



NORTHWEST ATLANTIC  
FISHERIES ORGANIZATION

# **Meeting Proceedings of the Commission**

1 September 2020–31 August 2021

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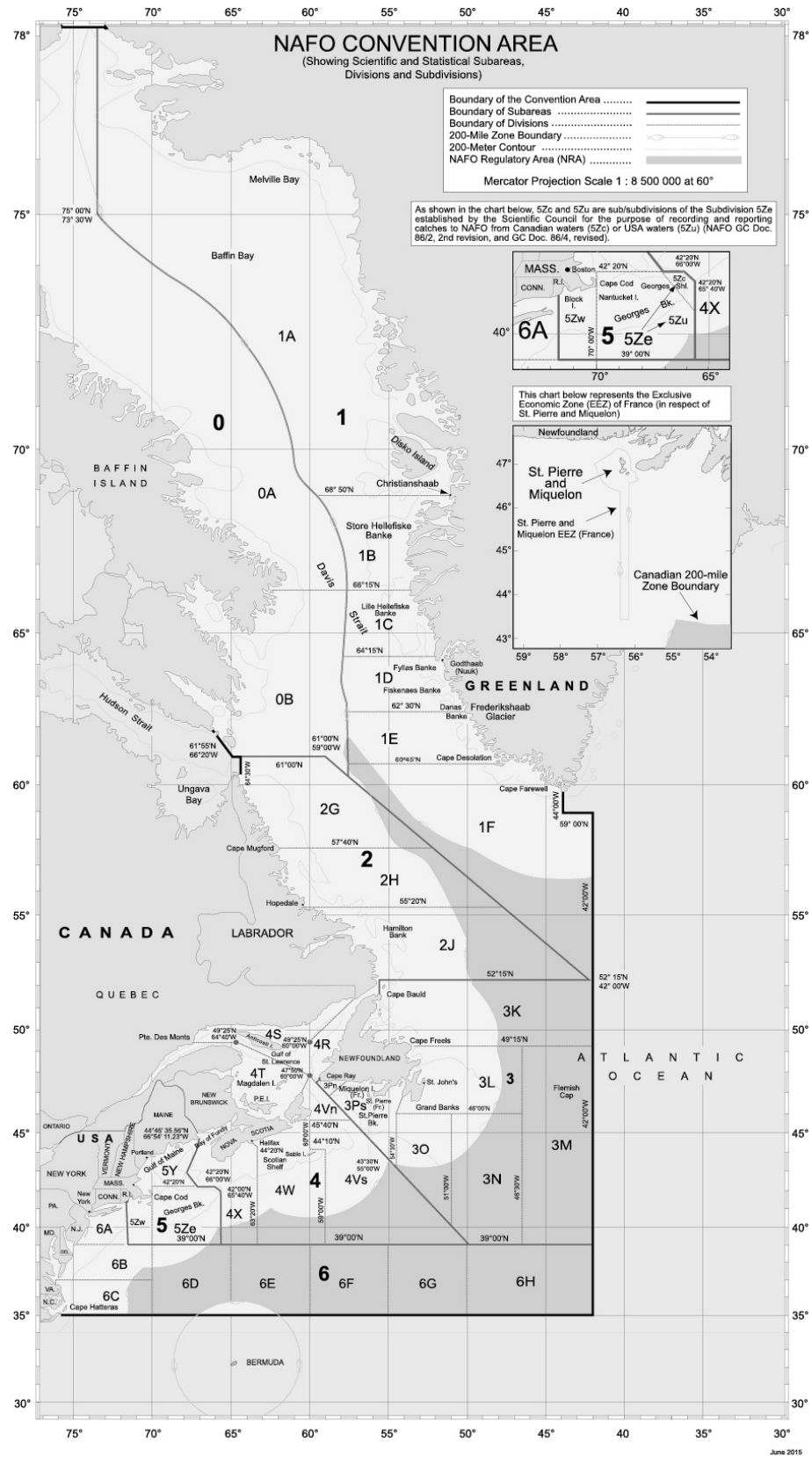


## Foreword

This issue of the *Meeting Proceedings of the Commission* contains the meeting reports of the Commission (COM) and the joint Commission-Scientific Council (COM-SC), including their subsidiary bodies and working groups held between 01 September 2020 to 31 August 2021. This follows a NAFO cycle of meetings starting with an Annual Meeting rather than by calendar year.

The 2020–2021 issue is comprised of the following sections:

<b>PART A:</b> Report of the Joint Advisory Group on Data Management (JAGDM) Meeting, 10 September 2020, via WebEx.....	1–5
<b>PART B:</b> Report of the NAFO Commission and its Subsidiary Bodies (STACTIC and STACFAD), 42 <sup>nd</sup> Annual Meeting of NAFO, 21–25 September 2020, via WebEx .....	1–139
<b>PART C:</b> Report of the NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 18 March 2021, via WebEx.....	1–9
<b>PART D:</b> Report of the NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 13 April 2021, via WebEx.....	1–9
<b>PART E:</b> Report of the NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting, 10–13 May 2021, via WebEx .....	1–18
<b>PART F:</b> Report of the Joint Advisory Group on Data Management (JAGDM) Meeting, 26 May 2021, via WebEx .....	1–7
<b>PART G:</b> Report of the NAFO Commission Ad Hoc Working Group on Bycatches, Discards and Selectivity (WG-BDS) in NAFO Regulatory Area Meeting, 12–13 July 2021, via WebEx .....	1–16
<b>PART H:</b> Report of the NAFO Joint Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) Meeting, 14–16 and 20–21 July 2021, via WebEx.....	1–28
<b>PART I:</b> Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS) Meeting, 24–26 August 2021, via WebEx.....	1–14



# Structure of the Northwest Atlantic Fisheries Organization (NAFO)

(01 September 2020 to 31 August 2021)

## CONTRACTING PARTIES

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

## PRESIDENT

Stéphane Artano (France in respect of St. Pierre et Miquelon)

## CONSTITUENT BODIES

Commission *Chair* – Stéphane Artano (France in respect of St. Pierre et Miquelon)  
*vice-Chair* – Temur Tairov (Russian Federation)

Scientific Council *Chair* – Carmen Fernandez (European Union)  
*vice-Chair* – Karen Dwyer (Canada)

## STANDING COMMITTEES

Commission	Standing Committee on Finance and Administration (STACFAD)	<i>Chair</i> – Robert Fagan (Canada) <i>vice-Chair</i> – vacant
	Standing Committee on International Control (STACTIC)	<i>Chair</i> – Kaire Märtin (European Union) <i>vice-Chair</i> – Patrick Moran (USA)
Scientific Council	Standing Committee on Fishery Science (STACFIS)	<i>Chair</i> – Katherine Sosebee (USA)
	Standing Committee on Research and Coordination (STACREC)	<i>Chair</i> – Karen Dwyer (Canada)
	Standing Committee on Publications (STACPUB)	<i>Chair</i> – Margaret Treble (Canada)
	Standing Committee on Fisheries Environment (STACFEN)	<i>Chair</i> – Miguel Caetano (European Union)

