27. 26.

ish occurs. In case of a positive vote, the TAC is confirmed to be 5,000 metric tons. In case of a negative vote, the TAC is 1,000 metric tons and catches between the notification of high availability what apparently was the case in 2002 and 2003 – is taking place, then that Contracting Party shall notify the Executive Secretary. Upon this notification, the TAC is increased to 5,000 metric tons. normal CPUE and any other additional relevant information). On this basis, a mail vote will be submitted to the Fisheries Commission as to whether an exceptional increase in the availability of Should a Contracting Party experience higher than normal catches per unit of effort (CPUE) and conclude that a shift to high availability levels of white hake during the fishing season - such as Executive Secretary shall notify all Contracting Parties of the increased TAC. Within one month that Contracting Party shall submit a summary of evidence for its conclusion (higher than and the notification to Contracting Parties of the result of the vote will not be accounted for the catch limitation provided in Article 5 of the NCEM

Effort Allocation Scheme for Shrimp Fishery in the NAFO Regulatory Area Div. 3M, 2013

Contracting Party	Number of fishing days ¹	Number of vessels ¹
Canada	0	0
Cuba	0	0
Denmark Faroe Islands Greenland	0	0 0
European Union	0	0
France (in respect of St Pierre et Miquelon)	0	0
Iceland	N/A	N/A
Japan	0	0
Korea	0	0
Norway	0	0
Russia	0	N/A
Ukraine	0	0
USA	0	0

¹When the scientific advice estimates that the stock shows signs of recovery, the fishery shall be re-opened in accordance with the effort allocation key in place for this fishery at the time of the closure.

Annex 10. White Hake in Divisions 3NO

(FC Working Paper 12/33 now FC Doc. 12/10)

Recalling that white hake came under quota regulation when NAFO, at its Annual Meeting in 2004, set a Total Allowable Catch (TAC) of 8,500 metric tons for 2005-2007 in Div. 3NO;

Noting that NAFO agreed to a directional reduction in the TAC for white hake in Divisions 3NO to a level of 6,000 metric tons in 2009, which was further reduced to 5,000 metric tons at the 2011 NAFO Annual Meeting;

Observing that current catches of white hake are well below recent quotas (129 metric tons in 2011) and subject to high variability with occasional spikes in the availability of fish in this fishery:

Resolve to adopt a TAC for 3NO white hake at 1,000 metric tons for 2013 consistent with the most recent advice provided by the Scientific Council to maintain catch at current levels.

Should a Contracting Party experience higher than normal catches per unit of effort (CPUE) and conclude that a shift to high availability levels of white hake during the fishing season - such as what apparently was the case in 2002 and 2003 – is taking place, then that Contracting Party shall notify the Executive Secretary. Upon this notification, the TAC is increased to 5,000 metric tons. The Executive Secretary shall notify all Contracting Parties of the increased TAC.

Within one month that Contracting Party shall submit a summary of evidence for its conclusion (higher than normal CPUE and any other additional relevant information). On this basis, a mail vote will be submitted to the Fisheries Commission as to whether an exceptional increase in the availability of fish occurs.

In case of a positive vote, the TAC is confirmed to be 5,000 metric tons. In case of a negative vote, the TAC is 1,000 metric tons and catches between the notification of high availability and the notification to Contracting Parties of the result of the vote will not be accounted for the catch limitation provided in Article 5 of the NCEM.

Annex 11. Shrimp in Division 3L – Deletion of Article 9.8 (FC Working Paper 12/36 now FC Doc. 12/11)

Proposed Amendments

Delete:

Article 9 – Shrimp

8. The quota allocated to Canada in Division 3L shall be fished within the Canadian zone. The remaining quota shall be allocated within the Regulatory Area between all other Contracting Parties.

Annex 12. Recommendations from the WGFMS-VME to the Fisheries Commission

(FC Working Paper 12/6 now FC Doc. 12/6)

The FC Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME) met on 11-13 September 2012 in Bergen, Norway and agreed on the following recommendations:

Lists of VME indicator species and elements

1. The WG **recommends** that the list of VME indicator species and VME elements prepared by the Scientific Council (Tables 1 and 2 of the SCS 12/19, p. 37-39, Annex 1) be adopted in conjunction with the proposed revisions to Article 15 of the 2012 NCEM, as contained in FCWG-VME Working Paper 12/3 (Revision 4) (Annex 2). These tables should be appended as Annexes in the NCEM.

Assessment of bottom fishing activities

- 2.1 The WG **recommends** that FC request SC use the revised Annex 1.E.V of the NCEM to guide development of their workplan 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 SC.
- 2.2 The WG **recommends** the adoption of the proposed Annex I.E.V of NCEM as contained in WG WP 12/5 Revised (Annex 3).

Exploratory Fishing

3. The WG **recommends** the adoption of the revised provisions relating to Exploratory Fishing in Chapter II of the NCEM, as contained in FCWG-VME Working Paper 12/3 (Revision 4) (Annex 2).

Thresholds (see Annex 4 FCWG-VME Working Paper 12/7 Revised)

- 4.1. The WG recommends 60 kg of corals excluding sea pens, inside and outside the footprint.
- 4.2. The WG **recommends** that FC consider adopting revised encounter thresholds outside the fishing footprint of 7 kg of sea pens and 300 kg for sponges.
- 4.3. The WG **recommends** that the FC, considering the distribution of sea pens and the practical considerations associated with a value of 7 kg for a threshold, consider additional area closures to significant concentration of sea pens, and/or introduce a 7 kg threshold inside the footprint.
- 4.4. The WG **recommends** 300 kg threshold for sponges inside the fishing footprint. This measure should be reviewed if refinements to the existing closures take place.

Working Group Terms of Reference, Fisheries re-assessment (see Annex 5 FCWG-VME Working Paper 12/6 Revision 2)

5. Recognizing that the Performance Review Panel has noted the usefulness of increasing communication between SC and FC, and recommended further development and consolidation of the EAF Roadmap, the WG recommends that FC modify the Terms of Reference for this WG to expand its mandate to include broader aspects of EAF as part of the future dialogue between SC and FC.

Annex 1. Lists of VME Indicator Species and Elements

Table 1. List of VME Indicator Species.

~ ·	E Indicator Species		
Common name of taxonomic group	Known Taxon	Family	Phyllum
Large-sized sponges			Porifera
	Iophon piceum	Acarnidae	
	Stelletta normani	Ancorinidae	
	Stelletta sp.	Ancorinidae	
	Stryphnus ponderosus	Ancorinidae	
	Axinella sp.	Axinellidae	
	Phakellia sp.	Axinellidae	
	Esperiopsis villosa	Esperiopsidae	
	Geodia barrette	Geodiidae	
	Geodia macandrewii	Geodiidae	
	Geodia phlegraei	Geodiidae	
	Mycale (Mycale) lingua	Mycalidae	
	Thenea muricata	Pachastrellidae	
	Polymastia spp.	Polymastiidae	
	Weberella bursa	Polymastiidae	
	Weberella sp.	Polymastiidae	
	Asconema foliatum	Rossellidae	
	Craniella cranium	Tetillidae	
Stony corals (known seamount species	Lophelia pertusa	Caryophylliidae	Cnidaria
may not occur in abundance in the	Solenosmilia variabilis	Caryophylliidae	
NRA)	Enallopsammia rostrata	Dendrophylliidae	
	Madrepora oculata	Oculinidae	
Small gorgonian corals	Anthothela grandiflora	Anthothelidae	Cnidaria
	Chrysogorgia sp.	Chrysogorgiidae	
	Radicipes gracilis	Chrysogorgiidae	
	Metallogorgia melanotrichos	Chrysogorgiidae	
	Acanella arbuscula	Isididae	
	Acanella eburnean	Isididae	
	Swiftia sp.	Plexauridae	
	Narella laxa	Primnoidae	
I amaa aamaan:1-	A agusth a garain a arm at a	Aganthagaraiidag	C-: 1- ·
Large gorgonian corals	Acanthogorgia armata	Acanthogorgiidae	Cnidaria
	Iridogorgia sp.	Chrysogorgiidae	
	Corallium bathyrubrum	Coralliidae	
	Corallium bayeri	Coralliidae	
	Keratoisis ornate	Isididae	
	Keratoisis sp.	Isididae	
	Lepidisis sp.	Isididae	
	Paragorgia arborea	Paragorgiidae	
	Paragorgia johnsoni	Paragorgiidae	
	Paramuricea grandis	Plexauridae	
	Paramuricea placomus	Plexauridae	

	Placogorgia sp.	Plexauridae	
	Placogorgia terceira	Plexauridae	
	Calyptrophora sp.	Primnoidae	
	Parastenella atlantica	Primnoidae	
	Primnoa resedaeformis	Primnoidae	
	Thouarella grasshoffi	Primnoidae	
Sea pens			Cnidaria
	Funiculina quadrangularis	Funiculinidae	
	Halipteris cf. christii	Halipteridae	
	Halipteris finmarchica	Halipteridae	
	Halipteris sp.	Halipteridae	
	Kophobelemnon stelliferum	Kophobelemnidae	
	Pennatula aculeata	Pennatulidae	
	Pennatula grandis	Pennatulidae	
	Pennatula sp.	Pennatulidae	
	Distichoptilum gracile	Protoptilidae	
	Protoptilum sp.	Protoptilidae	
	Umbellula lindahli	Umbellulidae	
	Virgularia cf. mirabilis	Virgulariidae	
Tube-dwelling anemones	Pachycerianthus borealis	Cerianthidae	Cnidaria
Erect bryozoans	Eucratea loricata	Eucrateidae	Bryozoa
Sea lilies (Crinoids)	Trichometra cubensis	Antedonidae	Echinodermata
	Conocrinus lofotensis	Bourgueticrinidae	
	Gephyrocrinus grimaldii	Hyocrinidae	
Sea squirts	Boltenia ovifera	Pyuridae	Chordata
	Halocynthia aurantium	Pyuridae	

Table 2. List of VME indicator elements.

Physical VME indicator	elements
Seamounts	Fogo Seamounts (Div. 3O, 4Vs)
	Newfoundland Seamounts (Div. 3MN)
	Corner Rise Seamounts (Div. 6GH)
	New England Seamounts (Div. 6EF)
Canyons	Shelf-indenting canyon; Tail of the Grand Bank (Div. 3N)
	Canyons with head > 400 m depth; South of Flemish Cap and Tail of the Grand Bank (Div. 3MN)
	Canyons with heads > 200 m d epth; Tail of the Grand Bank (Div. 3O)
Knolls	Orphan Knoll (Div. 3K)
	Beothuk Knoll (Div. 3LMN)
Southeast Shoal	Tail of the Grand Bank Spawning grounds (Div. 3N)
Steep flanks > 6.4°	South and Southeast of Flemish Cap. (Div. 3LM)

Annex 2. Amendments to Chapter II of the NAFO CEM – clarification of provisions related to the exploratory bottom fishing activities – Chapter II Bottom Fisheries in the NAFO Regulatory Area

(FCWG-VME Working Paper 12/3, Revision 4)

Article 15 - Purpose and definitions

- 1. The purpose of this Article is to ensure the implementation by NAFO of effective measures to prevent significant adverse impacts of bottom fishing activities on vulnerable marine ecosystems known to occur or likely to occur in the Regulatory Area based on the best available scientific information. For the purposes of this Article, NAFO will take into account the guidance provided by the FAO in the framework of the Code of Conduct for Responsible Fisheries and any other internationally agreed standards, as appropriate.
- 2. The term 'bottom fishing activities' means bottom fishing activities where the fishing gear is likely to contact the seafloor during the normal course of fishing operations.
- 3. The term "existing bottom fishing areas" ("footprint") means that portion of the Regulatory Area where bottom fishing has historically occurred and is defined by the coordinates shown in Table 1 and illustrated in Figure 4.
- 4. The term "exploratory bottom fishing activities" means bottom fishing activities conducted in unfished bottom areas, or bottom fishing activities with significant changes to the conduct or in the technology used in the existing bottom fishing areas.
- 5. The term "unfished bottom areas" means other areas within the Regulatory Area which are not defined as existing bottom fishing areas.
- 6. The term "vulnerable marine ecosystems" has the same meaning and characteristics as those contained in paragraphs 42 and 43 of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas.
- 7. The term "VME indicator species" refers to species of coral identified as gorgonians, *Lophelia*, and sea pen fields; crinoids; erect bryozoans; sea squirts; cerianthid anemone fields; and sponges that constitute sponge grounds or aggregations. The current list is attached as Part VI of Annex I.E.
- 8. The term "VME element" refers to topographical, hydrophysical or geological features which potentially support VMEs including slopes, summits and flanks of seamounts and knolls and canyons as described in the Annex of the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas. The current list is attached as Part VII of Annex I.E.
- 9. The term "significant adverse impacts" has the same meaning and characteristics as those described in paragraphs 17-20 of the FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas.
- 10. The term "encounter" means catch of a VME indicator species above threshold levels as set out in Article 20.3. Any encounter with a VME indicator species or merely detecting its presence is not sufficient to identify a VME. That identification should be made on a case-by-case basis through assessment by relevant bodies.

Article 16 - Seamount, Coral, and Sponge Protection Zones

- 1. Until December 31, 2014, no vessel shall engage in bottom fishing activities in any of the areas defined by connecting the following coordinates (in numerical order and back to coordinate 1), subject to the exception foreseen in paragraph 2.
- 2. A request to conduct exploratory bottom fishing activities, in any of the areas defined by paragraph 1, shall be in accordance with Article 18 and the Exploratory Protocol (Part IV of Annex I.E).
- 3. If a vessel fishing in any of the areas defined in paragraph 1 encounters a VME indicator species, as defined in Article 20.3, interim encounter provisions as set out in Article 20.2 will apply.
- 4. Until December 31, 2014, no vessel shall engage in bottom fishing activities in the following area in Division 30 defined by connecting the following coordinates (as illustrated in Figure 2).
- 5. Until December 31, 2014, no vessel shall engage in bottom fishing activities in the areas defined by connecting the following coordinates (as illustrated in Figure 3).
- 6. The measures referred to in Article 16.5 shall be reviewed in 2014 by the Fisheries Commission, taking account of the advice from the Scientific Council and the Working Group of Fishery Managers and Scientists, and a decision shall be taken on future management measures.

7. Contracting Parties are encouraged to the extent possible to record all coral and sponge catch in their annual government and/or industry research programs and to consider non-destructive means for the long-term monitoring of coral and sponges in the closed areas.

Article 17 Map of existing bottom fishing areas

Article 18 – Exploratory bottom fishing activities

- 1. Exploratory bottom fishing activities shall be conducted in accordance with the exploratory protocol set out in Parts I-IV of Annex I.E.
- 2. Contracting Parties whose vessels wish to engage in exploratory bottom fishing activities shall communicate a 'Notice of Intent to Undertake Exploratory Bottom Fishing' (Annex I.E, Parts I and IV) to the Executive Secretary together with the assessment required under Article 19(2) (i).
- 3. The exploratory bottom fishing activities may start only after they have been authorized in accordance with Article 19bis.
- 4. Contracting Parties shall ensure that vessels flying their flag and conducting exploratory bottom fishing activities have a scientific observer on board.
- 5. Contracting Parties shall within 3 months of the completion of the fishing trip provide an 'Exploratory Bottom Fishing Trip Report' of the results of such activities to the Executive Secretary for circulation to the Scientific Council and all Contracting Parties.

Article 19 - Assessment of proposed exploratory bottom fishing activities

Assessment for proposed exploratory bottom fishing activities in the Regulatory Area shall follow the procedure below:

- i. The Contracting Party proposing to participate in exploratory bottom fishing activities shall submit to the Executive Secretary information and preliminary assessment of the known and anticipated impacts of the bottom fishing activity which will be exercised by the vessels flying its flag on vulnerable marine ecosystems. That assessment shall be sent no less than two weeks in advance of the opening of the June meeting of the Scientific Council. It shall address the elements as set forth in Part V of Annex I.E.
 - The Executive Secretary shall promptly forward these submissions to the Scientific Council and the Fisheries Commission.
- ii. The elaboration of that assessment shall be carried out in ackcordance with guidance developed by the Scientific Council, or, in the absence of such guidance, to the best of the Contracting Party's ability.
 - At the meeting of the Scientific Council immediately following the submission of the information and preliminary assessment, the Scientific Council shall undertake an assessment of the submitted documentation, according to procedures and standards it develops and, taking into account the risks of significant adverse impacts on vulnerable marine ecosystems. The Scientific Council may use in its assessment additional information available to it, including information from other fisheries in the region or similar fisheries elsewhere.
- iii. The Scientific Council shall in line with the precautionary approach, provide advice to the Fisheries Commission on possible significant adverse impacts on vulnerable marine ecosystems and on the mitigation measures to prevent them.

Article 19bis Management measures on exploratory bottom fishing activities and for the protection of Vulnerable Marine Ecosystems

- 1. The Working Group of Fishery Managers and Scientists on VMEs shall examine the advice of the Scientific Council delivered in accordance with Article 19(iii) and shall make recommendations to the Fisheries Commission in accordance with its mandate.
- 2. The Fisheries Commission shall, taking account of advice and recommendations provided by the Scientific Council and the Working Group of Fishery Managers and Scientists on VMEs concerning exploratory bottom fishing activities, including data and information arising from reports pursuant to Article 20 adopt conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems. These may include:

- i. allowing, prohibiting or restricting bottom fishing activities;
- ii. requiring specific mitigation measures for bottom fishing activities;
- iii. allowing, prohibiting or restricting bottom fishing with certain gear types, or changes in gear design and/or deployment; and/or
- iv. any other relevant requirements or restrictions to prevent significant adverse impacts to vulnerable marine ecosystems.

Article 19ter - Evaluation of exploratory bottom fishing activities

- 1. At its meeting immediately following receipt of the 'Exploratory Bottom Fishing Trip Report' circulated in accordance with Article 18(5), the Scientific Council shall evaluate the exploratory bottom fishing activities. Taking into account the risks of significant adverse impacts on vulnerable marine ecosystems, the Scientific Council shall, in line with the precautionary approach, provide advice to the Fisheries Commission on the decision to be taken in accordance with Article 19ter(3).
- The Working Group of Fishery Managers and Scientists on VMEs shall examine the advice of the Scientific Council
 delivered in accordance with Article 19ter(1) and shall make recommendations to the Fisheries Commission in
 accordance with its mandate.
- 3. The Fisheries Commission shall, taking account of advice and recommendations provided by the Scientific Council and the Working Group of Fishery Managers and Scientists on VMEs, either to:
 - i. Authorise the bottom fishing activity for part or all of the area in which exploratory bottom fishing was carried out and include this area in the existing bottom fishing areas (footprint), or,
 - ii. Discontinue the exploratory bottom fishing activity and, if necessary, close part or all of the area where which exploratory bottom fishing was carried out, or,
 - iii. Authorise the continued conduct of exploratory bottom fishing activity, in line with Article 18 with a view to gather more information.

Article 20 - Interim Encounter Provision

Contracting Parties shall require that vessels flying their flag and conducting bottom fishing activities within the Regulatory Area abide by the following rules, where, in the course of fishing operations, evidence of vulnerable marine ecosystems is encountered:

- 1. Existing bottom fishing areas
 - ii. Vessels shall quantify catch of VME indicator species.
 - iii. if the quantity of VME indicator species caught in a fishing operation (such as trawl tow or set of a gillnet or longline) is beyond the threshold defined in paragraph 3 below, the following shall apply:
 - The vessel master shall report the incident to the flag State Contracting Party, which without delay shall forward the information to the Executive Secretary, including the position that is provided by the vessel, either the end point of the tow or set or another position that is closest to the exact encounter location, the VME indicator species encountered, and the quantity (kg) of VME indicator species encountered. Contracting Parties may if they so wish require their vessels to also report the incident directly to the Executive Secretary. The Executive Secretary shall archive the information and report it to all Contracting Parties. The Contracting Parties shall immediately alert all fishing vessels flying their flag.
 - The vessel master shall cease fishing and move away at least 2 nautical miles from the endpoint of the tow/set in the direction least likely to result in further encounters. The captain shall use his best judgment based on all available sources of information.
 - The Executive Secretary shall make an annual report on single and multiple encounters in discrete areas
 within existing bottom fishing areas to the Scientific Council. The Scientific Council shall evaluate and,
 on a case-by-case basis the information and provide advice to the Fisheries Commission on whether a
 VME exists. The advice shall be based on annually updated assessments of the accumulated information

on encounters and the Scientific Council's advice on the need for action, using FAO guidelines as a basis. The Fisheries Commission shall consider the advice in accordance with Article 19.4.

2. Unfished bottom areas

- i. Vessels shall quantify catch of VME indicator species. Observers deployed shall identify corals, sponges and other organisms to the lowest possible taxonomical level. The Exploratory Fishery Data Collection Form found in Part III of Annex I.E shall be used (templates).
- i. If the quantity of VME indicator species caught in a fishing operation (such as trawl tow or set of a gillnet or longline) is beyond the threshold defined in paragraph 3 below, the following shall apply:
 - The vessel master shall report the incident without delay to its flag state Contracting Party, which shall forward the information to the Executive Secretary, including the position that is provided by the vessel, either the end point of the tow or set or another position that is closest to the exact encounter location, the VME indicator species encountered, and the quantity (kg) of VME indicator species encountered. Contracting Parties may if they so wish require their vessels to also report the incident directly to the Executive Secretary. The Executive Secretary shall archive the information and without delay transmit it to all Contracting Parties. The Contracting Parties shall issue an immediate alert to all vessels flying their flag.
 - The vessel shall cease fishing and move away at least 2 nautical miles from the endpoint of the tow/set in the direction least likely to result in further encounters. The captain shall use his best judgment based on all available sources of information.
 - The Executive Secretary shall at the same time request Contracting Parties to implement a temporary
 closure of a two mile radius around the reporting position. The reporting position is that provided by the
 vessel, either the endpoint of the tow/set or another position that the evidence suggests is closest to the
 exact encounter location.
 - The Executive Secretary shall make an annual report on single and multiple encounters in discrete areas within existing bottom fishing areas to the Scientific Council. This report should also include reports from the exploratory bottom fishing activities conducted in the last year. The Scientific Council at its next meeting shall examine the temporary closure. If the Scientific Council advises that the area consists of a vulnerable marine ecosystem the Executive Secretary shall request Contracting Parties to maintain the temporary closure until such time that the Fisheries Commission has adopted conservation and management measures in accordance with Article 19bis.2. If the Scientific Council does not conclude that the proposed area is a VME, the Executive Secretary shall inform Contracting Parties which may re-open the area to their vessels.
 - The Executive Secretary shall make an annual report on archived reports from encounters in unfished bottom areas to the Scientific Council. This report shall also include reports from the exploratory bottom fishing activities that were conducted in the last year. The Scientific Council shall evaluate the information and provide advice to the Fisheries Commission on the appropriateness of temporary closures and other measures. The advice should be based on annually updated assessments of the accumulated information on encounters as well as other scientific information. The Scientific Council's advice should reflect provisions outlined in the FAO guidelines. The Fisheries Commission shall consider the advice in accordance with Article 19bis.2.
- 3. For both existing bottom fishing areas and unfished bottom areas, an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 60 kg of live coral. For unfished bottom areas, an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 400 kg of sponges. For existing bottom fishing areas (the "footprint"), an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 600 kg of sponges. These thresholds are set on a provisional basis and may be adjusted as experience is gained in the application of this measure.

Article 20bis: Reassessment of bottom fishing activities

1. The Scientific Council, with the co-operation of Contracting Parties, shall identify, on the basis of best available scientific information, vulnerable marine ecosystems in the Regulatory Area and map sites where these vulnerable marine ecosystem are known to occur or likely to occur and provide such data and information to the Executive Secretary for circulation to all Contracting Parties.

2. Fisheries Commission will in collaboration with the Scientific Council and the Working Group of Fishery Managers and Scientists on VMEs conduct a reassessment in 2016 and every 5 years thereafter of bottom fishing activities, or when there is new scientific information indicating a VME in a given area. Following the assessment, the Fisheries Commission shall take the necessary actions to protect VMEs.

Article 21 – Review

The provisions of this Chapter shall be reviewed by the Fisheries Commission at its Annual Meeting in 2014.

Annex I.E Templates for the conduct of exploratory bottom fishing activities IV. Exploratory Protocol

The Exploratory Protocol shall consist of:

- A harvesting plan which outlines target species, dates and areas. Area and effort restrictions should be considered to ensure fisheries occur on a gradual basis in a limited geographical area.
- A mitigation plan including measures to prevent significant adverse impact to vulnerable marine ecosystems that may be encountered during the fishery.
- A catch monitoring plan that includes recording/reporting of all species caught, 100% satellite tracking and 100% observer coverage. The recording/reporting of catch should be sufficiently detailed to conduct an assessment of activity, if required.
- A data collection plan to facilitate the identification of vulnerable marine ecosystems/species in area fished.

V. Assessment of Bottom Fishing Activities < new text of WP 12/5>

VI. List of VME indicator species

VII. List of physical VME indicator elements

Annex 3. Assessment of Bottom Fishing Activities

(FCWG-VME Working Paper 12/5, Revised)

Proposed Recommendation from VME WG to FC concerning Assessments

Recognizing that the current terms of reference of the WGFMS on VMEs is focused on VMEs, the WG would recommend FC consider revising Annex I E V as suggested below. This revision highlights the connections between ecosystem considerations noted by SC and the assessment of SAI on VMEs requested by FC. The WG underscores the specific nature of the assessment being considered while acknowledging how it supports broader application of EAF.

Recommends that FC request SC use the revised Annex I E V to guide development of their workplan related to reassessment of fishing activity with respect to SAI on VME and would note that this assessment is a single component of the broader EAF Roadmap being developed separately by SC.

Proposed Annex I.E. Section V. Assessment of Bottom Fisheries Activities.

V. Assessment of Bottom Fishing Activities

Assessments should consider the best available scientific and technical information on the current state of fishery resources.

Assessments should address, inter alia:

- 1. 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);
- 2. Existing baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;
- 3. Identification, description and mapping of VMEs known or likely to occur in the fishing area;
- 4. Identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs;

4bis Consideration of VME elements known to occur in the fishing area; (New paragraph)

- 5. 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;
- 6. Risk assessment of likely impacts by the fishing operations to determine which impacts on VMEs are likely to be significant adverse impacts; and
- 7. 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.

Annex 4. Thresholds

(FCWG-VME Working Paper 12/7, Revised)

Existing measures

The VME WG notes that the 60kg threshold for corals would be retained, other than for sea pens, if the recommendations below are accepted.

Proposed Recommendation from VME WG to FC concerning Thresholds Outside the Fishing Footprint

Recognizing the advice from SC concerning sea pens and sponges, the VME WG recommends that FC consider adopting revised encounter thresholds outside the fishing footprint of 7kg for sea pens and 300 kg for sponges.

Proposed Recommendation from VME WG to FC concerning Thresholds Inside the Fishing Footprint – sea pens

The VME WG notes that the situation inside the fishing footprint is more complex, especially in light of advice for a 7kg threshold for sea pens and that two approaches are currently available and being used: closed areas or encounter protocol.

The VME WG also noted the SC observation that as locations of concentrations of benthic VME indicator species become increasingly well-defined through survey and mapping efforts, appropriate closed areas are put in place, and re-assessed through the annual surveys. Under these conditions, the encounter provisions within the footprint become redundant. The VME WG further noted that such a situation may be emerging for corals and sponges within the footprint where management decisions have been taken or are being considered to close areas. The VME WG acknowledged that UNGA Resolution 61/105 calls for encounter provisions within the suite of measures to protect VMEs. The VME WG additionally noted that SC considers that management through the closure of areas with significant concentrations of VMEs is the most effective measure for protecting VMEs in the NRA.

With the time available to the VME WG, mapping of possible refinements to the closed areas for consideration by the FC was not possible. The WG noted however that these closures could be through modifications or refinements of some of the existing closures or some additional targeted closures.

The VME WG recommends that the FC, considering the distribution of sea pens and the practical considerations associated with a value of 7 kg for a threshold, consider additional area closures to protect significant concentrations of sea pens and/or introduce a 7kg encounter threshold.

Proposed Recommendation from VME WG to FC concerning Thresholds Inside the Fishing Footprint – sponges

The VME WG noted the approach recommended for sea pens and recommends that FC consider a similar approach for sponges. The VME WG recommends 300kg as an encounter threshold for sponge. This measure should be reconsidered if refinements to the closed areas are adopted.

Annex 5. Broadening of Working Group Terms of Reference

(FCWG-VME Working Paper 12/6, Revision 2)

Proposed recommendation from VME WG to FC

Recognizing that the Performance Review has noted the usefulness of increasing communication between SC and FC, and recommended further development and consolidation of the EAF Roadmap

The WGFMS-VME recommends that FC modify the ToR for this working group to expand its mandate to include broader aspects of EAF as part of the future dialogue between SC and FC.

Annex 13. Proposal for the Establishment of Measures to Protect Sea Pens and Sponges in the NAFO Regulatory Area

(FC Working Paper 12/37 now FC Doc. 12/12)

Mindful of the recommendations of the Scientific Council from their June 2012 meeting regarding vulnerable marine ecosystems, in particular the location and encounter threshold levels for sea pens, in the NAFO regulatory area;

Noting the recommendations of the Working Group of Fisheries Managers and Scientists on Vulnerable Marine Ecosystems regarding encounter threshold levels and possible closed areas for sea pens;

Recognizing the significant effort by Contracting Parties to develop and consider potential closed areas to protect sea pens, but mindful of the need for more time to review the information provided by the Scientific Council on sea pens; and

Considering the recent decision to allow VMS data to be available to NAFO constituent bodies and the potential benefit in managing measures to protect vulnerable marine ecosystems;

It is proposed that the Fisheries Commission establish an encounter threshold of 7kg for sea pens inside the fishing footprint of the NAFO Regulatory Area.

It is also proposed that the Working Group of Fisheries Managers and Scientists on Ecosystems convene as soon as possible after the June 2013 Scientific Council meeting to further consider possible amendments to the closed areas and evaluate the conservation effect of applying thresholds and move on rules.

It is also proposed that Article 20.3 of the NAFO Conservation and Enforcement Measures be updated as follows:

3. For both existing and new fishing areas, an encounter with primary VME indicator species is defined as a catch per set (e.g. trawl tow, longline set, or gillnet set) of more than 7kg of sea pens, 60 kg of other live coral and 300 kg of sponges. These thresholds are set on a provisional basis and may be adjusted as experience is gained in the application of this measure.

Annex 14. Proposal for a Joint Fisheries Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management

(FC Working Paper 12/29 now FC Doc. 12/28)

Noting the United Nations General Assembly resolutions calling for the further implementation of an ecosystem approach to the management of fisheries;

Recalling the Amendments to the 1978 NAFO Convention includes a commitment to apply an ecosystem approach to the management of fisheries;

Further Recalling the prominent place that the ecosystems approach to the management of fisheries in both the United Nations Fish Stocks Agreement and the Code of Conduct for Responsible Fisheries;

Recognizing that the Performance Review noted the usefulness of increasing communication between the Scientific Council and the Fisheries Commission;

Further recognizing the performance review recommendation for the further development and consolidation of the Ecosystem Approach Framework and Roadmap;

Noting recommendation 5 of the 2012 report of the Working Group of Fisheries Managers and Scientists to modify the Terms of Reference for the Working Group to expand its mandate to include broader aspects of the Ecosystem Approach Framework as part of future dialogue between the Scientific Council and Fisheries Commission; and

In light of the ongoing work of the Scientific Council Working Group on Ecosystem Approach to Fisheries Management;

It is proposed that the Fisheries Commission invite the Chair of the Scientific Council, the Chair of the Working Group of Fisheries Managers on Vulnerable Marine Ecosystems and the Chair of the Scientific Council Working Group on an Ecosystem Approach to Fisheries Management to an intersessional meeting in 2013. During this intersessional meeting they would develop a draft Terms of Reference and a workplan for a joint Fisheries Commission – Scientific Council working group that would focus on the development and implementation of ecosystem approaches to fisheries management. The terms of reference and workplan would be considered by both the Scientific Council and the Fisheries Commission at the 2013 annual meeting.

It is recommended that the Terms of Reference include a mandate for the consideration of all matters related to the Ecosystem Approaches to Fisheries Management (EAF), and the provision of advice to the Fisheries Commission on these matters.

It is also recommended that the mandate incorporate the responsibilities outlined in the Working Group of Fisheries Managers and Scientists on Vulnerable Marine Ecosystems, resulting in the disbanding of the Fisheries Commission Working Group on Vulnerable Marine Ecosystems.

Annex 15. Proposal for a resolution on the protection of Vulnerable Marine Ecosystems from activities other than fishing

(FC Working Paper 12/13, Revised now FC Doc. 12/29)

NAFO Contracting Parties:

Following the identification by NAFO of concentrations of Vulnerable Marine Ecosystems in the NAFO Regulatory Area and their subsequent closure to bottom fishing activities, as outlined in Article 16.5 of NAFO CEM;

Noting that these area closures could be affected by human activities other than fishing, which could jeopardise the effect of these closures;

Bearing in mind the recommendation of the NAFO Performance Review Panel to consider whether activities other than fishing may impact stocks and fisheries as well as the biodiversity in the NAFO Regulatory Area;

Resolve to urge other international organisations dealing with at sea human activities and maritime affairs other than fishing to consider, in accordance with their mandate, taking mitigation measures in areas beyond national jurisdiction to reduce the risk of negative impacts of these activities in the closed areas.

Annex 16. Definition of Mid-water Trawl

(STACTIC Working Paper 12/4, Revision 3 now FC Doc. 12/13)

Background:

There are several references in the NCEM to the use of mid-water trawl. For clarity, it is necessary to define a mid-water trawl. The following text is proposed for definition of a mid-water trawl.

In accordance with Definition and classification of fishing gear categories *FAO FisheriesTechnical Paper ISSN 0429-9345 Rev.222* point 3.2.1. "Mid-water otter trawls are towed by a single boat. The horizontal opening of the net is controlled by otter boards, usually of a hydrodynamic shape, which normally do not touch the ground.

Proposed Amendment:

New text of Article 13.2.f):

"90 mm for redfish (RED) in the fishery using mid-water trawls in Division 3O and 3M. Within this fishery mid-water trawl means trawl gear that is designed to fish for pelagic species, no portion of which is designed to be or is operated in contact with the bottom at any time. The gear shall not include discs, bobbins or rollers on its footrope or any other attachments designed to make contact with the bottom. The trawl may have chafing gear attached.

Annex 17. Catch Recording in Logbooks (Tow by Tow/Set by Set)

(STACTIC Working Paper 12/16, Revision 3 now FC Doc. 12/14)

Background

Currently, the NAFO Conservation and Enforcement Measures require that fishing vessels record their catches on a daily basis. By-Catch requirements in Article 6.2 and Minimum fish size requirements in Article 14.4 are based on catches in a single haul. The Peer Review Panel and Scientific Council have identified that Catch per unit effort is an important component used in estimating removals from fish stocks. To ensure the most reliable and complete data is available in determining catch per unit effort as well as for the purpose of monitoring compliance with these provisions it is recommended that fishing vessels be required to record catches on a tow by tow or set by set basis.

Tow by tow/set by set information has been highlighted by Scientific Council in its 2012 report (SCS.12/19) as an essential element in completing fisheries assessments and more broadly in the ecosystems approach to fisheries.

Proposed Amendments

Replace existing text in Article 25.1(b) by adding the following text.

(b) accurately record the catch of each tow /set and complete fishing logbook entries as specified in Annex II.A

Replace Annex II.A with the following text.

Annex II.A

Recording of Catch (Logbook Entries)

FISHING LOGBOOK ENTRIES

Item of Information

Vessel name
Vessel nationality
Vessel registration number
Registration port
Type of gear used
Date - dd-mm- yyyy

Start time of tow (UTC)

Start Position - latitude

- longitude
- Division
- Water Depth

End Position – - latitude

- longitude
- Division
- Water Depth

End time of tow (UTC)

Species names (Annex I.C)

Catch of each species (kilograms live weight)

Catch of each species for human consumption in the form of fish

Catch of each species for reduction

Discards of each species

By-Catch limits exceeded Art. 6 para 2 Y/N

Trial tow Art. 6 para. 3(c) Y/N

Place(s) of transhipment

Date(s) of transhipment

Master's signature

Instructions:

^{*} Please see Annex I.C for Species codes; Annex II.J for applicable gear and attachment codes.

Annex 18. Proposal to implement Cancel report to the NAFO Measures

(STACTIC Working Paper 12/20 now FC Doc. 12/15)

Background:

The first time the proposal concerning cancel report was presented by delegation of the Russian Federation at the STACTIC meeting in September 2010 (STACTIC WP 10/15 revised). It was agreed to send this proposal to the Advisory Group for Data Communication (AGDC) for technical review. AGDC at its meeting held in May 2011 discussed and revised the proposal and found it technically feasible (AGDC 2011-2-19. rev1). It was agreed to send the proposal to STACTIC and PECCOE for consideration. The proposal (STACTIC WP 11/31) was discussed at the STACTIC meeting held in September 2011 but there was no consensus on this issue.

The present proposal applies only to hail reports (COE, COX, CAT, COB, TRA, POR and OBR) and not to VMS reports.

It should be noted that PECCOE at its meeting held in October 2011 considered and approved the similar proposal submitted by the Russian Federation (PE 2011-03-28 rev4) and NEAFC at its annual meeting in November 2011 adopted it (NEAFC Recommendation 9:2012). Thus, NEAFC has introduced Cancel report starting from 2012.

Proposal:

1. Add the following text to the end of Article 25.2:

"These reports may be cancelled using the format specified in Annex II.F (8). If any of these reports is subject to correction, a new report must be sent without delay after Cancel report within time limits set out in this paragraph.

In case the flag state FMC accepts the cancellation of a report from its vessel it shall communicate it to the Secretary without delay".

2. Add the following to the end of the Annex II.F:

8) "CANCEL" report

Data Element	Field Code	Mandatory/ Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
From	FR	M	Name of the transmitting Party
Address	AD	M	Message detail; destination, "XNW" for NAFO
Type of Message	TM	M	Message detail; message type, "CAN1" as Cancel report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Cancelled report	CR	M	Message detail; the record number of the report to be cancelled
Year of the report cancelled	YR	M	Message detail; year of the report to be cancelled
Date	DA	M	Message detail; date of transmission
Time	TI	M	Message detail; time of transmission
End of record	ER	M	System detail; indicates end of the record

¹Cancel report should not be used to cancel other Cancel report.

3. Add two rows to the Annex II.D(C) to the category "Message Details".

Cancelled report	CR	Num*6	NNNNN	Number of the record to be cancelled
Year of the report cancelled	YR	Num*4	NNNN	Year of the report to be cancelled

4. Add the following row to the Annex II.D(E) "Types of reports and messages".

II.F	Article 25.2	CAN	cancel	Report for cancellation of a report set out in the Article 25.2
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Recommendation 9: 2012

THE NORTH-EAST ATLANTIC FISHERIES COMMISSION AT ITS ANNUAL MEETING IN NOVEMBER 2011 ADOPTED, IN ACCORDANCE WITH ARTICLE 8 OF THE CONVENTION ON FUTURE MULTILATERAL COOPERATION IN NORTH-EAST ATLANTIC FISHERIES, AMENDMENTS TO ARTICLE 14 AND ANNEXES IV, VIII AND IX OF THE "SCHEME OF CONTROL AND ENFORCEMENT IN RESPECT OF FISHING VESSELS FISHING IN AREAS BEYOND THE LIMITS OF NATIONAL FISHERIES JURISDICTION IN THE CONVENTION AREA" AS FOLLOWS:

- 1. Add the new paragraph 4 to the Article 14:
 - 4. The reports set out in Articles 12 and 13 may be cancelled using the format specified in Annex VIII 7). If a report set out in Article 12 or 13 is subject to correction, a new report must be sent without delay after the Cancel report within time limits set out in Articles 12 and 13.

If the flag state FMC accepts the cancellation of a report from its vessel it shall communicate it to the Secretary.

2. Add the following to the end of the Annex VIII:

Annex VIII 7) "CANCEL" report

Data Element	Field	Mandatory/	Remarks
	Code	Optional	
Start record	SR	M	System detail; indicates start of record
From	FR	M	Name of the transmitting Party
Address	AD	M	Message detail; destination, "XNE" for NEAFC
Type of Message	TM	M	Message detail; message type, "CAN1" as Cancel report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Cancelled report	CR	M	Message detail; the record number of the report to be cancelled
Year of the report cancelled	YR	M	Message detail; year of the report to be cancelled
Date	DA	M	Message detail; date of transmission
Time	TI	M	Message detail; time of transmission
End of record	ER	M	System detail; indicates end of the record

¹A Cancel report shall not be used to cancel another Cancel report

Annex 19. Proposal to implement error codes for duplicated reports/messages received by the Secretariat

(STACTIC Working Paper 12/21, Revised now FC Doc. 12/15)

Background:

In accordance with Measures (Annex II.D.2): "If a Contracting Party so requests, the Secretary shall send a return message every time an electronic transmission of a report or message is received".

When FMC of such Contracting Party sends to the NAFO Secretariat via HTTPs any report or message it expects to receive the return message (RET) to be confirmed that electronic report or message was received and accepted/unaccepted in the NAFO data base. If the RET message was not received by FMC during the certain timeframe it attempts to resend such report or message to the NAFO Secretariat again. As practice shows, in such situation, in most cases FMC receives the RET message having NAK with misleading error number 102 (data value or size out of range) as reaction even on faultless repeated report or message.

It should be noted that the similar proposal was discussed at the meeting of Advisory Group for Data Communication (AGDC) in May 2011 and it was agreed to send the proposal to PECCOE for adoption (AGDC 2010-2-18rev1). PECCOE at its meeting held in October 2011 had considered and approved this proposal (PE 2011-03-15 rev1) and NEAFC at its annual meeting in November 2011 adopted it (NEAFC Recommendation 10:2012, part 1). Thus, NEAFC has introduced these new error codes starting from 2012.

Proposal:

Add two rows to the Annex II.D.2.B "Return error numbers":

Subject/Annex	Er	rors	Error cause
	Follow- up action required	Accepted	
Communication	105		This report is a duplicate; attempt to re-send a report previously rejected
		155	This report is a duplicate; attempt to re-send a report previously accepted

Recommendation 10: 2012

THE NORTH-EAST ATLANTIC FISHERIES COMMISSION AT ITS ANNUAL MEETING IN NOVEMBER 2011 ADOPTED, IN ACCORDANCE WITH ARTICLE 8 OF THE CONVENTION ON FUTURE MULTILATERAL COOPERATION IN NORTH-EAST ATLANTIC FISHERIES, AMENDMENTS TO ANNEX IX OF THE "SCHEME OF CONTROL AND ENFORCEMENT IN RESPECT OF FISHING VESSELS FISHING IN AREAS BEYOND THE LIMITS OF NATIONAL FISHERIES JURISDICTION IN THE CONVENTION AREA" AS FOLLOWS:

1. Add two rows to the Annex IX D 2b)

Subject/Annex	Eri	rors	Error cause
	Follow-up action required (NAK)	Accepted (ACK)	
Communication	105		This report is a duplicate and has got the status Not acknowledge (NAK), because this was the status when received earlier
		155	This report is a duplicate and has got the status Acknowledge (ACK), because this was the status when received earlier.

2. Add new text to paragraph "Communication Security" of point 4 of Appendix 1 to Annex IX (new text underlined)

Communication Security

Appropriate encryption protocols duly tested by the Secretariat and approved by the Commission shall be applied to ensure confidentiality and authenticity. Key management policy shall be in place to support the issue of cryptographic techniques, in particular, the integrity of the PKI (public key infrastructure) will be guaranteed by ensuring that digital certificates correctly identify and validate the party submitting the information.

Annex 20. Annual Compliance Review 2012 (Compliance Report for Fishing Year 2011)

(STACTIC Working Paper 12/28, Revised **now** FC Doc. 12/23)

1. Introduction

This compliance review is being undertaken in accordance with Rules 5.1 and 5.2 of the Fisheries Commission Rules of Procedure. The scope of the review is to determine how international fisheries complied with the annually updated NAFO Conservation and Enforcement Measures (NCEM) when fishing in the NAFO Regulatory Area (NRA), and assess the performance of NAFO Contracting Parties with regard to their reporting obligations.⁴

The current 2012 NAFO compliance review utilizes information for the years 2004 to 2011 from the following sources: vessel monitoring system (VMS) and hail messages delivered by the vessels, Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Apparent Infringements provided by the Contracting Parties, and Observer Reports sent to the Secretariat.

2. Fishing effort in the NAFO Regulatory Area

NAFO identifies three main fisheries in its Regulatory Area: the groundfish (GRO - primarily in Div. 3KLMNO), shrimp (PRA - primarily in Div. 3LM) and pelagic redfish fisheries (RED - primarily in Div. 1F and 2J).

The fishing effort is measured by the number of active vessels and the days of presence by vessel per year in the NRA. Vessel-days are determined by the position reports transmitted by the vessels every hour via the vessel's VMS system. The VMS reports are received by the Secretariat from the respective Fisheries Monitoring Centres (FMC) of the flag State Contracting Parties.

In 2011, there were 56 fishing vessels spending a total of 5 310 days in the NRA. 156 trips were identified. Groundfish fishery accounts for the majority of the total fishing effort (93%). Generally the vessels fish exclusively in one type of fishery, except for one vessel which engaged in both shrimp and groundfish fishing. Although there was a decrease of more than a third of the total number of days of the shrimp fishing effort in 2011 compared to the previous year, an overall 11% increase of the total fishing effort was observed (Table 1). The net increase could be attributed to the re-opening of 3M cod and 3LN redfish fisheries (both considered part of the groundfish fishery) in 2010. Shrimp fishing effort had continued its decline since the 3M shrimp moratorium in 2010. The pelagic redfish fishing effort was exerted prior to July 2011 when the moratorium enforced. The groundfish fishing effort was back to the 2007-2008 level (Figure 1).

	Number of fishing vessels				Effort (Days present)				
Year	Groundfish	Shrimp	Pelagic Redfish	TOTAL	Year	Groundfish	Shrimp	Pelagic Redfish	TOTAL
2010	42	16	2	53	2010	4170	584	14	4768
2011	47	8	2	56	2011	4922	360	18	5300
% change	11.9%	-50.0%	0.0%	5.7%	% change	18.0%	-38.4%	28.6%	11.2%

Table 1. 2010-2011 Comparison of Fishing Effort in the NAFO Regulatory Area.

For the period 2004-2011, the overall fishing activities in the NRA show a declining trend, from 134 active vessels in 2004 to 56 in 2011, representing a 58 % decrease (Figure 1).

The decline is even more pronounced in terms of overall fishing days, with a 71% decrease for the same period, from 16,480 days in 2004 to 5310 days in 2011. The average number of days each vessel operates in the NRA declined as well, from 123 days in 2004 to 95 days in 2011.

Figure 1 illustrates the changes described above for each of the major fisheries. The general decline since 2004 is observed for the three fisheries, with the pelagic redfish fishery being close to disappearance in 2009. Relative stabilisation is noted since 2009. NAFO fisheries remain dominated by the groundfish category. In 2011, groundfish accounts for 93% of the total fishing effort, shrimp for around 7 %, and the pelagic redfish fishery represents less than 1 percent.

⁴ For the purpose of this compliance analysis, only fishing trips which ended in 2011 were considered. Fishing trip for a fishing vessel includes "the time from its entry into until its departure from the Regulatory Area and continues until all catch on board from the Regulatory Area is unloaded or transhipped" (Article 1.7 of the NCEM).

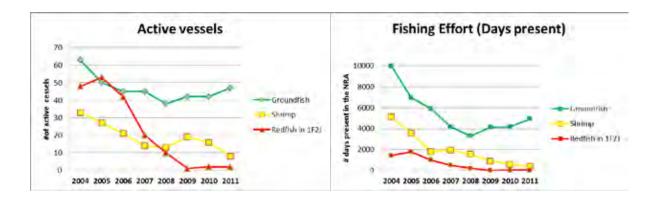


Fig. 1. The trend of fishing effort in the NAFO Regulatory Area in the period 2004-2011.

3. Compliance by Fishing Vessels

Through the at-sea and port inspections, NAFO monitors, controls and conduct surveillance of the fisheries in the NRA exposing infringements of the NAFO regulations and collecting evidence for the following prosecution within the legal system of each NAFO flag State Contracting Party.

Position reporting – Vessel Monitoring System (VMS)

Vessels in the NRA are required to transmit position reports at one hour intervals. In addition, the course and speed information must be included in the position reports. Examination of the position reports revealed that vessels were compliant to this requirement. The position reports were received by the Secretariat (through the FMCs) in practically real-time. When technical difficulties were encountered by the vessels in complying with the position reporting requirements, the position reports were transmitted electronically by other means (by email) and promptly entered into the VMS database by the Secretariat. Generally, the technical issues were resolved at most within a few days through the coordination and communication between the Secretariat and the FMCs. The timeliness of submission of position reports was not an issue since VMS reports were being received by the Secretariat and CPs with inspection presence in real-time through satellite technology.

Activity and catch reporting-Vessel Transmitted Information (VTI)

Vessels in the NRA are required to report during their fishing trips detailing their activities (e.g. transshipments) and catches. Activity and Catch reports are transmitted through the same technology and communication channel as the transmission of VMS (positions) reports.

Catch quantities on board upon entry to and exit from the NRA must be reported (COE and COX). While fishing in the NRA, fishing vessels are required to transmit daily catch notifications (CAT) detailing catch quantities by species and division.

COE and COX reports should account for each fishing trip. Ideally, a 100% coverage would mean that all expected COEs are paired up with all expected COXs, i.e. a full compliance to the requirement. In 2011, 99% coverage was observed as only one vessel was not able to transmit a COX message.

In 2011, the transmission of the CAT became a daily requirement. During the first month of implementation, not all vessels could comply with the daily reporting requirement. At that time, the Secretariat and the Fisheries Monitoring Centres (FMC) were coordinating in resolving technical issues with regards to the new daily reporting requirement. By the end of January 2011, all fishing vessels in the NRA were able to transmit the daily CAT reports. Another reason for the less- than -100% compliance in the months of January and February is that for some vessels their fishing trips started in the latter part of 2010 during which time the daily requirement was not yet in force. The CAT reports have proven to be useful in monitoring quota uptakes of the Contracting Parties.

At-sea inspections

The NAFO Joint Inspection and Surveillance Scheme is implemented to ensure compliance of fishing vessels fishing in the NRA. Inspectors are appointed by Contracting Parties and assigned to fishery patrol vessels tasked to carry out NAFO inspection duties.

The total number of at-sea inspections dropped from 214 in 2010 to 200 in 2011. With the increase of total fishing effort, inspection rate (number of inspections/fishing effort) decreased from 4.5% in 2010 to 3.8 in 2011%. There were

no at-sea inspections of pelagic redfish trips since 2009. Eight apparent infringements (AI) were detected by the at-sea inspectors and the AI citations were issued to seven vessels (see below for details).

Although there is no target for at-sea inspection rates, the overall inspection rate has remained stable since 2006, hovering at 4.5% (Figure 2).

This evolution of inspection rates indicates that at-sea inspections were carried out in proportion to the fishing effort for each of the fishing category, suggesting equal treatment and equitable distribution of inspections (Figure 2).

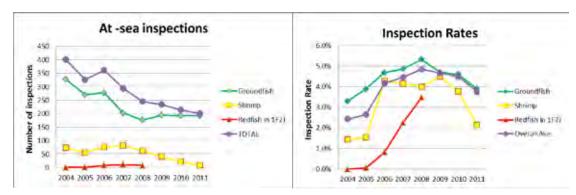


Fig. 2. Number of At-Sea Inspections and Inspection rates (number of at-sea inspection/vessel-days) in the NAFO Regulatory Area by fishery type.

Port inspections

Prior to 2009, port State Contracting Parties were required to conduct port inspections on **all** vessels landing or transhipping fish species from the NRA, i.e. 100% coverage. Since the adoption of the Port State Control measures in 2009, the 100% coverage has been maintained for vessels landing NAFO species under recovery plans, in particular Greenland halibut. When landing catch species not under recovery plans, port inspections are not required if the vessel flag State Contracting Party and the port State Contracting Party are the same; if the flag State and the port State are different, the latter is required to conduct port inspections only 15 % of the time.

Traditionally, port inspections also serve to confirm AIs that were detected by at-sea inspections. In some occasions port inspectors issue citations of AIs to vessels, which were not detected by the at-sea inspectors. The citations were mostly AIs involving misreporting of catches. In 2011, 95 port inspection reports were received by the Secretariat, 90 of which were associated with Greenland halibut landings. As in 2010, no AI was issued by port State authorities in 2011.

Citation rates

The annual citation rate (the number of citations issued in relation to the number of inspections conducted) for at-sea inspections ranges between 2.0 in 2008 and 6.1 in 2005. In 2011, the citation rate for at-sea inspections was 4.0, with a relative increase from the previous year. In contrast, the citation rate for port inspections ranges between 15.2 in 2007 and zero in 2010 and 2011 (Figure 3).

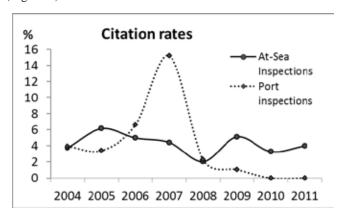


Fig. 3. Percentage of inspections that resulted in a citation at sea and in port

Closed areas and Exploratory Fisheries

Since 2007, in total 18 areas in NAFO have been closed to bottom fishing including 11 significant coral and sponge areas, one coral protection zone and six seamounts. To control the presence of vessels in such areas, NAFO has adopted VMS position reporting at one hour intervals. The conservation and enforcement measures concerning the protection of the VMEs are stipulated in Chapter II of the NCEM.

An examination of the VMS position reports revealed that all the closed areas were respected. Fishing activities were generally confined within the footprint, except for one vessel which fished in Division 6G (in the environs of the closed Corner Seamounts) for nine days. It is not known whether the fishing gear used interacted with the sea bottom, in which case the fishing activity would be covered by the provisions on exploratory fishing in Chapter II of the NCEM.

Catch reporting on sharks

Fishing for the purpose of collecting shark fins is prohibited under Article 17 of the 2011 NCEM. Sharks species taken in NAFO fisheries are not associated with shark fining practices, and there has never been an incident of shark fining observed in the NRA.

It has been noted that there has been a lack of species-specific reporting of shark catches in the NRA. In this regard, it became a requirement in 2012 to report, the extent possible, all shark catches at the species level (Article 25.3 of 2012 NCEM).

Apparent infringements

Each citation issued by NAFO inspectors can list one or more apparent infringements (AI). Article 37 of the 2011 NCEM listed ten AI's considered serious. The list was expanded to 14 in 2012 (Article 35 of the 2012 NCEM). In 2011, eight AI's were detected, all of which by at- sea inspectors, in different fishing trips. Seven distinct vessels were involved. The nature of the AIs ranges from bycatch requirements (considered serious) to stowage and capacity plans (considered non-serious). Table 2 shows the details of the AIs issued to fishing vessels in 2011.

Table 2. Details of Apparent Infringements (AI) detected in 2011.

A#	Vessel Code	Inspection Date	SA or Port Location	Directed Species (according to COE)	Apparent Infringement	Serious citation?	Article (2011 NCEM)	Descriptive (from Al Statement Report)	Disposition/Followup action in compliance with Art. 42 of 2011 NCEM	STATUS as of May 2012, as reported by CP
1	53	07-Mar-11	30	COD RED GHL	By-catch requirements	Yes	Art. 12.3.a	Conducting a directed fishery for which by-catch limits apply.	Strong written warnings	Closed
2	43	24-Apr-11	3L	GHL RED	Stowage plans	No	Art. 24.6	Failing to maintain an up to date accurate stowage plan.	The AI was not confirmed during port insepction in Vigo	Closed
3	32	01-May-11	3M	COD	Stowage plans	No	Art. 24.6	Failing to keep a stowage plan	Strong verbal rebrief	Closed
4	53	21-May-11	3N	RED GHL	Product Labelling	No	Art. 23	Failing to clearly mark prodcut as having being caught in the Regulatory Area.	Strong written warnings	Closed
5	30	28-Jun-11	3 N	GHL RED SKA	Stowage Plans	No	Art. 24.6	Failing to keep a stowage plan that shows the location of different species in the hold.	Captain fined 40 Euros	Closed
6	51	02-Jul-11	3N	GHL RED	Stowage Plans	No	Art. 24.6	Failing to keep a stowage plan that shows the accurate location and quantity of GHL in the hold.	Pending	Pending
7	13	02-Aug-11	30	COD RED GHL	Mesh Size ^a	No	Art. 13.1	Using a trawl to fish groundfish with a mesh size less than 130 mm. Normally considered serious, but taking into account the location of the undersized mesh a serious Al was not issued.	Could not be confirmed during port inspection at Vigo in July 2011	Closed
8	11	24-Oct-11	3M	PRA	Capacity Plans	No	Art. 21.3	Failure to provide an up-to-date capacity plan.	Pending	Pending

^a Mesh size violations are normally considered serious but in this case the inspectors considered it non-serious due to the location in the gear of the netting panel with undersized mesh.

Figure 4 shows the evolution of the total number of AIs that have been issued at-sea and in port for each year since 2004. In 2011, eight AIs were detected, only one of which is considered serious. In comparison with 2010, there were seven AIs four of which were considered serious. No AI was detected by port authorities in 2010 and 2011. Figure 5 shows the composite list of different AIs and the frequency of cases between 2004 and 2011.

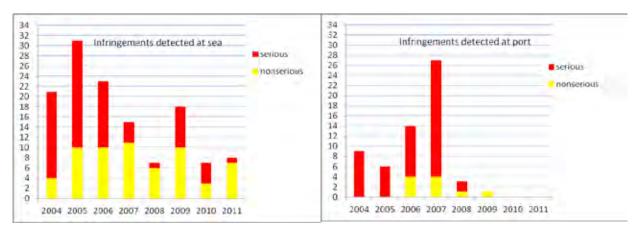


Fig. 4. Number of Apparent Infringements detected by NAFO at-sea and port inspectors for 2004-2011.

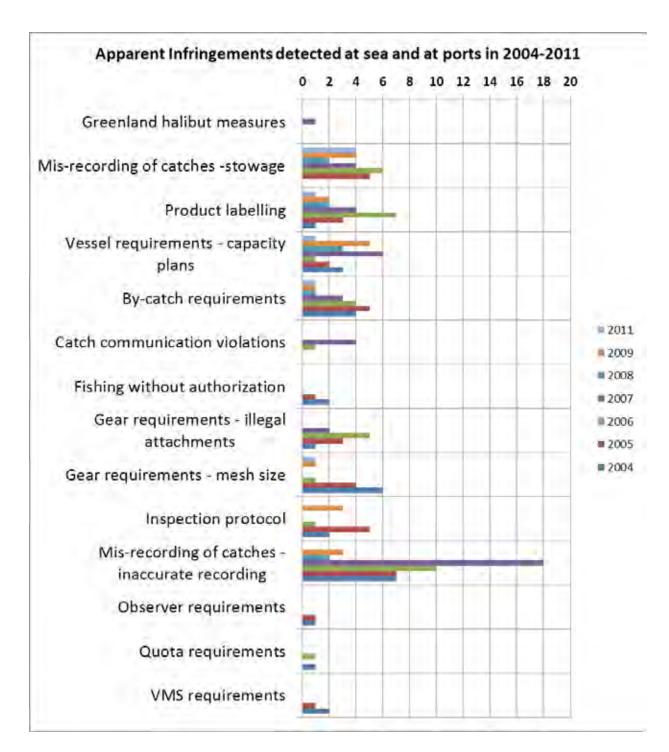


Fig. 5. Apparent infringements detected by NAFO at-sea and port inspectors in 2004 -2011. The first four types of AI are considered non-serious and the remaining 10 are usually considered serious infringements.

4. Reporting obligations by NAFO Contracting Parties and Observers

The NCEM obliges vessels and Contracting Parties to provide reports on their activity within a determined time frame. The completeness and regular delivery of those reports in time are of key importance to evaluating overall compliance. In evaluating the completeness, reports were examined to determine which fishing trips were covered by the reports. The percentage coverage is computed as a ratio of fishing days accounted for by the reports and total fishing days effort in the NRA. Less than 100% coverage suggests that there were missing reports that should have been received by the Secretariat.

Port inspection reports

When vessels land their catches, the port inspectors report on the quantity of catches as well as the fishing trip details. However, the port inspection is not mandatory for all landings from NAFO fisheries: compulsory port inspections are required for any vessel landing species subject to a NAFO recovery plan, and for 15 % of landings by vessels of another Contracting Party, on an annual basis, in accordance with the Port State Measures adopted in 2009.

To evaluate the compliance of port State authorities in conducting inspections, only trips which landed Greenland halibut were examined. 90 of 125 identified fishing trips landed Greenland halibut. Of the 90 trips (4633 days-effort), 86 trips (4442 days-effort) had corresponding port inspection reports --- 96% coverage in terms of the fishing-day effort, above the coverage range in 2004-2010 (which was between 79% in 2005 and 91% in 2008) (see Figure 5).

The new Port State measures did not affect the actual percentage coverage of port inspections because of the importance of landings of groundfish species subject to recovery plan (e.g. Greenland halibut).

Observer reports

Under the traditional scheme, vessels are required to have an independent compliance observer on board at all times in every fishing trip (Article 27.A of the 2012 NCEM). Since 2007, Contracting Parties (CPs) have the option of the electronic reporting scheme. Under this "electronic" scheme, CPs may allow their vessels to have observers onboard only 25% of the time the vessels are on a fishing trip (Article 27.B of the 2012 NCEM). CPs must give prior notification to the Secretariat which vessels participate in the electronic scheme.

Observers in the "traditional" scheme" are committed to deliver within 30 days after their assignment period their observer report, which contains information on date of fishing trip as well as catch and effort. Observers under the "electronic scheme" are required to report daily the catches and discards (OBR) while the fishing master transmits the daily catch reports (CAX) every trip. The CAX and OBR reports are transmitted through the same technology and communication channels as the VMS.

As in the port inspection reports, percentage coverage was computed as the ratio of the fishing days accounted for by the observers and the total fishing days in the NRA. In 2011, the percentage coverage was 62%, i.e. only 3 310 days out of 5300 were covered by observer reports and CAX/OBR reports. It is the lowest percentage coverage since the 2004 when such percentage coverage was first estimated (Figure 6).

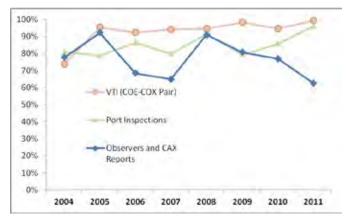


Fig. 6. Percentage coverage of fishing effort by VTI (COE-COX Pairs), Port Inspection and Observer Reports as a measure of compliance to report submission requirements.

Observer reports may be crosschecked with port inspection reports, for relevant fishing trips, for a comparative analysis of catches. According to Article 27.A, the observers shall record, among others, the catch and effort data for each haul. The Secretariat has noted that not all observers' reports contain the required information on catch and effort on a haul by haul basis.

Timeliness of submission of reports

The timeliness of reports submitted to the NAFO Secretariat is an important issue: VMS messages are required to be provided every hour; hail messages at each entry and exit from the NRA as well catch reports on a daily basis (VTI); observers and at-sea inspection reports are required to be submitted within 30 days and port inspection reports (PSC3 forms) should be sent to the Executive Secretary "without delay." For the purpose of timeliness analysis, PSC 3 forms received more than 30 days after the date of port inspection were considered late. VMS and VTI messages were not

included in the timeliness analysis as they are received practically in real time through satellite technology.

Figure 7 shows the timeliness of submission of at sea inspection, observer and port inspection reports. In 2011, there was no improvement in the overall timeliness of the submission of the reports. Less than half of the number of observer reports was received on time (35%). Timeliness in the submission of at-sea and port inspection reports was 48% and 44%, respectively.

At-sea and port inspection reports containing citations of infringements were always transmitted to the Secretariat without delay.

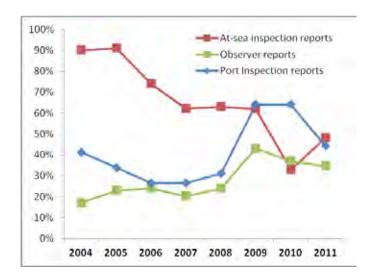


Fig. 7. Timeliness of submission of reports

5. Follow-up to infringements

Contracting Parties are obligated to follow-up with further investigations and legal prosecution when NAFO inspectors issue a citation against a Contracting Party vessel (Article 36). In 2011, eight AI were detected, six of which are already resolved and two are pending. Details of the AIs and the follow-up actions are presented in Table 2.

The status of each AI case must be reported to the Secretariat annually until the case is resolved (Article 37), since the legal procedure can take longer than one year due to of the legal procedures in force in each Contracting Party. There has been an improvement in the last two years (2010 and 2011) in the CP's compliance to Article 37 as follow-up actions to all AI were reported to the Secretariat. During this current compliance review period, two pending cases first reported in 2008 and three pending cases first reported in 2009 are now considered closed as fines and sanctions to the offending vessel have been applied. Table 3 presents the summary of the status of AI cases and their resolution for past five years.

Table 3 Legal resolution of citations against vessels fishing in the NAFO Regulatory Area by year in which the citations were issued (as of August 2012). A citation is an inspection report (from at-sea or port inspectors) that lists one or more infringements. Inspections carried out for confirming a previous citation are not included.

	Number	Resolve	ed cases		No follow-up
Year	of Reports with AI Citation/s	Number	%	Pending cases	information from CPs
2007	32	25	78%	2	5
2008	8	5	63%	3	0
2009	13	6	46%	4	3
2010	7	3	43%	4	0
2011	8	6	75%	2	0
Total	68	45	66%	15	8

6. Observed Trends

- After a steady year on year decline since 2004, total fishing effort appears to have stabilized at circa 5000 days present in the NRA each year. In parallel the steady decline in vessel numbers active in the NRA appears to have leveled out at circa 50 vessels per annum.
- A gradual decline in fishing effort in the shrimp fishery has been observed from 889 in 2009, 584 in 2010 and 360 2011. The number of vessels active in the shrimp fishery has declined from 20 in 2009, 16 in 2010 and 8 in 2011.
- Although effort in the shrimp fishery has declined, overall effort in the NRA has been stabile indicating that effort has been diverted from the shrimp fishery to the groundfish fishery.
- The number of at sea inspections has reduced from 401 in 2004 to 200 in 2011 but the inspection rate has actually increased from 2.4% in 2004 to 3.8% in 2011 (dropping slightly from 4.5% in 2010).
- Port inspection coverage of landings remains high owing to the high number of landings of species subjected to a recovery plan, particularly groundfish.
- A few minor problems were experienced at the introduction of the CAT messages during the beginning of 2011, however the reporting rate quickly improved with all vessels transmitting CAT reports by the end of January.
- The at-sea citation rate has remained stable averaging circa 4% since 2004.
- A higher proportion of citations over the last 2 years has been attributed to labeling and stowage infringements.
- Timeliness and submission of inspection and observer reports remain an area requiring improvement.

7. Recommendations

At the next intercessional STACTIC will explore the utility of expanding the report to include geospatial information and reporting on the joint inspection scheme.

7. Annexes: The Report tables

Table 1. Submission of Fishing Reports*

Year	Days at the Regulatory Area (Effort)	Number of Days accounted by COE-COX pairs	Percentage of Effort accounted by COE-COX pairs	Number of Days accounted by Port Inspection and TRA reports	Percentage of Effort accounted by Port Inspection and TRA reports	Number of Days accounted by Observer and CAX reports	Percentage of Effort accounted by Observer and CAX reports
2004	16480	12156	74%	13327	81%	12779	78%
2005	12290	11706	95%	9679	79%	11326	92%
2006	8663	7991	92%	7488	86%	5921	68%
2007	6598	6210	94%	5269	80%	4276	65%
2008	5054	4785	95%	4613	91%	4596	91%
2009	5016	4920	98%	3981	79%	4047	81%
2010	4768	4510	95%	4084	86%	3665	77%
2011	5300	5254	99%	4442	96%	3310	62%

^{*}COE = Catch on entry, COX = Catch on exit, TRA = transhipment, CAX = Daily catch report

Table 2. Timely submission of Port Inspection Reports

Year	2004	2005	2006	2007	2008	2009	2010	2011
Total Number of Port Inspection Reports received	228	177	151	125	133	94	101	95
Total Number of Port Inspection Reports received late	134	117	111	92	92	34	36	53
Percentage % of late Port Inspection Reports	59%	66%	74%	74%	69%	36%	36%	56%

NB. Copy of Port Inspection reports (PSC 3) must be forwarded to the Secretariat by the port States without delay (Art. 14 of 2012 NCEM).

Table 3. Timely submission of At-Sea Inspection Reports

Year	2004	2005	2006	2007	2008	2009	2010	2011
Total Number of at-sea Inspections	401	326	361	296	263	324	215	206
Number of at-sea Inspections received late	40	30	95	112	96	124	144	107
Percentage % of late at-sea Inspection Reports	10%	9%	26%	38%	37%	38%	67%	52%

NB At-sea inspection reports must be forwarded to the flag State Contracting Party, if possible within 30 days of the inspection (Article 33.3a of the 2012 NCEM).