## SECRETARIAT

Executive Secretary	Fred Kingston
Deputy Executive Secretary /	
Senior Finance and Staff Administrator	Stan Goodick
Senior Fisheries Information Administrator	Jana Aker
Scientific Information Administrator	Dayna Bell MacCallum
Scientific Council Coordinator	Tom Blasdale
Senior Fisheries Commission Coordinator	Ricardo Federizon
Office Administrator	Sarah Guile
IT Manager	Matthew Kendall
Database Development/Programmer Analyst	DJ Laycock
Senior Executive Assistant to the Executive Secretary	Lisa LeFort
Senior Publications/Web Manager	Alexis Pacey
Office Administrator (interim maternity leave)	Shala Singer (Jan. 2020-Dec. 2020)

## Headquarters Location

401-1601 Lower Water St., Halifax, Nova Scotia, B3J 3P6, Canada







## **Report of the Joint Advisory Group on Data Management (JAGDM) Meeting**

10 September 2020  
NEAFC Secretariat, Virtual Meeting

1.	Opening of the meeting.....	2
2.	Appointment of the rapporteur .....	2
3.	Discussion and adoption of the agenda.....	2
4.	Data Exchange Statistics.....	2
5.	NEAFC issues.....	2
	a. Technical implications of the implementation of recommendations .....	2
	b. Issues Raised by PECMAC .....	2
	c. Issues Referred to JAGDM by ERS IMP WG .....	3
	d. Proposed NEAFC Password requirements (ISMS) .....	3
	e. Update to Port State Control (PSC) operational lists .....	4
6.	NAFO issues .....	4
	a. Technical implications of Recommendations.....	4
	b. Cyber Attack directed at the NAFO Secretariat .....	4
	c. ISMS for NAFO .....	4
	d. Items Requested by STACTIC .....	4
7.	Election of Chair.....	5
8.	Report to the Annual Meeting.....	5
9.	Date and place of the next meeting .....	5
10.	Closure of the meeting .....	5

## **Report of the Joint Advisory Group on Data Management (JAGDM) Meeting**

17 March 2020  
NEAFC Secretariat, Virtual Meeting

### **1. Opening of the meeting**

- 1.1 The Vice-Chair of JAGDM, Natasha Barbour, opened the meeting and welcomed participants to the virtual meeting of JAGDM. The Chair reminded JAGDM that nominations for the new JAGDM Chair would need to be made known later for discussion.
- 1.2 The following Contracting Parties were present: Canada, Denmark (in respect of Faroes and Greenland), the European Union, the Russian Federation, Iceland and Norway. The NAFO and NEAFC Secretariats were also present.

### **2. Appointment of the rapporteur**

- 2.1 The NEAFC Secretariat was appointed as rapporteur.

### **3. Discussion and adoption of the Agenda**

- 3.1 The Agenda was adopted without changes.

### **4. Data Exchange Statistics**

- 4.1 No update.

### **5. NEAFC issues**

#### **a. Technical implications of the implementation of recommendations**

- 5.1 No update.

#### **b. Issues Raised by PECMAC**

- 5.2 The NEAFC Secretariat presented JAGDM 2020-02-06 – NEAFC Business Continuity Plan (BCP) for FLUX Network, asking JAGDM for advice on how NEAFC would need to address its BCP in light of recent experience in existing VMS and the changes in the move over to FLUX ERS, especially in regard to avoiding loss of messages when the system at the NEAFC Secretariat goes down. As the Secretariat has no way to enter these messages received by e-mail or other communications into the NEAFC IT-system.
- 5.3 In discussion,

It was noted that the European Union had built a system that resent messages quickly after the receiver node goes back up again within a long retry period, but it did not now envisage an automatic detection of 'up time' being developed. It was also noted that the system evolved between Member States that were both the receivers and users of the information was different from that where NEAFC was the interim receiver, where the Contracting Parties with an active inspection platform were the end users of the information. It was noted by some that a system that enabled NEAFC inspectors to be able to ask the flag State (sender) to send the data directly during NEAFC down times would be useful.

The NEAFC Secretariat indicated it would follow up with the European Union to discuss technical issues related to dealing with down time in FLUX. However, JAGDM considered a broader question remained for PECMAC on how to deal with business continuity in particular with regard to the drafting of the text of the BCP to reflect the current limited ability of the Secretariat to forward any messages received as emails, etc., and also with regard to the requirements of the NEAFC Scheme. The NEAFC Scheme of Control and Enforcement provisions, Article 14.1 on technical malfunctions

and Article 14.2 on data exchange formats and data communication systems (covered in detail in Annex IX B of the Scheme) were relevant.

JAGDM **agreed** that: the NEAFC Secretariat would draft a paper to be presented to PECMAC 2, inviting PECMAC to note and comment on the inaccuracies in business continuity arrangements in light of current practice with regard to down times in NEAFC fishing activity communications and the current requirements of the Scheme.

**c. Issues Referred to JAGDM by ERS IMP WG**

- 5.4 The NEAFC Secretariat presented JAGDM 2020-02-04 – an update on risk management for the NEAFC ISMS, requesting JAGDM to note the progress on addressing the risks highlighted by the NEAFC ISMS gap audit.

- 5.5 In discussion,

The NEAFC Secretariat agreed it would remove the acronyms or include an acronym key list. It was noted the Secretariat was using Slack as a better way of collaboration in view of increased virtual work.

JAGDM **noted** the: update on risk management for the NEAFC ISMS.

- 5.6 The NEAFC Secretariat presented JAGDM 2020-02-05 – NEAFC IT Security Policies. The document requested JAGDM to consider the draft policies set out in order for NEAFC to align with the ISO27001 information management security standards. The Secretariat explained that it was not expecting any detailed comments at this meeting, but would appreciate comments to be provided by written procedure. However, the question on the role of JAGDM in advising on such policies needed further attention, including whether JAGDM should sign such policies off or simply to note these leaving sign off to the Secretary of NEAFC.

- 5.7 In discussion,

It was noted that when the ISMS of NEAFC was introduced, an advisory group under (only) NEAFC existed, having the responsibility of signing such policies off. Then when the group became a joint advisory group, the group had the same responsibility. The group acknowledged that while JAGDM had responsibilities in this regard, it was considered that national System Security Administrators should be the experts to comment in detail, and therefore needed to be approached for another meeting.

JAGDM **agreed** to: provide written comments to the NEAFC Secretariat before 16 October 2020 on the IT security policies and with a separate NEAFC-focused meeting to be held on this topic after the NEAFC Annual Meeting in November 2020. The NAFO participants would be welcome to join as well.

**d. Proposed NEAFC Password requirements (ISMS)**

- 5.8 The NEAFC Secretariat presented JAGDM 2020-02-03 – Password requirements for NEAFC, explaining that the Secretariat has developed stricter password requirements for the NEAFC website, and requesting JAGDM to approve the proposed upgrade.

- 5.9 In discussion,

The NAFO Secretariat informed JAGDM that after the recent cyber-attack on one of the Secretariat's Servers, NAFO had been advised that all admin account password should be at least 16 characters. The NEAFC Secretariat noted separate requirements for administrators and the NAFO suggestion would be taken into consideration. Furthermore, the NEAFC Secretariat noted that JAGDM has a

separate website (account) and suggested that it should have a similar password policy as the NEAFC website.