Table 4. Timely submission of Observer Reports

Year	2004	2005	2006	2007	2008	2009	2010	2011
Total Number of Observers Reports	211	170	114	84	126	86	76	72
Number of Observers Reports received late	176	131	87	67	96	49	48	47
Percentage % of late Observers Reports	83%	77%	76%	80%	76%	57%	63%	65%

NB. Copy of Observer reports (PSC 3) must be forwarded to the Secretariat by the observers within 30 days after their assignment (Article 27 a.2.g of the 2012 NCEM)

Table 5-2004, part 1. Effort, at-sea inspections and AIs by fisheries type

Fisheries*	GRO	PRA	REB	Total
Number of vessels	63	33	48	134**
Days Present in NRA	9966	5100	1414	16480
Number of at-sea inspections	328	73	0	401
Number of at-sea inspection report containing citation				
of one or more AIs	13	2	0	15
Number of vessels cited with AIs at sea	10	2	0	12
AIs issued by category - from at-sea inspections***				
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	0	0	0	0
Product labeling	0	1	0	1
Vessel requirements - capacity plans	3	0	0	3
By-catch requirements	3	0	0	3
Catch communication violations	0	0	0	0
Fishing without authorization	0	1	0	1
Gear requirements - illegal attachments	1	0	0	1
Gear requirements - mesh size	5	0	0	5
Inspection protocol	2	0	0	2
Mis-recording of catches - inaccurate recording	1	0	0	1
Observer requirements	0	1	0	1
Quota requirements	1	0	0	1
VMS requirements	0	2	0	2
TOTAL	16	5	0	21

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2004, part 2. Effort, port inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	63	33	48	134**
Days Present in NRA	9966	5100	1414	16480
Number of port inspections	85	138	5	228
Number of port inspection report containing citation of				
one or more AIs	9	0	0	9
Number of vessels cited with AIs by port authorities	9	0	0	9
AIs issued by category - from port inspections***				
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	0	0	0	0
Product labeling	0	0	0	0
Vessel requirements - capacity plans	0	0	0	0
By-catch requirements	1	0	0	1
Catch communication violations	0	0	0	0
Fishing without authorization	1	0	0	1
Gear requirements - illegal attachments	0	0	0	0
Gear requirements - mesh size	1	0	0	1
Inspection protocol	0	0	0	0
Mis-recording of catches - inaccurate recording	6	0	0	6
Observer requirements	0	0	0	0
Quota requirements	0	0	0	0
VMS requirements	0	0	0	0
TOTAL	9	0	0	9

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2005, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	50	27	53	116**
Days Present in NRA	6948	3558	1784	12290
Number of at-sea inspections	270	55	1	326
Number of at-sea inspection report containing citation of one or more AIs	16	4	0	20
Number of vessels cited with AIs at sea	14	3	0	17
AIs issued by category - from at-sea inspections***	11	3	- U	17
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	5	0	0	5
Product labeling	2	1	0	3
Vessel requirements - capacity plans	2	0	0	2
By-catch requirements	2	0	0	2
Catch communication violations	0	0	0	0
Fishing without authorization	0	1	0	1
Gear requirements - illegal attachments	2	1	0	3
Gear requirements - mesh size	3	0	0	3
Inspection protocol	3	1	0	4
Mis-recording of catches - inaccurate recording	5	1	0	6
Observer requirements	0	1	0	1
Quota requirements	0	0	0	0
VMS requirements	0	1	0	1
TOTAL	24	7	0	31

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2005, part 2. Effort, port inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	50	27	53	116**
Days Present in NRA	6948	3558	1784	12290
Number of port inspections	80	87	10	177
Number of port inspection report containing citation of				
one or more AIs	6	0	0	6
Number of vessels cited with AIs by port authorities	6	0	0	6
AIs issued by category - from port inspections***				
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	0	0	0	0
Product labeling	0	0	0	0
Vessel requirements - capacity plans	0	0	0	0
By-catch requirements	3	0	0	3
Catch communication violations	0	0	0	0
Fishing without authorization	0	0	0	0
Gear requirements - illegal attachments	0	0	0	0
Gear requirements - mesh size	1	0	0	1
Inspection protocol	1	0	0	1
Mis-recording of catches - inaccurate recording	1	0	0	1
Observer requirements	0	0	0	0
Quota requirements	0	0	0	0
VMS requirements	0	0	0	0
TOTAL	6	0	0	6

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2006, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	45	21	42	92**
Days Present in NRA	5908	1776	979	8663
Number of at-sea inspections	277	76	8	361
Number of at-sea inspection report containing citation of one or more AIs	11	5	2	18
Number of vessels cited with AIs at sea	10	4	2	16
AIs issued by category - from at-sea inspections***	10	'		10
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	5	1	0	6
Product labeling	1	2	0	3
Vessel requirements - capacity plans	1	0	0	1
By-catch requirements	2	0	0	2
Catch communication violations	0	0	0	0
Fishing without authorization	0	0	0	0
Gear requirements - illegal attachments	2	2	1	5
Gear requirements - mesh size	0	0	1	1
Inspection protocol	0	1	0	1
Mis-recording of catches - inaccurate recording	4	0	0	4
Observer requirements	0	0	0	0
Quota requirements	0	0	0	0
VMS requirements	0	0	0	0
TOTAL	15	6	2	23

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2006, part 2. Effort, port inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	45	21	42	92**
Days Present in NRA	5908	1776	979	8663
Number of port inspections	76	56	19	151
Number of port inspection report containing citation of one				
or more AIs	10	0	0	10
Number of vessels cited with AIs by port authorities	10	0	0	10
AIs issued by category - from port inspections***				
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	0	0	0	0
Product labeling	4	0	0	4
Vessel requirements - capacity plans	0	0	0	0
By-catch requirements	2	0	0	2
Catch communication violations	1	0	0	1
Fishing without authorization	0	0	0	0
Gear requirements - illegal attachments	0	0	0	0
Gear requirements - mesh size	0	0	0	0
Inspection protocol	0	0	0	0
Mis-recording of catches - inaccurate recording	6	0	0	6
Observer requirements	0	0	0	0
Quota requirements	1	0	0	1
VMS requirements	0	0	0	0
TOTAL	14	0	0	14

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2007, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	45	14	20	76**
Days Present in NRA	4158	1948	488	6594
Number of at-sea inspections	202	81	11	294
Number of at-sea inspection report containing citation of		_	,	10
one or more AIs	4	5	4	13
Number of vessels cited with AIs at sea	4	5	4	13
AIs issued by category - from at-sea inspections***				
Greenland halibut measures	0	0	0	0
Mis-recording of catches -stowage	3	1	0	4
Product labeling	0	1	0	1
Vessel requirements - capacity plans	0	2	4	6
By-catch requirements	0	0	0	0
Catch communication violations	0	0	0	0
Fishing without authorization	0	0	0	0
Gear requirements - illegal attachments	0	1	1	2
Gear requirements - mesh size	0	0	0	0
Inspection protocol	0	0	0	0
Mis-recording of catches - inaccurate recording	2	0	0	2
Observer requirements	0	0	0	0
Quota requirements	0	0	0	0
VMS requirements	0	0	0	0
TOTAL	5	5	5	15

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2007, part 2. Effort, port inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	45	14	20	76**
Days Present in NRA	4158	1948	488	6594
Number of port inspections	67	51	7	125
Number of port inspection report containing citation of one				
or more AIs	19	0	0	19
Number of vessels cited with AIs by port authorities	16	0	0	16
AIs issued by categor y - from port inspections***				
Greenland halibut measures	1	0	0	1
Mis-recording of catches -stowage	0	0	0	0
Product labeling	3	0	0	3
Vessel requirements - capacity plans	0	0	0	0
By-catch requirements	3	0	0	3
Catch communication violations	4	0	0	4
Fishing without authorization	0	0	0	0
Gear requirements - illegal attachments	0	0	0	0
Gear requirements - mesh size	0	0	0	0
Inspection protocol	0	0	0	0
Mis-recording of catches - inaccurate recording	16	0	0	16
Observer requirements	0	0	0	0
Quota requirements	0	0	0	0
VMS requirements	0	0	0	0
TOTAL	27	0	0	27

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2008, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	38	13	10	60**
Days Present in NRA	3302	1551	201	5054
Number of at-sea inspections	176	62	7	245
Number of at-sea inspection report containing citation of one				
or more AIs	2	3	0	5
Number of vessels cited with AIs at sea	2	3	0	5
AIs issued by category - from at-sea inspections***				
Greenland halibut measures				0
Mis-recording of catches -stowage	1	1		2
Product labeling	1			1
Vessel requirements - capacity plans		3		3
By-catch requirements	1			1
Catch communication violations				0
Fishing without authorization				0
Gear requirements - illegal attachments				0
Gear requirements - mesh size				0
Inspection protocol				0
Mis-recording of catches - inaccurate recording				0
Observer requirements				0
Quota requirements				0
VMS requirements				0
TOTAL	3	4	0	7

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2008, part 2. Effort, port inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	38	13	10	60**
Days Present in NRA	3302	1551	201	5054
Number of port inspections	70	60	2	132
Number of port inspection report containing citation of one or				
more AIs	3	0	0	3
Number of vessels cited with AIs by port authorities	2			
AIs issued by category - from port inspections***				
Greenland halibut measures				0
Mis-recording of catches -stowage				0
Product labeling	1			1
Vessel requirements - capacity plans				0
By-catch requirements				0
Catch communication violations				0
Fishing without authorization				0
Gear requirements - illegal attachments				0
Gear requirements - mesh size				0
Inspection protocol				0
Mis-recording of catches - inaccurate recording	2			2
Observer requirements				0
Quota requirements				0
VMS requirements				0
TOTAL	3	0	0	3

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2009, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	41	20	1	51**
Days Present in NRA	4122	889	5	5016
Number of at-sea inspections	194	40	0	234
Number of at-sea inspection report containing citation of one				
or more AIs	8	4	0	12
Number of vessels cited with AIs at sea	6	4	0	10
AIs issued by category - from at-sea inspections***				
Greenland halibut measures				0
Mis-recording of catches -stowage	4			4
Product labeling	1			1
Vessel requirements - capacity plans	3	2		5
By-catch requirements	1			1
Catch communication violations				0
Fishing without authorization				0
Gear requirements - illegal attachments				0
Gear requirements - mesh size	1			1
Inspection protocol	2	1		3
Mis-recording of catches - inaccurate recording	2	1		3
Observer requirements				0
Quota requirements				0
VMS requirements				0
TOTAL	14	4	0	18

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2009, part 2. Effort, port inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	41	20	1	51**
Days Present in NRA	4122	889	5	5016
Number of port inspections	73	21	0	94
Number of port inspection report containing citation of one or more AIs	1	0	0	1
Number of vessels cited with AIs by port authorities	1			
AIs issued by category - from port inspections***				
Greenland halibut measures				0
Mis-recording of catches -stowage				0
Product labeling	1			1
Vessel requirements - capacity plans				0
By-catch requirements				0
Catch communication violations				0
Fishing without authorization				0
Gear requirements - illegal attachments				0
Gear requirements - mesh size				0
Inspection protocol				0
Mis-recording of catches - inaccurate recording				0
Observer requirements				0
Quota requirements				0
VMS requirements				0
TOTAL	1	0	0	1

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2010, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	42	16	2	53**
Days Present in NRA	4170	584	14	4768
Number of at-sea inspections	192	22	0	214
Number of at-sea inspection report containing citation of AIs	4	3	0	7
Number of vessels cited with AIs at sea	4	2	0	6
AIs issued by category - from at-sea inspections***				
Greenland halibut measures				
Mis-recording of catches -stowage		1		
Product labelling				
Vessel requirements - capacity plans	1	1		
By-catch requirements				
Catch communication violations				
Fishing without authorization				
Gear requirements - illegal attachments	1			
Gear requirements - mesh size	1			
Inspection protocol				
Mis-recording of catches - inaccurate recording	1	1		
Observer requirements				
Quota requirements				
VMS requirements				
TOTAL	4	3	0	7

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2010, part 2. Effort, port inspections and AIs by fisheries type.

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	42	16	2	53**
Days Present in NRA	4170	584	14	4786
Number of port inspections	86	14	0	100
Number of port inspection report containing citation of AIs				0
Number of vessels cited with AIs by port authorities				0
AIs issued by category - from port inspections***				
Greenland halibut measures				
Mis-recording of catches -stowage				
Product labelling				
Vessel requirements - capacity plans				
By-catch requirements				
Catch communication violations				
Fishing without authorization				
Gear requirements - illegal attachments				
Gear requirements - mesh size				
Inspection protocol				
Mis-recording of catches - inaccurate recording				
Observer requirements				·
Quota requirements				
VMS requirements				
TOTAL	0	0	0	0

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

Table 5-2011, part 1. Effort, at-sea inspections and AIs by fisheries type

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	47	8	2	56**
Days Present in NRA	4922	360	18	5300
Number of at-sea inspections	192	8	0	200
Number of at-sea inspection report containing citation of AIs	7	1	0	8
Number of vessels cited with AIs at sea	6	1	0	7
AIs issued by category - from at-sea inspections***				
Greenland halibut measures				
Mis-recording of catches -stowage	4			
Product labelling	1			
Vessel requirements - capacity plans		1		
By-catch requirements	1			
Catch communication violations				
Fishing without authorization				
Gear requirements - illegal attachments				
Gear requirements - mesh size	1****			
Inspection protocol				
Mis-recording of catches - inaccurate recording				
Observer requirements				
Quota requirements				
VMS requirements				
TOTAL	7	1		8

^{*} GRO = groundfish primarily in Divs. 3KLMNO; PRA = shrimp fisheries in Divs. 3LM; REB = redfish in Divs. 1F2J

Table 5-2011, part 2. Effort, port inspections and AIs by fisheries type.

FISHERIES*	GRO	PRA	REB	Total
Number of vessels	47	8	2	56**
Days Present in NRA	4922	360	18	5300
Number of port inspections	90	5	0	95
Number of port inspection report containing citation of AIs				0
Number of vessels cited with AIs by port authorities				0
AIs issued by category - from port inspections***				
Greenland halibut measures				
Mis-recording of catches -stowage				
Product labelling				
Vessel requirements - capacity plans				
By-catch requirements				
Catch communication violations				
Fishing without authorization				
Gear requirements - illegal attachments				
Gear requirements - mesh size				
Inspection protocol				
Mis-recording of catches - inaccurate recording				
Observer requirements				
Quota requirements				
VMS requirements				
TOTAL	0	0	0	0

^{**} Some vessels switched directed species within the year.

^{***} AIs from citation reports serving to confirm an incident are not counted. AI categories in bold are considered serious.

*** Was not considered "serious" by at-sea inspectors in this case.

Table 6. Resolution of Apparent Infringement (AI) cases (as of August 2011)

Resolution of Apparent Infringement Cases	2006	2007	2008	2009	2010	2011
Number of reports with citations issued*	28	32	8	13	7	8
Number of resolved cases	21	25	5	6	3	6
Percentage of resolved cases (as of July 2011)	75%	78%	63%	46%	43%	75%
Number of cases pending	3	2	3	4	4	2
Number of cases with no follow-up information	4	5	0	3	0	0

^{*} Number of inspection reports with serious and non-serious AI citations. A report may contain one or more AIs. Reports serving to confirm identical cases are not counted.

Annex 21. Modification of NAFO Conservation and Enforcement Measures Article 22 – Vessel Requirements

(STACTIC Working Paper 12/31, Revision 2 **now** FC Doc. 12/17)

Background

The vessel requirements obligation under Article 22 of the NAFO CEM does not allow a transparent view of the fishing activities conducted in the NAFO Regulated area (RA). Moreover, there is no tool in place to communicate with the NAFO Secretariat to delete a vessel from the NAFO register, or to modify its authorization to fish. The scope of this proposal is to introduce amendments to Article 22 with the view to make the system more flexible. A more transparent view of the fishing effort deployed would also improve the effectiveness of sea inspection.

This new system would be based on (1) the notification by Contracting Parties of a list of vessels candidate to conduct fishing activities in the NAFO RA, (2) the delivery of an authorization to conduct such activities, identifying the species and/or regulated stocks on which directed fishing is allowed, and (3) the possibility to withdraw the notification, or to suspend the authorization.

Notified and authorized vessels will be recorded in a NAFO register.

By identifying the regulated stocks allowed for direct fishing, there is no need any more to identify those species/ stocks in the COE message, not to maintain the specific authorization for species subject to a rebuilding plan, like GHL.

This proposal does not introduce new data elements. However, some of these data elements need a modified definition, for clarity.

Recommended changes:

1. Replace Article 22 by the following text

Article 22 – Vessel Requirements

Notification of fishing vessels

- 1. Each Contracting Party shall notify the Executive Secretary by electronic means:
 - a list of its vessels flying its flag which it may authorize to conduct fishing activities in the Regulatory Area, hereinafter referred to as a "notified vessel", in the format prescribed in Annex II.C1 (NOT message);
 - b. from time to time, any deletion from the list of notified vessels, without delay, in the format prescribed in Annex II.C2, (WIT message);
- 2. No fishing vessel shall conduct fishing activities in the Regulatory Area unless it is listed as a notified vessel.

Authorization to conduct fishing activities

- 3. Same as existing paragraph 1 (no fishing activity without authorization)
- 4. Same as existing paragraph 2 (effort commensurate with opportunities)
- 5. Each Contracting Party shall transmit to the Executive Secretary by electronic means:
 - a. the individual authorization for each vessel from the list of notified vessels it has authorized to conduct fishing activities in the Regulatory Area, hereinafter referred to as an "authorized vessel", in the format prescribed in Annex II.C3 and no later than 30 days before the start of the fishing activities for the calendar year (AUT message). Each authorization shall in particular identify the start and end dates of validity and, the species for which directed fishery is allowed. If the vessel intends to fish for regulated species referred to in Annexes I.A or I.B, the identification shall refer to the stock, where the regulated species is associated to the area concerned;
 - b. the suspension of the authorization, in the format prescribed in Annex II.C4, without delay, in case of removal of the authorization concerned or of any modification to its content, where the removal or the modification occurs during the period of validity (SUS message);

- c. in case of resuming a suspended authorization, the new authorization, transmitted in accordance with the procedure described in sub a above.
- 6. Each Contracting Party shall ensure that the period of validity of the authorization matches with the certification period concerning the certification of the capacity plan referred to in paragraphs 10 to 12 below.

Vessels markings

7. Same as existing paragraph 5

Vessel documents to be carried on board

- 8. Same as existing paragraph 6, but with sub viii replaced by the following text: viii. the capacity plan referred to in paragraph 10.
 - ix. estimation of freezing capacity or certification of refrigeration system will be provided if possible.

Capacity plan

- 9. No fishing vessel shall conduct fishing activities in the Regulatory Area without carrying on board an accurate upto-date capacity plan, the capacity plan must be certified by a competent authority or recognized by its flag State
- 10. The capacity plan shall:
 - a. take the form of a drawing or description, of its fish storage place, including the storage capacity of each fish storage place in cubic meters. The drawing must consist of longitudinal section of the vessel, including a plan for each deck on which a fish storage place is located and the locations of freezers
 - b. show in particular the positions of any door, hatch and any other access to each fish storage place, with reference to the bulkheads:
 - c. indicate the main dimensions of the fish storage tanks (refrigerated sea water tanks) and, for each one, indicating the calibration in cubic meters at intervals of 10 cm.
 - d. have the true scale clearly indicated on the drawing.
- 11. Each Contracting Party shall ensure that, every two years, the capacity plan of its authorized vessels is certified correct by the competent authority.

Duties of the Executive Secretary

- 12. The Executive Secretary
 - a. maintains a register of all fishing vessels notified in accordance with paragraph 1.a,
 - b. identifies in the register the authorized vessels, including chartered vessels, and
 - c. amends the register and any element related to the authorizations following notification by a Contracting Party of any modification.
- 13. Subject to the appropriate confidentiality requirements, the Executive Secretary shall:
 - a. posts the register referred to in paragraph 13 on a secure portion of the NAFO website available to each Contracting Party;
 - b. delete from the register any vessel that has not conducted fishing activities in the Regulatory Area for a period of two consecutive years, or that has been classified as IUU.

2. Remove paragraph 5.a from Article 10 and adjust subsequent sub paragraphs

As the new measures will cover all fisheries, Article 10 paragraph 5.a (specific authorization for GHL) becomes obsolete and should be deleted. The subsequent points (b) to (f) should be adjusted to (a) to (e).

3. Remove the line "Directed species" line from Annex II.F section 2 (COE)

As the authorization to fish identifies the species for which a directed fishery is allowed, referring to the stock in case of regulated species, the field code DS in the COE message becomes obsolete and should be deleted.

4. Referring to Annex II.D part C

1. replace the category "Vessel Character Details" by the following table

Category	Data element	Field code	Type	Contents	Definitions
Vessel IMO Number	IMO Number	IM	Num*7	"nnnnnn"	IMO ship identification number
Vessel Character Details	Vessel Tonnage Unit	VT	Char*2 Num*4	"OC"/"LC" Tonnage	According to: "OC" OSLO 1947 Convention /"LC" LONDON ICTM-69
	Vessel Power Unit	VP	Char*2 Num*5	0-99999	Total main engine power in "KW"
	Vessel Length	VL	Char*2 Num*3	"OA" Length in meters	Unit "OA" length overall. Total length of the vessel in meters, rounded to the nearest whole meter
	Vessel Type	TP	Char*3	Code	As listed in Annex II.I
	Fishing Gear	GE	Char*3	FAO Code	International Standard Statistical Classification of the Fishing Gear as Annex II.J
Authorization details	Start Date	SD	Num*8	YYYYMMDD	Licence detail; date on which the authorization starts
	End Date	ED	Num*8	YYYYMMDD	Licence detail; date on which the authorization end
	Directed Species	DS	Char*3 Num*6	FAO Species Code/ Area Code	Licence detail; species for which the authorization applies. In case of regulated species from Annex I.A or I.B, the content must refer to the stock (format GHL/3LMNO)

5. Replace the first line of Annex II.D part E by the following ones.

Annex	Provisions	Code	Message/Report	Remarks
II.C	Article 22.1a	NOT	Notification	Notification of fishing vessels
II.C	Article 22.1b	WIT	Withdrawal	Notification of the withdrawal of a registered vessel
II.C	Article 22.6a	AUT	Authorization	Notification of vessels authorized to conduct fishing activities in the RA
II.C	Article 22.6b	SUS	Suspension	Notification of the suspension of an authorization to conduct fishing activities in the Regulatory Area, within its initial period of validity

Replace Annex II.C by the following tables 6.

Annex II.C

1) Format for register of vessels

Data Element	Code	Mandatory / Optional	Remarks
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO Secretariat
From	FR	M	Message detail; ISO-3 code of the transmitting Contracting Party
Record Number	RN	М	Message detail; message serial number in current year
Record Date	RD	M	Message detail; date of transmission
Record Time	RT	M	Message detail; time of transmission
Type of Message	TM	M	Message detail; message type, "NOT" as Notification of vessels that may conduct fishing activities in NAFO RA
Vessel Name	NA	M	Name of the vessel
Radio Call Sign	RC	M	International radio call sign of the vessel
Flag State	FS	M	State where the vessel is registered
Internal Reference Number	IR	O ₁	Unique Contracting Party vessel number as ISO-3 flag state code followed by number
External Registration Number	XR	M	The side number of the vessel
Vessel IMO Number	IM	M^3	IMO number in the absence of a side number
Port Name	PO	M	Port of registration or home port
Vessel Owner	VO	M^2	Registered owner and address
Vessel Charterer	VC	M^2	Responsible for using the vessel
Vessel Type	TP	M	FAO vessel code (Annex II.I)
Vessel Gear	GE	О	FAO statistical classification of fishing gear (Annex II.J)
Vessel Tonnage		M	Vessel tonnage capacity in pairs as needed
measurement method	VT		"OC" = "OSLO" Convention 1947,
tonnage			"LC" "London" Convention ICTM-69
			Total capacity in metric tons
Vessel length measurement		M	Length in meters in pairs as needed
method length	VL		"OA" = overall;
			length in meters
Vessel Power		M	Engine power in pairs as needed in "KW"
measurement method	VP		PE = propulsion engine
Power			AE= Auxiliary summary engines
			Total installed engine power in vessel measured in "KW"
End of record	ER	M	System detail; indicates end of the record

Mandatory when used as a single identification in other messages.
 Whichever one is appropriate.
 Mandatory when External Registration Number is absent.

2) Format for withdrawal of vessels from the register

Data Element	Code	Mandatory / Optional	Remarks
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO Secretariat
From	FR	M	Message detail; ISO-3 code of the transmitting Contracting Party
Record Number	RN	M	Message detail; message serial number in current year
Record Date	RD	M	Message detail; date of transmission
Record Time	RT	M	Message detail; time of transmission
Type of Message	TM	M	Message detail; message type, "WIT" as Withdrawal of notified vessels
Vessel Name	NA	M	Name of the vessel
Radio Call Sign	RC	M	International radio call sign of the vessel
Internal Reference Number	IR	0	Unique Contracting Party vessel number as ISO-3 flag state code followed by number, if exists
External Registration Number	XR	М	The side number of the vessel
Vessel IMO Number	IM	\mathbf{M}^4	IMO number in the absence of a side number
Start Date	SD	M	The first date as from which the withdrawal takes affect
End of record	ER	M	System detail; indicates end of the record

⁴ Mandatory when External Registration Number is absent

3) Format for authorization to conduct fishing activities

Data Element	Code	Mandatory / Optional	Remarks
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO Secretariat
From	FR	M	Message detail; ISO-3 code of the transmitting Contracting Party
Record Number	RN	M	Message detail; message serial number in current year
Record Date	RD	M	Message detail; date of transmission
Record Time	RT	M	Message detail; time of transmission
Type of Message	TM	M	Message detail; message type, "AUT" as Authorization of vessels to conduct fishing activities in the NAFO RA
Vessel Name	NA	M	Name of the vessel
Radio Call Sign	RC	M	International radio call sign of the vessel
Internal reference Number	IR	О	Unique Contracting Party vessel number as ISO-3 flag state code followed by number, if exists
External registration Number	XR	M	The side number of the vessel

Vessel IMO Number	IM	$\mathbf{M}_{_{5}}$	IMO number in the absence of a side number
Start Date	SD	M	License detail; date as from which the Authorization takes effect
End date	ED	0	License detail: Date on which the authorization go to the end. Maximum time validity is 12 months.
Directed Species	DS	M	License detail; species allowed for directed fishery. Regulated species of Annex I.A or I.B must refer to the stock (Allow for several pairs of fields species and divisions i.e. //DS//GHL/3LMNO COD/3M RED/3LN//
End of record	ER	M	System detail; indicates end of the record

⁵ Mandatory when External Registration Number is absent

4) Format to suspend the authorization to conduct fishing activities

Data Element	Code	Mandatory / Optional	Remarks
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO Secretariat
From	FR	M	Message detail; ISO-3 code of the transmitting Contracting Party
Record Number	RN	M	Message detail; message serial number in current year
Record Date	RD	M	Message detail; date of transmission
Record Time	RT	M	Message detail; time of transmission
Type of Message	TM	M	Message detail; message type, "SUS" as Suspension of authorized vessels
Vessel Name	NA	M	Name of the vessel
Radio Call Sign	RC	M	International radio call sign of the vessel
Internal Reference Number	IR	О	Unique Contracting Party vessel number as ISO-3 flag state code followed by number, if exists
External Registration Number	XR	M	The side number of the vessel
Vessel IMO Number	IM	M^6	IMO number in the absence of a side number
Start Date	SD	M	License detail; date as from which the Suspension takes effect
End of record	ER	M	System detail; indicates end of the record

⁶ Mandatory when External Registration Number is absent

Annex 22. Proposal on lost or abandoned fishing gear

(STACTIC Working Paper 12/33, Revision 2 **now** FC Doc. 12/18)

The NAFO Performance Review urges NAFO to further its efforts to introduce management measures to deal directly with lost and abandoned fishing gear, with the scope to minimize catches by such gears, and the potential negative impact of so-called ghost-fishing has on the marine ecosystem.

It is proposed to insert the following Article in the Chapter I of the NAFO CEM.

Article 13.9 - Lost or abandoned fishing gears

Retrieval of fishing gears

- 1. Each Contracting Party shall ensure that:
 - a. vessels fishing in the NRA flying their flag have equipment on board to retrieve lost gear;
 - b. the master of a vessel that has lost gear or part of it shall make every reasonable attempt to retrieve it as soon as possible.
 - c. no master shall deliberately abandon fishing gear, except for safety reasons.
- 2. If the lost gear cannot be retrieved, the Master of the vessel shall notify the flag State Contracting Party within 24 hours of the following:
 - a. the name and call sign of the vessel,
 - b. the type of lost gear,
 - c. the quantity of gear lost,
 - d. the time when the gear was lost,
 - e. the position where the gear was lost,
 - f. the measures taken by the vessel to retrieve the lost gear.
- 3. Following retrieval of lost gear, the Master of the vessel shall notify the flag State Contracting Party within 24 hours of the following:
 - a. the name and call sign of the vessel that has retrieved the gear,
 - b. the name and call sign of the vessel that lost the gear (if known),
 - c. the type of gear retrieved,
 - d. the quantity of gear retrieved,
 - e. the time when the gear was retrieved,
 - f. the position where the gear was retrieved.
- 4. The flag State Contracting Party shall without delay notify the Executive Secretary of the information referred to in paragraph 2 and 3.

Duties of the Executive Secretary

5. The Executive Secretary posts without delay the information provided by Contracting Parties in accordance with paragraph 4 on the secure part of the NAFO website.

Annex 23. Proposed Amendment to NCEM Annex IV.B

(STACTIC Working Paper 12/34, Revision 1 **now** FC Doc. 12/19)

Background

According to the current provisions of NAFO Conservation and Enforcement Measures, Sightings and Identifications of non Contracting Party vessels shall be reported by NAFO inspectors (Article 46 and Annex IV.B)

This provision could prevent an inspection platform notified to the Secretary without NAFO inspectors on board from doing such a report whereas NAFO abilities are not objectively necessary to do such a report.

Proposed amendment

Replace "AUTHORIZED INSPECTOR" in Annex IV B Part I by "OFFICIAL" and

Replace "AUTHORIZED INSPECTOR" in Annex IV B Part II by "NAME OF OFFICIAL"

Annex 24. Product Labelling under Article 24 – All product must be clearly labeled by species and identify the division of capture

(STACTIC Working Paper 12/35, Revision 3 now FC Doc. 12/20)

Background

Currently, the NAFO Conservation and Enforcement Measures require that all fish harvested in the NAFO Regulatory Area must be labelled by species and product category, and in the case of shrimps, the date of capture. The measures further require that GHL and shrimp be marked by Stock Area.

The NAFO Performance Review Panel Recommendations (GC Working Paper 11/2) suggests that Article 23 (now known as Article 24) be improved to take into account the traceability of fish. It is recommended that the labelling requirements for species captured in the NAFO Regulatory Area require that all product be identified by species, product category, and division of capture.

This would improve the traceability of fish from the point of harvest to the point of offloading in port. Vessels regularly cross division boundaries and have onboard species that may have different harvest rules (such as moratorium) in different Divisions. In such cases it is important that inspectors be able to determine from where and when the fish was captured.

It is recommended that as a step towards achieving better traceability of fish from the point of capture that the Division from which the fish was harvested be included on all product labelling.

It is necessary to continue to strengthen the measures on an ongoing basis including improving the accuracy of labelling and reporting of fish captured in the NAFO Regulatory Area. This issue will require regular review at STACTIC.

Proposed Amendments

Replace Article 24 with the following text.

- 24.1 When processed, all species harvested in the Regulatory Area shall be labeled in such a way that each species and product category is identifiable. All species must be labeled using respectively the following data:
 - a) the Name of the capture vessel
 - b) the 3-Alpha Code for each species as listed in Annex I.C
 - c) in the case of shrimps the date of capture
 - d) the Regulatory Area and Division of fishing
 - e) the product form presentation code as listed in Annex II.K.
- 24.2 Labels shall be securely affixed, stamped or written on packaging and be of a size that can be clearly read by inspectors in the normal course of their duties.
- 24.3 Labels shall be marked in ink on a contrasting background.
- 24.4 Each package shall contain only:
 - a) one product form category
 - b) one division of capture
 - c) one date of capture (in the case of shrimps)
 - d) one species

Annex 25. Standardization of Conversion Factors in the NAFO Regulatory Area

(STACTIC Working Paper 12/39, Revision 3 **now** FC Doc. 12/21)

Background

Conversion factors are used to determine the live weight of fish by applying the factor to processed catch. Inaccurate conversion factors could contribute to inconsistencies in fish removal estimates. In addition, consistent conversion factors are required to ensure accuracy in the sharing of quotas. The fishing industry has questioned why there is a variance in the conversion factors in the NRA.

It was agreed at the STACTIC intercessional meeting in May 2012 that CP's would provide a list of their domestic conversion factors to the Secretariat for further discussion at the annual meeting in September. The Secretariat has compiled a list of Conversion Factors by Contracting Party. (STACTIC WP 12/25 rev.1)

A preliminary analysis of the conversion factors has identified that there is a variation in the case of many fisheries. For example, for GHL Gutted, Head Off, Tail Off, the variation is from 1.39 - 1.50. In the case of skate wing the range was from 2.09 to 4.0.

Notwithstanding domestic conversion factors supplied by the Contracting Parties, the NAFO Conservation & Enforcement Measures state that when completing an inspection report "....when comparing entries in the production logbook with entries in the fishing logbook the inspector shall convert production weight into live weight guided by conversion factors used by the master." Inspectors have noted during inspections a variance in conversion factors for the same product. A difference in conversion factors when extrapolated over large amounts of catch could result in significant discrepancies in catch estimates.

Therefore to ensure accuracy of recorded catch it is important to use accurate and consistent conversion factors when converting product weight to live weight.

This was discussed in STACTIC at the annual meeting with the intent of finding a way forward in establishing consistent and accurate conversion factors. The discussion reflected that the range and variations are diverse and there is currently no basis to arrive a standard set of conversion factors. Domestic conversion factors may vary for many reasons and were not necessarily calculated using fish populations in the NRA. Furthermore, it appears that there hasn't been any recent sampling to determine conversion factors which may indicate that some of the more modern processing techniques have not been incorporated into current conversion factors.

Recommendation

It is recommended that the Fisheries Commission provide approval to STACTIC to develop a project to conduct scientific based, independent, and structured sampling of catches and product types in the NRA. The intent is to establish a recommendation for standard conversion factors for the primary species harvested. For example, participating Contracting Parties could provide independent observers to collect the preliminary data.

Canada volunteered to undertake the development of the methodology and framework for the project and present to STACTIC at the intercessional meeting in 2013. If approved at the STACTIC intercessional meeting the project would proceed without further Fisheries commission consideration and STACTIC will provide a status report to the FC at the next annual meeting.

Note: STACTIC is not seeking funding support from NAFO for this project.

Annex 26. Standardization of Observer program data and Reporting requirements in the NAFO Regulatory Area

(STACTIC Working Paper 12/41, Revised now FC Doc. 12/22)

Background

Under the Observer Scheme of the NAFO Conservation and Enforcement Measures Chapter V, fishing vessels operating in the NAFO regulatory area are required to carry independent and impartial observers.

In the 2012 Progress report of the Expert Panel, the Panel recommends that standard protocols be developed and applied for the reporting of NAFO observer information by all flag states.

This suggests that there is a need within the NAFO Conservation and Enforcement Measures to establish and submit standard data collection templates. This would ensure that data is collected and reported in a consistent and timely manner thereby facilitating the compilation and analysis of the observer data.

Recommendation

Establish a working group within STACTIC to identify a standard data collection format and process. The working group will prepare a paper for submission at a 2013 intercessional meeting with a view of adopting provisions in the NCEMS to have a standard observer collection template, and relevant protocols to complete and submit the information. Implementation of the measures would be effective for 2014.

The core Working Group will be based around the existing Editorial Drafting Group and other Contracting Parties are invited to participate.

Annex 27. Closure of 3M Redfish Fisheries when TAC has been Reached

(FC Working Paper 12/31, Revised **now** FC Doc. 12/9 (Revised))

Background

The NAFO Conservation and Enforcement Measures state in Article 5.2 that "Each Contracting Party to which a quota has been allocated shall close its fishery in the Regulatory Area for the stocks listed in Annex I.A on the date on which the accumulated reported catch, the estimated unreported catch, the estimated quantity to be taken before the closure of the fishery and the likely by-catches during the period to which the quota applies, equal 100% of the quota allocated to that Contracting Party."

In the case of 3M Redfish, footnote 8 of Annex I states that "The Executive Secretary shall notify without delay all Contracting Parties of the date on which, for this stock, accumulated reported catch taken by vessels of the Contracting Parties is estimated to equal 50% and then 100% of the TAC."

The Measures do not specify that Contracting Parties shall close its fishery for 3M Redfish when notified that 100% of the TAC is estimated to be taken.

Note: This proposal does not preclude the Contracting Parties identified in footnote 19 of Annex I which identifies Contracting Parties permitted to fish their quota in its entirety.

For clarity it is recommended that Article 5.2, footnote 8 and 19 of Annex 1.A be amended.

Proposed Amendments

The current Article 5.2 will become Article 5.2(a)

In addition add the following paragraph as 5.2(b)

5.2(b) The Executive Secretary shall notify without delay all Contracting Parties of the date on which, for 3M Redfish, the accumulated reported catch taken by vessels of the Contracting Parties is estimated to equal 50% and then 100% of the TAC. Each Contracting Party shall ensure that after it has been notified by the Executive Secretary that 100% of the TAC is taken, no more 3M Redfish, caught after that date, is retained onboard its vessels.

Amend footnote 8 of Annex I.A by removing the following text

'The Executive Secretary shall notify without delay all Contracting Parties of the date on which, for this stock, the accumulated reported catch taken by vessels of the Contracting Parties is estimated to equal 50% and then 100% of the TAC.'

Replace footnote 19 of Annex I.A with the following text

19. Notwithstanding the provisions of footnote 8 and Article 5.2 (b) and without prejudice to future agreements on allocations, these quotas may be fished in their entirety by these Contracting Parties.

Annex 28. Provision of VMS Data to NAFO Constituent Bodies

(FC Working Paper 12/15 now FC Doc. 12/8)

Considering that following specific requests from the Fisheries Commission to the Scientific Council, VMS data is currently available in a summary form to the Scientific Council (NAFO Conservation and Enforcement Measures, Article 26.10(d));

Mindful that although VMS data is primarily collected for MCS purpose, it is also a useful source of information for scientific and statistical purposes;

Recognizing that VMS data has previously been used by NAFO to meet a range of management and science needs including delineation of NAFO's fishing footprint and the modeling of by-catch thresholds for the management of VME species in the NRA;

Noting that the Performance Review panel recommended that NAFO should consider rules to govern the use of VMS data, specifically how and why VMS data should be used, while avoiding overly-restrictive usage conditions;

Seeking to make access and use of NAFO VMS data efficient in order to it meet the needs for both scientific advice and compliance monitoring, as recommended by the *Expert Panel Regarding Assessment of the Methodology Used by NAFO Scientific Council to Estimate Catches for NAFO Stocks;*

Recalling that the General Council Action Plan for the Implementation of the Performance Review Recommendations encourages the use of VMS data by Scientific Council for preparation of advice;

Conscious of the need to maintain industry confidentiality of VMS data (i.e. commercial sensitivity of detailed fishing location);

It is recommended that Article 26.10 (d) be amended as follows:

(d) makes VMS data available in a summary form, that does not include the vessel's identification, to the Scientific Council and other NAFO Constituent bodies to allow them to carry out their mandated responsibilities.

PART II

Report of the Standing Committee on International Control (STACTIC)

34th Annual Meeting St. Petersburg, Russian Federation 17-21 September 2012

1. Opening by the Chair, Gene Martin (USA)

The Chair opened the meeting at 2:00 p.m. on Monday, September 17, 2012 at the Park Inn, Pribaltiyskaya in St. Petersburg, Russia. The Chair thanked Russia for hosting the meeting and welcomed the representatives of the following Contracting Parties (CPs): Canada, Denmark (in respect of Faroe Islands and Greenland), the European Union, France (in respect of St. Pierre and Miquelon), Iceland, Norway, the Russian Federation, Japan, and the United States.

2. Appointment of Rapporteur

Brent Napier (Canada) was appointed Rapporteur.

3. Adoption of Agenda

The following amendments were made to the agenda:

- 1. Canada requested the following changes to the agenda:
 - a. STACTIC WP12/35: Product labelling (Article 24) to replace STACTIC WP 12/15: Product Labelling and Stowage (Article 24) and 12/18: Product Labelling by Division and date of capture (Article 24) under combined agenda item 10 e) and f); and
 - b. STACTIC WP 12/36: Immunities from jurisdiction of inspectors be added under agenda item 14.
- 2. DFG requested the following substitution in the agenda:
 - a. Replacement of STACTIC WP12/1: Proposal to improve the NCEM Chapter III Vessel Requirements and Chartering with STACTIC WP12/31: Modification of NCEM Article 22 under agenda item 10 a); and
 - b. Replacement of STACTIC WP12/2: Discussion paper on the improvement of the monitoring of the quota uptake with STACTIC WP12/32: Proposal to improve the transparency of the quota uptake under agenda item 10 b).
- 3. The NAFO Secretariat requested that STACTIC WP 12/30: Consideration of a joint NEAFC/NAFO *ad hoc* Working Group on the Advisory Group on Data Communication (AGDC) be added under agenda item #14.
- 4. France (SPM) requested that STACTIC WP12/34: Proposed Amendment to NCEM Annex IV.B be added as agenda item 10 l).
- 5. The Chair noted the following work assigned by Fisheries Commission:
 - a. FC Working Paper 11/13: PRP recommendations relevant to STACTIC under agenda item 4;
 - b. FC Working Paper 12/5: Additional PRP recommendations relevant to STACTIC under agenda item 4;
 - c. FC 12/8: Expert Panel Recommendations relevant to STACTIC under agenda item 4; and
 - d. Clarification of the process concerning the closure of the redfish fishery in Division 3M under agenda item 14; and

These changes were agreed to and the agenda was modified accordingly. (Annex 1)

4. Consideration of Recommendations from the Performance Review Panel (PRP) and Expert Panel Recommendations Relevant to STACTIC

a. The Chair communicated the direction provided by Fisheries Commission calling for STACTIC to provide feedback on the three recommendations contained within FC Working Paper 11/13.

PRP Recommendation: Relevant to Incorporating FAO Port State Measures Agreement – STACTIC representatives recommended awaiting NEAFC deliberations on this issue, scheduled to conclude in November 2012, to benefit from the considerable work already underway on this issue. STACTIC would then undertake a review of the outcomes of the NEAFC exercise to determine possible application in the NAFO context. Noting the importance of the effort of NEAFC, Japan pointed out that sufficient and reasonable time should be provided to non-NEAFC member countries for their consideration.

PRP Recommendation: Relevant to Clarification of Definition of Shark Weight – STACTIC representatives clarified that the term "shark weight" was intended to reference "live weight". At this time STACTIC does not consider it a priority to develop a definition of processed weight given sharks are rarely taken in the NRA.

PRP Recommendation: Relevant to Labelling Catch by Stock Area – STACTIC representatives noted that STACTIC WP 12/35 (revision 3), discussed, and recommended for Fisheries Commission adoption, under agenda item 10 e) contained elements that would address the PRP recommendation to improve product labelling to facilitate the traceability of fish.

b. The Chair further noted that STACTIC was also directed by Fisheries Commission to review FC Working Paper 12/5 and again provide feedback on the recommendations.

PRP Recommendation #23: Lost and abandoned fishing gear and environmental protection

Lost and Abandoned Fishing Gear

The EU introduced STACTIC WP 12/33 with the view to addressing the elements of this recommendation related to lost and abandoned fishing gear, noting the text was derived from relevant NEAFC measures. The US noted that the proposal would be consistent with IMO provisions requiring the reporting of lost gear, when gear posed a navigation hazard. Canada noted that despite the wording of the PRP recommendation that management measures only apply in the NRA. CPs agreed that vessel Masters should be responsible to take all reasonable action, however there would be no mandatory obligation placed on vessel Flag States to take action beyond the Masters efforts given the logistical impracticality. The EU introduced STACTIC WP 12/33 (revision 2) which incorporated changes to the original proposal that reflect comments made during the discussions, including language to address safety implications.

It was agreed that STACTIC WP 12/33 (revision 2) would address the lost and abandoned gear component of recommendation #23 and should therefore be forwarded to Fisheries Commission for adoption.

Environmental Protection Issues

The EU noted that WP 12/38 was drafted in response to the PRP recommendation concerning pollution in the NAFO Convention Area. The Chair notes the adoption of the proposal would oblige CPs to recognize international obligations and commit to taking the necessary steps to comply with the proposal.

The Chair and other CPs expressed uncertainty as to whether to proceed with the proposal under current NAFO Convention, or postpone discussion until the new Convention was ratified. The US endorsed the principle but suggested the need to consider the elements in the broad context of international law and its application in NAFO. CPs expressed the desire to reflect on the matter with the view to revisiting the issue at the next STACTIC Intersessional.

It was agreed that although STACTIC WP 12/38 (revised) may address the pollution component of recommendation #23, further reflection would be required as to whether STACTIC is the appropriate NAFO body to decide on the matter. STACTIC will revisit the issue at its next Intersessional.

PRP Recommendation #27: Equitable sharing of inspection cost

The Chair noted that the recommendation was to identify ways of equitably sharing of inspection coverage. The Chair noted that currently, the only enforcement obligation within the CEMs Joint Inspection and Surveillance Scheme (Article 28) was to maintain an inspector or competent authority in the NRA or territory of a CP adjacent to the Convention Area where the CP had more than 15 fishing vessels operating at any one time in the NRA.

Canada noted a decrease in number of fishing vessels active in the NRA in recent years and point out that efficiencies have been gained through an increasing trend in CP joint inspections and in-port cooperation. The US shared the

Canadian sentiments and noted the compliance report comprehensively documents these joint compliance activities and developments, such as the planned patrols of a US cutter in 2013.

The EU noted that NAFO benefits from both voluntary and obligatory enforcement participation and, referring to the 2003 NAFO Annual meeting request on this issue, the feasibility of maintaining a centrally managed NAFO inspection program, where all CPs would contribute, was previously explored and deemed undesirable at the time.

STACTIC did not currently see this as an issue in light of advancements in cooperation, increased sharing of information, evolved compliance review process, increased joint enforcement activity and fewer fishing vessels. While STACTIC does not see this as an issue, it will take it under advisement and continue to look for other means to improve cooperation between CPs, where they may exist.

PRP Recommendation #27-28: follow-up on infringements

The Chair noted that the recommendation was based on incorrect information (reversal of numbers) causing the panel to make recommendations based on incorrect data. The Chair further elaborated that the annual compliance review process had not identified any such failure on the part of CPs over the last number of years.

Canada noted that one possible area of improvement could be to encourage increased comprehensiveness of the information provided by CPs on the disposition of infringements. The EU noted that STACTIC has, and continues to, evolved its reporting scheme.

STACTIC noted that erroneous data used in the review contributed to this recommendation and that significant progress has been made in this area as reflected by the annual compliance review reports. No further action, other than continued monitoring of follow-up on infringements, is needed.

PRP Recommendation #29: FAO Port State Measures

The Chair reiterated that STACTIC representatives recommended, at the intercessional meeting, awaiting NEAFC deliberations on this issue, scheduled to conclude in November 2012, to benefit from the considerable work already underway on this issue.

STACTIC representatives recommended awaiting NEAFC deliberations on this issue to benefit from NEAFC experiences with this exercise.

PRP Recommendation #30: Cooperation with RFMO's - IUU listing

The Chair noted that NAFO has already taken steps to address this through Article 51.6 of the CEMs, which mandates the transmission of relevant information regarding the NAFO's IUU list to select RFMO's and other regional fish management organizations.

STACTIC representatives agreed that the CEM Non-Contracting Party Scheme adequately addressed this recommendation.

PRP Recommendation #31: Further consideration given to trade/market measures

The Chair noted that Articles 52 and 53 considered trade related measures in the case of IUU vessels (e.g. prohibitions on imports of fish from IUU vessels).

The EU agreed that provisions already exist with the CEMs, but noted that NAFO may wish to explore approaches adopted in other RFMO's, such as catch documentation schemes (CDS) to improve traceability noting that NEAFC is considering CDS for incorporation into its measures.

STACTIC agreed that the existing scheme to address IUU in the NRA contains possibility of implementing trade measures and noted that CPs were free to implement additional trade related measures on an individual basis. STACTIC will continue to reflect on possible improvements to the CEMs related to market/trade measures.

PRP Recommendation #34: Reports should be as succinct as possible

Canada noted continual improvements are being made to STACTIC reports, in particular respecting the development of a comprehensive annual compliance report. CPs noted the recommendation and will endeavour to continue to improve the quality of reports.

STACTIC continues to work on improving reports and encourages CPs to further implement this recommendation.

c. The Chair advised that STACTIC was also directed by Fisheries Commission to review FC Working Paper 12/8: Expert Panel Recommendations relevant to STACTIC and provide feedback on the recommendations related to catch estimates.

The Chair noted that there was insufficient time to fully consider these recommendations, but the following preliminary feedback is provided.

PREP Recommendation: Timely Availability of STATLANT Data – The Secretariat provided STACTIC with an overview of the STATLANT 21 process – and noted responsibility for this falls under SC. There are no measures in the CEM related to STATLANT or reporting data to be used to compile STATLANT. If FC desires for such measures to be included in the CEM it needs to give specific direction to do so, STACTIC agreed to reflect further on the issue and revisit the recommendation at its next Intersessional.

PREP Recommendation: Standard Protocols for NAFO Observer Information – Canada noted that it was developing a Working Paper that could potentially address this issue. STACTIC agreed to revisit the recommendation at its next Intersessional.

PREP Recommendation: Inclusion of Hours Fished – STACTIC noted that STATLANT already requires hours fished to be reported. STACTIC WP 12/16 (revision 3) adopted by STACTIC, requiring tow by tow information should facilitate the calculation of actual hours fished. STACTIC agreed to revisit the reporting of such information to the NAFO Secretariat at its next Intersessional.

PREP Recommendation: Database Management - STACTIC noted that examining VMS enforcement applications remains part of its regular business. STACTIC agreed to revisit the recommendation at its next Intersessional.

5. Compliance review 2011 including review of reports of apparent infringements

The Chair introduced the agenda item and noted improvements to the compliance report contained within STACTIC WP 12/28. The Chair observed that the report required the completion of the "conclusions" section and noted that these were traditionally drafted by an informal STACTIC working group of experts. The EU suggested that the same approach again be used to draft the compliance report conclusions. The informal group convened and later presented STACTIC WP12/28 (revised), which contained updated trends and a recommendations sections including areas of planned expansion.

Canada commended the work done by the NAFO Secretariat to compile the compliance report and acknowledged improvements over previous reviews. Canada did, however, note some discrepancies within the compliance report and agreed to work with the Secretariat on the issue. Canada expressed the view that, in addition to addressing discrepancies in the current review, continued improvements should be sought through the expansion of data elements. Canada noted that this expansion would allow for augmented trend analysis (e.g. fishing effort by water depths, division and species) and would permit the identification of trends/patterns that would facilitate patrol planning and potentially provide SC with additional data. Canada committed to developing a working paper in advance of the next Intersessional to explore these elements. DFG supported Canada's suggestions and noted that STACTIC had previously discussed expanding the reporting elements at earlier meetings. DFG further suggested the Secretariat should be engaged in this process to advise on available data elements.

The Secretariat presented FC Doc. 12/4 which contains a summary of inspections and the disposition of apparent infringements report provided by Contracting Parties. The US and the EU noted some missing boarding information and the US committed to working with the Secretariat to update the information. Canada remarked that although it was pleased to see long-standing cases being addressed, it had some serious concerns regarding what message was being sent to industry when there was no official follow-up to infringements, or when only nominal fees that had little or no deterrent effect were applied. Canada reminded STACTIC members of the committee's mandate to promote and safeguard the effectiveness of NAFO's compliance regime, including the mandatory follow-up on all infringements. Canada noted that some gains have been made, however there continues to be cases of measures not being strictly applied. Canada concluded by observing that serious infringements have been more adequately addressed in recent years, which made it hopeful that continuing progress on this issue could be made.

The EU shared Canada's position that the rules must be respected and applied equally by all CPs. It noted that sanctions are based on national laws and that work was underway in the EU on a standard sanction system to address the disproportional nature of applied sanctions. The EU reaffirmed its commitment to applying the measures, however cautioned STACTIC representative regarding creating measures that outstrip a CPs domestic legislations ability to react.

It was agreed to forward the 2011 Compliance Review (STACTIC WP 12/28 (revised)) to Fisheries Commission for consideration and adoption.

6. Review and evaluation of NAFO Practices and Procedures

The Chair introduced this standing agenda item and reminded representatives that the intention of this item was to provide CPs with the opportunity to share domestic practices and procedures. There were no presentations offered under this agenda item.

STACTIC decided to include on this website, information presented on CPs' conversion factors (STACTIC WP 12/25 revision 2) and a comparative table prepared by the EU (as updated by the Secretariat) reflecting CP conversion factors for NAFO regulated species.

7. Review of current IUU list pursuant to NAFO CEM Article 51.3

The NAFO Secretariat presented STACTIC Working Paper WP 12/23, noting that the IUU list was last reviewed at the STACTIC Intersessional in May and that there had been no changes since the review.

The Chair reminded representatives that they were asked to review the list and provide evidence related to any vessels that may meet the delisting criteria in order to facilitate the updating of the list. The Chair encouraged CP's to ensure that any evidence provided was of a substantive and official nature.

The EU noted that it had information indicating that a vessel on NAFO's IUU list had been rendered unserviceable and that it would endeavour to collect the supporting documentation. The EU noted that IUU vessel list accuracy and delisting would be relevant to all RFMO's and best practices should be shared.

DFG noted that sighting information should be updated and that additional information related to the disposition of the vessel should be collected. DFG indicated that supplementary information could include elements such as last know position or location and images of the vessel to assist with identification. The Chair noted that "sighting" information was not being collected and CPs should endeavour to submit any relevant information related to the IUU listed vessels to the NAFO Secretariat. The Chair further noted that STACTIC's function was to scrutinize the IUU vessel list to better capture delisting and promote the maintenance of an accurate list.

The US suggested the collection of hull stamps, generally located on the keel, could be collected where possible and made available in conjunction with other information already collected to assist in vessel identification. The Chair requested that the US look into the issue and provide additional guidance to STACTIC at the next Intersessional. DFG offered that the certification of nationality contains information on where hull stamps should be located on a vessel.

Further consideration was given to the issue of delisting and CPs were encouraged to ensure evidence submitted, related to delisting, was of a substantive and official nature. STACTIC reviewed the IUU vessel list and noted that there were no changes to the list. Accordingly, no further action related to the NAFO IUU list was required.

8. Inspectors Web Page

The Chair noted that the NAFO Secretariat had provided a report on the development of the inspectors webpage at the May Intersessional, concluding that Phase 1 was completed, although CPs were free to provide further input on improvements to the webpage. The Secretarial also explained that access to the website is possible through authorization of the head of delegations of CPs and the assignment of a password. The Chair reminded participants that this was a four-phase project with Phase 1 now complete, Phase 2 approved and under development, and Phases 3-4 to be approved and developed at a future time.

The Secretariat presented an update on the initiative and advised that the next step was to work with the developer on elements (as identified in WP 12/26 annex 2) to complete Phase 2 for the next Intersessional. CPs were further advised that Phase 2 would contain the at-sea inspection elements, with Phase 3 likely to include port inspection elements.

It was agreed that the Chair would report to Fisheries Commission that:

- Phase 1 has been successfully completed;
- Delegation Heads, who have not already done so, should identify to the NAFO Secretariat any user who should have access to the webpage; and
- Elements under Phase 2 are being developed and should be ready for demonstration at the next STACTIC Intersessional, in spring of 2013.

9. Editorial Drafting Group of the NAFO CEM (EDG)

The Chair introduced the initiative and requested that the EDG provide an update on its continuing work and priorities. The EDG provided a presentation (Annex 2) outlining the initiative and providing an overview to the representatives on

progress and next steps, including its intention to continue work as specified in that annex, particularly Articles 5 and 6.

The Chair observed that style/format standards should developed for changes to the CEMS to ensure continuing uniformity and safeguarding of the revised CEMs format. The Chair committed to drafting a guidance document at a subsequent meeting for discussion at STACTIC.

The EDG also presented STACTIC WP 12/40 for the purpose of clarifying issues encountered during its work on Phase 2. The EDG explained that the changes were primarily intended to clarify CEM provisions and make non-substantive editorial adjustments. Russia and DFG requested time to reflect. The Chair encouraged CPs to review the changes to facilitate adoption at the STACTIC Intersessional. The Chair thanked the EDG for there efforts and closed the agenda item.

It was agreed to defer STACTIC WP 12/40 to the STACTIC Intersessional to provide CPs with sufficient time to review the proposal.

10. Possible revisions of the NAFO CEM

a) Authorization to fish

DFG presented STACTIC WP 12/31 and noted it replaced STACTIC WP12/1.

The EU observed that the proposal added clarity to the existing provisions, however sought clarification on a number of issues and questioned why freezing capacity of vessel should be included. The US voiced concerns regarding refrigeration certification and the impact it may have on domestic vessels. The EU noted that there were international standards that could be applied and offered to work with the US on clarifying the issue.

FRANCE (SPM) supported the presentation that was obviously inspired by the NEAFC format, however preferred that language related to the capacity plan would not be as prescriptive. Japan and others expressed support for this paper. The US supported the FRANCE (SPM) position and preferred to see more flexibility in the capacity plan specification. The US also noted that the EDG was working on the issue based on a NEAFC review and would likely need additional time to review the issue.

DFG noted that the scale could be flexible, however the inspector should be able to measure whether the plan matches the hold.

Canada generally supported the proposal but noted that freezing capacity would not be applicable in all cases, as some vessels do not freeze the catch (e.g. fresh-fish vessels). Canada noted that a capacity plan standard scale was a good idea, as it was a key tool used by inspectors to calculate capacity. However, Canada was uncertain whether the proposed scale was the appropriate standard.

It was agreed to forward STACTIC WP 12/31 (revision2) to Fisheries Commission for adoption.

b) Monitoring of Catch (Article 25)

DFG presented STACTIC WP 12/32 (revised) and noted that the proposal reflected discussions held during the recent STACTIC Interssessional. The US noted efforts to address confidentiality concerns and along with Norway supported the proposal.

The EU opposed the measure citing the existence of an elaborate monitoring system available to those CPs with an inspecting presence in the NRA. The EU further noted that the lack of access to data on fishing activities for CPs without inspection presence is based on existing rules. If CPs wanted access to information they could participate/contribute in the inspections process, as suggest by the PRP in recommendation #27. Other CPs expressed similar concerns.

DFG noted that this proposal would demonstrate to SC that there is transparency in the fishery. The EU remarked that there was a mixing of problems and that the reliability of data is another debate. DFG agreed to work with the CPs, in particular the EU, on matters related to this issue.

There was no consensus on this issue and the agenda item was closed. The Chair noted that DFG was free to continue to seek support for this proposal.

c) Mid-water trawl in the 3M and 3O Redfish fisheries

Russia presented STACTIC WP 12/4 (revised) and explained the proposal was intended to better define mid-water trawl. Canada voiced support, however suggested a minor editorial change for clarity. The US noted the proposed

language was similar to US domestic regulations and supported the proposal. Russia presented STACTIC WP 12/4 (revision 3) to reflect comments made during the discussion.

It was agreed to forward STACTIC WP 12/4 (revision 3) to Fisheries Commission for adoption.

d) Observer Program (Article 27)

The Chair reminded representatives that the objective of this agenda item was to seek views on how the compliance observer program could work in the future and opened the floor for comments.

The EU noted the longstanding nature of this agenda item and remarked that the EU has explained its view at past meetings. The EU reaffirmed that it was in favour of keeping a compliance observer program, but noted that the current scheme was 15 years old and should be revisited given progress that has been made and advancements in technologies. The EU voiced concerns that the current system was costly, ineffective and should be revised noting that its proposal, STACTIC WP 11/27, that proposes the current observer program to move from 100% coverage to a case by case basis is still tabled for adoption. The EU suggested that Fisheries Commission should consider the feasibility of creating an independent NAFO observer program. Norway supported the idea that the observer program required revisions to take advantage of more modern tools and technology and to ultimately allow for consideration of coverage level reductions

Canada advised that it was open to new approaches in relation to observers and reminded representatives that it had submitted a working paper (STACTIC WP 04/29) in 2004 that proposed a risked-based approach to reductions below 100%. Canada noted that science still required information, such as catch per unit of effort, however this need could likely still be met with reduced coverage. Canada stated that with random observer distribution, to allow scientific sampling, a 15% to 20% coverage rate would likely suffice (but would increase with risk). Canada believes there is a role for the observer program in NAFO and that with additional checks and balance, such as tow-by-tow reporting and diligent inspections NAFO could move observer coverage rates away from 100%. Canada noted other elements that would need to be in place to facilitate an observe coverage reductions, such as timely provision of data in more frequently intervals – e.g. daily. Canada advised that it could support modifying the current observer scheme under certain conditions, and would be willing to work with CPs to explore options. Canada supported the EU suggestion regarding the possible option of an independent program, if it could be done in a cost effective manner, or alternatively, a CP could volunteer to take on the coordination role. Canada noted other improvements to the current program could include rotating observers, so as not to have an observer staying on the same vessel for an entire trip, or alternating observers so they are not working on a vessel from their CP.

Iceland questioned, given the main objective of the observer scheme was to obtain information on catches, whether the system was really necessary when one could accomplish this task by using catch data from daily catch reports and from electronic log books and surveillance. Iceland further noted that Article 27 b) of the CEMs already permits a 25% coverage level, made possible by electronic reporting, and questioned whether more data could be captured through other means. Iceland concluded that, in the event that some changes will be made, Article 27 b) should remain unchanged or further reduced.

US voiced support for the observer program, noting it is key to administering and monitor catch, however noted that its domestic observer program did not maintain a 100% coverage rate, rather it was based on a risk-based model that seeks to maximize the precision and representativeness of fishing operations. The US cautioned that any risk-based approach to deploy less than 100% observer coverage needs to consider multiple NAFO objectives, including but not limited to monitoring catch, compliance, and interactions with VMEs. The US also noted that it could support an independent observer program given the benefits, in particular gaining objectivity that is a challenge in a non-independent scheme.

In response to PREP recommendation (FC WP 12/8) calling for standard protocols to be developed and applied for the reporting of NAFO observer information, Canada tabled STACTIC WP 12/41 that proposed a standardized observer reporting framework. CPs discussed the proposal and agreed to support the initiative. The US noted that an observer report template is currently available on the NAFO website. US observers currently use this template when submitting observer reports to NAFO. Canada noted that this template needs to be reviewed to ensure it reflects existing observer requirements. The Chair asked about options for proceeding. Canada suggested the use of the EDG group, with any other interested parties would be the most practical approach. It was agreed to use the existing EDG group to develop the formats.

It was agreed:

• That CPs would engage in a collaborative effort, using the EU proposal as a starting point, to explore

possible revisions to the NAFO Observer program that could be discussed at the next STACTIC Intersessional;

- That STACTIC should seeks guidance from Fisheries Commission on how to proceed with assessing an independent NAFO Observer program given the costs and implications of this concept; and
- To forward STACTIC WP 12/41 (revised) to Fisheries Commission for adoption.

e) Product labelling by division and date of capture

The Chair opened the discussion and noted the merger of STACTIC WP12/15 and STACTIC WP 12/18 into STACTIC WP 12/35. Canada presented the merged working paper and explained the linkage to PRP recommendations (GC Working Paper 11/2) intended to improve the traceability of fish.

The US supported the principle to facilitate the inspection process, however recognized that industry conducted a bulk buying of labels and would require time to comply with any new labelling provisions. Canada noted that the provision would not come into effect until next year, providing adequate time for vessels to adjust.

Iceland supported the concept but questioned how the label could always be visible. Russia also voiced concerned that the label cannot always be visible. DFG supported Iceland's remark, noting the use of a labelling machine restricted the areas where the box can be marked. DFG also noted concerns over the proposed mandatory size of label, again due to the restrictive nature of the labelling machine. Canada agreed to strike the proposed new language and revert to the current language related to labels being "visible". The EU noted that the proposal was in line with PRP recommendations, however but did not support the "date of capture" provision for all species as it wished to avoid the reporting becoming unnecessarily difficult.

Canada introduced revised working paper reflecting the discussion and summarized the modifications. Canada reiterated the need to attribute fish to the area of capture in order to deal with different management regimes and promote improved traceability. Canada indicated that labelling provisions are important in at-sea inspections and would revisit further improvements at future meetings.

It was agreed to forward STACTIC WP 12/35 (revision 3) to Fisheries Commission for adoption

f) Product labelling and stowage

This agenda item was combined with 10 e)

g) Catch recording in log books

The Chair asked Canada to present STACTIC WP 12/16 and explain the elements of the proposal on tow (set) by tow (set) reporting in relation to catch recording in logbooks. Canada explained that many CPs already domestically require tow by tow recording and that SC had requested clear, tow by tow information. Canada noted that this data could also be used by NAFO inspectors to verify compliance with the CEMs. Russia supported the proposal as it was already a requirement in Russian logbooks.

The EU noted it could support the proposal due to the PRP-transparency linkage, but noted that daily reporting of catch must be maintained and that it would not be in favour of linking the reporting to infringements. Canada did not envisage reporting after each tow, just to capturing the data and reporting as per current reporting periods.

Based on CP interventions, Canada combined comments and STACTIC WP 12/17 into STACTIC WP 12/16 (revised).

The EU supported the concept and encouraged CPs to move toward greater use of electronic reporting, noting EU vessels are now able to provide electronic reports, however the NAFO systems are not yet capable of exploiting this technology.

Canada reiterated the importance of the proposal given the linkage to the issue of catch estimates discrepancies. Russia noted its concerns over the treatment of confidential commercial information and expressed the desire to consult with industry. The US noted the Rules of Confidentially provisions that exist with the CEM (Annex II.B) and felt confident that confidentiality of information would not be an issue. Canada noted Russian concerns and offered to remove the logbook submission component noting the importance of maintaining the requirement for tow by tow documentation. Canada provided a revised proposal based on comments made during the discussion.

It was agreed to forward STACTIC WP 12/16 (revision 3) to Fisheries Commission for adoption with the understanding that the rules of confidentiality would be discussed at the intersessional so that fishing logbooks could be sent to the NAFO Secretariat.

h) Communication of catch in cases where by-catch limits are exceeded

This agenda item and STACTIC WP 12/17 was combined with 10 e) and STACTIC WP 12/16 (revised)

i) "Cancel" report

The Chair asked Russia to introduce STACTIC WP 12/20. Russia noted that it had first presented this proposal at the 2010 NAFO Annual meeting where it was agreed to have the AGDC technically review the proposal. Russia reported that the AGDC has since assessed the proposal and deemed acceptable. Furthermore, Russia noted that NEAFC adopted a similar proposal at its 2011 annual meeting. CPs fully supported the proposal in light of the AGDC assessment and its adoption at NEAFC.

It was agreed to forward STACTIC WP 12/20 to Fisheries Commission for adoption.

j) New error codes

Russia presented STACTIC WP 12/21 (revised) noting that a similar proposal had been adopted in NEAFC during its 2011 Annual meeting. Canada remarked that this was a source of endless frustration and fully endorsed the proposal to address this error code issues. DFG also fully supported the proposal.

It was agreed to forward STACTIC WP 12/21 (revised) to Fisheries Commission for adoption.

k) Amendment of Chapter I, Article 5.2

Russia presented STACTIC WP 12/22 (revised) noting that there appears to be a conflict in the CEM between the apparent implication of Article 5.2 requiring discards of fish once a quota has been reached and the desire in other provisions of the CEM to eliminate wasteful discards. This conflict was having a negative impact on the Russian NAFO fishery. Russia encouraged CPs to reflect on the requirements and possible options to address Russia's issue. Japan noted that it was expecting a discussion at Fisheries Commission on this issue. Canada noted that this was fundamentally an allocation decision and therefore a Fisheries Commission issue as noted by Japan.

The EU remarked that the EDG was currently working on this issue to clarify the wording of the existing system within the CEM and that through this it may become more apparent that the issue must be transferred to Fisheries Commission for resolution/direction.

Russia, DFG and Iceland noted issues with implementing these CEM provisions given inconsistencies with domestic regulations, prohibiting discards.

Russia suggested one possible solution, that would not require changing the entire system could be to develop new by-catch provisions for those CPs that have quota in this fishery. The EU expressed sympathy for the Russia position but noted that all CPs are confronted with the same problem and explained the EU manages the process through estimating by-catch to stay within quota limits.

It was agreed that the Chair would report to Fisheries Commission that STACTIC WP 12/22 (revised) was presented to STACTIC and highlight concerns raised during the discussion. The Chair will also note that STACTIC felt that this issue fell outside of its jurisdiction because it involves fundamental policy issues regarding discards and implied allocation issues and therefore would recommend that Fisheries Commission deliberate on the matter.

1) Proposed Amendment to NCEM Annex IV.B

FRANCE (SPM) presented STACTIC WP 12/34 and indicated that the objective of the proposal was to allow others besides authorized inspections to conduct sightings, effectively allowing a greater number of individuals to report information. Canada supported the concept, noting the more reporting on NCP activity the better.

The EU support the change and suggested widening the scope so as not to preclude anyone for providing information on NCP vessels. To this end, CPs agreed to remove the reference to "authorized inspectors" in favour of more generic terminology, allowing any CP official to provide such information to NAFO. FRANCE (SPM) revised its proposal to reflect the discussion.

It was agreed to forward STACTIC WP 12/34 (revision 1) to Fisheries Commission for adoption.

11. Standard Conversion Factors

This item was introduced by Canada at the intersessional meeting and received much discussion, although there were no specific recommendations put forward at the meeting. The Chair opened the agenda item and noted that the NAFO Secretariat had compiled the conversion factors provided by CPs, in accordance with a request to do so, made at the intersessional meeting. The Chair noted the elevated importance of this issue in context of General Council and Fisheries Commission discussions linked to catch estimate discrepancies.

Canada communicated the perception by industry that discrepancies indirectly lead to the acquisition of a greater quota (tonnage difference) irrespective of different processing formats. After reviewing the CP provided conversion factors Canada noted that NRA regulated species (e.g. RED, GHL, SKA, COD, PLA) had a large degree of variation within the same species. Canada further noted that SC believes that there is a potential linkage with catch estimates inaccuracies currently being discussed in General Council. Canada expressed its view that it would like to see standardization, to the degree possible, of NRA for regulated species conversion factors. Canada advised that it would be convenient to have everyone using the same conversion factors and suggested conducting NRA sampling with species and cuts to arrive at a consistent conversion factor in the NRA, possibly through an independent study. Canada noted that, given the relatively small volume of vessels operating in the NRA and limited number of species and associated product forms, a sampling methodology could be developed that would be unique to NRA regulated species. Canada concluded that addressing this issue was imperative given the effect on quota and inequalities created by using different conversion factors. The US noted that it could support the Canadian proposal.

The EU noted that there was much discussion on this issue at the last intersessional, however remarked that the extent and the degree to which the issue linked up with catch estimates was still not known. The EU noted that it could not constraint vessels based on market demands and that the fleet needed flexibility to change product forms, and therefore conversion factors, to respond to market demands. The EU also noted that any work in this area should not open the door to new infringements, as in the context of the CEM's, the use of vessel Master's conversion factors formed an adequate basis for verifying compliance.

FRANCE (SPM) observed that domestic regulations were based on scientific principles and yet there were still differences, therefore it was sceptical that even with science it would be possible to get to a single set of NRA conversion factors. The EU was not in favour of enlisting scientists and suggested the possible posting on the website of a single table, regrouping by regulated species product forms and corresponding conversion factors, to allow for easier comparisons and to permit a review of whether Master conversion factors fell within set ranges.

DFG expressed an interest in transparency as it relates to quota uptake and voiced support for an exercise to arrive at a standard conversion factor. DFG further noted that NEAFC had successfully conducted such an exercise for redfish and DFG and Russia had been able to bilaterally negotiated conversion factors for certain species under fisheries agreements.

In the interest of advancing this issue, the EU provided the Secretariat with an aggregated comparative table of the data derived from CP submissions and suggested that, both the table and the original submissions, be made available on the Practices and Procedures webpage to assist STACTIC with a further review and analysis.

To provide a way forward, Canada presented STACTIC WP 12/39 (revision 3) and gave a brief summary of the content, suggesting that Canada could hire an external project manager/coordinator, funded by Canada, to lead a project to establish standard conversion factors for the primary NAFO regulated species. Canada noted that, if approved by Fisheries Commission, it would agree to develop a project framework for consideration of STACTIC at its next Intersessional meeting. The intent of this proposal would be to have FC approve the development of this project and if agreed to by STACTIC at the intersessional, the project could be implemented without further consideration by the FC.

It was agreed to forward STACTIC WP 12/39 (revision 3) to Fisheries Commission for adoption.

12. NAFO VMS

The NAFO Secretariat elaborated on STACTIC WP 12/29 noting that it had contacted the current service provider (Visma) to review cost sharing and the possibility of a shorter term contract. The Secretariat advised that a new cost sharing arrangement would be more transparent and allow for a lower proportional charge to CPs, and that the service provider had no issue with a contract of a shorter term than 5 years.

The US noted its satisfaction with the service provider's performance, however advised that some costly updates had been necessary and its preference would be for a more cost-effective process, whether through shorter contract or other mechanism.

Canada also indicated that it had no issues with the current service provider's performance and suggested that it may be desirable to maintain a proven service provider that is familiar with NAFO's business. Canada also remarked that the proposed increase in fee was modest and within acceptable norms and that the use of option years on a contract might resolve the short versus long term contract discussion.

STACTIC agreed to recommend to Fisheries Commission that the Secretariat begin negotiations with the current VMS service provider (Visma) to renew the current contract for a further 5 years, or other term as may be recommended by STACFAD.

13. International Monitoring, Control and Surveillance (IMCS) Network

The Chair introduced the agenda item and pointed out the benefits and PRP recommendation, calling for greater integration with other international fisheries organization, would need to be weighed against costs (e.g. travel) and work obligations.

Canada noted that some CPs already individually attended the IMCS Network and questioned the added benefit given one of the organizations primary objectives is capacity development. Canada indicated that it was not opposed to information sharing and other cooperative engagement, however was not sure formally joining the organization was good investment at this time. Canada concluded that STACFAD should be consulted on available funds given this expense was not a priority and the organization itself has struggled since its inception.

The EU supported the Canadian comments, emphasising that joining an organization such as the IMCS Network should bring value to NAFO, and that did not appear to be the case at this time. DFG expressed its support for revisiting the issue at a later date. CP's expressed the desire to await the positions of other RFMO's, regarding joining the IMCS Network, as it was not known whether other RFMO's had chosen to join or not.

The US noted CPs that were already members of the IMCS Network could act as liaisons/observers as they do with other international fisheries organizations.

CPs agreed to report to the Fisheries Commission that there would be limited benefit to joining the IMCS Network at this time, given the added cost to NAFO and the fact that some CPs were already members. CPs further noted that the issue of membership could be revisited at a later date, as the IMCS Network evolves.

14. Other Matters

a. Immunities from jurisdiction of inspectors

Canada presented STACTIC WP 12/36 noting past events had made it apparent that this issue required some attention. Canada explained that the proposal did not create any new rights or privileges, rather it reflected existing international law and its inclusion in the CEMs would act to inform parties of the provisions and alleviate potential future incidents.

France (SPM) questioned whether it would not be more appropriate for General Council or Fisheries Commission to consider this issue. Russia supported the France (SPM) position, while DFG and Japan voiced the need to speak to their respective justice (legal) and foreign affairs ministries. Canada acknowledged the various positions and suggested CPs consult on the issue in advance of the next intersessional.

It was determined that more time was required to allow CPs to consult on the matter and reflect on which NAFO body was most appropriate to consider this proposal. It was agreed that STACTIC would revisit this matter at its next Intersessional.

b. Consideration of a joint NEAFC/NAFO ad hoc Working Group on the AGDC

The Chair asked the NAFO Secretariat to present STACTIC WP 12/30. The Secretariat provided a summary of the issue and explained that the paper endorsed the acceptance of the invitation to participate in the AGDC ad hoc working group.

Canada supported participation however sought clarification on the level of commitment required from CPs. DFG explained that technical representatives from all CPs would be welcome to participate, however participation would not be mandatory. DFG supported the initiative and encouraged participation from all CPs to facilitate greater harmonization and to allow both RFMO's to benefit from the group's work.

The EU also was fully in favour of accepting the invitation, especially in the context of NAFO's impending progression to electronic logbooks and the adoption of new data elements.

CPs agreed to recommend to the Fisheries Commission that NEAFC's offer, to co-establish the ad hoc Working Group on the AGDC, be accepted under the established terms of reference. Representatives from all CPs are invited to participate, including technical representatives. The Secretariats of NAFO and NEAFC will be responsible for the logistics of administering this working group.

c. Clarification of the process concerning the closure of the redfish fishery in Division 3M

The Chair noted that this agenda item was being considered at the request of the Fisheries Commission. Canada introduced STACTIC WP12/37, explaining that this proposal was drafted in response to the Fisheries Commission request calling for STACTIC to review closure procedures in this fishery in order to add clarity to the process and mitigate the risk of total allowable catch (TAC) overruns.

The Chair noted that Annex I.A, footnote 19, applicable only to France (SPM), Korea, US and DFG, was not considered in the paper and would need to be reflected. The US expressed the view that this proposal provided a good short-term solution, however noted that a longer-term solution should be reflected upon. Canada revised the working paper based on comments and resubmitted it to the CPs for consideration. Canada further noted that the proposal was only intended to address the process for closure and not delve into issues related to the management of the fishery. Russia did not support the proposal as it felt it would encourage discards. The Chair pointed out that this recommendation provides wording requested by the Fisheries Commission concerning the closure of the redfish fishery in Division 3M and is left to Fisheries Commission to consider its inclusion in the CEM.

It was agreed to forward STACTIC WP 12/37 (revision 3) to Fisheries Commission for its consideration.

15. Election of Chair and Vice Chair

The Chair noted that his term as STACTIC Chair had concluded and opened the floor to nominations.

Canada supports the re-nomination of Gene Martin (US) as Chair of STACTIC. All CPs supported the re-appointment and thanked the Chair for his continuing service. The Chair graciously accepted the re-appointment.

The US nominated Aronne Spezzani (EU) to the position of Vice Chair. CPs supported the nomination.

16. Time and Place of Next Meeting

STACTIC is tentatively planning to meet at NEAFC Headquarters in April or May, 2013.

17. Adoption of Report

The report was adopted by Contracting Parties on Thursday, September 20, 2012.