JAGDM **agreed** to: the password requirements upgrade as proposed by the NEAFC Secretariat and that the same password policy should apply to the JAGDM website.

#### **e. Update to Port State Control (PSC) operational lists**

5.10 The NEAFC Secretariat presented Document JAGDM 2020-02-10 – Harmonisation of operational code lists, seeking guidance from JAGDM on updates/harmonisation of operational code lists with those of the NEAFC Scheme. The Secretariat has reviewed the NEAFC Port State Control operational lists and found disparities between the lists. In the packaging list, bulk fish is coded as BUL, while in the Scheme no bulk fish category exists.

5.11 In discussion,

It was noted that it was important not to create a new code if there was already a code in place. Also, that JAGDM approval at the technical level was important given its knowledge about other code lists etc. It was confirmed that EU and FAO lists currently do include BUL.

JAGDM **agreed** to: propose to PECMAC to add the BUL code to the Type of Packing and Type of Container list, already listed in the NEAFC EPSC Application, into the NEAFC Scheme.

### **6. NAFO issues**

#### **a. Technical implications of Recommendations**

6.1 No update.

#### **b. Cyber Attack directed at the NAFO Secretariat**

6.2 The NAFO Executive Secretary provided a brief synopsis on the recent cyber-attack against the NAFO Secretariat and noted that further updates would be provided at the NAFO Annual Meeting.

#### **c. ISMS for NAFO**

6.3 No update

#### **d. Items Requested by STACTIC**

6.4 The Chair presented JAGDM 2020-02-07, a letter from the Chair of the STACTIC Editorial Drafting Group, requesting advice from JAGDM on documents 2020-02-08 review of Annex II.C and Annex II.D of the NAFO Scheme and document JAGDM 2020-02-09 Review of Annex II.J of the NAFO Scheme.

6.5 In discussion,

JAGDM discussed the removal of the OA code in the VL field of Annexes II.C and II.D and the removal of the limitation to only have the possibility to report the vessel length as rounded to the nearest whole meter in the VL field of Annex II.D.

At this time, JAGDM recommends against both changes for the following reasons:

- 1) NEAFC notifications also contain the VL field, and many Contracting Parties send the same message simultaneously to both NAFO and NEAFC. A change in the content of this field would need to be jointly implemented in both RFMOs in order to maintain harmonisation.
- 2) NEAFC currently does permit another vessel length classification, so the inclusion of OA in the field was still required to differentiate between the two.

- 3) Implementation of a decimal value would require significant technical changes, especially in the event of a loss of harmonisation between the RFMOs. Additionally, given NEAFC's transition to FLUX, there is reluctance to make such changes at this time unless deemed absolutely necessary.

In addition, JAGDM noted the possibility of rounding down rather than up was raised as a potential alternate solution. However, the group noted that there are widespread implications of changing the rounding (whether up or down) within the current NAFO and NEAFC Schemes.

Regarding the updating of gear codes in Annex II.J, JAGDM recommended implementation of the proposed updates, but also recommended that the implementation period established for the change be of sufficient length. As gear codes are used down to the vessel level, the number of systems to be changed would be extensive, and the change could not feasibly be implemented in the time between NAFO's Annual meeting and January 1 of the following year. JAGDM recommended that Contracting Parties be surveyed regarding their internal implementation of the new standard, to allow NAFO to set timelines for implementation which were in line with Contracting Parties capabilities. JAGDM also recommended that, prior to changes being introduced, NAFO consider the implications on NAFO's existing records – whether that data would be updated or a linkage would be created between the old and new codes, and how such updates/linkages would be implemented.

## **7. Election of Chair**

- 7.1 No nomination were received for the role of Chair. This would have to be raised to Heads of Delegation in NEAFC and NAFO for them to discuss a candidate for JAGDM Chair.

## **8. Report to the Annual Meeting.**

- 8.1 NEAFC Contracting Party/Secretariat to report to NEAFC Annual Meeting. JAGDM Vice-Chair/or the NAFO Secretariat would report to the NAFO Annual Meeting.

## **9. Date and place of the next meeting**

- 9.1 Date and place of the next meeting is to be decided in due course.

## **10. Closure of the meeting.**

- 10.1 The Chair closed the meeting and thanked everyone for their participation in the Virtual meeting.



Northwest Atlantic Fisheries Organization



**Report of the NAFO Commission and its Subsidiary Bodies  
(STACTIC and STACFAD)**

42<sup>nd</sup> Annual Meeting of NAFO  
21-25 September 2020  
via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2020

**Report of the NAFO Commission and its Subsidiary Bodies  
(STACTIC and STACFAD)**

42<sup>nd</sup> Annual Meeting of NAFO, 21-25 September 2020  
via WebEx

PART I. Report of the NAFO Commission.....	5
I. Opening Procedure.....	5
1. Opening by the Chair, Stéphane Artano (France, in respect of St. Pierre et Miquelon) .....	5
2. Appointment of Rapporteur .....	5
3. Adoption of Agenda .....	5
4. Admission of Observers.....	5
5. Publicity.....	6
II. Supervision and Coordination of the Organizational, Administrative and Other Internal Affairs.....	6
6. Review of Membership of the Commission .....	6
7. Administrative and Activity Report by NAFO Secretariat.....	6
8. Recruitment of NAFO Executive Secretary for the 2022-2025 term.....	6
9. NAFO Headquarters Agreement.....	6
10. Review of the list of experts to serve as panelists under the NAFO Dispute Settlement provisions .....	6
11. Guidance to STACFAD .....	6
12. Guidance to STACTIC.....	6
III. Coordination of External Affairs.....	7
13. Report of Executive Secretary on External Meetings.....	7
14. International Relations.....	7
a. Relations with other International Organizations.....	7
b. NAFO Members as Observers to External Meetings .....	7
c. Areas Beyond National Jurisdiction (ABNJ) Deep-Seas Project.....	7
15. Oil and Gas Activities in the NAFO Regulatory Area .....	7
IV. Joint Session of Commission and Scientific Council.....	8
16. Implementation of 2018 Performance Review Panel recommendations .....	8
17. Presentation of scientific advice by the Chair of the Scientific Council.....	8
a. Response of the Scientific Council to the Commission's request for scientific advice.....	8
b. Feedback to the Scientific Council regarding the advice and its work during this meeting.....	9
c. Other issues as determined by the Chairs of the Commission and the Scientific Council.....	10
18. Meeting Reports and Recommendations of the Joint Commission–Scientific Council Working Groups..	10
a. Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2020 .....	10
b. Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), February and August 2020 .....	10
c. Joint Commission–Scientific Council Working Group on Ecosystems Approach Framework to Fisheries Management (WG-EAFFM), August 2020 .....	10
d. Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), April .....	11
19. Formulation of Request to the Scientific Council for Scientific Advice on the Management in 2022 and Beyond of Certain Stocks in Subareas 2, 3, 4 and 6 and Other Matters .....	11
V. Conservation of Fish Stocks in the Regulatory Area.....	11