18. Adjournment

The Chair adjourned the meeting at 1:42 p.m. on Thursday, September 20, 2012.

Annex 1. Agenda

- 1. Opening by the Chair, Gene Martin (USA)
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Consideration of Recommendations from the Performance Review Panel and Expert Panel Recommendations Relevant to STACTIC
- 5. Compliance review 2011 including review of reports of Apparent Infringements
- 6. Review and evaluation of Practices and Procedures
- 7. Review of current IUU list pursuant to NAFO CEM Article 51.3
- 8. Inspectors Web Page
- 9. Editorial Drafting Group of the NAFO CEM (EDG)
- 10. Possible revisions of the NAFO CEM
 - a) Authorization to Fish
 - b) Monitoring of Catch (Article 25)
 - c) Mid-Water trawl in the 3M and 3O Redfish fisheries
 - d) Observer Program (Article 27)
 - e) Product labelling by division and date of capture
 - f) Product labelling and stowage
 - g) Catch recording in log books
 - h) Communication of catch in cases where by-catch limits are exceeded
 - i) "Cancel" report
 - j) New error codes
 - k) Amendment of Chapter I, Article 5.2
 - 1) Proposed Amendment to NCEM Annex IV.B
- 11. Standard conversion factors
- 12. NAFO VMS
- 13. International Monitoring Control and Surveillance (IMCS) Network
- 14. Other Matters
 - a) Immunities from jurisdiction of inspectors
 - b) Consideration of a joint NEAFC/NAFO ad hoc Working Group on the AGDC
 - c) Clarification of the process concerning the closure of the redfish fishery in Division 3M
- 15. Election of Chair and Vice-Chair
- 16. Time and Place of Next Meeting
- 17. Adoption of Report
- 18. Adjournment

Annex 2. Presentation by Editorial Drafting Group of the NAFO CEM (EDG)

EDG Phase II Priorities

Divided into 3 groups:

- 1. Core issues for reorganization
- 2. Clarification of existing measures
- 3. Issues for further discussion

Core Issues for Reorganization

- 1. Catch and Bycatch (Articles 5, 6, and parts of 9)
 - Redraft articles into new style and organization
 - Better distinguish directed stock quotas and "others" quotas
 - Clarify how bycatch ratios are applied (trip, cumulative, etc)
 - Clarify application of closures (directed fisheries)
- 2. Non-contracting party scheme (Articles 45-53)
 - Redraft section into new style and organization
- 3. Any other issues that may be raised

Clarification of Existing Measures

- Article 1 Define regulated as those listed in Annex I.A and B
- Article 7.9 Adding parenthesis for consistent format
- Article 13(d) 130 mm mesh applies to groundfish defined in Annex I.C
- Article 16.1 Insert new Figure 2 for seamount, coral and sponge protection zones
- Article 22.3 Clarify applicability of NOT messages
- Article 25 Clarify elements of fishing and production logbook and stowage plans
- Article 26 Replaced "data" with "position data" throughout for clarity
- Article 30 Reorganize paragraph 2 and clarify how long Secretariat must maintain surveillance reports
- Article 36.2 Clarify language regarding applicability of notices of infringements
- Annex II.A Reorganize logbook elements and clarify gear used
- Correct several inaccurate references and capitalization errors

Issues for Further Discussion

- 1. Define which skate species referenced in Annex I.A.
- 2. Specify uniform conversion factors to convert product weight to live/round weight for all stocks.

EDG Phase II Progress

- Core issues for reorganization Still pending
 - o Meeting scheduled for October 23-25 in Boston
 - o Proposals for Articles 5 and 6 are nearly complete
 - o Intention to finalize by next intersessional meeting
- Most clarification issues **Mostly resolved**
 - o Working paper presented (STACTIC WP 12-40)
- 1 issue for further discussion by STACTIC
 - o Working paper on conversion factors pending (STACTIC WP 12-25)

SECTION IV (pages 221 to 237)

Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME)

23-25 April 2013 Halifax, Nova Scotia, Canada

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Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Vulnerable Marine Ecosystems (WGFMS-VME)

(FC Doc. 13/3)

23-25 April 2013 Halifax, Nova Scotia, Canada

1. Opening of the Meeting

Vladimir Shibanov (Executive Secretary, NAFO Secretariat) opened the meeting at 1015 hrs on Tuesday, 23 April 2013. He welcomed the participants from Canada, European Union, Iceland, Japan, Norway, Russian Federation, and the USA (Annex 1).

2. Election of Chair

Bill Brodie (Canada) was elected chair. The chair presided over the subsequent agenda items.

3. Appointment of Rapporteur

Ricardo Federizon (NAFO Secretariat) was appointed rapporteur.

4. Adoption of Agenda

The provisional agenda as previously circulated was adopted (Annex 2). Under Others Matters is an update-presentation on the NEREIDA project.

5. Consideration of amendments to the closed areas (as defined in Article 16 of the NCEM) in view of the latest available scientific information

The consideration of amendments to the closed areas represents a follow-up evaluation of the three proposals, first tabled and discussed at the 2012 Fisheries Commission Annual Meeting in St. Petersburg Russia, to modify the boundaries of some existing closed areas and to create new closed areas. The common purpose is to protect the areas where significant concentrations of VME indicator species were discovered during the scientific surveys of the NAFO Regulatory Area. The three proposals are

- Proposal for a conversation measure concerning the extension of Closed Area 2 in order to protect significant concentrations of large gorgonians (Corals) (FC WP 12/17)
- Proposal for a conversation measure concerning the extension of Closed Area 10 and the creation of a Closed Area 12 in order to protect significant concentrations of sea pens (FC WP 12/18)
- Proposal for a conversation measure concerning the extension of Closed Area 7 and 8, and the creation of Closed areas 13 and 14 in order to protect significant concentrations of large sea pens (FC WP 12/28 Rev.)

In addition to the review of the scientific information (e.g. the maps of the location of significant concentrations in Annex 6 of the WG Meeting Report of September 2012), a re-examination of the historical VMS data (fishing vessel position reports) covering the years 2003-2012 was made (Annex 3). The analysis of the VMS data concludes that impact of the proposed extension of boundaries and closures on fishing operations appears to be very limited.

The WG was in agreement on the proposed modification of the existing closures (Areas 2, 7, and 8) and on the proposed creation of new closed Area 12. Regarding Area 10, the agreed coordinates represents a slight modification from the original proposal to simplify the shape of the polygon (see Slides 11-13 of Annex 3). Recommendations to this effect will be forwarded to the Fisheries Commission for adoption (see item 8).

Regarding Areas 13 and 14, scientific survey data indicate the presence of significant concentrations of sea pens in these areas. Most CPs agree that these areas should be protected from bottom fishing. However, no consensus was reached on specific management measures that are best suited in protecting the areas. Arguments were brought forward for and against recommendations for closures of the areas as presently defined, as well as for and against maintaining threshold values which trigger the application of the "move-on" rule. There was also no agreement on how the boundaries of the areas under consideration should be defined, either for closure or for application of threshold values.

The following two paragraphs represent two differing views presented at the meeting, which the WG was not able to reach consensus on:

- 1) Some CPs considered that VMEs are likely to occur in the east of Flemish Cap, but that only one survey catch above the threshold was observed for each of areas 13 and 14. No consistent and contiguous observations of VME indicators above the threshold were made. From a conservation point of view it would be more effective to have larger closed areas rather than smaller scattered ones, and that annual adjustments to area closures should be avoided if possible. It is not expected that fishing activity will occur in Areas 13 and 14, given the VMS data of the last 10 years. It is expected that new information on sea pens will be available later in 2013, including data from areas 13 and 14. Such scientific information is necessary before a decision is taken on VME presence in the eastern area of Flemish Cap, and is necessary to define the most appropriate delineation of the area to be closed to prevent significant adverse impacts on VMEs.
- Norway, supported by Iceland, Canada, the US and other CPs proposed to recommend closing Areas 13 and 14. The Scientific Council (SC) has, based on extensive survey information, provided a map of distribution areas of sea pens. The SC has furthermore documented that, within the continuous large sea pen areas on the western Flemish Cap, these two proposed closure areas have significant concentrations, i.e. concentrations above the threshold densities used as basis for closure recommendations accepted by the WG on the eastern and northern flanks of the Flemish Cap. The view was expressed that the SC documentation is comparatively extensive and sufficient to conclude that there are VMEs in the areas, or at least that it is likely that this is the case. On this basis, taking protective action by closing the two areas to bottom fishing would be the only action compatible with the FAO guidelines. The two proposed closures lie within the NAFO fishing footprint, hence taking no action to close the areas in 2013 would effectively leave the likely VMEs accessible to bottom fisheries. It is appreciated that the high sea pen concentrations are observed in few survey trawls, and it is recognized that new scientific information and evaluation may become available. It is unlikely, however, that significant new information will be available in 2013. It was also noted that VMS data examined at the meeting showed an increase in fishing in the vicinity of these areas in 2010, 2011, and 2012. A precautionary approach would therefore to close the two areas where VMEs are likely, and then, following established rules of NAFO Bottom Fishing, reconsider closure boundaries if and when scientific advice to that effect become available. It is also noted that a comprehensive review of all measures, including closures, is scheduled for 2014.

It was decided that the issue concerning Areas 13 and 14 be forwarded to FC, as presented in these two options outlined above, with a recommendation that a decision on specific management measures applicable to the areas be made as soon as possible.

6. Preliminary discussions on the evaluation of conservation effect of applying thresholds and move-on rules

The WG recalled the SC advice from SC June 2012 meeting:

Scientific Council notes that the encounter thresholds are a very useful tool to identify VMEs in areas where there is little survey information and the fishing activity is the main source of data. This applies especially to new fishing areas outside of the fishing footprint. However, as the locations of the benthic VMEs become increasingly well-defined in the NRA to support informed management through closed areas the need to implement encounter protocols gradually become redundant. Scientific Council considers a management through the closing of areas with significant concentrations of VME is the most effective measure for protecting VMEs in the NRA as it would avoid issues associated with the implementation of complex move-on rules.

The WG also noted that 2012 FC Request for SC Advice includes encounter thresholds and move-on rules for small gorgonian corals, large gorgonian corals, sea squirts, erect bryozoans, crinoids and cerianthid anemone which are VME indicator species that meet the FAO Guidelines for VME and Significant Adverse Impact (SAI). Advice is expected to be available after the SC June 2013 Meeting.

There were discussions on the merit of withdrawing thresholds in instances where appropriate closures have been adopted. Specific consideration was given to removing the encounter protocol for sea pens in the portion of the Regulatory Area where closures are agreed upon (West Flemish Cap). Noting the logistical challenges associated with such an approach and in the absence of closures for all the significant sea pen locations CPs could not agree to withdraw some of the existing thresholds, which would therefore be maintained. CPs agreed to further consider this issue in September 2013 if agreement could be reached on the remaining areas. Further discussion on the issue would take place in the context of the broader review of existing closures scheduled for 2014.

7. Discussion on the draft Terms of Reference and workplan of the proposed Joint Fisheries Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management

Following the 2012 recommendation of this WG that FC modify the Terms of Reference (ToR) for this WG to expand its mandate to include broader aspects of Ecosystem Approach to Fisheries (EAF), the FC tasked the FC Chair in collaboration with the Chairs of SC and other revelant WGs to draft the ToR of the proposed Joint Fisheries Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management.

The FC Chair introduced the draft ToR contained in FCWG-VME WP 13/1. The following represents a compilation of the feedback and comments from one or more CPs:

On Structure:

- A more structured debate, rather than a complete "open forum/dialogue "format is preferred. It was suggested the dynamics of this joint WG should be based on the dynamics of WGFMS-VME as it has been proven to be effective.
- The second paragraph should be modified to read: The Working Group shall be comprised of fishery managers and scientists from Contracting Parties supported by experts and advisors. The meeting shall be structured by Contracting Parties, with the participation of the chairs of the Scientific Council and the Fisheries Commission. The work form shall be an open forum/dialogue at the discretion of the chairs and with the consent of Contracting Parties.
- The issue of observers in working groups is under discussion in other RFMOs, e.g. NEAFC. Iceland will come back to this issue at the Annual Meeting in September 2013.

On Objective:

• The Objective is too general, and that the scope of work needed to be clarified. For example, in its current text, "ecosystem approach" can also cover mesh size issues, TACs, and quota allocation which should be beyond the ambit/mandate of the Joint Working Group.

On Specific Duties:

- The 1st bullet concerns general aspects of ecosystem approach roadmap and may need to be elaborated, and the next 5 bullets all are related to VMEs.
- Specific duties should defined in two categories: 1) Ecosystem Approach, and 2) VME-related work (see FCWG-VME WP 13/3).
- The ToR have to be general to allow flexibility, considering that ecosystem approaches are constantly evolving. Specific duties may be better contained in a workplan to be developed.

On Meetings:

• A meeting may be convened at the request FC or SC. Participants acknowledge the difficulty in reaching agreement on meeting dates. There was a suggestion to schedule the meeting back-to-back with the Annual meeting for practical and travel purposes. However, some CPs noted this meeting schedule would not allow sufficient time to finalize the meeting report and to prepare for the Annual meeting.

On Reporting:

Meeting reports should go to the NAFO Bodies and CPs and not to the FC and SC Chairs.

Concerning the comment on Objective, the FC Chair clarified that under the specific duties, the tasks of the working group are more clearly defined and they do not cover the management measures regarding TACs, quotas, mesh sizes, etc.

The draft will also be presented at the SC June Meeting. CPs were encouraged to provide further comments preferably before the SC June meeting. A revised draft by the FC Chair incorporating the comments will be presented to FC and SC at the September Annual Meeting for consideration and approval.

8. Recommendations to be forwarded to the Fisheries Commission

The following are the agreed recommendations to be forwarded to the FC at the 2013 Annual Meeting:

1. Extension of the Existing Closed Areas

1.1 The WG recommends to extend the boundaries of Closed Area 2 to protect significant concentrations of large gorgonians; amend the coordinates of Closed Area 2 in Article 16.5 NCEM as follows (see Figure 1):

Point No.	Latitude	Longitude
2.1	44° 50' 56.4" N	48° 43' 45.48" W
2.2	46° 18' 54.72" N	46° 47' 51.72" W
2.3	46° 25' 28.56" N	46° 47' 51.72" W
2.4	46° 46' 32.16" N	46° 55' 14.52" W
2.5	47° 03' 29.16" N	46° 40' 4.44" W
2.6	47° 11' 47.04" N	46° 57' 38.16" W
2.7	46° 40' 40.8" N	47° 03' 4.68" W
2.8	46° 24' 24.12" N	46° 51' 23.04" W
2.9	46° 21' 4.78" N	46° 58' 53" W
2.10	46° 26' 32" N	46° 58' 53" W
2.11	46° 30' 22.20" N	47° 11' 2.93" W
2.12	46° 17' 13.30" N	47° 15' 46.64" W
2.13	46° 07' 1.56" N	47° 30' 36.36" W
2.14	45° 49' 6.24" N	47° 41' 17.88" W
2.15	45° 19' 43.32" N	48° 29' 14.28" W
2.16	44° 53' 47.4" N	48° 49' 32.52" W

and adjust the map in Figure 3 of the NCEM accordingly.



Fig. 1. Polygons Delineating the Extention of Area 2

1.2 The WG recommends to extend the boundaries of Area 7 to protect significant concentrations of sea pens; amend the coordinates of Closed Area 7 in Artcile 16.5 of the NCEM as follows (see Figure 2):

Point No.	Latitude	Longitude
7.1	48° 25' 02.28"N	45° 17' 16.44"W
7.2	48° 25' 02.28"N	44° 54' 38.16''W
7.3	48° 19' 08.76"N	44° 54' 38.16''W
7.4	48° 19' 08.76"N	45° 01' 58.56''W
7.5	48° 20' 29.76"N	45° 01' 58.56"W
7.6	48° 20' 29.76"N	45° 17' 16.44''W

and adjust the map in Figure 3 of the NCEM accordingly.

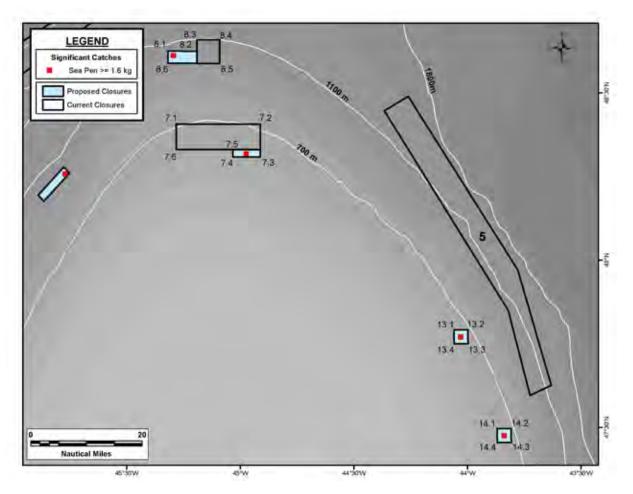


Fig. 2. Polygons delineating Polygons Delineating the Extention of Areas 7 and 8 and the Creation of Closed Area 13 and 14.

1.3. The WG recommends to extend the boundaries of Area 8 to protect significant concentrations of sea pens; amend the coordinates of Closed Area 8 in Artcile 16.5 of the NCEM as follows (see Figure 2):

Point No.	Latitude	Longitude
8.1	48° 38' 07.95"N	45° 19' 31.92"W
8.2	48° 38' 07.95"N	45° 11' 44.36''W
8.3	48° 40' 9.84"N	45° 11' 44.88"W
8.4	48° 40' 9.84"N	45° 05' 35.52"W
8.5	48° 35' 56.4"N	45° 05' 35.52"W
8.6	48° 35' 56.4"N	45° 19' 31.92"W

1.4 The WG recommends to extend the boundaries of Closed Area 10 to protect significant concentrations of sea pens; amend the coordinates of Closed Area 10 in Artcile 16.5 of the NCEM as follows (see Figure 3):

Point No.	Latitude	Longitude
10.1	47° 49' 41.51" N	46° 22' 48.18" W
10.2	47° 47' 17.14" N	46° 17' 27.91" W
10.3	47° 58' 42.28" N	46° 6' 43.74" W
10.4	47° 59' 15.77" N	46° 7' 57.76" W
10.5	48° 7' 48.97" N	45° 59' 58.46" W
10.6	48° 9' 34.66" N	46° 4' 8.54" W

and adjust the map in Figure 3 of the NCEM accordingly.

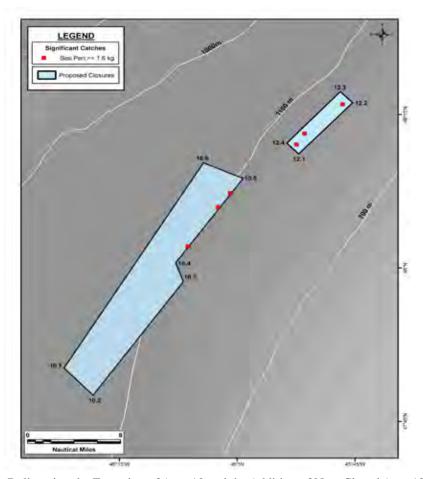


Fig. 3. Polygons Delineating the Extention of Area 10 and the Addition of New Closed Area 12.

2. Addition of New Closed Area

The WG recommends to add Closed Area 12 to protect significant concentrations of sea pens; with coordinates as follows (see Figure 3):

Point No.	Latitude	Longitude
12.1	48° 12′ 6.60″ N	45° 54' 12.94" W
12.2	48° 17' 11.82" N	45° 47' 25.36" W
12.3	48° 16' 7.06" N	45° 45' 48.19" W
12.4	48° 11′ 3.32" N	45° 52' 40.63" W

3. Management Measures for Areas 13 and 14 (see Figure 2)

The WG recommends that FC further reflect on the management options presented above (see item 5) and decide which is best suited for Areas 13 and 14 in the protection of areas with significant concentrations of sea pens.

The coordinates of Areas 13 and 14, as reflected in Figure 2 are:

Point No.	Latitude	Longitude
13.1	47° 47' 54.33"N	44° 03' 06.46"W
13.2	47° 47' 54.33"N	43° 59' 23.40"W
13.3	47° 45' 24.44"N	43° 59' 23.40"W
13.4	47° 45' 24.44"N	44° 03' 06.46"W
14.1	47° 30' 04.80''N	43° 52' 00.35"W
14.2	47° 30' 04.80''N	43° 48' 18.54"W
14.3	47° 27' 34.89"N	43° 48' 18.54"W
14.4	47° 27' 34.89"N	43° 52' 00.35"W

9. Other Matters

Update on NEREIDA Project

Andrew Kenny (EU) made an update-presentation on the research survey project NEREIDA (NAFO Potential Vulnerable Marine Ecosystems: Impact of Deep-sea Fisheries).

Six multidisciplinary surveys have been conducted. Using multibeam echosounders, the surveys covered an area of 68 950 km2. Rock dredges for hard bottoms and box corers for soft bottoms were used in collecting benthic samples. Of the 328 samples collected, 40 have been processed. Results were published in ICES Journal of Marine Science. The first priority of the project was to analyze the data associated with the closed areas, i.e. Sackville Spur and Flemish Pass/Eastern Canyon.

The four key topics which need to be addressed through a full analysis of the remaining unprocessed samples and data are: biodiversity, function, fishing impacts, and closed areas. Each key topic is led by a participating research institition.

For the review of the current VME closed areas by the Fisheries Commission in 2014, the requirements are new video analysis of the Flemish Cap closures and complete analysis of rock dredge box corer samples. All these analyses are critical for the delivery of the review of NAFO fisheries closures since it is the only source of benthic community data available which covers all of the closures in the fishing footprint and adjacent areas.

The extent of work on these topics depends on funding and commitments of the partcipating CPs.

10. Time and place of the next meeting

Time and place of the next meeting was not decided. It was recognized that the need for a next meeting would depend on the results of the SC June 2013 Meeting. The Secretariat will consult the WG and FC Chairs after the SC Meeting.

11. Adoption of the Report

This report was adopted through correspondence after the meeting.

12. Adjournment

The meeting adjourned at 1130 hours on Thursday, 25 April 2013. The Chair thanked the participants for their input and the Secretariat for organizing the meeting and providing excellent facilities and service.

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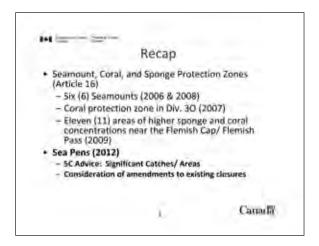
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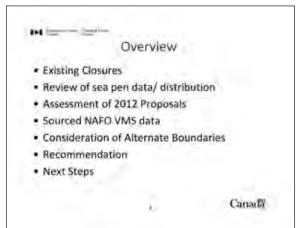
Annex 2. Agenda

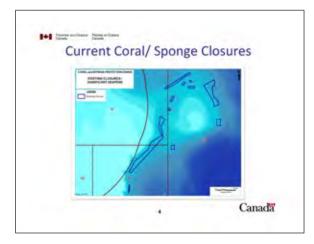
- 1. Opening of the Meeting
- 2. Election of Chair
- 3. Appointment of Rapporteur
- 4. Adoption of Agenda
- 5. Consideration of amendments to the closed areas (as defined in Article 16 of the NCEM) in view of the latest available scientific information
- 6. Preliminary discussions on the evaluation of conservation effect of applying thresholds and move-on rules
- 7. Discussion on the draft Terms of Reference and workplan of the proposed Joint Fisheries Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management
- 8. Recommendations to be forwarded to the Fisheries Commission
- 9. Other Matters
- 10. Time and place of the next meeting
- 11. Adoption of the Report
- 12. Adjournment

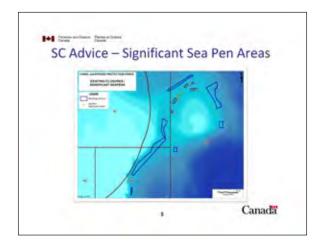
Annex 3. VMS Analysis in relation to fishing activities (2004-2012) and closed areas and concentrations of VME indicator species.

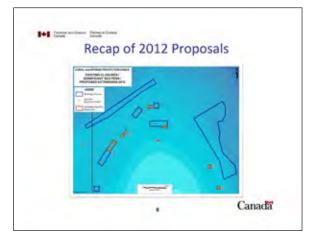


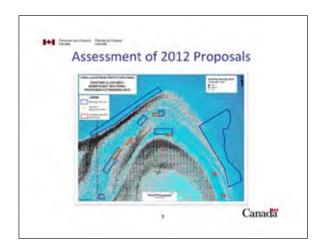


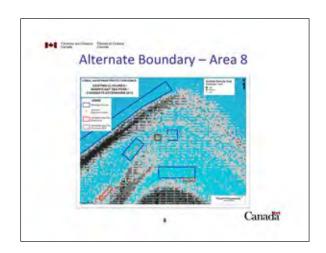




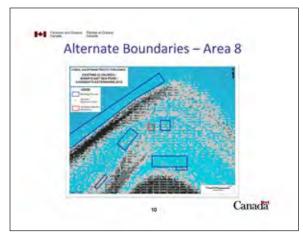


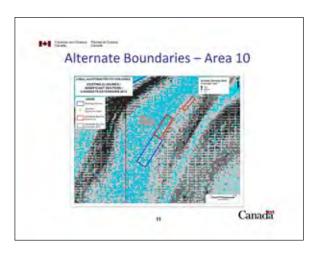


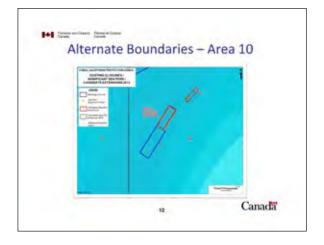


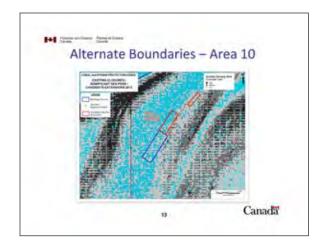


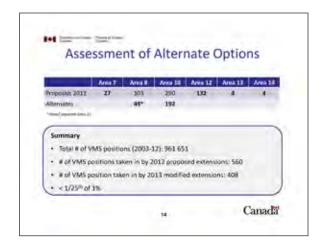


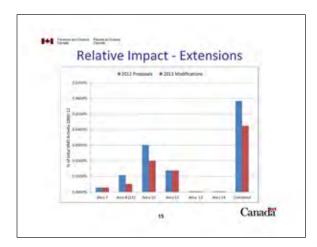




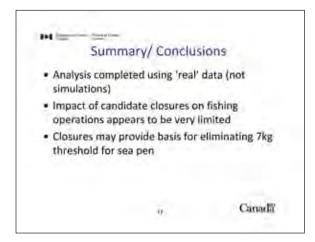














SECTION V (pages 239 to 276)

Report of the Standing Committee on International Control (STACTIC)

7-9 May 2013 London, UK

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6.	Review and evaluation of Practices and Procedures
7.	Review of current IUU list pursuant to NAFO CEM Article 54.3 (STACTIC WP 13/2)
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9.	Inspectors Website
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Report of the Standing Committee on International Control (STACTIC)

(FC Doc. 13/4)

7–9 May 2013 London, United Kingdom

1. Opening by the Chair, Gene Martin (USA)

The Chair opened the meeting at 10:00 a.m. on Tuesday, May 7, 2013 at the Northeast Atlantic Fisheries Commission (NEAFC) Headquarters in London, United Kingdom. The Chair welcomed the representatives of the following Contracting Parties (CPs): Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union, Iceland, Norway, the Russian Federation, Japan, and the United States of America (Annex 1).

2. Appointment of Rapporteur

Brent Napier (Canada) was appointed Rapporteur.

3. Adoption of Agenda

The following amendments were made to the agenda:

- Under agenda item 4, the Chair introduced General Council correspondence (GFS/13-124 and GFS/13-153) that included a request from the General Council Chair to reflect on ways to use the available information such as catch declarations and VMS data in examining the reliability of the official catch data STATLANT, and, if necessary to consider further amendments to the NAFO Conservation and Enforcement Measures (CEM).
- Iceland introduced STACTIC WP 13/1 regarding Sharing of Information on Catches of NEAFC Stock in the NRA, which was added as agenda item 12.c);
- EU introduced STACTIC WP 13/11 regarding By-catch limit for Redfish in Division 3M, which was added as agenda item 12.d); and
- Canada introduced the following proposals:
 - STACTIC WP 13/12 Compilation of fisheries reports for Compliance Review for inclusion under agenda item 5;
 - STACTIC WP 13/13 Product labelling by date of capture (Article 27) for inclusion under agenda item 15;
 - STACTIC WP 13/14 Observer program (Article 30) Standardization of Observer program data and reporting requirements in the NRA for inclusion under agenda item 11; and
 - o STACTIC WP 13/15 Recording of catch and stowage (Article 28) for inclusion under agenda item 12.a).

The agenda was adopted, as amended (Annex 2).

4. Consideration of Recommendations from the Performance Review Panel (PRP) and Peer Review Expert Panel (PREP)

4.1 PRP Recommendations specified in FC WP 11/13- Summarized in STACTIC WP 13/8

The Chair opened the agenda item and reminded representatives that at the September 2012 Annual Meeting STACTIC considered recommendations of the Performance Review Panel specified in FC WP 11/13. The NAFO Secretariat presented STACTIC WP 13/8 which provided an overview of the responses and outstanding issues relevant to the recommendations. Summary as follows:

Port State (Chap. 3, 3.2.8 of the PRP Report)

STACTIC representatives had originally recommended awaiting NEAFC deliberations on this issue, scheduled to conclude in November 2012, to benefit from the considerable work already underway. The NAFO Secretariat (NS) compiled actions and decisions of NEAFC concerning the FAO PSM agreement and provided a summary.

Denmark (in respect of Faroe Islands and Greenland) (DFG) reported that work, despite progress, was still underway and a number of meetings remain. Iceland noted that main issues (scope and inspections levels) had been agreed on and that drafting of a revised port scheme had commenced with work likely concluding in November 2013. Iceland recommended STACTIC await the completion of work in its entirety prior to engaging in a similar exercise. Japan supported the Icelandic recommendation to await NEAFC conclusion, and noted that, as Japan is not a NEAFC member, nor had it participated in related discussions, it would maintain a reservation on this issue until a NAFO specific proposal was presented.

It was agreed, in the interest of harmonization and efficiency, that NAFO would await the completion of NEAFC's Port State Measures review, anticipated by November 2013, prior to conducting its own exercise.

Shark Weight (Chap. 4, 4.3)

The EU reiterated its view that shark was not a significant issue in the NAFO Regulatory Area (NRA), based on NS information, and that the question of green weight had been addressed. DFG observed that NAFO had very little experience with this type of fishery and that determining conversion factors for shark may be difficult. Canada noted that it was envisaged that shark weight issues could be addressed as part of the proposed standard conversion factor project should any shark be retained during the project (agenda item 14).

STACTIC members agreed that the issue of live versus green weight has been addressed.

Product Labelling (Chap. 5, 5.3)

Canada noted its proposal on labelling by date of capture STACTIC WP 13/13, to be provided under agenda item 15, could be considered to advance this element further and improve traceability. The EU noted that improvements had already been made over the last number of years and should be highlighted. STACTIC members noted that further work could continue as STACTIC considers improvements to CEM's.

It was agreed that the issue of product labelling has been adequately addressed in the context of the PRP recommendation:

4.2 PRP Recommendations specified in FC WP 12/5

During the September 2012 Annual Meeting, Fisheries Commission (FC) also directed STACTIC to review FC WP12/5 and provide feedback. Recommendations were as follows:

PRP Recommendation #23 (Chap. 4, 4.3, #9 and 4.6.5 #2)

Lost and Abandoned Gear

The Chair noted that Fisheries Commission adopted FC Doc 12/18 at the 2012 NAFO Annual Meeting, effectively addressing this issue.

It was agreed that the adoption of FC Doc 12/18 addressed this issue and the item was closed.

Environmental Protection Issues

STACTIC members reviewed PRP Recommendation #23 regarding Environmental Protection Issues in STACTIC WP 12/38 and STACTIC WP 13/10 concerning possible measures to address environmental pollution in the NAFO Convention Area.

EU presented STACTIC WP 13/10 and noted that this proposal replaced its former proposal on marine pollution STACTIC WP 12/38. EU remarked that the proposal was drafted to apply to the "Convention Area" as that was the wording in the recommendation, however acknowledged that, as the CEMs only apply to the NRA, STACTIC should discuss this issue.

Canada noted that components of the proposal, related to the regulation of pollution, went beyond STACTIC's mandate, and possibly NAFO's. Canada noted that, while admirable, it was not clear how these concepts fit into the CEMs. Furthermore, Canada noted concerns over the proposal's application to the Convention Area, when it was clear that the CEMs applied only to the NRA. Canada concluded that there were also broad statements (e.g. item 2) related to oil and gas and a range of activities beyond fishing and that the scope should be narrowed to only include fishing activities.

Japan acknowledged the need to minimize marine pollution, but made the observations that several international instruments already exist, such as the International Convention for the Prevention of Pollution from Ships (MARPOL) and the London Convention, that were better suited to address environmental protection issues. Japan noted that, while NAFO could adopt complimentary environmental protection measures specific to NRA fishery activities, the necessity and feasibility of any such measures would need to be examined prior to adoption. Russia and the US recognized the importance of the issue and supported the Japanese and Canadian positions, Russia further noted that adherence to MARPOL was a domestic condition of licence. Supporting Canada's suggestion that this proposal may be beyond STACTIC's mandate, the US observe that non-fisheries agencies are responsible for administering and enforcing marine pollution issues.

DFG agreed with the Canadian remarks concerning the application to the NRA and suggested that, as a possible option, text could be added to the CEMs noting that "fishing vessels operating in the NRA must respect the MARPOL Convention". Furthermore, DFG noted that most of the larger vessels operating in the NRA have incinerators, and other means of dealing with pollution, and therefore fisheries related pollution was not a significant issue in the NRA.

The Chair noted the concerns raised over potential mandate issues and questioned whether it was even appropriate for NAFO to adopt pollution protection measures in advance of the adoption of the amended NAFO Convention which refers to pollution issues. Canada recommended deferring the issue, noting in support of the Chair's remark that item (i) of the General Statements in the amended Convention did state: "take due account of pollution by fishing activity".

It was agreed that pollution concerns are already addressed through international environmental pollution instruments (e.g. MARPOL, London Convention) and there is concern that addressing these issues at this time may exceed NAFO scope and authority. It was agreed, therefore, it would not be appropriate at this time to add environmental protection measures to the CEMs. STACTIC members noted, however, that it may be appropriate to consider this issue once the amended Convention was in force. The issue of addressing environmental pollution concerns, in the context of the PRP recommendation, is closed.

PRP Recommendation #27 and #28: Equitable Sharing of Inspection Coverage and Cost / Follow-up on Infringements (Chap. 5, 5.1 #4 and Chap. 5, 5.4 #1)

It was agreed that both issues had been previously discussed and that the CEM adequately addresses these issues.

PRP Recommendation #29: Port State Measures and Cooperation with other Regional Fisheries Management Organizations (RFMOs) (Chap. 5, 5.2 #4 and #5)

It was agreed, in the interest of harmonization and efficiency, that NAFO would await the completion of NEAFC's Port State Control review, anticipated by November 2013, prior to conducting its own review.

PRP Recommendation #30: Illegal, Unregulated and Unreported (IUU) List Chap. 5, 5.5 #3

STACTIC members noted that the Article 54.6 of the Non-Contracting Party Scheme in the CEM provided for cooperation with CCAMLR, NEAFC, SEAFO and other RFMOs.

It was agreed that Article 54.6 of the Non-Contracting Party Scheme in the CEM adequately addresses the recommendation.

PRP Recommendation #31: Trade-related Measures and IUU (Chap. 5, 5.5 #4&5)

DFG noted that NAFO's existing Non-Contracting Party Scheme had successfully addressed the IUU issue and as a testament to this fact there had been no IUU vessels activity in NRA for the past several years. The US supported DFG's statement and further noted that individual CPs were still free to institute trade measures beyond the scope of those envisaged within the CEM's.

It was agreed that the existing Non-Contracting Party Scheme in Chapter VIII of the CEM adequately addresses the issue.

PRP Recommendation #34: Reporting – Succinctness of Reports (Chap. 7, 7.5 #2)

It was agreed that STACTIC would continue to work on improving reports and encourage CPs to further implement this recommendation.

4.3 Peer Review Expert Panel (PREP) – Summarized in STACTIC WP 13/7

The NAFO Secretariat introduced STACTIC WP 13/7 and provided a summary of actions taken under this item, the outcomes of the progress report and associated recommendations for STACTIC consideration.

Timely availability of STATLANT data

Canada noted that there were no references to STATLANT data within the CEM and advised STACTIC members that the obligations associated with STATLANT fell under Rule 4.4 of the Rules of Procedure for the Scientific Council, which was outside of the STACTIC's mandate. It was further noted that, for each CP, STATLANT data was compiled by administrations in charge of statistics, in response to an FAO obligation, on the basis of detailed data collected by the relevant FMCs.

The EU observed that catch data within the purview of STACTIC was made available in a timely manner. The US noted that most CPs already submit STATLANT 21A data by May 1, or shortly thereafter, as required. As an example, Article 28.4 of the CEM obliges each CP to report to the Executive Secretary, within 30 days of the end of the calendar month in which the catch was taken, its provisional monthly catches by species and stock area, or its provisional monthly fishing days for the 3M shrimp fishery, whether or not it has quota or effort allocations for the relevant stocks. At present, STACTIC has not experienced any problem with this monthly delivery, and the correspondent data have been available to NAFO on a monthly basis. The same information is sent in parallel to the relevant administrations in charge of statistics, so consequently any issues that may occur in the delivery of STATLANT data should be considered within those relevant administrations.

It was agreed that the timeliness of STATLANT data is already addressed in the Rules of Procedure for the Scientific Council (Rule 4.4) and it is not within the purview of STACTIC to amend this provision).

Standard Protocols for NAFO Observer Information

It was agreed that this recommendation would be addressed under agenda item 11.

Inclusion of Hours Fished in STATLANT 21B

The NAFO Secretariat noted that this data element was already a requirement of STATLANT 21B, but advised that some CPs were not reporting. Canada reiterated that STATLANT obligations were not part of the CEM, but rather specified in Rules of Procedures for the Scientific Council (Rule 4.4.)

The EU noted that, while some elements of the STATLANT data were not being consistently met, CPs were meeting the CEM requirements for information. DFG questioned how SC used the STATLANT figures and why other sources were not considered. It was noted that STACTIC could provide valuable information based on logbooks and other sources. Others noted that the SC was free to use other sources of data managed by NAFO. DFG further noted that ICES did not use hours fished because of the different fishing methods (trawl vs. longline) being used. Iceland noted that SC would benefit from an explanation of possible other sources of fisheries data that could improve SC effectiveness. The EU noted that the quality of monitoring data had improved over the last number of years in an effort to make available more timely and accurate information and to improve transparency. STACTIC members noted a willingness to work with SC.

It was noted that this recommendation was already a requirement of STATLANT 21B, which falls under the Rules of Procedure for the Scientific Council and therefore outside the purview of STACTIC.

NAFO Observer and VMS data for compliance monitoring purposes.

EU remarked that VMS data adequately responded to the immediate compliance and monitoring needs of NAFO and that Annex II.B of the CEM protected the confidentiality of vessels.

Canada noted that, under Annex II.B of the CEM, the retention of data is not permitted and therefore it does not allow for desirable trend development and analysis. The US supported the concept, but noted the need to maintain confidentiality of individual vessel information. The NAFO Secretariat acknowledged the challenges associated with not being able to store historical data to develop and review long term trends. Iceland noted that the restrictive use of VMS information was not productive. DFG noted that NEAFC had revised its confidentially measures to permit for this type of activity and suggested that NAFO could review what had been done in NEAFC.

The Chair remarked that STACTIC members should reflect on how to promote compliance with the CEM while still

making available important compliance and trend information to STACTIC. The Chair encouraged CPs to provide discussion papers on the issue.

It was agreed that the current VMS enforcement application is adequately addressed within the CEM. STACTIC will continue to reflect on confidentiality issues, and will consider NEAFC amendments on this issue for possible application in the NAFO context. The issue will also be forwarded to the AGDC/ JAGDM.

4.4 General Council Correspondence– Examining the Reliability of STATLANT Data

The Chair introduced the GC correspondence (GFS/13-124 and GFS/13-153) related to follow-up on Peer Review Expert Panel Recommendations and in particular the direction to reflect on other sources of data to examine the reliability of STALANT data.

The US observed that the CEM monitoring data are often calculated using separate processes and that STATLANT data included NAFO Convention data which could make the comparability of the two data sets problematic, in some cases. The NS agreed with US point but noted some data elements (e.g. Division 3M catch) would still be comparable and tables could be generated to facilitate the exercise.

DFG noted that NAFO should establish consistent rules on how to calculate quota uptake (e.g. discards, by-catch) to ensure that all catches are counted against relevant quotas.

Canada cautioned that assumptions should not be made that all the numbers from various catch reports will add up to the same totals as each data set has its unique considerations and therefore footnotes should be provided for each to describe anomalies.

STACTIC members further noted that the reliability of the STATLANT data depends on the reliability of fisheries data collected by CP monitoring services. In this context, based on STACTIC input, NAFO adopted in the recent years many provisions to improve the real time monitoring and transparency of fishing activities: daily reporting of catches for all species taken in the Regulatory Area (including discards), catch declaration on a tow by tow basis, hourly VMS reporting, clarity on chartering operations, accuracy of logbook figures, labelling by Division (more precise than stock area), clarity on vessels identification, data communication flow under the responsibility of each FMC, exchanges of inspectors for joint inspections at-sea and in port, etc.

STACTIC members agreed to consider what further amendments to the NAFO CEM could be adopted to ascertain the reliability of the catch data, in the interest of good management. STACTIC will also explore the use of existing data to further increase the real time monitoring and transparency of fishing activities in the NAFO area. This process may include (non-exhaustive list):

- Standardized conversion factor project
- o Reference catch composition/rates by Division
- o Electronic reporting of catch (ERS)
- o Real time closures of fisheries
- Risk assessment methods for sea and port inspection strategies
- Coordinated at-sea inspection deployment
- New/revised duties for observers
- o Introduction of Catch documentation for the trade of NAFO products

It was agreed that STACTIC would create tables to compare STATLANT data against available CEM data to identify possible anomalies or derogations and consider what further amendments to the NAFO CEMs could be adopted to ascertain the reliability of the catch data.

5. Compilation of fisheries reports for compliance review (2004-2012), including review of Apparent Infringements.

Under this agenda item, the NAFO Secretariat presented the 2012 profiles and trends of fisheries in the NAFO Regulatory Area (Annex 3), noting that the current compilation incorporated comments and suggestions from the 2012 intersessional meeting.

Issues / Observations

(a) Compliance to NAF - Errors

- EU noted transition to electronic XML format and required translation could create errors
- Canada provided a list of technical issues to the NS
- The US noted consistency and proper formatting related to reporting (programming errors/issues) was initially an issue and encouraged CPs to check system interface and information dissemination to ensure accurate and timely compliance information.

(b) Electronic Observer Scheme - Prior Notification (Article 30B) - No reports submitted to date

- The EU noted that CPs may not actually be using the Article 30B as it is an option. Alternatively, the linkage
 to serious infringements could be creating a reluctance by some to participate in the electronic observer
 scheme
- The EU reiterated concerns over the Observer Regime and noted it would like to revisit the issues related to the current observer scheme at a later date

(c) AI Issued in Port

- Canada noted that all AI's should be reported, serious or not, because in accordance with Part E.1B (c) of the Report on Port State Control Inspection (PSC 3), the legal reference to both NAFO and national infringement must be indicated.
- The EU noted that the scope of the Port State Control scheme is limited to foreign vessels and recommended that the compliance compilation should only be on NAFO issues and not contain infringements related to national legislation

(d) AI Disposition

- Canada noted that more specific/comprehensive information should be provided and that "tolerance" is not a concept found in the CEM
- The Chair encouraged CPs to report timely and more comprehensively

(e) POR and TRA Erroneously Submitted

- Norway clarified that TRA reports must be transmitted (pursuant to Article 28.2 e) by the both donor and receiving vessel in the same transhipment transactions and that POR must be transmitted by a vessel that has received a transhipment at least twenty four hours in advance of landing (pursuant to Article 28.2 f). There should be corresponding TRA-TRA-POR reports
- Several CPs questioned whether transhipments were occurring in NAFO waters and whether mistakes in TRA and POR were the result of filling out the wrong form. It was clarified that no known transhipments took place in the NRA in 2012
- Iceland noted a greater need for information exchange between NEAFC and NAFO
- Canada advised that analysis of the COE and COX messages would enable tracking of fish that was transhipped and should be reviewed to determine whether there was transhipment or erroneous reporting

(f) Addition of Geospatial information and report on joint inspection scheme (STACTIC WP 13/12)

Canada provided a domestic example of how data layering (data from multiple sources) and trend/pattern
identification can identify occurrences of non-compliance. Canada introduced STACTIC WP 13/12 to
identify possible data elements STACTIC could utilize to identify trend/patterns and monitor compliance in
its Compliance Review.

- The NAFO Secretariat noted that generating the elements in STACTIC WP 13/12 were possible, but it would be extra work and it would be a question of available resources and they would attempt to produce the required report in advance of the NAFO Annual Meeting
- The EU clarified that geospatial information was referring to VME's
- DFG noted that information should be kept within STACTIC and not more broadly circulated
- DFG recommended that STACTIC leave it to NS to make the determination on what is possible to develop
 and present at the next NAFO Annual Meeting
- Iceland suggested that Fisheries Monitoring Centres (FMCs) could be pro-active and produce "buffer zones" to alert enforcement and FMC to activity in VME's.

It was agreed that the NAFO Secretariat would attempt to generate the suggested data elements found in STACTIC WP 13/12, in advance of the 2013 NAFO Annual Meeting, with the view to assessing the utility and practicality in relation to the STACTIC Compliance Review.

6. Review and evaluation of Practices and Procedures

The Chair opened the agenda item noting that this is a standing item in the STACTIC agenda and the intention is to provide CPs with the opportunity to share domestic practices and procedures.

The EU noted that it had added a number of documents (e.g. at-sea inspection guidelines) for the consideration of STACTIC members under the "Practices and Procedures" section of the NAFO Member's Pages. The EU further noted that an IT port weighing application, to automatically produce landing reports for analysis, would be forthcoming.

CPs were encouraged to continue to submit relevant documents to the NS to augment the NAFO Members' Pages.

7. Review of current IUU list pursuant to NAFO CEM Article 54.3 (STACTIC WP 13/2)

The Chair reminded representatives of their responsibility, in accordance with Article 54.3, to review the IUU list and provide evidence related to any vessels that may meet the delisting criteria in order to facilitate updating.

The NAFO Secretariat presented STACTIC Working Paper WP 13/2, noting that the IUU list was last reviewed at the NAFO Annual Meeting in September, 2012. It was further noted that 1 vessel was removed from the list, pursuant to NAFO's IUU de-listing process, leaving a total of 8 vessels.

DFG noted that the IUU list has been improved in NEAFC to include vessel images and information related to the last known location.

It was agreed to explore incorporating the NEAFC enhancements into the NAFO website.

8. Half-year review of the implementation of new NCEM measures (STACTIC WP 13/9)

The NAFO Secretariat presented STACTIC WP13/9 on its experience and observations in the implementation of the new measures that came into force in 2013. The only issue identified by the NAFO Secretariat was a required decision on how the "DS" field should be populated in the case of transhipment vessels (e.g. all known species, blank or one species). Norway advised that this is an authorization from the Flag State and that the composition of the transhipment species would not be known due to possible by-catch. Norway noted that the entire species list would be documented in the TRA report which raises the question of whether the DS field could be left blank. Norway further noted that, at present, NEAFC forms did not include this field.

It was agreed that STACTIC would reflect further on the issue, and in the interim require that the DS field include a full list of anticipated species.

9. Inspectors Website

The Chair opened the agenda item and asked the NAFO Secretariat to provide a demonstration of the added functionality available on the Inspector's Website. The NAFO Secretariat provided a further update of STACTIC WP 12/26 to STACTIC members on the initiative, advising that passwords to access the system would be disseminated on request. It was further noted that a database manager was hired as an internal NAFO Secretariat resource to facilitate changes and enhancement without external cost to the organization.

Iceland noted that the IMO number should be added, as call signs are easier to change. DFG suggested that inspection report templates be amended to include IMO number fields.

Several CPs indicated that a test phase should be initiated before Phase II is officially online. To that end CPs agreed that a test phase of Phase II should occur up to the annual meeting at which time STACTIC would review the test phase results with an eye to officially implementing Phase II.

The EU noted the importance of Phase III given the number of port inspections the EU experiences. The NAFO Secretariat noted that the development of Phase III could begin immediately and delivery timeframes could be confirmed with the new Database Manager. STACTIC members noted a preference for a rapid implementation, possibly facilitated by incorporating NEAFC software and approaches.

It was agreed that the testing period of Phase II would be in effect until the NAFO Annual Meeting, where CPs would develop a list of enhancements and issues for resolution and the NS would provide an update on the initiative. The NS was also encouraged to initiate Phase III as soon as possible, by relying on experience and software already developed by NEAFC.

10. Editorial Drafting Group of the NAFO CEM (EDG)

The EDG provided an overview on its progress to date and next steps (Annex 4). The EDG also presented STACTIC WP 13/4 Rev and STACTIC WP 13/5 for the purpose of clarifying its work on Phase 2.

STACTIC WP 13/4 Rev

There were no concerns voiced and Representatives agreed to submit the working paper to the FC for adoption with minor edits described and to be included in STACTIC WP 13/4 Rev 2.

STACTIC WP 13/5

Several STACTIC members voiced a desire to reflect further on the elements of the proposal. The Chair encouraged CPs to review the proposal to facilitate adoption at the 2013 NAFO Annual Meeting. DFG remarked that the CEMs must be made clear so fishermen can understand the provisions. Iceland voiced concerns that substantive changes should be in the realm of STACTIC and not EDG. The EU noted the mandate of the EDG was to clarify the measures and identify to STACTIC issues for its attention and decision. The Chair noted that this was part of the EDG's sanctioned mandate and reminded STACTIC members that all CPs were free to participate.

It was agreed that STACTIC WP 13/4 Rev2 (Annex 5) would be presented to FC for adoption at the 2013 NAFO Annual Meeting.

STACTIC Representatives were encouraged to review and provide comments to the EDG on STACTIC WP 13/5 by June14, 2013, via the NS, with the view to facilitating the adoption of the proposal at the 2013 NAFO Annual Meeting.

11. Standardization of observer program data and reporting requirements

The Chair noted that, at the September 2012 Annual Meeting, the Fisheries Commission had approved FC Doc 12/22, which proposed the standardization of observer program data and reporting requirements in the NRA. Canada presented STACTIC WP 13/14 which proposed adding CEM requirements to use forms currently developed and provided on the NAFO website. Canada explained that this proposal was developed to address recommendations made by the Expert Panel that called for data to be collected, and reported, in a consistent and timely manner to facilitate the compilation and analysis of observer data.

The US fully supported the proposal and noted that it is currently using the template, with positive results. The EU also supported the proposal and move to standardization. DFG supported the adoption of the template, however requested that the format be examined to make its use as practical as possible (e.g. conversion to PDF format).

The EU noted that observers are required to submit reports within 30 days of completion of deployment and that this

was too late for port inspection purposes. Accordingly, the EU noted that it will be drafting a proposal that would create a supplementary observer duty requiring a preliminary report that would be submitted upon arrival at port for consideration at the next STACTIC meeting. The US supported the concept and noted that observer reports have been provided within a day of landing. Canada also supported the concept and noted that its observers send preliminary reports while at sea.

Russia expressed concerns that it is not necessary or useful for scientific elements to be provided in any preliminary reports. Canada noted that an option could be to only provide the compliance information as the "preliminary" report. The EU reiterated their former point on mixing of compliance vs. scientific observers functions and, while scientific elements are not necessarily useful for port inspection, the preliminary report should only refer to compliance elements. It was noted that Article 30.2(e) already provides a mechanism to identify infringements prior to landing.

It was agreed that STACTIC WP 13/14 would be presented to FC for adoption at the 2013 NAFO Annual meeting (Annex 6).

The EU expressed its intent to present a working paper, regarding preliminary Observer reporting, at the NAFO Annual Meeting.

12. Possible revisions of the NAFO CEM

a) Confidentiality of logbooks recording catches on a tow by tow and requirement to submit logbook information (STACTIC WP 13/15)

The Chair reminded representatives that Fisheries Commission adopted FC Doc 12/14, which requires that fishing vessels record catches on a tow by tow/set by set basis. Canada presented STACTIC WP 13/15, proposing a requirement that logbooks be submitted to the ES within 30 days after the end of a fishing trip, and noted that the data could be used for control purposes, and specific vessel information would be required, and for the purposes of science the confidentiality of specific vessel identities would be hidden.

Iceland noted that logbooks are mainly collected domestically for scientific purposes. Iceland remarked that the NS would have to manually enter or deliver scanned forms until electronic reporting. Russia supported the Icelandic position and voiced concern over how to implement this proposal in practical way.

The EU agreed that tow by tow data would be useful for scientific and inspection purposes. It also noted that tow by tow data is available onboard for inspecting, but the CEM does not require the tow by tow data to be delivered to the NS. Also, the EU expressed concerns over the possible manual nature of the requirement, and noted that it may not be practicable to adopt until electronic systems are in place in the NRA. The EU was in favour of a clear request to develop the necessary IT application that would allow an easy cross-check (automation vs. manual). DFG note that it could support the proposal for scientific purposes, but it should be electronic and the 30 day period may be problematic.

The US supported the concept, as the data has utility for both science and compliance, however recommended there should be a standardized format in interest of efficiency and usability. The US noted that optical scanning software can be used to populate database fields from scanned paper logbooks.

The Chair noted that confidentiality did not appear to be of major concern in relation to the provision of submitting logbooks. Rather, concerns revolve around a number of technical issues (e.g. workload, implementation, scope, purpose) which need to be addressed before Canada's proposal can be adopted.

Canada agreed to reflect on the comments to facilitate the drafting of a revised proposal at a later date.

b) Immunities from jurisdiction of inspectors – STACTIC WP 12/36

The Chair recalled that at the September 2012 Annual Meeting Canada presented STACTIC WP 12/36, which stated that as more cooperative inspection procedures are implemented, it is vital that NAFO flag States and port States recognize the immunities of NAFO inspectors and ensure that host State authorities refrain from assuming jurisdiction over alleged acts or omissions committed in an official capacity. Canada asked those representatives that had noted a need for further reflection for comments.

DFG and Russia understood the concept, but advised that they must await a legal opinion on possible domestic legislative impacts. Russia further noted a need to review the scope of immunities to ensure they were proportionate.

Japan raised a fundamental concern with NAFO prescribing immunity measures because it is not within the mandate or purview of NAFO to make such determinations and that such immunity had never been recognized by other RFMOs.

The EU recognized that, in the past there had been some incidents raising immunity issues, but noted that this was no longer a major issue. In relation to the proposal, the EU noted that any language related to inspector immunities would be better placed in a CEM article related to port inspection (e.g. Chapter VII), or alternatively addressed through the development of bilateral agreements between CPs.

It was noted that this issue may be better addressed at the Convention level, if at all, instead of through changes to the CEMs.

There was no consensus on the working paper due to a range of legal and conceptual objections relating to NAFO's scope of authority.

The proposal was withdrawn by Canada.

c) Sharing of Information on Catches of NEAFC Stock in the NRA - STACTIC WP 13/1

Iceland presented STACTIC WP 13/1 and noted that in the interest of the proper management of shared stocks between NAFO and NEAFC, NAFO should transmit information obtained on such stocks to NEAFC. Iceland raised concerns about the effectiveness of the footnotes in Annex I.A of the CEM, since there are no shared quotas for this stock. Norway supported the proposal – but noted that the proposed measure would be more appropriately placed under Article 28.5 as this would be a duty of the Executive Secretary. Russia acknowledged the issue and noted that it had provided information bilaterally to Iceland on the shared stock of SA2 & Div.1F+3K redfish, but advised that further reflection on the Iceland proposal would be required.

EU supported the concept of providing data to other RFMO's to facilitate the management of international fisheries, but questioned why Iceland was making the request and not NEAFC. The EU also noted the provision of any such information should be considered in the broader context of a reciprocal information exchange arrangement. Canada would support a broader information sharing mechanism to facilitate the reciprocal exchange of information, especially related to vessels fishing in NEAFC prior to entering the NRA.

DFG advised that NEAFC and NAFO abandoned in 2007 a pilot project related to entry and exit messages as information quality was poor, but endorsed the concept of exchange of catch information.

It was agreed that Iceland would reflect on the comments with the expectation that a revised paper would be presented at 2013 NAFO Annual Meeting.

d) By-catch limit for NAFO Redfish 3M – STACTIC WP 13/11

The EU presented 13/11 related to the Redfish fishery in Division 3M and noted the challenges associated with the unique Olympic/competitive style management regime in place for this stock. The paper contended that, in the absence of a management regime change, and to avoid discards, it would propose that STACTIC consider by-catch limits to facilitate the effective management of the fishery. Alternatively Russia proposed that there should be an allowable by-catch limit for inevitable by-catch only, including for cod and redfish in 3M area, but that the level should be equitable and that CPs should actively work on this issue to resolve the situation. DFG supported the proposal but noted that some footnotes in the quota table are problematic.

Canada noted that from an inspection perspective, the measures that are currently in place must be enforced and closures must be respected, particularly as the stock is already over allocated. Canada noted that determining the level of by-catch may not be within the mandate of STACTIC because this is an allocation issue that the FC should discuss and propose, likely with SC input. The Chair agreed with this comment from Canada. Canada further noted that, irrespective of the determined threshold, mechanisms are in place to monitor and control adherence.

It was agreed that the EU would reflect on the comments with the expectation that a revised paper could be presented at 2013 NAFO Annual Meeting. The Chair asked the EU, while it further reflects on these comments, to consider the appropriateness of STACTIC proposing new by-catch allocations.

13. Joint NEAFC/NAFO ad hoc WG on the possibility of making the Advisory Group on Data Communication (AGDC) a joint body of NEAFC and NAFO

The NAFO Secretariat provided an update and presented STACTIC WP 13/6 on the outcomes of the Joint NEAFC/NAFO ad hoc WG meeting held in January 2013 at NEAFC Headquarters. The creation of the new, jointly mandated group, the Joint Advisory Group on Data Management (JAGDM) will be presented to Fisheries Commission for adoption at the NAFO Annual Meeting.

Canada generally supported the initiative however suggested that elements of the Terms of Reference be modified to better coincide with NAFO's requirements.

DFG (Chair of Joint NEAFC/NAFO ad hoc WG) explained that other experts would be invited to participate to take advantage of best practices and take inspiration from the experience of others. The intention would be to make exchanges and processes more efficient.

It was agreed to fully support the initiative, in the interest of efficiency and effectiveness, with the understanding that section 2(d) and 2 (g) of the Draft Terms of Reference would be interpreted as follows:

- 2(d) The requirement is not to force standardization, rather promote compatibility, to the extent possible
- 2(g) The JAGDM would not necessarily be required to take on additional work from other RFMOs but should work collaboratively with them to take advantage of best practices, benefit from experiences and mitigate issues for CPs vessels in other RFMOs.

14. Standard Conversion Factors in NRA

The Chair introduced the agenda item and noted that Fisheries Commission authorized STACTIC to develop a sampling of catches and product types in the NRA. The intent was to establish a recommendation for standard conversion factors for the primary species harvested. Canada volunteered to undertake the development of the methodology and framework for the project. Canada presented STACTIC WP 13/3 and provided an overview of the conversion factor methodology and logistical framework.

Russia supported the initiative, and indicated it would participate, but voiced concern based on its bilateral experience, over the magnitude and difficulty of the proposed project. Russia further noted that a separate working group of experts should be established and a decision should be made as to whether STACTIC consider using existing data, to negotiate conversion factor ranges or averages, as an alternative to proceeding with the proposed project, or some agreed iteration.

Iceland supported the proposal but agreed with Russia on the complexity of implementing such an initiative. Iceland recommended focusing on a smaller subset of NRA species (pilot) and it would be willing to provide expertise. Iceland also noted that not all parties utilize observer, some use electronic reporting pursuant to Article 30B.

EU noted the enormity of the task but agreed with the spirit of the initiative, particular due to its linkage with the discrepancy issue. The EU noted that the initiative could clarify to what extent the different conversion factors may be a partial explanation for the discrepancy and would therefore support the initiative and participate in the working group. The EU recommended that subset of key species be selected and flexibility based on market needs (product forms) be considered.

The US supported the development and committed to participating to the extent possible. The US did voice some concerns regarding implementation given the magnitude of the exercise and supported the concept of focusing on key species and product forms.

DFG supported the proposal and noted the immediate need to develop standard conversion factors in the most common product forms given the huge discrepancies and impact on quotas. DFG acknowledged that the introduction of new conversion factors could represent real quota reduction to some CPs and this would need to be considered. DFG also supported the concept of identifying species and product forms where the largest variance currently exists, such as main product by species, as a starting point.

Japan remarked that it had no vessels operating in NRA and it would be difficult to contribute due to its current financial restrictions. It further remarked that, as standardized conversion factors would not have taken into account Japanese vessels, implementation would be problematic for Japan.

Canada, noting general acceptance, suggested the establishment of a working group to advance the project, address logistical issues and develop a detailed project plan that identifies costs and scope.

The Chair noted that there were overwhelming concerns over implementation, complexity and feasibility. Canada agreed to develop a less ambitious project that would include: a more limited scope (one or a few key species and associated product forms), a working group to develop a detailed project plan, exploring cost effective options related to sampling such as the use of existing observer program resources.

It was agreed that the sampling methodology would be adopted in concept and that Canada would develop a modified implementation proposal with the view of reducing the scope and complexity of the methodology. It was further agreed that STACTIC would report the concerns raised regarding this proposal and seek further direction from the FC on how to proceed in light of these concerns.

15. Other Matters

a) Product Labelling by Date of Capture (Article 27) – STACTIC WP 13/13

Canada presented STACTIC WP 13/13 and noted that this proposal would facilitate traceability, as recommended in the PRP, and monitoring and compliance activities. Iceland supported the proposal, citing hygiene considerations and NEAFC's requirement for production date, as two other reasons for adoption.

Although many CPs supported the proposal, as it was currently the practice for many CPs, the EU expressed reservations to consider this proposal again so soon after it was not adopted at the September 2012 NAFO meeting and given its ongoing technical questions about implementing this measure. EU noted that it was fully in favour of transparency, but noted that in the absence of new proposal dimensions, they would not want to create arduous measures that were unnecessary. Furthermore, it was noted that NEAFC did not include the date of capture, but rather the production date. The US supported the concept but noted that it would be problematic to implement without providing industry adequate lead-time. Canada noted that date of capture would be a valuable tool for cross-referencing log information and verification of catch details, however agreed to defer the issue to a later date.

As there was no consensus it was agreed to defer the issue to a later date, with the possibility that Canada may submit a revised proposal.

16. Time and Place of next meeting

The next STACTIC meeting will be held at the Westin Nova Scotian Hotel in Halifax, Canada, September 23-27, 2013.

17. Adoption of Report

The report was adopted on May 9, 2013.

18. Adjournment

The Chair adjourned the meeting at 12:50 p.m. on May 9, 2013.

Annex 1. List of Participants

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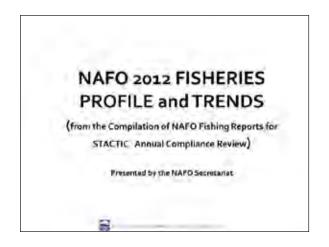
NAFO SECRETARIAT

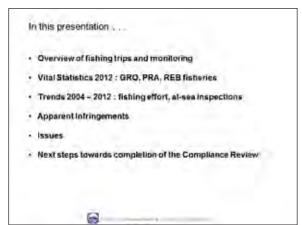
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Annex 2. Agenda

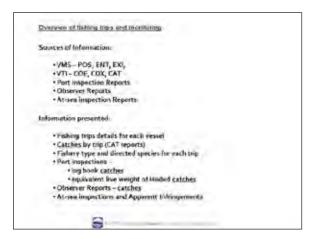
- 1. Opening by the Chair, Gene Martin (USA)
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Consideration of Recommendations from the Performance Review Panel (PRP) and Peer Review Expert Panel (PREP)
- 5. Compilation of fisheries reports for compliance review (2004-2012), including review of Apparent Infringements.
- 6. Review and evaluation of Practices and Procedures
- 7. Review of current IUU list pursuant to NAFO CEM Article 54.3
- 8. Half-year review of the implementation of new NCEM measures
- 9. Inspectors Website
- 10. Editorial Drafting Group of the NAFO CEM (EDG)
- 11. Standardization of observer program data and reporting requirements
- 12. Possible revisions of the NAFO CEM
 - a) Confidentiality of logbooks recording catches on a tow by tow
 - b) Immunities from jurisdiction of inspectors
 - c) Sharing of information on catches of NEAFC stock in the NRA
 - d) By-catch limit for NAFO Redfish 3M
- 13. Joint NEAFC/NAFO *ad hoc* WG on the possibility of making the Advisory Group on Data Communication AGDC a joint body of NEAFC and NAFO
- 14. Standard Conversion Factors in NRA
- 15. Other Matters
 - a) Product labelling by date of capture (Article 27)
- 16. Time and Place of next meeting
- 17. Adoption of Report
- 18. Adjournment

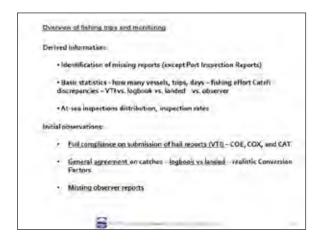
Annex 3. NAFO 2012 Fisheries Profile and Trends

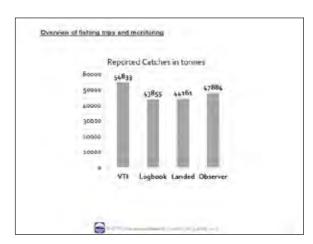


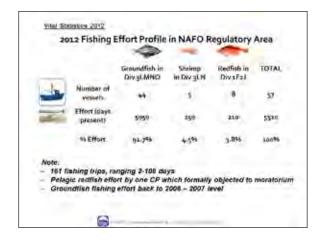


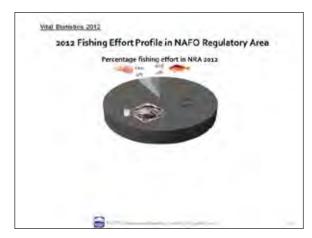


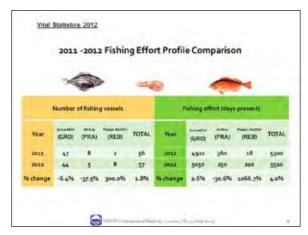


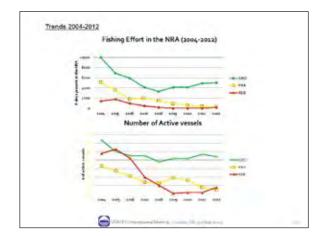


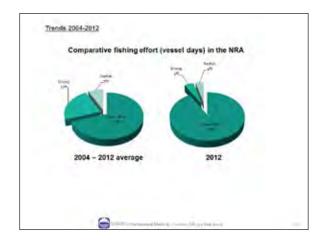


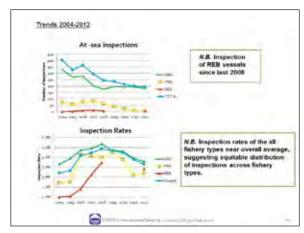




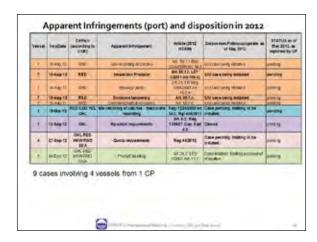












Rand

- Compliance to NAF. Missing slashes ar spaces and inaccurate radio call signs generate errors in the VMS.
- Electronic Observer Scheme (Art. 30 S) no prior notification received.
- Apparent intringements (Al) leasued by Port inspectors. Als of domestic regulations (e.g. mis-recording, > 20% diff of logbook and equivalent landed) considered as official NAFO AI?
- . Al two citations have no disposition or follow-up information
- When to transmit POR and TRA reports: POR reports are not about part landings. They are half reports transmitted by receiving vessel in transshipment. TRA reports are transmitted by both donor and receiving vessels. Should come in POR-TRA-TRA.
- · Inclusion of geospatial information in the Compliance Review.



Next steps

- CPs, particularly those with inspection presence shall present compliance issues/concerns at this meeting.
- 2. STACTIC to discuss these issues at this meeting.
- Secretariat prepares the complication tables to be transmitted to STACTIC by 24 June 2013 (90 days before Annual Meeting and in accordance with Rules of Procedure 5.1.e)
- Secretarial compiles additional information leavanded 80 days before the Annual Meeting
- 5 Secretariat prepares draft Annual Compliance Report
- 6 STACTIC to review draft; insert conclusions; finalize the Annual Compliance Review for presentation at FC during the 2013 Annual Meeting.



Annex 4. EDG Presentation

EDG Revisions

2 working papers for consideration:

- 1. STACTIC WP 13/4 (revised)
 - General corrections/clarifications

2. STACTIC WP 13/5

• Clarifications/reformat of Articles 5 and 6 (catch limitation and by-catch)

STACTIC WP 13/4

- 1. Standardize language and capitalization
- 2. Insert table headings for area coordinates
- 3. Reorganize fishing and production logbook and stowage plan measures in Article 28
- 4. Clarify how data is distributed to Contracting Parties without an inspection presence
- 5. Remove reference to "human consumption" and "reduction" from logbooks

STACTIC WP 13/5

- Clarify that Articles 5 and 6 apply to flag and chartered vessels and stocks listed in Annex I.A and B
- Clarify that all catch (retained and discarded) counts against applicable quotas
- Distinguish between allocated and "others" quota
- Revise timing of certain measures:
 - 1. Immediate closure of directed fishery
 - 2. 80% 3M redfish TAC notification
 - 3. Trial tow duration of 1 hour

Article 6.4

- By-catch allowance is calculated as the %, by weight for each stock retained on board for that Division at the time of inspection based on logbook figures
 - More clearly links by-catch with appropriate directed fisheries
 - By-catch thresholds based on catch by Division
 - Lowers by-catch limits and mitigates potential by-catch compliance issues

Article 6.6

- Trail tow cannot exceed 1 hour
- If bycatch limits are exceeded after trial tow, vessel must leave the Division for the rest of the trip
 - Reduced trial tow duration from 3 hours to 1 hour
 - Eliminated endless by-catch loophole for trial tow
 - Mitigates potential by-catch risks

Future EDG Revisions

Revisions for the 2013 annual meeting:

- 1. Chapter VIII (Articles 48-56: Non-Contracting Party)
 - Reformat/reorganize for consistency
- 2. Chapter II (Articles 15-24: VMEs and closures)
 - Reformat/reorganize for consistency
 - Insert table headings

Annex 5. Proposed Changes to NAFO's Conservation and Enforcement Measures Editorial Drafting Group

(STACTIC Working Paper 13/4 Revision 2)

Introduction

At the September 2012 Annual Meeting, the Editorial Drafting Group (EDG) outlined an approach for continuing to revise the NAFO Conservation and Enforcement Measures (CEMs), along with a list of minor clarifications to the existing CEM for consideration by STACTIC as part of STACTIC WP 12/40. To provide additional opportunity for Contracting Parties to review proposed changes to the CEM, this paper was not adopted by STACTIC at the 2012 Annual Meeting and will be reconsidered at the May 2013 STACTIC Intersessional Meeting. The EDG has updated STACTIC WP 12/40 to reflect changes to the CEM resulting from proposals adopted at the 2012 Annual Meeting, and included further minor revisions to several articles.

A brief description of the proposed minor revisions to the existing CEMs is provided below. The proposed revisions to the CEMs are organized based on their current structure. Cross-references

to the corresponding article and paragraph, based on the 2013 CEMs, and a brief description of any changes have been placed in the right column of the attached addendum for ease of reference. These proposed changes represent revisions necessary to clarify existing measures, correct inaccurate references and capitalization, and reformat the CEMs to reflect the updated style and format agreed upon during Phase I of the EDG's efforts to update the CEMs (STACTIC WP 11/21), as adopted at the 2011 Annual Meeting.

Proposed Changes to Existing CEMs:

- Article 7.9 Adding parenthesis for consistent format
- Article 9 Insertion of table headings and renumbering of paragraphs
- Article 13(d) 130 mm mesh applies to groundfish defined in Annex I.C
- Article 16.1 Insert new Figure 2 for seamount, coral and sponge protection zones
- Article 25.1 Clarify applicability of vessel notification (NOT) messages
- Article 27 Clarification of when product must be labeled
- Article 28 Clarify elements of fishing and production logbook and stowage plans
- Article 29 Replaced "data" with "position data" throughout for clarity
- Article 30 Clarify how observer data is reported and distributed
- Article 33 Reorganize paragraph 2 and clarify how long Secretariat must maintain surveillance reports
- Article 39.2 Clarify language regarding applicability of notices of infringements
- Annex II.A Reorganize logbook elements and clarify gear used
- Correct several inaccurate references and capitalization errors
- Revise all references to "pursuant to" with "in accordance with" for consistency of language.