20. Recommendations of the Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), August 2020 (if more discussion is required).....	11
21. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2021 .....	11
a. Cod in Division 3M .....	12
b. American Plaice in Division 3M.....	13
c. Pelagic <i>Sebastes mentella</i> (oceanic redfish) in Sub-area 2 + Divisions 1F and 3K.....	13
d. Splendid alfonsino in Sub-area 6 .....	13
e. Shrimp in Division 3M .....	13
22. Management and Technical Measures for Fish Stocks Straddling National Jurisdictions, 2021 .....	14
a. Redfish in Divisions 3LN .....	14
b. Skates in Divisions 3LNO .....	14
c. Greenland halibut in Sub-area 2 and Divisions 3KLMNO .....	14
23. Other matters pertaining to Conservation of Fish Stocks .....	14
a. Cod in Division 3L.....	14
b. Witch flounder in Divisions 3NO .....	14
VI. Ecosystem Considerations .....	15
24. Recommendations of the Joint Commission–Scientific Council Working Group on Ecosystems Approach Framework to Fisheries Management (WG-EAFFM), August 2020 (if more discussion is required).....	15
25. Other matters pertaining to Ecosystem Considerations.....	15
VII. Conservation and Enforcement Measures .....	15
26. Recommendations of the Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), April 2020 (if more discussion is required) .....	15
27. Meeting Report and Recommendations of the <i>Ad hoc</i> Working Group on Bycatches, Discards, and Selectivity (WG-BDS) in the NAFO Regulatory Area, April 2020 .....	15
28. Report of STACTIC from this Annual Meeting and Recommendations.....	15
29. Other matters pertaining to Conservation and Enforcement Measures.....	16
VIII. Finance and Administration .....	16
30. Report of STACFAD from this Annual Meeting .....	16
31. Adoption of the 2021 Budget and STACFAD recommendations.....	16
IX. Closing Procedure .....	17
32. Other Business.....	17
33. Time and Place of Next Annual Meeting.....	17
34. Press Release.....	17
35. Adjournment .....	17
Annex 1. Summary of Decisions and Actions of the Commission from the Annual Meeting of NAFO .....	18
Annex 2. Agenda.....	19
Annex 3. Participant List.....	21
Annex 4. Opening Statement by the NAFO President.....	37
Annex 5. Opening Statement by United Kingdom of Great Britain and Northern Ireland (UK).....	38
Annex 6. Opening Statement by the Delegation of Canada.....	39
Annex 7. Opening Statement by Delegation of Denmark (in respect of Faroe Islands and Greenland) ..	40
Annex 8. Opening Statement by the Delegation of the European Union .....	41
Annex 9. Opening Statement by the Delegation of Japan.....	42
Annex 10. Opening Statement by the Delegation of Ukraine.....	43

Annex 11. Opening Statement by the Delegation of the United States of America (USA).....	44
Annex 12. Opening Statement by the Food and Agricultural Organization of the United Nations (FAO)	45
Annex 13. Opening Statement by the North Pacific Anadromous Fish Commission (NPAFC) .....	46
Annex 14. Opening Statement by Southern Indian Ocean Fisheries Agreement (SIOFA) .....	48
Annex 15. Compilation of SC Response to Feedback Questions Regarding its Scientific Advice.....	49
Annex 16. Recommendations from the NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG) .....	56
Annex 17. Recommendations from the NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) .....	57
Annex 18. Recommendations from the NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM).....	61
Annex 19. Recommendations from the NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG) .....	68
Annex 20. The Commission's Request for Scientific Advice on Management in 2022 and Beyond of Certain Stocks in Subareas 2, 3 and 4 and Other Matters .....	69
Annex 21. 2021 Annual Quota Table .....	75
Annex 22. Flanking Measures for directed fishery of COD 3M.....	79
Annex 23. Draft Concept Paper – Shrimp 3M “ <i>Moving from efforts scheme to a TAC and quotas</i> ” .....	81
Annex 24. Recommendations from the NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) .....	83
Annex 25. Changes in NAFO CEM (by the Editorial Drafting Group .....	84
Annex 26. Edits to the NAFO CEM (by the Editorial Drafting Group .....	85
Annex 27. Observer reporting timeframe and template – Article 30(14)(e) .....	86
Annex 28. 100% Port Inspection Benchmark for 3M Cod – Article 7 bis.....	87
Annex 29. Reporting signalling the change of fishery – Article 9(3).....	89
Annex 30. Reduction of Mandatory Waiting Periods in NAFO (Article 25.5.a) .....	90
Annex 31. Annual Fisheries and Compliance Review 2020 (Compliance Report for Fishing Year 2019)	91
Annex 32. 2020 Press Release .....	110
<b>PART II. Report of the Standing Committee on International Control (STACTIC) .....</b>	<b>111</b>
<b>PART III. Report of the NAFO Standing Committee on Finance and Administration (STACFAD).....</b>	<b>125</b>

## **PART I. Report of the NAFO Commission**

42<sup>nd</sup> Annual Meeting of NAFO, 21-25 September 2020  
via WebEx

### **I. Opening Procedure**

#### **1. Opening by the Chair, Stéphane Artano (France, in respect of St. Pierre et Miquelon)**

The 42<sup>nd</sup> Annual Meeting of NAFO was opened on Monday, 21 September 2020 at 08:04 hrs. Due to the global pandemic, the meeting was held by videoconference. Delegates were present from 13 NAFO Contracting Parties (Annex 3). The NAFO President and Chair of the Commission, Stéphane Artano (France, in respect of St. Pierre et Miquelon), in his opening remarks (Annex 4) welcomed delegates to the meeting and welcomed NAFO's newest Contracting Party, the United Kingdom of Great Britain and Northern Ireland (UK), which joined NAFO the previous week.

As an exception to the current practice that all Contracting Parties submit their opening remarks in writing for inclusion in the report, the President gave the floor to the UK for its opening remarks (Annex 5). Opening statements from Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union, Japan, Ukraine and the USA are attached (Annexes 6-11).

#### **2. Appointment of Rapporteur**

The NAFO Secretariat (Fred Kingston, Executive Secretary, and Ricardo Federizon, Senior Fisheries Management Coordinator) was appointed as Rapporteur.

#### **3. Adoption of Agenda**

The provisional agenda which was circulated to all Contracting Parties in NAFO/20-197 of 22 July 2020 was modified:

- Cod in Division 3L which was agenda item 22.a was moved to agenda item 23.a.
- Witch flounder in Divisions 3NO was inserted as agenda item 23.b.

The adopted agenda is presented in Annex 2.

The summary of decisions and action taken by the Commission is presented in Annex 1.

#### **4. Admission of Observers**

Upon the invitation of the Executive Secretary, in accordance with the NAFO Rules for Observers, the following intergovernmental organizations (IGOs) attended this meeting: ABNJ Deep-Sea Fisheries Project, Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Food and Agriculture Organization of the United Nations (FAO), General Fisheries Commission for the Mediterranean (GFCM), North Atlantic Salmon Conservation Organization (NASCO), North East Atlantic Fisheries Commission (NEAFC), North Pacific Anadromous Fish Commission (NPAFC), North Pacific Fisheries Commission (NPFC), North Pacific Marine Science Organization (PICES), Sargasso Sea Commission, Southeast Atlantic Fisheries Organization (SEAFO), South Indian Ocean Fisheries Agreement (SIOFA), and Secretariat of the Western Central Atlantic Fishery Commission (WECAFC). Opening statements from the FAO, NPAFC and SIOFA are attached (Annexes 12-14).