Addendum 1: Proposed Revision to Existing CEMS

	PROPOSED NEW TEXT		OLD REFERENCE or EXPLANATION
Throughout the CEM			
Revise all references to any derivation of "flag	Revise all references to any derivation of "flag State" and "port State" to correct for the proper capitalization of the terms.	capitalization of the terms.	
Revise all references to "pursuant to" with "in	Revise all references to "pursuant to" with "in accordance with" for consistency of language.		
Article 7 – Cod Recovery Plans			
Add left parenthesis to Articles 7.9 (a), (b), (c) and (d).	and (d).		Made formatting of paragraphs consistent
Article 9 – Shrimp			
 For the purpose of this measure, Division 3M includ and depicted in Figure 1(1): 	3M includes that portion of Division 3L enclosed b	les that portion of Division 3L enclosed by lines joining the points described below in Table 1	Revised to remove first sentence (moved to Article 5) and update Figure and Table references.
Table 1: Boundary points delineating the port Annex I.B.	tion of Division 3L that is included in Division 3M i	Table 1: Boundary points delineating the portion of Division 3L that is included in Division 3M for the management of shrimp in accordance with Annex I.B.	New Table Heading following paragraph 1.
Point No.	Latitude	Longitude	
1	47°20′0	46°40′0	
2	47°20′0	46°30′0	
3	46°00′0	46°30′0	
4	46°00′0	46°40′0	
3. A vessel fishing for shrimp and other species on the The number of fishing days shall be calculated accordir		same trip shall transmit a report to the Executive Secretary signalling the change of fishery. Igly.	Article 9.4 moved to Article 9.3 because original Article 9.3 was moved to Article 5.5
4. Fishing days referred to in this Article are not transforessel flying the flag of another Contracting Party only	not transferable between Contracting Parties. Fish arty only in accordance with Article 23.	4. Fishing days referred to in this Article are not transferable between Contracting Parties. Fishing days of one Contracting Party may be utilized by a vessel flying the flag of another Contracting Party only in accordance with Article 23.	Article 9.5 moved to Article 9.4 because original Article 9.3 was moved to Article 5.5
5. No vessel shall fish for shrimp in Division 31 Table 2 and depicted in Figure 1(2):	M between 00:01 UTC on 1 June and 24:00 UTC o	 No vessel shall fish for shrimp in Division 3M between 00:01 UTC on 1 June and 24:00 UTC on 31 December in the following area as described in Table 2 and depicted in Figure 1(2): 	Article 9.6 moved to Article 9.5 because original Article 9.3 was moved to Article 5.5 and to insert table reference
Table 2: Boundary points delineating the shrimp closure area referred to in Article 9.5.	mp closure area referred to in Article 9.5.		

Point No.	Latitude	Longitude	Revised table format for
1 (same as no.7)	47°55'0 N	45°00'0 W	consistency
2	47°30′0 N	44°15′0 W	
3	46°55′0 N	44°15′0 W	
4	46°35′0 N	44°30′0 W	
5	46°35′0 N	45°40′0 W	
9	47°30′0 N	45°40′0 W	
7 (same as no. 1)	47°55′0 N	45°00′0 W	
6. No vessel shall fish for shrimp in Division 3L at described in Table 3 and depicted in Figure 1(3):	6. No vessel shall fish for shrimp in Division 3L at a depth less than 200 meters in an area east of a line bound by the following coordinates described in Table 3 and depicted in Figure 1(3):	ne bound by the following coordinates	Article 9.7 moved to Article 9.6 because original Article 9.3 was moved to Article 5.5 and to insert table reference
Table 3: Boundary points delineating 200 m bathymetric curve referred to in Article 9.6.	ymetric curve referred to in Article 9.6.		New table heading
Point No.	Latitude	Longitude	
1	46°00′00″ N	47°49′00″ W	
2	46°25′00″ N	47°27′00″ W	
3	46°42′00″ N	47°25′00″ W	
4	46°48′00″ N	47°25′50″ W	
5	47°16′50″ N	47°43′50″ W	
7. Each vessel that has fished for shrimp in Division 3L authority at least 24 hours prior notice of its estimated	7. Each vessel that has fished for shrimp in Division 3L, or its representatives on its behalf, shall provide to the competent port authority at least 24 hours prior notice of its estimated time of arrival and the estimated quantities on board of shrimp by Division.	ride to the competent port on board of shrimp by Division.	Article 9.8 moved to Article 9.7 because original Article 9.3 was moved to Article 5.5 and to insert table reference
Article 10 – Greenland halibut			
9. Where within 24 hours of the notification trannotification from an inspection vessel, the Executivessels and the flag State FMC accordingly.	 Where within 24 hours of the notification transmitted in accordance with subparagraph 6(b), the Executive Secretary does not receive a notification from an inspection vessel, the Executive Secretary immediately advises the fishing vessel that it may begin fishing and notifies inspection vessels and the flag State FMC accordingly. 	Executive Secretary does not receive a I that it may begin fishing and notifies inspection	Correction of flag State capitalization.
Article 13 – Gear Requirements			
(d) 130 mm for all other groundfish, as defined in Annex I.C.	ר Annex I.C.		Clarifies definition of groundfish in paragraph 2(d) by referencing Annex I.C

1. [insert figure of seamount closures] Article 25 – Vessel Requirements Authorization to conduct fishing activities and notification requirements 3. Each Contracting Party shall transmit to the Executive Secretary, electronically in the format prescribed in Annex II.C, a list of the vessels which it has authorized to conduct fishing activities in the Regulatory Area and any amendments thereto from time to time no later than 30 days following any change to the list Article 27 – Product Labelling Requirements	Insert new Figure 2 to depict existing seamount closure areas, renumbering subsequent Figures and updating cross references. Replace the word "operate" with "conduct fishing activities" in 25.3	
	Insert new Figure 2 to depict existing seamount closure areas, renumbering subsequent Figures and updating cross references. Replace the word "operate" with "conduct fishing activities" in 25.3 Revised to clarify when labels shall be affixed	
	Replace the word "operate" with "conduct fishing activities" in 25.3 Revised to clarify when labels shall be affixed	
	Replace the word "operate" with "conduct fishing activities" in 25.3 Revised to clarify when labels shall be affixed	
	Replace the word "operate" with "conduct fishing activities" in 25.3 fishing activities in 25.3	
	Replace the word "operate" with "conduct fishing activities" in 25.3 Revised to clarify when labels shall be affixed	
	Revised to clarify when labels shall be affixed	
	Revised to clarify when labels shall be affixed	
	Revised to clarify when labels shall be affixed	
on packaging at the time of stowage and be of a size that can be read by inspectors in the		
		_
 For the purposes of monitoring catch, each fishing vessel shall utilize a fishing logbook, a production log book and a stowage plan as defined below, to record fishing activities in the Regulatory Area. 	New paragraph. Cross references and subsequent paragraph numbering will be updated upon approval.	
	28.1(b)	
	28.1(b) and (d)(i)	
tow/set, including the amount (in kg, live weight) of each stock that is retained on ng the current fishing trip; and	28.1(d)(ii) and (iii)	
	28.1(d)(iv)	
	28.1(c)	
표	p p	5

(a) accurately records the daily cumulative production for each species and product type in kg for the preceding day from 0001 hrs (UTC) until 2400 hrs (UTC);	28.1(e)
(b) relates the production of each species and product type to the smallest geographical area for which a quota has been allocated;	28.1(d)(l)
(c) lists the conversion factors used to convert production weight of each product type into live weight when recorded in the fishing logbook;	New paragraph for clarity
(d) labels each entry in accordance with Article 27; and	28.1(c)
(e) is retained on board for at least 12 months.	28.1(d)(iv)
Stowage of catch	
4. Each vessel shall, with due regard for safety and navigational responsibilities of the master, stow all catch taken in the NAFO Regulatory Area, and ensure that such separation is clearly demarcated using plastic, plywood or netting;	28.1(g)
5. Each fishing vessel shall maintain a stowage plan that:	New to clarify elements of stowage plan.
(a) clearly shows the location and quantity, expressed as product weight in kg, of each species within each fish hold;	28.1(h)
(b) specifies the location in each hold of shrimp taken in Division 3L and in Division 3M that includes the quantity of shrimp in kg, by Division;	28.1(i)
(c) is updated daily for the preceding day from 001 to 2400 hrs (UTC); and	28.1(j)
(d) is retained on board until the vessel has been unloaded completely.	28.1(k)
6. Every fishing vessel shall transmit electronically to its FMC the following reports in accordance with the format and the content prescribed for each type of report in Annex II.D and Annex II.F:	Article 28.2 becomes Article 28.6, with all subsequent paragraphs
	renumbered.
(c) catch report (CAT): quantity of catch retained and quantity discarded by species for the day preceding the report, by Division, including nil catch returns, sent daily before 1200 hours UTC. Nil catch retained and nil discards of all species shall be reported using the 3 alpha code MZZ (marine species not specified) and quantity as "0" as the following examples demonstrate (//CA/MZZ 0// and //RJ/MZZ 0//);	Revised Article 28.2(c) becomes Article 28.6(c) and includes reference to discards and how to report nil catch
Article 29 – Vessel Monitoring System (VMS)	
VMS position data and costs	Addition of the word "position" prior to data throughout section for clarification
1. Every fishing vessel operating in the Regulatory Area shall be equipped with a satellite monitoring device capable of continuous automatic transmission of position to its land-based Fisheries Monitoring Centre (FMC), no less frequently than once and hour, the following VMS data:	29.1
automatic transmission of position to its land-based Fisheries Monitoring Centre (FMC), no less frequently than once and hour, the following VMS data:	

4 hours, the VMS Iio, facsimile or telex. Iours after it receives adio, facsimile or nat set out in Annex a available in a d in paragraph 1, so d in paragraph 1, so in the Regulatory Area; n totals by species and	2. (a) receives the position data referred to in paragraph 1 and records them using the following 3 letter codes:	29.2 (a)
So so railing sand	(i) "ENT", first VMS position transmitted by each vessel upon entering the Regulatory Area	29.2(a)(i)
sailing so so so so and	(ii) "POS", every subsequent VMS position transmitted by each vessel from within the Regulatory Area; and	29.2(a)(ii)
ves so	(iii) "EXT", first VMS position transmitted by each vessel upon exiting the Regulatory Area	29.2(a)(iii)
so so so railing rea;	8. Every fishing vessel operating with a defective satellite monitoring device, shall transmit, at least once every 4 hours, the VMS position data to its flag State FMC by other available means of communication, in particular, satellite, email, radio, facsimile or telex.	29.8
so so railing railing sand	Transmission of VMS position data from the FMC to the Executive Secretary	
ing ; e	9. (a) its FMC transmits VMS position data to the Executive Secretary as soon as possible, but no later than 24 hours after it receives them and may authorize fishing vessels entitled to fly its flag to transmit VMS position data by satellite, email, radio, facsimile or telex, direct to the Executive Secretary; and	29.9(a)
presence in the ita available in a ed in paragraph 1, so hing trip, a report detailing ie in the Regulatory Area; ch totals by species and	(b) the VMS position data transmitted to the Executive Secretary are in conformity with the data exchange format set out in Annex II.E and further described in Annex II.D.	29.9(b)
ed in paragraph 1, so ed in paragraph 1, so hing trip, a report detailing ee in the Regulatory Area; ch totals by species and		(1)0700
ed in paragraph 1, so ed in paragraph 1, so hing trip, a report detailing ee in the Regulatory Area; ch totals by species and	10. (b) makes available as soon as possible the VMS position data to all Contracting Parties with an inspection presence in the Regulatory Area;	29.10(b)
ed in paragraph 1, so ed in paragraph 1, so hing trip, a report detailing e in the Regulatory Area; ch totals by species and		29.10(c)
ed in paragraph 1, so hing trip, a report detailing e in the Regulatory Area; ch totals by species and	Fisheries Commission to the Scientific Council, makes VMS position data available in	29.10(d)
hing trip, a report detailing e in the Regulatory Area; ch totals by species and	(e) upon determining that a vessel has failed to transmit two consecutive VMS position data reports as specified in paragraph 1, so notifies the FMC of the flag State Contracting Party without delay;	29.10(e)
hing trip, a report detailing e in the Regulatory Area; ch totals by species and	Article 30 – Observer Program	
e in the Regulatory Area; ch totals by species and	(g) submits to the flag State Contracting Party and to the Executive Secretary, within 30 days following completion of a fishing trip, a report detailing the data recorded in accordance with this paragraph.	In Article 30.A.2(g), replaced "deployment" with "fishing trip" to ensure that an observer report is submitted for each trip
e in the Regulatory Area; ch totals by species and	7, The Executive Secretary:	Revised paragraph 7
the Keguiatory Area	 (a) provides copies of the observer report referred to in Article 30.A.2(g) to Contracting Parties with an inspection presence in the Regulatory Area; and (b) upon request, provides copies of the observer report referred to in Article 30.A.2(g) that contains daily catch totals by species and division instead of by individual hauls and co-ordinates to Contracting Parties without an inspection presence. 	to clarify how data is distributed to Contracting Parties with and without an inspection presence in the Regulatory Area

Article 33 – Surveillance Procedures	
IN PARAGRAPH 2, - Collate the chapeau and (a) to make a single sentence - move (b) to Article 40, as new inclusion in the current (d)	
3. The Executive Secretary maintains the Surveillance Reports until follow-up action is concluded by the flag State Contracting Party of the vessel concerned and sends final reports to Contracting Parties with an inspection presence in the Regulatory area.	33.3 + New text for clarity
Article 39 – Follow-up to Infringements	
2. Each Contracting Party shall ensure that in proceedings it has instituted, it treats all notices of infringement issued in accordance with Article 38.1(l) as if the infringement was reported by its own inspector.	39.2 + Revised text to clarify that CPs must treat observer/ inspector obstruction notices as if their own entities reported the infringement.
Article 40 – Contracting Party Reports on Inspection, Surveillance and Infringements	
1. (d) the action it has taken during the previous year concerning every infringement notified to it by a Contracting party or with regards to each Surveillance Reports it has received, including a description of the specific terms of any penalties imposed;	40.1 (d) + 33.2 (b) The second sentence of 33.2 (b) is already in 40.3, so no need for further change in 40.3. The additional text is needed to fully reflect text from 33.2(b).
In paragraph 4, the word "concerning" should be replaced by "for"	

Annex II.A – Recording of Catch (Fishing Logbook Entries)	
Vessel name	Removed separate fields
Vessel nationality Vessel registration number	consumption and for
Registration port	reduction
Type of gear used (*1) (*2)	
Date of fishing activity (day/month/year: dd-mm-yyyy)	
Start time of each tow/set (UTC)	
Start position of each tow/set:	
Latitude	
Longitude	
Division	
Water depth	
End position of each tow/set:	
Latitude	
Longitude	
Division	
Water depth	
End time of each tow/set (UTC)	
Species names caught in each tow/set (Annex I.C)	
Disposition of each tow/set: (*3) (*4)	
Total catch of each species (kilograms live weight)	
Discards of each species (kilograms live weight)	
Were by-catch limits specified in Article 6.2 exceeded? (V/N)	
Was a trial tow conducted in accordance with Article 6.3(c) conducted? (Y/N)	
Landings or Transhipments of catch from the Regulatory area	
Quantity landed or transhiped of each species	
Date(s) of landing or transshipment (day/month/year: dd-mm-yyyy)	
Master's signature	
Instructions	
(*1) When two or more types of gear are used in the same 24-hours period, records should be separate for the different types	
('Z) gears and attachments shall be identified by codes in Annex II.J (*3) Quantities shall be in kg live weight	
(*4) Species shall be identified by the codes in Annex I.C	

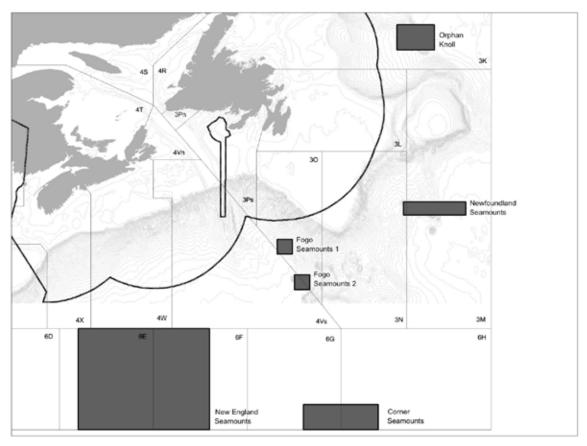


Fig. 2: Depiction of seamount closures outlined in Article 16.1

Annex 6. Observer Program – Article 30

Standardization of Observer program data and Reporting requirements in the NAFO Regulatory Area

(STACTIC Working Paper 13/14)

Explanatory Memorandum

As outlined in STACTIC WP 12/41, in the 2012 Progress report of the Expert Panel, it was recommended that standard protocols be developed and applied for the reporting of NAFO observer information by all flag States.

To ensure that data is collected and reported in a consistent and timely manner thereby, facilitating the compilation and analysis of the observer data, it is recommend that provisions be adopted in the NAFO Conservation and Enforcement Measures (NCEMs) that require the use of a standard observer collection template and that the NAFO Secretariat automatically disseminate the reports to those Contracting Parties with an inspection presence in the NAFO Regulatory Area (NRA).

Article 30, 2 (g) currently requires that observers submit to the flag State Contracting Party and to the Executive Secretary, within 30 days following completion of a deployment, a report, however the measures fails to identify a standard format for this report

A review of material currently available on the NAFO website uncovered an Electronic Observer Report template that comes in two separate spreadsheets – (1) on catch and effort data (NAFO Observer Catch Data Form), (2) on the length frequency data (NAFO Observer Length Frequency Form). These forms capture the information that the observers are required to collect and record.

This amendment to the measures would ensure that data is collected and reported in a consistent and timely manner thereby facilitating the compilation and analysis of the observer data.

In support of this objective, Canada is proposing the use of a standardized data collection format and process through the addition of a new Annex II. M (standardized observer report template). The proposal would facilitate the compilation and analysis of observer data. This in turn would enhance the quality of reporting, reduce costs and make the information more relevant for all Contracting Parties and key stakeholders.

Proposal

Article 30 - Observer Program,

(1) Replace the current Duties of the flag State Contracting Party 2. (g) with the following:

- (g) submits to the flag State Contracting Party and to the Executive Secretary, within 30 days following completion of a deployment, a report *as set out in Annex II.M.* detailing the data recorded pursuant to this paragraph.
- (2) Add: Annex II.M Observer Report (annex 1)

(3) Replace the current *Duties of the Executive Secretary* 7. with the following:

- 7. The Executive Secretary will provide to any Contracting Party:
- (a) with an inspection presence in the NRA, a copy of the report referred to in paragraph 2(g), including individual hauls and co-ordinates.
- (b) without an inspection presence in the NRA, upon request, a copy of the report referred to in paragraph 2(g), providing daily catch totals by species and division

Annex I Annex II. M. Standardized Observer Report Template

Part 1. Fishing Trip and Gear Information

1A. Fishing Trip

Vessel Call Sign	
Vessel Name	
Flag State	
Trip Number	
Fishing Master's Name	
Number of Crew	
Observer's Name	
Observation Date Started	
Observation Date Ended	
Date of Report	
Vessel Length (m)	
Vessel Type	
Vessel Gross Tonnage	
Engine Power (indicate HP or KW)	
Frozen Hold Capacity (m³)	
Fish Meal Hold Capacity (m³)	
Other Hold Capacity (m³)	
Directed Species	
NAFO Division/s visited	
Date of Entry into NRA	
Date of Exit from NRA	
Port of Landing	
Other Area/s visited	
Comments	

1B. Trawl Gear Information

									rawl Ge	ar Info	Trawl Gear Information						
	,	000						Mesh Size (mm)	te (mm)								
Gear #	1 6	Moko		Wings			Body		Lengt	Lengthening Piece	Piece		Codend	+	Attachments	Attachments Grate Spacing	Straps
	l y be	Mare	High	Low	Average	High	Low	Low Average High Low Average High Low Average	High	Low	Average	High	Low	Average			
of a care of																	

Part 2. Catch and effort information by tow/set/haul

			_		_		_									_			_			
		Comments																				
		Discarded (kg)																				
		Retained (kg)																				
	Conversion	Factor Used																				
		Product Form																				
	Directed	Species? (yes or no)																				
Catch and Effort Information by Haul	Species	(FAO 3- alphaSpecies Code)																				
nformatio		Time (UTC) (HHMM)																				
Effort I	FINISH	Depth (m)																				
atch and	FIN	Longitude (decimal)																				
ပိ		Latitude (decimal)																				
		Time (UTC) (HHMM)																				
	START	Depth (m)																				
	ST	Latitude Longitude (decimal) (decimal)																				
		Latitude (decimal)																				
		NAFO																				
		Date (YYYYMMDD)																				
		Haul # Gear #																				
		Haul ≄																				

Part 3. Compliance Information

Enter observation on:

- 1) Discrepancies between logbook entries and observer's estimates.
- 2) Functional of satellite tracking device.
- 3) Any other observation

Part 4. Effort and Catch Summary

4A. Effort Summary

			Eff	fort Sum	mary Tal	ole			
NAFO	Gear #	Directed	Da	ate	# of hauls	Dept	h (m)	# Hours	# Fishing
Division	Gear #	Species	Start	Finish	# OI Hauis	Minimum	Maximum	fished	Days

4B. Catch Summary

Trip C	atch Summary (catch by	Division	and Spec	ies)
NAFO	Species		Catch (kg)	
Division	Species	Retained	Discarded	Total

Part 5. Length Frequency Form

Length Frequency	Trip Number:	
Species Code:	Tow/Set/Haul #:	
Sample Type:	Measure Type:	
Meas. Convention	Total Measured:	
Sample Wt.:	Catch Weight:	
Gear Type:	Gear Number:	

sex: sex:

Tally	#	Tally	#
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
0		0	
1		1	
2		2	
3		3	
4		4	

SECTION VI

(pages 277 to 292)

Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS)

9-11 July 2013 Saint-Pierre et Miquelon

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Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Conservation Plans and Management Strategies (WGFMS-CPRS)

9-11 July 2013 Saint-Pierre et Miquelon

1. Opening of the Meeting

The Chair, Jean-Claude Mahé (EU), opened the meeting at 1015 hrs on Tuesday, 9 July 2013. M. Latron Patrice, Préfet de Saint-Pierre et Miquelon welcomed the participants (Annex 1). Representatives from Canada, European Union, France (in respect of St.-Pierre et Miquelon), USA, as well as from the Scientific Council were in attendance (Annex 2).

2. Appointment of Rapporteur

Ricardo Federizon (NAFO Secretariat) was appointed rapporteur.

3. Adoption of Agenda

The sequence of item numbers from the previously circulated provisional agenda was slightly modified. Two sub items under Other Matters, Greenland halibut and Shrimp in Div. 3L, were inserted (Annex 3).

4. Presentation of Scientific Council Advice

In 2012, the Fisheries Commission (FC) requested the Scientific Council (SC) for specific advice on stocks currently under the Conservation Plans and Rebuilding Strategies (CPRS) programme and on stocks for consideration under CPRS. The advice concerns fish stocks 3M cod, 3NO cod and 3NO witch flounder and other subject relevant for the agenda of this meeting.

The SC representative presented the scientific advice which was formulated by SC at its June 2013 Meeting (Annex 4). The comprehensive scientific advice is documented in NAFO SCS Doc 13/17. Feedback of the SC was also provided on the draft Terms of Reference of two proposed Joint Fisheries Commission-Scientific Council Working Groups (slide 17 of Annex 4). In addition to the advice on the 3 stocks noted above, SC's review of initial work on management strategy evaluation for 3LNO American plaice was also presented.

5. Elaboration of a general framework including management objectives and performance statistics

A general framework on risk-based management strategies was developed (Annex 5). The purpose of this document is to provide guidance on the development and implementation of strategies based on the application of the Preacautionary Approach framework.

The document will be forwarded to the Fisheries Commission with a recommendation for adoption.

6. Development of alternative strategies for stocks that may not be suited to formulaic rules and/or for stocks where reference points do not exist or cannot be developed

Review of the latest scientific advice suggests there is limited progress on which the development of alternative strategies can be based. Reference points should be developed wherever possible, and the WG noted the SC priority on this matter. The advice is that it will be stock dependent. It was however noted that certain elements that are required in the development of alternative strategies have been reflected in the general framework (see Annex 5).

This WG recommends that this item be retained in the agenda of the proposed joint FC-SC WG on Risk-based Management Strategies (FC-SC WG-RBMS).

7. Review and update of management objectives, framework and performance statistics of 3NO cod and 3LNO American plaice CPRS

The WG considered the SC advice on target reference points for 3NO cod. The WG further noted that the SC analysis suggests that the current square bracketed value for Bmsy is likely to be too high, compared to the target reference point. The WG did not recommend adoption of the Btarget value as proxy for Bmsy at this time and recommends that

FC seek clarification from SC in September 2013 on the derivation of the target reference points, including on the possible use of Btarget as a proxy for Bmsy.

Concerning 3LNO American plaice CPRS, it was noted that there was no significant change of advice from the SC regarding this stock. Therefore, this WG did not make specific recommendations of CPRS update.

Recognizing the need for target reference points for biomass and fishing mortality in managing fisheries, the need to clarify the purpose of an interim milestone such as Bisr in the current plan and the development of a framework for risk-based management strategies, the WG suggests that consideration be given to updating relevant sections of the NAFO PA Framework.

Considerations should be given to future review of the exsiting CPRS/Management Strategies taking into account the ongoing work to develop Management Strategies for other stocks.

8. Development of CPRS for 3NO witch flounder and initial development of CPRS for 3LN redfish and 3M cod

Concerning 3NO witch flounder, in order to continue the development of the CPRS, and noting the SC priority to establish reference points for this stock, the WG recommends FC to request SC to develop reference points including Blim, Bmsy and Fmsy (e.g. through modelling or proxy). The WG further recommends FC, jointly with SC to request the joint FC-SC WG-RBMS to continue the consideration of CPRS development during scheduled meetings.

Concerning 3LN redfish, the WG recommends FC, jointly with SC to request the joint FC-SC WG-RBMS to continue to develop the CPRS, possibly in the form of a *Managmenent Strategy Evaluation (MSE)*, including defining management objectives and performance statistics.

Noting the possible future availability of scientific resources, the WG recommends FC to consider requesting SC to be prepared to undertake a MSE for 3LN redfish prior to 2014 Annual Meeting. The WG notes that this would require an iterative process requiring dialogue between the two bodies through the FC-SC WG-RBMS including possible intersessional meetings to define management objectives and performance statistics. The joint FC-SC WG-RBMS would have the authority to provide SC, if agreed by the FC-SC WG-RBMS, with appropriate input (management objectives, performance statistics, options for Harvest Control Rules (HCR)) for an MSE for 3LN redfish and that this would launch the SC process.

Concerning 3M cod, the WG recommends FC to request SC in continuing the work on reference points and provide Bmsy and Fmsy proxies. The WG further recommends FC, jointly with SC to request the joint FC-SC WG-RBMS to continue to develop the CPRS, including defining management objectives and performance statistics. An initial meeting would occur prior to the June 2014 SC meeting and could accommodate a range of related issues (e.g. 3LN redfish, 3NO witch flounder, etc).

In order to carry out the above recommendations and in consideration of the proposed joint FC-SC WG-RBMS, the WG recommends that FC, jointly with SC requests FC-SC WG-RBMS to meet intersessionally (in person or electronically) as needed. Such meetings will be called by the cochairs and in consultation with CPs and the Secretariat. An initial meeting would occure prior to the June 2014 SC meeting and could accommodate a range of related issues (e.g. 3NO witch flounder, 3LN redfish, 3M cod).

9. Discussion on the draft Terms of Reference and work plan of the proposed Joint Fisheries Commission-Scientific Council Working Group on Conservation Plans and Rebuilding Strategies

Following the 2012 recommendation that this WG considers the broader use of the Precautionary Approach framework, extension of management strategy evaluation and/or other risk-based management approaches including conservation plans and rebuilding strategies, FC tasked the FC Chair in collaboration with the Chairs of SC and other relevant WGs to draft the ToR of the proposed Joint Fisheries Commission-Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS).

The Chair on behalf of the FC Chair introduced the draft ToR contained in FCWG-CPRS WP 13/1. Discussions on the draft led to the conclusion of this WG that the proposed WG-RBMS should adopt a flexible approach to conducting its meetings. To expedite its work, the proposed joint WG should have the ability to have open forum/dialogue as well as more formal agenda elements (sessions) with official delegations , at the discretion of the co-chairs. It was also recognized that flexibility would be required in this approach to accommodate the blended nature of the joint WG and the issues being addressed. Recommendations to FC would be developed through formal sessions with official delegations.

10. Recommendations to be forwarded to the Fisheries Commission

Recommendations formulated by the WG as found in various sections of this Report are compiled. The following agreed recommendations are to be forwarded to the FC at the 2013 Annual Meeting:

1. On General Framework

The WG recommends that General Framework on Risk-based Management Strategies (Annex 5) be adopted.

2. On Development of alternative strategies for stocks that may not be suited to formulaic rules and/or for stocks where reference points do not exist or cannot be developed

The WG recommends that this item be retained in the agenda of the proposed joint FC-SC WG-RBMS.

3. On Update of 3NO cod CPRS

The WG recommends FC to request SC clarify in September 2013 the derivation of target reference points, including on the possible use of Btarget as a proxy for Bmsy.

- 4. On Development of CPRS for 3NO witch flounder, 3LN redfish and 3M cod
 - 4.1 Concerning 3NO witch flounder, the WG recommends FC to request SC in providing reference points including Blim, Bmsy and Fmsy (e.g. through modelling or proxy). The WG further recommends that FC, jointly with SC, request the FC-SC WG-RBMS continue the consideration of CPRS development during scheduled meetings.
 - 4.2 Concerning 3LN redfish, the WG recommends that FC, jointly with SC, request the WG-RBMS to meet intersessionally (in person or electronically) as needed to continue the development of the CPRS possibly in the form of MSE. An initial meeting would occur prior to the June 2014 SC meeting.
 - 4.3 Concerning 3M cod, the WG recommends FC to request SC continue the work on reference points and provide Bmsy and Fmsy proxies. The WG further recommends that FC, jointly with SC request the FC-SC WG-RBMS to meet intersessionally (in person or electronically) and continue to develop the CPRS, including defining management objectives and performance statistics.
- 5. On Management Strategy Evaluation (MSE) Greenland halibut and shrimp
 - 5.1 Concerning 2+3KLMNO Greenland halibut, the WG recommends a review focusing on the performance of the current Management Strategy and HCR in order to assess if the initial objectives of the rebuilding programme are being met. The WG further recommends FC to consider developing a work plan for the Greenland halibut MSE review with a view to take a decision in September 2014.
 - 5.2 Concerning 3L Shrimp, the WG recommends FC to consider requesting the WG-RBMS to start developing a management strategy, including HCR.

11. Other Matters

a) Greenland halibut Management Strategy Evaluation (MSE).

The WG noted that the 2+3KMLNO Greenland halibut Management Strategy (MS) was adopted in 2010 and shall be in force initially until 2014. The draft terms of reference of the WG-RBMS provides a mandate to undertake an evaluation of, and possible update of the MS for this stock.

Noting timelines for the review, FC would need to consider requests to SC, which would provide the necessary scientific analysis for the review. The FC will need to consider the approach to the review and as an initial step, the WG

recommends a review focusing on the performance of the current Management Strategy and HCR in order to access if the initial objectives of the rebuilding programme are being met.

FC would also need to consider developing a work plan for Greenland halibut MSE review with a view to take a decision in September 2014.

b) Shrimp in Division 3L.

The WG recommends FC to consider requesting the WG-RBMS to start developing a management strategy including HCR

12. Adoption of the Report

This report was adopted through correspondence after the meeting.

13. Adjournment

The meeting adjourned at 1300 hours on Thursday, 9 July. The Chair thanked the host France (in respect of Saint-Pierre et Miquelon) for the hospitality and excellent meeting facilities, the participants for their input and the Secretariat for their support. Canada and EU on behalf of other delegations expressed its thanks and appreciation to the Chair for its leadership.

Annex 1. Welcome speech by M. Latron Patrice, Préfet de Saint-Pierre et Miquelon

France on behalf of St-Pierre et Miquelon is honored to welcome this OPANO work group and the honorable delegations taking part in this reunion.

It is St-Pierre et Miquelon's second time holding an OPANO reunion. The last one was in 2009. This underlines the importance St-Pierre et Miquelon gives the OPANO, an organization internationally known for its seriousness and its definite competence in this matter of fishery management.

France on behalf of St-Pierre et Miquelon, values a long term stock management. The history of the islands has been closely linked to the fishery for the past centuries and will be able to go on only because of a well-planned resource management. For this reason, France on behalf of St-Pierre et Miquelon totally complies with the fundamental principles that govern OPANO.

Therefore, it seems essential that cooperation between scientists and resource managers be as close as possible within the regional fishery organisations. To that effect, France on behalf of St-Pierre et Miquelon is pleased to see that this dialogue is precisely one of the reasons for this work groups existence.

Jean-Claude Mahé, Chairman of this work group, has a great knowledge of the islands, for he is a native of St-Pierre and I would like to wish him to successfully lead the debates so that this reunion turns out to be most productive. I would also like to mention the presence of the President of the Conseil Territorial de St-Pierre et Miquelon, Stéphane Artano, leader of the French delegation and also vice-president of the OPANO.I wish you all a great stay on our islands and hope that your debates will be productive.

Annex 2. List of Participants

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Annex 3. Agenda

- 1. Opening of the Meeting
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Presentation of Scientific Council Advice
- 5. Elaboration of a general framework including management objectives and performance statistics
- 6. Development of alternative strategies for stocks that may not be suited to formulaic rules and/or for stocks where reference points do not exist or cannot be developed
- 7. Review and update of management objectives, framework and performance statistics of 3NO cod and 3LNO American plaice CPRS
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- 10. Recommendations to be forwarded to the Fisheries Commission
- 11. Other Matters
- 12. Adoption of Report
- 13. Adjournment

Annex 4. Scientific Advice

Advice from SC relevant to CPRS

5C met from Jun 7-20, 2013 in Dartmouth

Stock assessments and responses to FC requests were the main topics

This presentation summarizes SC responses to FC requests on CPRS-related issues

B_{msv} and F_{msv} for cod in Div. 3M.

- SC concluded that is not possible at this time to provide candidate values of Bmsy and Fmsy
 - Estimates not plausible due to the high uncertainty in the stock recruit relationship
 - Proxies depend on assumptions about recruitment
 - More research needed on the possibility of changes in productivity and the level of recruitment that should be used to estimate MSY

Productivity of 3NO Cod and define MSY reference points

- SC concluded that there have been major changes in productivity for Div. 3NO cod.
- During 1990s sustainable yield was near zero.
- As interim F target SC recommends either F0.1
 (0.19) or F35%SPR (0.20) based on long term data.

 As interim F target SC recommends either F0.1
 (0.20) based on long term data.
- SC further recommends a level of 180 000 185 000 t of SSB as an interim Btarget.

Productivity of 3NO Cod and define MSY reference points

- Changes in productivity for Div. 3NO cod have had a major impact on the level of fishing mortality that the population can sustain without decline.
- Low productivity period for extended period of time in 1990's. During this period sustainable yield was near zero.
- Current levels of productivity are much higher, although not as high as in the 1960s.
- There is a need to develop fishing mortality reference points that can be updated using only recent data, but that incorporate all components of productivity.

Productivity of 3NO Cod and define MSY reference points

- It is recommended that until more information is available, a value of F0.1 (0.19) or F85% (0.20) be considered as a possible France. These levels of Finare a very low probability of being higher than Film = Fmax (less than 5%).
- A possible candidate for Branget could be the equilibrium SSB of the proposed France (F0.1 or F35's), which gives a value around 180,000 – 185,000 t.
- Taking a similar definition for Bist as the ICES MSV Bitrigger, a Bist
 candidate for Dis 3ND cod could be a value around 120,000 if we take a
 very low probability (less than 5%) or 135 000 t if we take a low probability
 iless 10%) of boing below these levels when fishing at the proposed f
 tarrets.
- Conversion allow of level of 559/7 which is \$50, of the \$7/8 intrined when

With regards to witch flounder in Div. 3NO, FC requests SC to provide reference points or proxies, including Blim.

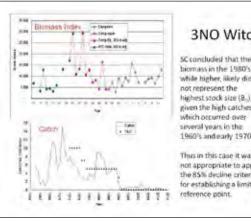
- SC analysed available data for 3NO witch but was not able to recommend reference points at this time.
- Biomass indices in the mid 1980's were higher, but it was considered unlikely that they represent the highest level experienced by this stock
- Thus in this case it was not appropriate to apply the 85% decline criterion for establishing a limit reference point.

With regards to witch flounder in Div. 3NO, FC requests SC to provide reference points or proxies, including Blim.

- · The lowest points in the biomass index occurred 1993-1998, and measuring increase of the stock against this level is a useful metric, until a limit reference point can be calculated.
- Establishing reference points for this stock remains a priority in SC, and further analysis should continue, to be presented in the full assessment of this stock scheduled in 2014.

3NO Witch

- The Canadian spring survey index has data from 1973 to 2012, and was therefore considered the most useful index to examine for developing a possible LRP.
- · Survey indices in the early period were adjusted for lack of coverage in strata between 366 and 731 m in depth, which began in 1991.



3NO Witch

biomass in the 1980's while higher, likely did not represent the highest stock size (8.). given the high catches which occurred over everal years in the 1960's and early 1970's.

Thus in this case it was not appropriate to apply the 85% decline criterion for establishing a limit reference point.

3NO Witch

- · Another candidate for a proxy for an LRP is the lowest biomass from which there has previously been a rapid and sustained recovery (Brecover).
- · Scientific Council considered it unlikely that this criterion has been met for this stock.

Witch flounder in Div. 3NO

Fisheries Commission requests the Scientific Council to provide estimates for exploitable biomass and for spawning. stock biomass, or appropriate proxies, as well as smoothing, as appropriate.



An index of spawning stock biomass (SSB) was accepted by SC. The index sliows an increase from the lowest values in the mid 1990's, but remains well below the peak values in 1985 to 1990, indices of exploitable biomass, although not developed here, would likely be very similar to the total biomass indices.

Stocks without Reference Points

- With regards to stocks without reference points and that cannot be developed, the Fisheries Commission requests the Scientific Council to provide advice on:
 - a) considerations for reopening stocks under moratorium.
 - b) what would constitute a sustainable harvest rate for healthy stocks.

Stocks without Reference Points

- A full answer implies the existence of reference points for the stocks in question.
- SC recommends high priority is given to the development of limit reference points within Scientific Council.
- SC also recommends that the current NAFO PA framework be revised and that this should be conducted in close cooperation between SC Council and the proposed joint SC-FC Working Group on Risk-Based Management Strategies.

Stocks without Reference Points

- Ref. pts are needed to delineate sustainable exploitation levels Reopening of fisheries would occur when stock has increased to a level where there is low risk of impeded recruitment.
- In theory refipts can be defined for all stocks either derived quantitatively or as proxies. However, this has to be done on a stock by stock basis as each stock is a special case. For a few stocks particular circumstances —for example indices that do not adequately cover the stock distribution — might in the interim prohibit this.

Stocks without Reference Points

- SC is in the process of developing reflipts for all stocks. This
 is time consuming, and has to be done in addition to all
 other commitments of SC and FC and is therefore not yet
 finalized.
- SC recognizes the need to speed up the definition and assignment of PA (and/or other) ref pts to all NAFO stocks.

Terms of reference for joint SC/FC WGs

- In general the objectives and proposed specific duties for the group were welcomed.
- SC believes that its role at these meeting is to clarify technical aspects of the scientific advice and this function is best served by an open form of dialogue between members of SC and FC.
- During other phases of the meeting it may be desirable to revert to a delegation-based style. A "Scientific Council Delegation" could be formed at this point.

Management plans for Div. 3LNO Am. plaice

- The current CPRS contains rules that are too yague and/or incomplete in their current formulation to be tested by simulation.
- In 2012 SC advised that the CPRS decision rules were complicated, and that the performance statistics (which embody the management objectives) were vague and recommended simpler harvest control rules be considered for adoption.
- Preliminary work on management strategy evaluation (MSE) for Div. 3LNO American place was reviewed by SC.

Management plans for Div. 3LNO Am. plaice

- This study tested the performance of simple, explicit, surveybased harvest control rules and is capable of quantifying risks with respect to PA reference points, a requirement under the NAFO PA framework.
- . The work shows promise and should be continued.
- Discussions on management objectives and performance statistics are needed and this could take place in the new Joint FC-SC WG on Risk-Based Management Strategies.
- Further scientific work on the MSE for American place should be conducted and reviewed by Scientific Council.

Relevant SC response from 2012 FC Request:

- The Fisheries Commission adopted in September 2011, conservation plans and rebuilding strategies for 3NO cod and 31NO American place and "recogniting that further updates and development of the plans may be required to ensure that the long term objectives are met". FC requests 3E to:
- a) Provide advice on the addition of a new intermediate reference point (i.e. Bist) in the NAFO precautionary approach framework to delineate an additional zone between Blim and Brnsy as proposed by the working group.
- b) Taking into consideration the new reference point Biss, provide advice on an updating NAFO PA framework and provide a description for each sone.

SC response from 2012

- In 2011 50 advised that Bluef was not required because both Div. 31NO American place and Div. 3NO cod have analyses of the probability that biomatis is bolow Blue. However an additional received Blim and British in the NAFO PA Framework could be considered.
- Providing advice on a new intermediate religit and selecting an appropriate level depends on the purpose and on the properties that such a reference point would have. The purpose of the proposed Bar is not clear to SC.

 The proposed Bar is not clear to SC.

 The property of the SC to track
- If the purpose is to serve as a 'meestone for the PC to track rebuilding. Then the reference point can have any value that the PE wishes.
- warns.

 If the purpose of the Birr is to mark the fregioning of the safe zone or to mark an SSB above which it there is a high probability of being above Birr, or if the purpose is to mark any zone for which there would be some change in an MCR, then analy set as to the appropriate level would need to be conducted.

SC response from 2012

- Scan't advise on particular levels with it is clear as to the purpose of Blar.
- SC also can not advise on updating the NAFU PA-framework as it also depends on the purpose of Biss.
- . SC recommends that this exercise be conducted jointly with the FC.
- Therefore, the SC chair will contact the FC chair about the possibility of forming a joint working group to no evaluate the NAFO PA framework.
 SC members of this group would bring work power reviewed by SC to the discussions.

Annex 5. General Framework on Risk-based Management Strategies

(FCWG-CPRS WP 13/3 Rev. 2)

1. Introduction:

The purpose of this document is to provide guidance on the development and implementation of risk management strategies based on the application of the Precautionary Approach framework.

While not intended to be a template, the following are recommended elements for the development and implementation of risk based management strategies

2. Biological Synopsis / Fishery Overview:

A brief overview outlining the main biological characteristics of the stock with emphasis on the aspects which impact rebuilding of the stock, as appropriate, including:

- A species' **life history characteristics** (e.g. growth rates, fecundity, longevity, age-at-maturity, size-at-maturity) critical elements to consider in determining a stock's response to both fishing pressures and rebuilding measures
- Multispecies interactions these can have a strong influence on stock recovery potential and ability of all stocks to reach MSY
- Environmental conditions (e.g. temperature, salinity) will impact the rebuilding dynamics of a stock by affecting life history characteristics, such as fecundity, growth and general productivity. Environmental conditions will also influence predator and prey abundance, which in turn impacts a stocks' overall health and recruitment.

A brief overview of the fisheries in which the stock is captured, including both targeted catch and by-catch, including:

• Impacts of rebuilding on other fisheries - rebuilding efforts for a depleted stock harvested in a mixed-stock or multispecies fishery may have impact on / be impacted by fishing opportunities on targeted stocks/species whose populations are healthy

3. Objective(s):

Objectives (fishery and conservation related) should be clearly stated and direct the development of specific measures. Milestones may also be established as interim steps to achieving objectives.

Objectives and milestones may take into account the following components:

- A target, which is preferably quantifiable (e.g. specified biomass goal)
- A desired time to reach the target (e.g. specified # of years/ generations)
- An acceptable probability level for reaching the target within the specified timeframe

The long-term objective of a Risk-based Management Strategy is to achieve and to maintain the Stock Biomass and the Fishing Mortality in the 'safe zone', as defined by the NAFO Precautionary Approach framework and to ensure that fisheries resources are maintained at or restored to levels capable of producing maximum sustainable yields, according to the Convention objectives (resolution NAFO/GC Doc. 08/3).

4. Reference Points:

The level of information available to perform a quantitative assessment and to define biological reference points may vary considerably between stocks. There are currently stocks with an adopted quantitative assessment and with limit and/or potential target reference points defined but there are stocks with inadequate information to perform a quantitative assessment and for which the definition of reference points is difficult or not possible.

Where limit reference points can be defined, they should be calculated by the Scientific Council (SC).

SC should also provide advice and analysis in support of the development of other reference points (e.g. targets).

5. Guidance on Management Strategies and Harvest Control Rules¹

a. Stocks below limit reference point

Noting the merits of quantifiable and testable harvest control rules, these aspects should be considered, on a stock by stock basis, in the development of risk-based management strategies.

- no directed fishing, and
- by-catch should be restricted to unavoidable by-catch in fisheries directing for other species

b. Re-opening to direct Fishing:

A decision to reopen the fishery should only be considered when Biomass is above Blim.

When a stock has recovered beyond B_{lim} , initial TAC levels should be set at conservative levels to allow for continued recovery and growth.

Decisions to reopen a fishery should take into account any available risk analysis. Where quantitative risk analysis is available, reopening the fishery should only be considered when there is a very low² probability of Biomass actually being below B_{lim} .

In the absence of a quantitative risk analysis, a decision to reopen a fishery would only occur when FC has a high degree of confidence, taking into account any available advice/analysis from SC, that biomass is above Blim or its proxy. Any subsequent increases in TAC should be gradual in order to allow for monitoring of the stock response to the fishery.

c. Open fisheries:

The NAFO Precautionary Approach framework should be applied and Harvest Control Rules (HCR) should be developed in order to specify actions to be taken.

Fisheries specific harvest control rules should be designed with the objective of keeping the fishery in the safe zone.

There should be a low probability that fishing mortality will exceed Flim.

Scenarios may be considered which mitigate decline in biomass and/or limit increases in TACs as a means to balance fishery socio-economics and long-term conservation objectives.

d. Closing of Directed Fishing:

When the estimated biomass is at B_{lim} (that is when there is a 50 % probability to be at or below Blim), the fishery should be closed, subject to consideration of short term projections and stock fluctuations.

e. Additional management measures

When practical, considerations may be given to specific management measures to reduce fishing mortality associated with bycatch including discards, and/or improve selectivity.

6. Ecosystem Considerations:

Risk-based management strategies should be consistent with the ecosystem approach and take into consideration the associated species.

7. By-catch provisions:

For closed fishery, by-catch provisions in the CEMs should be reviewed periodically, to coincide with scheduled assessments of the stock by Scientific Council, and adjusted to reflect the overall trend in spawning stock biomass.

8. Monitoring and Review:

Reviews should be completed on a regular basis at intervals such that failures of the plan (e.g. prolonged declining or stagnant stock growth) can be detected, and changes made as required.

On-going changes in stock status, resulting in implementation of associated harvest decision rules should be continuously examined; trends observed in long-term monitoring are an essential element for consideration in reviewing rebuilding plan performance.

Additional management action may be considered if the stock does not show signs that rebuilding is occurring.

² The actual level of risk should be specified by managers.

Addendum

Report of the Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS) (FC Doc. 12/5)

4 September 2012 via WebEx teleconference

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5.	Consideration of Scientific Council Advice as it relates to B _{msy} and appropriate HCR consistent with the NAFO PA Approach for 3M Cod
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Report of the Fisheries Commission Working Group of Fishery Managers and Scientists on Conservation Plans and Rebuilding Strategies (WGFMS-CPRS)

4 September 2012 Via WebEx

1. Opening

The Chair Jean-Claude Mahé (EU) opened the meeting at 0920 hrs (Eastern Canadian time) on Tuesday, 4 September 2012. He welcomed the participants from Canada, European Union, France (in respect of St. Pierre et Miquelon), the Russian Federation, and the USA, as well as the Scientific Council (SC) Chair (Annex 1).

2. Appointment of Rapporteur

The Fisheries Commission Coordinator (Ricardo Federizon) was appointed rapporteur.

3. Adoption of Agenda

The provisional agenda as previously circulated was adopted (Annex 2).

4. Review and update of 3NO Cod and 3LNO American plaice CPRS

a. Presentation of Scientific Council Advice

The SC Chair, Carsten Hvingel (Norway) presented the scientific advice regarding CPRS including the stock status of fish stocks currently under it. The advice was formulated at the SC June 2012 meeting in response to the FC request. The advice is documented in SCS Doc 12/19. The FC request and SC response are compiled in Annex 3. Among the highlights of the SC advice:

- For both stocks, Spawning Stock Biomass and recruitment are low. B_{lim} is not expected to be reached in the short term and the fisheries should remain closed.
- Reference points B_{msy} and F_{msy} provided in 2011 for both stocks were reviewed. For 3NO cod, the yield-per recruit (YPR) and spawner per recruit (SPR) approach was used for estimating the proxy reference points. The values were similar to F_{msy} estimated last year and to the current B_{lim}. The YPR-estimated B_{msy} was different from the B_{msy} estimated last year but it was noted that the YPR-estimated value depends on assumptions about the level of recruitment. On 3LNO American plaice, the Bayesian surplus production models were used and the results support the MSY reference points derived by SC in 2011.
- The alternative Harvest Control Rule (HCR) (as elaborated in item 8 of the FC request) was tested on 3LNO American plaice by simulation and the results support that this rule works reasonably well as a management strategy and meets most of the requirement that are laid out in the interim conservation and rebuilding plan for this stock. SC advised that this HCR be considered for adoption for 3LNO American Plaice. However it would take a long time to reach the various reference points/milestones: B_{lim} in 2022, B_{isr} in 2036 and B_{msy} in 2060.

b. Consideration of updates to Conservation Plan and Rebuilding Strategy (CPRS) for 3NO cod and 3LNO American plaice

The WG took note of the SC advice and discussed the possibility of updating the current 3NO cod and 3LNO American plaice CPRS by including the option of adopting a more simplified HCR for 3LNO American plaice. It was however realized that an update based on these possible changes would not have short-term consequence. In consideration that a face-to-face meeting in 2013 would be needed (see item 7) to elaborate among others the management objectives, framework and performance statistics of the CPRS as well as further consideration of other fish stocks as CPRS candidates, it was decided that no updates are necessary, i.e. the current CPRS on the 3NO cod and 3LNO American plaice, as reflected in Article 7.6-7.11 and Article 8 of the 2012 NCEM, respectively, remain as they are at this time.

5. Consideration of Scientific Council Advice as it relates to B_{msy} and appropriate HCR consistent with the NAFO PA Approach for 3M Cod

It was noted that SC did not make considerable progress in its work on 3M cod in the context of estimation of reference points (e.g. B_{msy}) and appropriate HCR consistent with the Precautionary Approach. Therefore the WG could not have adequate scientific basis in continuing the discussion. It was suggested that further discussion should occur at the next WG meeting.

6. Discussion on a CPRS for 3NO Witch flounder

The attempts of SC to establish reference point proxies were not successful. A number of complicating factors has made it difficult to do in particular, the survey series that provide biomass estimates cover different time periods and areas, and are highly variable, with trends in biomass that are not clear. It was noted that SC has indicated that there are some areas which should be investigated further, in particular, the approach that was used for 2J3KL witch flounder to estimate B_{lim} . It was suggested that SC should be requested to pursue this area of study at its June 2013 to allow for further discussion at the next meeting of this Working Group.

7. Discussion and Establishment of Priorities for Future Developments of CPRS

Priorities for further development of CPRS were discussed with acknowledgement that there are limits to the capacity and expertise of SC and the WG. The need for the WG to have a face-to-face meeting was recognized. Ideally the meeting should be held sometime in July 2013 when the SC June 2013 meeting results become available. The WG considers as priorities the development of a general CPRS framework for stocks managed by NAFO, ongoing development of CPRS for 3LNO American plaice and 3NO cod, continued efforts to develop a CPRS for 3NO witch flounder, and initial development of CPRS for both 3LN redfish and 3M cod. The recommendations to be forwarded to the Fisheries Commission reflect the priorities for future development of CPRS (see item 8).

8. Recommendations to be forwarded to the Fisheries Commission

- 1. The WG **recommends** that the Fisheries Commission considers as priorities the development of a general CPRS framework for stocks managed by NAFO, on-going development of CPRS for 3LNO American plaice and 3NO cod, continued efforts to develop a CPRS for other stocks including 3NO witch flounder, and initial development of CPRS for both 3LN redfish and 3M cod.
- 2. The WG **recommends** that the Fisheries Commission endorses the following work items for the next meeting of the working group:
 - the elaboration of a general framework including management objectives and performance statistics;
 - the development of alternate strategies for stocks that may not be suited to formulaic rules and/or for stocks where reference points do not exist or cannot be developed.
- 3. The WG recommends that the Fisheries Commission requests the Scientific Council to
 - as a short term priority, develop Limit Reference Points (LRP) Proxy for 3NO witch flounder, e.g. investigate further the approach that was used for 2J3KL witch flounder to estimate B_{lim};
 - as an intermediate priority, continue its research on the 3NO Cod productivity, particularly MSY reference points.

9. Other Matters

There was no other matter to discuss.

10. Adoption of Report

The report was adopted though correspondence after the meeting.

11. Adjournment

The Chair thanked the participants for their input and the Secretariat for the technical support and assistance. The meeting was adjourned at 1100 hrs.

Annex 1. List of Participants

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Annex 2. Agenda

- 1. Opening of the Meeting
- 2. Appointment of Rapporteur
- 3. Adoption of Agenda
- 4. Review and update of 3NO Cod and 3LNO American plaice CPRS
 - a. Presentation of Scientific Council Advice
 - Consideration of updates to Conservation Plan and Rebuilding Strategy (CPRS) for 3NO cod and 3LNO American Plaice
- 5. Consideration of Scientific Council Advice as it relates to B_{msy} and appropriate HCR consistent with the NAFO PA Approach for 3M Cod
- 6. Discussion of a CPRS for 3NO Witch Flounder
- 7. Discussion and Establishment of Priorities for Future Developments of CPRS
- 8. Recommendations to be forwarded to the Fisheries Commission.
- 9. Other matters
- 10. Adoption of Report
- 11. Adjournment

Annex 3. FC Request and SC Response

Review and Update Reference points and intermediate reference point. (Item 6 of FC Doc 11/9 Rev)

Fisheries Commission requested:

The Fisheries Commission adopted in September 2011, conservation plans and rebuilding strategies for 3NO cod and 3 LNO American plaice and "recognizing that further updates and development of the plans may be required to ensure that the long term objectives are met". The Fisheries Commission requests the Scientific Council to:

- a) Provide advice on the addition of a new intermediate reference point (i.e. Bisr) in the NAFO precautionary approach framework to delineate an additional zone between Blim and Bmsy as proposed by the working group
- b) Taking into consideration the new reference point Bisr, provide advice on an updating NAFO PA framework and provide a description for each zone.
- c) Provide advice on an appropriate selection of the Bisr value for Div. 3NO cod and Div. 3 LNO American plaice.

Scientific Council responded:

In 2011 Scientific Council had advised that B_{buf} was not required because both Div. 3LNO American plaice and Div. 3NO cod have analyses of the probability that biomass is below B_{lim} . However an additional zone between B_{lim} and B_{msy} in the NAFO Precautionary Approach Framework could be considered.

Providing advice on a new intermediate reference point and selecting an appropriate level depends on the purpose and on the properties that such a reference point would have. The purpose of the proposed B_{isr} is not clear to Scientific Council. If the purpose is to serve as a 'milestone' for the Fisheries Commission to track rebuilding, then the reference point can have any value that the Fisheries Commission wishes. If the purpose of the B_{isr} is to mark the beginning of the safe zone, or to mark an SSB above which h there is a high probability of being above Blim, or if the purpose is to mark any zone for which there would be some change in an HCR, then analyses as to the appropriate level would need to be conducted. Scientific Council can not advise on particular levels until it is clear as to the purpose of B_{isr} .

Scientific Council also can not advise on updating the NAFO PA framework as it also depends on the purpose of the B_{lsr} . Scientific Council recommends that this exercise be conducted jointly with the Fisheries Commission. Therefore, the Scientific Council chair will contact the Fisheries Commission chair about the possibility of forming a joint working group to re-evaluate the NAFO PA framework. Scientific Council members of this group would bring work peer reviewed by Scientific Council to the discussions.

d) Review B_{msy} and F_{msy} provided in 2011 for both stocks and quantify uncertainty surrounding these estimates.

Scientific Council responded that for Div. 3NO cod:

Scientific Council notes that the approach used in estimation of the maximum sustainable yield (MSY) reference points approved last year may not be advisable in the case of Div. 3NO cod due to the high uncertainty in the stock-recruit relationship for this stock. Scientific Council recommends the use of proxies based on the yield per recruit (YPR) and spawner per recruit (SPR) to estimate the reference points for cod in Div. 3NO.

Using this approach Scientific Council estimated the YPR and SPR reference points with uncertainty for Div. 3NO cod. The proxies for the limit references points estimated through YPR were very similar to the F_{msy} estimated last year based on Loess smoother applied to log-transformed recruitment values from the VPA and the current B_{lim} . However, the B_{msy} estimated based on the YPR was different to the B_{msy} estimated last year.

Scientific Council noted that the level of B_{msy} estimated from YPR-SPR depends on assumptions about the level of recruitment. Scientific Council concluded that more research about the possibility of changes in productivity is needed to better estimate this reference point. Scientific Council noted that the actual biomass level of the Div. 3NO cod is far below any reasonable level of B_{msy} .

For Div. 3LNO American plaice:

For Div. 3LNO American plaice Bayesian surplus production models were fit to catch and research survey data and the results compared to the results for MSY reference points derived from Loess smoother applied to log-transformed recruitment values from the American plaice VPA assessment. Although the absolute values of F_{msy} and B_{msy} derived from these two different methods are not directly comparable the ratio of Biomass to B_{msy} (B_{ratio}) and Fishing mortality to F_{msy} (F_{ratio}) can be compared. Trends in these metrics from the different models were very similar over time, particularly B_{ratio} . All models show that current biomass is well below B_{msy} . The results of the Bayesian surplus production models support the MSY reference points derived by Scientific Council in 2011.

Review of rebuilding plans for 3LNO A. plaice and 3NO Cod (Item 7)

Fisheries Commission requested:

Fisheries Commission requests the Scientific Council to review the conservation and rebuilding plans of 3LNO American Plaice (NAFO/FC Doc. 11/4, Annex 4) and 3NO Cod (NAFO/FC Doc. 11/4, Annex 5). Through projections and a risk based approach, evaluate the performance of the present rebuilding plans in terms of expected time frames (5 / 10 / 15 years) and associated probabilities to reach indicated limit and target biomass levels and catches. Projections should assume appropriate levels of recruitment and the status quo fishing mortality (3-year average scaled and unscaled) until reaching biomass levels above B_{lim} .

Scientific Council responded to this request in conjunction with the following request [Item 8].

Evaluation of the proposed harvest control rule for 3LNO A. plaice and 3NO Cod. (Item 8)

Fisheries Commission requested:

Fisheries Commission requests the Scientific Council to evaluate the Harvest Control Rule (HCR) indicated below as an alternative to the HCR of the 3LNO American Plaice (NAFO/FC Doc. 11/4, Annex 4, item 4) and 3NO Cod (NAFO/FC Doc. 11/4, Annex 5, item 4) Conservation Plans and Rebuilding Strategies. Through projections and a risk based approach, evaluate the performance of this HCR in terms probabilities associated with maintaining Biomass above B_{lim} and ensuring continuous SSB growth. SC should provide SSB and associated catch trajectories for 5/10/15 years. Projections should assume appropriate levels of recruitment and the status quo fishing mortality (3-year average scaled and unscaled) until reaching biomass levels above B_{lim} .

Harvest Control Rule:

a) When SSB is below Blim:

i. no directed fishing, and

ii. by-catch should be restricted to unavoidable by-catch in fisheries directing for other species

b) When SSB is above Blim:

If
$$P y+1 > 0.9$$
 Then $Fy+1 = F0.1 * Py+1$
Else

$$Fy+1=0$$

$$TACy+1 = By+1 * Fy+1$$

Where:

Fy+1 = F ishing mortality to project catches for the following year.

Py+1 = Probability of projected Spawning Stock Biomass to be above Blim.

B y+1 = Exploitable biomass projected for the following year.

Scientific Council responded to item 7 and 8 together.

For Div. 3NO cod:

Scientific Council notes that testing of the rebuilding plan and alternative HCR for Div. 3NO cod was not possible at this time. The stock recruit relationship of Div. 3NO is poorly defined and the use of parametric relationships is not warranted. The MSY reference points may be revised in the near future. The current stock status of Div. 3NO cod is such that it is well below B_{lim} and very far from any reasonable level of B_{msy} .

For Div. 3LNO American plaice:

The alternative HCR for Div. 3LNO American plaice was tested by simulation. This testing did not constitute a full management strategy evaluation and Scientific Council advises that such a process should be conducted. The simulation testing that was done indicates that this rule works reasonably well as a management strategy, although the time to reach the various reference points/milestones is long. The median time to reach B_{lim} is 2022, to reach the proposed value of B_{isr} is 2036 and to reach B_{msy} is greater than 2060.

Results of simulations testing the alternative HCR for Div. 3LNO American plaice

	5 years	10 years	15 years	
SSB growth	$pSSB_{5years} > SSB_{1year} = 0.80$	pSSB _{10years} >SSB _{5years} =0.80	pSSB _{15years} >SSB _{10years} =0.93	
p SSB > B _{lim}	0	0.25	0.79	
Median SSB	38 340	43 712	56 507	
Median catch	4 446	4 991	8 221	

Scientific Council notes that for Div. 3LNO American plaice the alternative HCR described in the Fisheries Commission request item 8 meets most of the requirements that are laid out in the conservation and rebuilding plan for that stock. It is a much simpler rule that is easier to apply than the current rebuilding plan. The rules described in the current rebuilding plan often mix performance statistics with HCR. In addition some of the rules are complicated and performance statistics vague. Therefore Scientific Council advises that the alternative HCR described in item 8 be considered for adoption for Div. 3LNO American Plaice.

For both Div. 3LNO American plaice and 3NO cod, Scientific Council responded:

It is not expected that Div. 3LNO American plaice and 3NO cod will reach B_{lim} in the short term. This gives time for the Scientific Council to cooperate with the Fisheries Commission and perform a full management strategy evaluation before the opening of any directed fisheries. Scientific Council highlights that such a process entails substantial workload and will require close dialogue between Scientific Council and Fisheries Commission.

Full Assessment of 3LNO A. plaice in accordance with the rebuilding plan (Item 9)

Fisheries Commission requested:

The Fisheries Commission requests the Scientific Council to conduct a full assessment of 3LNO American Plaice and provide advice in accordance to the rebuilding plan currently in place.

Scientific Council responded:

American plaice in Div. 3LNO

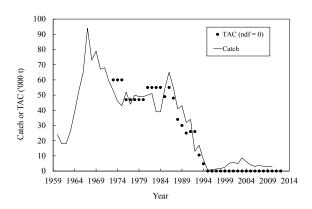
Recommendation: SSB was projected to have a <5% probability of reaching B_{lim} by the start of 2014 when $F = F_{2010}$ (0.11). Scientific Council therefore recommends that in accordance with the rebuilding plan, there should be no directed fishing on American plaice in Div. 3LNO in 2013 and 2014. Bycatches of American plaice should be kept to the lowest possible level and restricted to unavoidable bycatch in fisheries directing for other species.

Background: Historically, American plaice in Div. 3LNO has comprised the largest flatfish fishery in the Northwest Atlantic.

Fishery and Catches: In most years the majority of the catch has been taken by offshore otter trawlers. There was no directed fishing in 1994 and there has been a moratorium since 1995. Catches increased after the moratorium until 2003 after which they began to decline. This year, STACFIS only had STATLANT 21A available as estimates of catches in 2011. The inconsistency between the information available to produce catch figures used in the previous years' assessments and that available for the 2011 catches has made it impossible for STACFIS to provide the best assessment for this stock.

Catch ('000 t)			TAC ('000 t)		
Year STACFIS 21		Recon	nmended	Agreed	
2009	3.0	1.8	ndf		ndf
2010	2.9	2.0	ndf		ndf
2011	na	1.2	ndf		ndf
2012			ndf		ndf

ndf No directed fishing; na Not available.



Data: Biomass and abundance data were available from: annual Canadian spring (1985-2011) and autumn (1990-2011) bottom trawl surveys; and EU-Spain surveys in the NAFO Regulatory Area of Div. 3NO (1995-2011). Age data from Canadian bycatch as well as length frequencies from EU-Portugal and EU-Spain bycatch were available for 2011.

Assessment: Since STACFIS was not able to estimate total catch, the analytical assessment using the ADAPTive framework could not be updated in 2012

During the previous assessment in 2011, Scientific Council concluded that:

Biomass: Despite the increase in biomass since 1995, the biomass is very low compared to historic levels. SSB declined to the lowest estimated level in 1994 and 1995. SSB has been increasing since then and at the start of 2011 was 34, 000 t. B_{lim} for this stock is 50 000 t.

Recruitment: Estimated recruitment at age 5 indicates that the 2003 year class is comparable to the 1987-1990 year classes but well below the long-term average.

Fishing mortality: Fishing mortality on ages 9 to 14 has generally declined since 2001.

State of the Stock: During the previous assessment in 2011, Scientific Council concluded that: the stock remains low compared to historic levels and, although SSB is increasing, it is still estimated to be below B_{lim} . Estimated recruitment at age 5 indicates that the 2003 year class is comparable to the 1987-1990 year classes but well below the long-term average. The 2012 assessment does not indicate a change in the status of the stock, based on last year's analytical model and the 2011 survey results.

Reference Points: Based on the 2011 assessment the biomass for this stock is estimated to be below B_{lim} (50 000 t) and fishing mortality in 2010 was below F_{lim} (0.3).

Short Term Considerations: Simulations were carried out in 2011 to examine the trajectory of the stock under 3 scenarios of fishing mortality: F = 0, $F = F_{2010}$ (0.11), and $F_{0.1}$ (0.16).

SSB was projected to have a <5% probability of reaching B_{lim} by the start of 2014 when $F = F_{2010}$ (0.11).

	F = 0				
	SSB ('000 t)				
	p5 p50 p95				
2011	29	33	38		
2012	36	41	47		
2013	42	48	56		
2014	46	53	64		

		F ₂₀₁₀ = 0.11						
		SSB ('000 t)				Yie	eld ('00	0 t)
		p5 p50 p95				p5	p50	p95
ſ	2011	29	33	37		3.2	3.6	4.1
	2012	33	37	43		3.7	4.1	4.7
	2013	36	41	47		3.9	4.3	4.9
l	2014	37	42	49	Γ			-

	$F_{0.1} = 0.16$						
			1 ().]	Ξ	0.10		
	SSB ('000 t)				Yie	eld ('00	0 t)
	p5 p50 p95				p5	p50	p95
2011	29	33	37		4.5	5.1	5.8
2012	32	36	42		5.0	5.7	6.5
2013	33	38	44		5.1	5.7	6.5
2014	33	38	45	ľ			

Special Comment: Given the low probability of reaching B_{lim} in the short term, Scientific Council plans to conduct the next full assessment of this stock in 2014.

Sources of Information: SCS Doc. 12/4, 5, 8, 9, 14;

SCR Doc. 12/6, 12, 17, 33, 34.

Definition of MSY reference points and a prospective harvest control rule for cod in Div. 3M (Item 11)

Fisheries Commission requested:

Fisheries Commission requests the Scientific Council to define Bmsy for cod in Division 3M and to propose a Harvest Control Rule (HCR) consistent with the NAFO Precautionary Approach Framework. It also requests the Scientific Council to define the estimated timeframe to reach Bmsy under different scenarios, consistent with the proposed HCR.

Scientific Council responded:

Scientific Council has been unable to make any progress towards answering this request at this time.

Variability in indicators of stock status and recruitment for 3NO witch flounder (Item 14)

Fisheries Commission requested:

Taking note that recent point estimates for Div. 3NO Witch flounder of the Canadian autumn survey are 2-3 times higher than in 1994 when the moratorium was first implemented and are among the highest in the times series, and while more variable, the recent point estimates of the Canadian spring survey are about 50% higher than in 1994.

Scientific Council responded:

Scientific Council notes that the biomass index from the 2011 Canadian autumn survey was lower than the 2008-10 values and in the range of the 2004-06 values. There is no trend in the Canadian spring survey data since 2004.

a) What are the relative strengths and weaknesses of all the indices of abundance of witch?

For the Canadian spring surveys, depths greater than 731 m are not surveyed, and there is evidence that at least some witch are in deep water in the early spring, related to spawning. So it is possible that these fish would not be found in the spring survey in some years. The Canadian autumn survey has covered 731-1462 m in some years, but a high proportion of witch flounder is not found at those depths at that time of year. Ideally, there would be some deep coverage in the spring survey rather than the autumn. The EU-Spanish survey of the NRA does cover greater depths, but only surveys part of the witch distribution, and very little of Div. 30. The Canadian autumn survey probably has the best chance of being an index of total stock abundance or biomass, particularly in years where deep sets are done, although even those deep sets are probably not critical to the index, at least in recent years.

b) What are plausible reasons for different abundance trends in the spring and autumn surveys of the SAME STRATA, and what are the rationales to support either set of results over the other?

This is most likely to be due to different distribution of witch in spring vs autumn, for biological reasons (i.e. spawning). Witch flounder are not likely to be distributed in the same areas in all seasons, for a number of reasons, including environmental. Scientific Council considered the issue of depth distribution of this stock in its 2008 and 2011 assessments, and has noted on several previous occasions that some variation in survey indices is likely due to distributional shifts between deeper smaller strata and larger shallower strata. It appears that more witch flounder are in shallow water in fall compared to spring, and more are in deeper water in spring, likely related to spawning

c) How might the confidence intervals around the point estimates over the time series affect the interpretations of stock trend and current status?

If the same population is sampled on numerous occasions and interval estimates are made on each occasion the resulting intervals would bracket the true population parameter in approximately 95% of the cases. Confidence intervals consist of a range of values (interval) that act as good estimates of the unknown population parameter. Therefore when variance in the survey results is large, the confidence intervals are wide, and the "statistical confidence" in the mean value and related trend is reduced. Very wide CI's are caused by 1 or more large catches, much larger than mean values, which greatly increase the variance around the estimates of abundance and biomass, and may obscure the trend in the mean values.

d) What evidence exists (if any) to indicate whether any changes in natural mortality have occurred since the early 1990's, e.g. condition of the fish?

Relative body condition was calculated for each year to determine if there have been any trends over time. Data were available for 1979, 1984, 1990, 1993, 1994 and 1997-2011. A length vs. body weight regression was fit using all data. The condition index is then the observed body weight of a fish divided by the body weight predicted from the length weight regression for a fish of that length. Relative body condition for each year was estimated using a generalized linear model with an identity link and a gamma error, with year as a class variable. Multiple comparisons were also conducted.

There was significant interannual variation in relative condition (χ^2 =132.2, df=18, p<0.001). In general condition was higher in the first 3 years of the time series, lower in 1993-1994 and 1997-2003 and low again from 2009-2011 (Fig. 1). Relative condition was not significantly different among 1979, 1984 and 1990. Condition in these three years was significantly higher than most years until 2004. Condition in 2004 and in most years until 2008 was not significantly different from the first 3 years of the time series. Condition in 2008-2011 was significantly lower than these first 3 years (except for 2011 and 1979).

Condition was lower in most years for which data were available after 1990, except for 1997 and 2004-2008. The lack of data in years prior to 1990 means that there is limited information on condition in the period prior to the decline in stock size. Decreases in condition can be associated with stock decline if natural mortality has increased due to poor condition. However, the opposite can be true if there is a density dependent effect. Lower population size can lead to an increase in resources available to the remaining individuals and therefore an increase in condition.

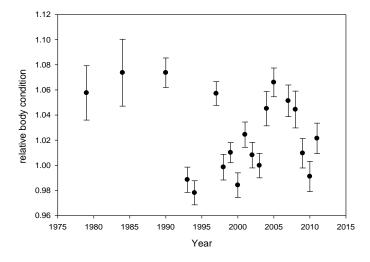


Fig. 1. Relative condition (+ standard error) from spring research vessel survey data for witch flounder in NAFO Div. 3NO.

No other analyses of changes in natural mortality have been carried out at this time. Scientific Council is unable to determine if changes in natural mortality have occurred.

e) Is it plausible there may be a different survey catchability for younger/smaller fish relative to older/larger fish (applicable to witch flounder), and how might this affect our interpretation of stock trends and status?

Scientific Council expects there to be size-dependent catchability. But overall, within a survey series, this should not be a factor, i.e. there are no expectations that size-dependent catchability has changed in the years after the introduction to the Canadian survey series of the Campelen trawl in 1995. The same trawl gear is used in spring and fall surveys, so there should be no gear related differences in size-dependent catchability between these two surveys.

Scientific Council noted there is a recommendation for additional work related to this issue: "STACFIS **recommends** further investigation of recruitment trends for witch flounder in Div. 3NO. This should include analysis of trends in abundance in the survey series, as well as examination of areal distribution of small witch flounder, particularly in years where deeper strata are covered by surveys. STACFIS noted that analyses of recruitment will rely on length frequency data, as no ageing has been conducted on this stock since the early 1990s." Analysis has begun on this, but there is no progress to report yet.

f) What might be reasonable options for reference point proxies, with associated rationale, including those based on one or a combination of survey indices?

Scientific Council has made some attempts in the past at producing limit reference points. In 1998, Scientific Council looked at some analyses based on a Schaefer model and also on yield- and spawner per recruit, but did not establish any reference points based on this work. More recently, Scientific Council reviewed some analyses to see if proxies for B_{lim} could be established. The conclusions were that it was difficult to do because the survey series that provide biomass estimates cover different time periods and areas, and are highly variable, with trends in biomass or abundance that are less clear than for other stocks (e.g. Div. 2J3KL witch). As well, the highest observed biomass estimates are in the early part of the longer time series, when the survey covered less of the entire stock area. As a result, B_{lim} may be underestimated using a method that ties B_{lim} to a percentage of the maximum survey value (e.g. the 85% decline proxy used for some stocks), and therefore using this proxy for B_{lim} may not be appropriate for Div. 3NO witch. It is not clear that the same approach used for Div. 2J3KL witch flounder to estimate B_{lim} from survey data, by adjusting the older values in the time series, can be applied to Div. 3NO witch, but this should be investigated further, as should other proxies.