Non-governmental organizations (NGOs) accredited with NAFO Observer Status that attended the 42<sup>nd</sup> Annual Meeting were: Ecology Action Centre (EAC).

## **5. Publicity**

In accordance with established practice, the President reminded Contracting Parties that they have 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 consultation with the Chairs of the Commission and Scientific Council.

## **II. Supervision and Coordination of the Organizational, Administrative and Other Internal Affairs**

### **6. Review of Membership of the Commission**

With the recent accession of the UK, the Commission has thirteen (13) Contracting Parties: Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), European Union (EU), France (in respect of St. Pierre et Miquelon), Iceland, Japan, Norway, Republic of Korea, Russian Federation, Ukraine, United Kingdom of Great Britain and Northern Ireland (UK) and the United States of America (USA).

### **7. Administrative and Activity Report by NAFO Secretariat**

The Administrative Report and Financial Statements (COM Doc. 20-07 Rev.) was referred to STACFAD for its review.

### **8. Recruitment of NAFO Executive Secretary for the 2022-2025 term**

The term of the current Executive Secretary, Fred Kingston, was extended for an additional year until the end of 2022.

### **9. NAFO Headquarters Agreement**

The President noted that the signed Headquarters Agreement was circulated to Contracting Parties last year in NAFO/19-162.

Canada provided a Working Paper indicating that it hopes to ratify the Headquarters Agreement by the spring of 2021 (COM WP 20-19).

### **10. Review of the list of experts to serve as panelists under the NAFO Dispute Settlement provisions**

The President referred to COM Working Paper 20-06 (Rev. 2) that listed, as of 21 September 2020, the experts nominated by Contracting Parties to serve as possible panelists in an ad hoc panel established under the dispute settlement provisions of the NAFO Convention (Article XV).

### **11. Guidance to STACFAD**

The Administrative Report and Financial Statements (COM Doc. 20-07 Rev.) was already referred to STACFAD for its review under agenda item 7. The Chair of STACFAD, Deirdre Warner-Kramer (USA), was invited to prepare a report before the closing session.

### **12. Guidance to STACTIC**

The President noted that a number of recommendations of Joint Commission-Scientific Council Working Groups that are up for adoption at this meeting would be referred to STACTIC.

The Chair of STACTIC, Kaire Martin (EU), was invited to prepare a report before the closing session. The report of this week's STACTIC meeting and the STACTIC intersessional meeting held in May 2020, as well as STACTIC's recommendations, would be presented under agenda item 28.

### III. Coordination of External Affairs

#### 13. Report of Executive Secretary on External Meetings

The Executive Secretary referred to excerpts of the Administrative Report and Financial Statements (COM Doc. 20-07 Rev.), pages 5 to 7.

#### 14. International Relations

##### a. Relations with other International Organizations

The Executive Secretary referred to Working Papers on developments over the past year concerning the Biological Diversity Beyond Areas of National Jurisdiction (BBNJ) negotiations in the United Nations and concerning NAFO's international relations with other international organizations.

##### b. NAFO Members as Observers to External Meetings

At the last Annual Meeting (September 2019), it was agreed that the following NAFO Contracting Parties would represent NAFO at meetings of the following organizations during 2019/2020:

- Canada would represent NAFO at the North Atlantic Salmon Conservation Organization (NASCO) and the North Pacific Fisheries Commission (NPFC).
- Denmark (in respect of the Faroe Islands and Greenland) would represent NAFO at the North East Atlantic Fisheries Commission (NEAFC).
- European Union would represent NAFO at the International Commission for the Conservation of Atlantic Tunas (ICCAT) and South Indian Ocean Fisheries Agreement (SIOFA).
- Norway would represent NAFO at the South East Atlantic Fishery Organisation (SEAFO) and the North Atlantic Marine Mammal Commission (NAMMCO).
- USA would represent NAFO at the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the North Pacific Anadromous Fish Commission (NPAFC) and the South Pacific Regional Fisheries Management Organization (SPRFMO).

The reports by these Observers were presented (COM WP 20-14, 15, 27, 28, 29, 36 and 37). The same Contracting Parties agreed to represent NAFO at the same meetings for 2020/2021.

##### c. Areas Beyond National Jurisdiction (ABNJ) Deep-Seas Project

The Executive Secretary referred to the Working Paper from the FAO concerning the results of the first phase of the ABNJ Deep Seas Project that ended in 2019, as well as the development of the second phase of the Project (now called the "ABNJ Deep Seas Fisheries Project") intended to begin in 2022 (COM WP 20-09). It was noted that NAFO will be asked to commit primarily in-kind contributions to this second phase of the Project, similar to NAFO's contributions to the first phase of the Project. This commitment by NAFO can be proposed and agreed later through the mail vote procedure.

#### 15. Oil and Gas Activities in the NAFO Regulatory Area

The Executive Secretary referred to COM WP 20-10 outlining the NAFO Secretariat's actions over the last year under the information exchange arrangement between NAFO and Canada related to oil and gas activities in the NAFO Regulatory Area (NRA).

The EU thanked Canada for the information it has regularly provided to NAFO under the information exchange arrangement. Referring to information from the Scientific Council, the EU expressed concern over increasing activity of the oil and gas industry in the NRA this year, which is expected to continue, as well as the number of

incidents, including a 2019 oil spill that extended into the NRA. The EU noted that a proposed oil development project in the Flemish Pass will overlap with fishing grounds. These developments could pose a threat to the overall health of the ecosystem and NAFO's efforts to ensure the conservation of the resources in the Convention Area. The EU added that these activities should be reflected properly in NAFO's work in developing Ecosystem Summary Sheets.

#### **IV. Joint Session of Commission and Scientific Council**

##### **16. Implementation of 2018 Performance Review Panel recommendations**

The President referred to the Working Paper that outlined the status of the implementation of the recommendations of the 2018 Performance Review Panel (COM WP 20-22).

##### **17. Presentation of scientific advice by the Chair of the Scientific Council**

###### **a. Response of the Scientific Council to the Commission's request for scientific advice**

The Chair of the Scientific Council (SC), Carmen Fernandez (EU), presented this year's scientific advice. The scientific advice on fish stocks and other topics were formulated mainly during the SC meeting in June 2020 (SCS Doc. 20-14), except for Northern shrimp in Division 3M, which was formulated in November 2019 (SCS Doc. 19-23) and updated on 14 September 2020 during the NAFO/ICES *Pandalus* Assessment Group (NIPAG) meeting (SCS Doc. 20-20). Some request items were addressed and presented during the course this meeting (SCS Doc. 20-19) or deferred to next year. The advice represents the response of SC to the request from the Commission (COM Doc. 19-29). The advice on topics relating to risk-based management strategies and to ecosystem approach to fisheries management was taken on by the joint Working Groups at their subsequent meetings (see agenda items 18.b and 18.c). Outlined below (according to request item numbers in COM Doc. 19-29) is the overview of the Commission request and SC response, intended as a quick reference. The detailed advice to the requests is contained in the above-mentioned documents.

###### **1. Assessment and Monitoring of Fish Stocks**

- Cod in Division 3M. For any catch over 1000 t, the probability of being below  $B_{lim}$  exceeds the NAFO Precautionary Approach guidelines.
- Shrimp in Division 3M. SC advises that the catch in 2021 should not exceed the 2009 level (5 448 tonnes).
- American plaice in Division 3M. No directed fishing in 2021, 2022, and 2023.
- Thorny skate in Divisions 3LNO and Subdivision 3Ps. The stock has been stable at recent catch levels (approximately 3 511 tonnes, 2015-2019 average). SC advises no increase in catches. Applicable for 2021-2022.
- Witch flounder in Divisions 3NO. No directed fishing in 2021 and 2022 (assessment of this stock was done and advice is provided on SC's own accord).
- Monitoring of stocks: No change to stock status or previously issued advice on the following stocks: 3M Redfish, 3NO Cod, 3LNO American plaice, 3LNO Yellowtail flounder, 3NO Capelin, 3O Redfish, 3NOPs White hake, 2+3 Roughhead grenadier, 6G Alfonsino, 3+4 Northern shortfin squid.

###### **2. 2+3KLMNO Greenland halibut.** Total Allowable Catch (TAC) for 2021 derived from the Harvest Control Rule (HCR) is 16 498 tonnes. Exceptional Circumstances are not occurring.

###### **3. Impact of scientific trawl survey on VME in closed areas.** (This item was deferred to next year.)

###### **4. Task 2.2 of the Action Plan in the management and minimization of bycatch and discards.** (This item was deferred to next year.)

5. **Refinement of its work under Ecosystem Approach.** (The SC advice was already taken on by WG-RBMS and WG-EAFFM during the August 2020 meeting. See agenda items 18.b and 18.c.)
6. **Assessment of NAFO bottom fisheries in 2021.** (The SC advice was already taken on by WG-EAFFM during its August 2020 meeting. See agenda items 18.c.)
7. **Re-assessment of VME closures by 2020, including area #14.** (The SC advice was already taken on by WG-EAFFM during its August 2020 meeting. See agenda items 18.c.)
8. **Review of the NAFO Precautionary Approach (PA) Framework.** (The SC advice was already taken on by WG-RBMS during its August 2020 meeting. See agenda items 18.b)
9. **Bycatch and discards of Greenland sharks.** (This item was deferred to next year.)
10. **Development of a 3-5 year SC work plan.** (This item was deferred to next year.)
11. **Update assessment for 3LN redfish and five-year projections (2021-2025).** (The SC advice was already taken on by WG-RBMS during its August 2020 meeting. See agenda items 18.b.)
12. **Ecosystem Summary Sheet for 3LNO.** (The SC advice was already taken on by WG-EAFFM during its August 2020 meeting. See agenda items 18.c.)
13. **Submitted protocols for a survey methodology to inform the assessment of Splendid alfonsino.** (This item was deferred to next year.)
14. **Scientific advice of Cod 2J3KL (Canada), Witch flounder 2J3KL (Canada), and Pelagic *Sebastes mentella* (ICES).** SC endorses the scientific advice that removals from all sources must be kept at the lowest possible levels for Cod 2J3KL and Witch flounder 2J3KL, and that there should be zero catch in each of the years 2020 and 2021 for Pelagic *Sebastes mentella*.
15. **Possible sustainable management methods for northern shrimp in Division 3M.** SC recommends that the management of 3M shrimp be converted from existing “*effort regulation*” to “*catch regulations*” in line with all other stocks in the NRA.
16. **Updates resulting from relevant research related to the potential impact of activities other than fishing in the Convention Area.**  
  
On seabed litter: SC recommends that standard protocols for seabed litter data collection should be implemented by all CPs as part of their groundfish surveys conducted in the NRA.  
  
On offshore petroleum activities in 3KLMN: SC notes an increasing trend in oil and gas activities since the early 2000s. Results from the relevant research have been included where appropriate into the current 3LNO Ecosystem Summary Sheet (ESS).
17. **Productivity of 3M Cod.** SC responded in 2015 and 2019 regarding sorting grids to reduce possible bycatches and discards. SC advises that a seasonal closure (no directed fishery on 3M cod during the first quarter of the year) would protect spawning activity, reducing the number of spawning fish that are captured and allow them to spawn before becoming available to the fishery.  
  
However, SC is not at this point able to quantify the full effect of implementing these management measures (see Annex 15).
18. **Information on sea turtles, sea birds, and marine mammals in the NRA.** (This item was deferred to next year.)

**b. Feedback to the Scientific Council regarding the advice and its work during this meeting**

The Commission acknowledged the SC Reports and noted the presentation of advice. They engendered follow-up questions and enquiries for further clarification to which SC provided responses during the meeting. They pertain to Cod in Division 3M.

The Commission questions and SC responses were compiled in COM WP 20-38 and presented in Annex 15.

**c. Other issues as determined by the Chairs of the Commission and the Scientific Council**

The COVID-19 circumstances compelled SC to meet virtually rather than in-person in June 2020. This resulted to a limited time available in addressing the 2019 Commission request items.

**18. Meeting Reports and Recommendations of the Joint Commission-Scientific Council Working Groups**

**a. Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2020**

The Executive Secretary referred to COM-SC WP 20-02, which is the recommendation from the Joint Commission-Scientific Council Efficiency Working Group. The Working Group recommended three (3) two-week periods where intersessional meetings by STACTIC and other Working Groups can be held, namely:

- 22 February to 2 March 2021,
- 19 April to 30 April 2021, and
- 12 to 23 July 2021.

Contracting Parties are not obliged to schedule meetings during these periods, but these dates may help in future planning of intersessional meetings.

The recommendations of the Working Group were **adopted** (Annex 16).

**b. Joint Commission-Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), February and August 2020**

The co-Chairs, Jaqueline Perry (Canada) and Fernando González-Costas (European Union), presented the February meeting report (COM-SC Doc. 20-01) and August meeting report (COM-SC Doc. 20-04).

Key discussion items include, among others:

- Review of the Precautionary Approach Framework revision,
- 3LN Redfish Conservation Plan and Harvest Control Rule,
- Greenland halibut Management Strategy Evaluation (MSE),
- 3M Cod MSE.

Recommendations, specifically pertaining to Precautionary Approach Framework revision and to 3LN Redfish Conservation Plan, were forwarded to the Commission and SC (COM-SC WP 20-03).

The recommendations of the WG-RBMS were **adopted** (Annex 17).

In the conclusion of this agenda item, Jacqueline Perry indicated that she is stepping down as co-Chair. Ray Walsh (Canada) was appointed as her replacement. The Commission thanked her for her exemplary service to the Working Group.

**c. Joint Commission-Scientific Council Working Group on Ecosystems Approach Framework to Fisheries Management (WG-EAFFM), August 2020**

The co-Chairs, Elizabethann Mencher (USA) and Carmen Fernández (EU), presented the August meeting report (COM-SC Doc. 20-03) and the recommendations (COM-SC WP 20-04).

Key discussion items include, among others:

- Re-Assessment of VME closures, including Area #14,
- Assessment of NAFO bottom fisheries,
- SC work on Ecosystem Approach,
- Ecosystem Summary Sheet for Divisions 3LNO.

Recommendations to this effect were forwarded to the Commission and the SC (COM-SC WP 20-04).

The recommendations of WG-EAFFM were **adopted** (Annex 18).

**d. Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), April 2020**

The co-Chairs of CESAG, Katherine Sosebee (USA) and Temur Tairov (Russian Federation), presented the April meeting report (COM-SC Doc. 20-02) and the recommendations (COM-SC WP 20-05).

Key discussion items, among others:

- 2019 catch estimates conducted by the Secretariat and forwarded to SC,
- Current NAFO CEM measures relating to reporting of catches,
- Implementation of the 2018 NAFO Performance Review Panel Recommendation #4.

The recommendations of CESAG were **adopted** (Annex 19).

**19. Formulation of Request to the Scientific Council for Scientific Advice on the Management in 2022 and Beyond of Certain Stocks in Subareas 2, 3, 4 and 6 and Other Matters**

In accordance with the procedure outlined in FC Doc. 12-26, a steering committee was formed to assist in the drafting of the Commission request. The committee was comprised of the SC Coordinator with Martha Krohn (Canada), Leigh Edgar (Canada) and Cristina Ribeiro (European Union).

The Commission request to SC developed and presented by the committee in COM WP 20-06 (Rev. 7), was **adopted** (Annex 20).

**V. Conservation of Fish Stocks in the Regulatory Area**

**20. Recommendations of the Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), August 2020 (if more discussion is required)**

There was no further discussion on the WG-RBMS report and recommendations as they were addressed under agenda item 18.b.

**21. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2021**

The Quota Table and the Effort Allocation Scheme for Shrimp Fishery in NAFO Division 3M for 2021, presented in Annex 21, incorporate the TAC and effort allocation scheme decisions, as well as the update of the footnotes.

In regard to the inclusion of UK in the Quota Table and specifically to the quota allocation and adjustments to the percentage shares of Cod in Division 3M, EU and UK issued a joint statement:

*The United Kingdom has now left the European Union and has acceded to the Convention on Cooperation in the Northwest Atlantic Fisheries as an independent Contracting Party.*

*Accordingly, the European Union and the United Kingdom inform the Commission of the Northwest Atlantic Fisheries Organization (NAFO) that they have reached agreement on a provisional arrangement for splitting between the two Contracting Parties the quota allocation of cod in NAFO Division 3M for 2021 only, such that the share for the United Kingdom will be 16.34% and the share for the European Union will be 83.66% of the European Union's current quota allocation for this stock.*

*The EU and the UK respectfully request that due record is made of this arrangement and that the resulting quota allocations for each of the Contracting Parties are recorded in the relevant quota table. This arrangement will have no impact on the quota allocations for the other Contracting Parties.*

*This provisional arrangement is without prejudice to the ongoing negotiations between the European Union and the United Kingdom on a bilateral fisheries agreement between the EU and the UK. The United Kingdom and the European Union will jointly notify the Commission should those negotiations conclude in a way, which requires the figures above to be adjusted.*

#### **a. Cod in Division 3M**

The gist of the scientific advice as formulated during the SC June 2020 meeting is for any catch over 1000 tonnes, the probability of being below  $B_{lim}$  exceeds the NAFO Precautionary Approach guidelines. As requested by the Commission at this meeting, SC made recalculations of the projections between 500-1500 tonnes at 100-tonne intervals. The projections revealed that, at catch of 1100 tonnes, the risk levels ( $P(SSB < B_{lim})$  and  $P(F > F_{lim})$ ) remain unchanged (see agenda item 17.a and Annex 15).

Deliberations on this stock centered on how the scientific advice be applied in developing and deciding management measures. Some CPs considered the SC advice to be clear and were of the view that it should be followed completely. Other CPs were of the view that socio-economic factors should also be taken into consideration and the TAC could be set as high as 3000 tonnes without posing a significantly higher risk to the stock, as long as there are complementary flanking measures in place to protect the spawning stock and juvenile cod. In addition, it was recalled that acceptable levels of probability and risk specific to the 3M cod stock had not been agreed, and this matter should be subject to a more comprehensive discussion among managers in relation to the Precautionary Approach Framework (PAF).

The Commission **adopted** a TAC of 1 500 tonnes for 2021. In addition, flanking measures, such as time-area fishing limitations, port landing inspections and use of sorting grids designed to protect the spawning stock and juvenile cod, were **adopted** (Annex 22).

It was noted that while flanking measures are mostly in alignment with the SC advice, in-depth scientific evaluation on the effectiveness and practicality of these measures is necessary if these are to be applied beyond 2021. It confirmed that these measures are applicable to the conduct of a directed fishery for this stock only. A directed fishery for stocks other than 3M Cod, which by chance resulted in catch composition of 3M Cod comprising the largest percentage, is outside the scope of these measures.

Consequently, some Contracting Parties requested that their statement be included in the meeting record:

- **Cuba:** *We are not part of the consensus on Cod 3M but respect the decision of the majority of CPs.*
- **Denmark (in respect of Faroe Islands and Greenland)** *reserved its position on the decision to set the TAC at 1500 t for 2021, noting that such a reduction is unnecessarily drastic, that there is no clear consensus on the level of risk that should be applied to management of this stock, and that it does not appear to be the fisheries that are the decisive factor in the growth or decline of the stock.*
- **Norway:** *The 3M cod stock is in a bad condition, rapidly approaching  $B_{lim}$ . The current state has been predicted by the Scientific Council and their low TAC advice for 2021 of no more than 1000 tonnes, should not come as a surprise to anyone.*

*Norway wanted as a minimum to adhere to the scientific advice and optimally a full closure was the preferred option, to allow for a quicker recovery of the stock.*

*Norway was therefore disappointed by and reluctant to accept the TAC of 1500 tonnes, which is seen as being outside the scientific advice and in conflict with the agreed PA guidelines.*

*However, in the spirit of compromise, Norway did not block consensus on the issue. That was done in the understanding that this was an exceptional situation and that NAFO is indeed committed to follow the PA guidelines as agreed by this forum.*

**b. American Plaice in Division 3M**

It was **agreed** to maintain the moratorium applicable to 2021, 2022, and 2023.

**c. Pelagic *Sebastes mentella* (oceanic redfish) in Sub-area 2 + Divisions 1F and 3K**

The Commission **agreed** to rollover the TAC, which is set at zero, noting that the TAC might be adjusted in accordance with the footnote 3 of the Quota Table.

The Russian Federation issued a statement:

*The Russian Federation adheres to its position that there is a single stock of pelagic *Sebastes mentella* in the Irminger Sea and adjacent waters, including the NAFO Convention Area. The Russian Federation reiterated its standpoint that studies into the redfish stock structure should be continued using all available scientific and fisheries data as a basis. Until new data on the stock structure are available, the Russia Federation will continue to regulate the pelagic fishery for *Sebastes mentella* based on the concept of the single stock structure of this stock.*

**d. Splendid alfonsino in Sub-area 6**

It was **agreed** to maintain the moratorium applicable to 2021.

**e. Shrimp in Division 3M**

It was **agreed** to rollover the management measure applicable to 2021 (See Annex 21).

This stock was under moratorium in 2011-2019 and it has been traditionally management through an effort allocation scheme (in terms of fishing days and number of fishing boats). It was recalled that when the Commission, at the 41<sup>st</sup> Annual Meeting in September 2019, agreed to re-open the fishery in 2020, it committed to an intersessional meeting in 2020 to explore other management options to be applied on this stock (e.g. TAC-based measures). The meeting did not happen due to COVID-19.

The Commission decided to have the intersessional meeting in early 2021 to explore alternative management options to be applied on this stock. EU presented a concept paper concerning moving from efforts scheme to a TAC and quotas scheme, for consideration and discussion at the intersessional meeting (Annex 23).

Iceland maintained its objection to the effort allocation scheme applied to this stock.

**22. Management and Technical Measures for Fish Stocks Straddling National Jurisdictions, 2021****a. Redfish in Divisions 3LN**

Consistent with the SC projection and in accordance with the WG-RBMS recommendation, it was **agreed** to set the TAC at 18 100 tonnes, applicable to 2021 and 2022. (see Annex 17).

**b. Skates in Divisions 3LNO**

The Commission **agreed** to rollover the TAC for two years, i.e. 7 000 tonnes applicable to 2021 and 2022. Footnote 13 of the Quota Table was updated.

**c. Greenland halibut in Sub-area 2 and Divisions 3KLMNO**

As calculated by SC and consistent with the MSE and HCR (Article 10 of the NAFO CEM), it was **agreed** to set the TAC at 16 498 tonnes in 2+3KLMNO, 12 225 tonnes of which is allocated to the fishery in 3LMNO.

**23. Other matters pertaining to Conservation of Fish Stocks****a. Cod in Division 3L**

This item (originally agenda item 22.a) was included in the Commission agenda because of 2019 request item 14 which asked for a summary of the scientific assessment of three stocks: Cod 2J3KL (Canada), Witch 2J3KL (Canada), and Pelagic *Sebastes mentella* (ICES) (see COM Doc. 19-29). SC endorsed the advice that removals from all sources must be kept at the lowest possible level (see agenda item 17.a). Canada expressed that this is a domestic fishery entirely managed by Canada. EU expressed that, because of Article 7 of the NAFO CEM, this stock in Division 3L should be re-visited from time to time, particularly new assessment information when it is available.

There was no further discourse on this topic.

**b. Witch flounder in Divisions 3NO**

This item was inserted in the Commission agenda because SC, on its own accord, conducted a full assessment of this stock which advises no directed fishery applicable to 2021 and 2022. The Commission recalled that the 2021 TAC for this stock has been decided at the 41<sup>st</sup> Annual Meeting in Bordeaux, France. No further action was undertaken.

The Russian Federation issued a statement:

*The current level of fishing with the established TAC instead of the fishing ban for 2020 did not actually lead to a deterioration in the stock status. The results of the Scientific Council assessment indicate a gradual recovery of the stock of Witch flounder, despite the fact that it has been fished since 2015.*

*Based on the results of the Scientific Council's assessment, the absence of fishing in 2021-2022 compared to the development of a TAC of 1,175 tons in the same period may have an extremely insignificant effect on the likelihood of a decrease in commercial biomass compared to  $B_{lim}$ , the difference is calculated in units of percent.*

*The issue of possible values of Witch flounder by-catch when the moratorium was proposed as recommendation. The total by-catch of Witch flounder by all 13 NAFO Contracting Parties could exceed the current actual catch of this stock and this is highly likely even its current TAC of 1175 tons.*

## VI. Ecosystem Considerations

### 24. Recommendations of the Joint Commission–Scientific Council Working Group on Ecosystems Approach Framework to Fisheries Management (WG-EAFFM), August 2020 (if more discussion is required)

There was no further matter discussed under this agenda item.

### 25. Other matters pertaining to Ecosystem Considerations

There was no further matter discussed under this agenda item.

## VII. Conservation and Enforcement Measures

### 26. Recommendations of the Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), April 2020 (if more discussion is required)

There was no further matter discussed under this agenda item.

### 27. Meeting Report and Recommendations of the *Ad hoc* Working Group on Bycatches, Discards, and Selectivity (WG-BDS) in the NAFO Regulatory Area, April 2020

The Chair of WG-BDS, Temur Tairov (Russian Federation), presented the meeting report (COM Doc. 20-04) and the recommendations (COM WP 20-11).

Key discussion items include, among others:

- Finely grained temporal and spatial analysis of the haul by haul data, 2016-2019 and other complementary analyses conducted by the Secretariat,
- Continuing coordination with SC and STACTIC on matters related to the implementation of the *Action Plan in the Management and Minimization of Bycatch and Discards* (COM Doc. 17-26).

The recommendations were **adopted** (Annex 24).

### 28. Report of STACTIC from this Annual Meeting and Recommendations

The STACTIC Chair, Kaire Märtin (EU), presented the results of the meeting and the previous Intersessional meeting in May 2020. Due to time-constraints brought about by the virtual format of the meeting, the meeting report (see Part II) would be finalized by correspondence. The recommendations from other working groups which was forwarded to STACTIC (see agenda item 12) were deferred to the next Intersessional meeting. The Chair forwarded the following recommendations agreed by STACTIC for consideration and adoption:

- STACTIC WP 20-16 (Revised) *Suggestions for changes in the CEM (Proposal from Editorial Drafting Group)* (Annex 25),
- STACTIC WP 20-17 *Suggestions for changes in the CEM (Proposal from Editorial Drafting Group)* (Annex 26),
- STACTIC WP 20-24 *Proposed changes to the NAFO CEM relating to the observer reporting timeframe and template (Article 30.14.e)* (Annex 27),
- STACTIC WP 20-25 (Rev. 2) *Proposed changes to the NAFO CEM relating to 100% Port Inspection Benchmark for 3M Cod* (Annex 28),
- STACTIC WP 20-27 (Rev. 2) *Proposed changes to the NAFO CEM relating to reporting of the signalling the change of fishery (Article 9.3)* (Annex 29),

Report of the NAFO Commission, 21-25 September 2020

- STACTIC WP 20-30 (Revised) *Proposed changes to the NAFO CEM relating to the mandatory waiting period following authorization* (Annex 30).

The Commission **adopted** all the recommendations.

In addition, the Commission accepted STACTIC WP 20-20 (Rev. 3) *DRAFT Annual Fisheries and Compliance Review 2020 (Compliance Report for Fishing Year 2019)* (Annex 31).

The Commission also agreed to request STACTIC to consider what control elements would be necessary for NAFO to adopt a landing obligation policy in order to encompass ongoing discussions in various NAFO bodies dealing with measures on discards.

On the guidance on COVID-19, the Commission agreed that STACTIC should compile, make a first review of, including appropriate recommendations, and report for decision-making to the Commission on the measures undertaken by Contracting Parties via the compliance review. The Annual Compliance Report for 2020 (to be produced in 2021), when indicating non-compliances by a CP with a given obligation on control, should identify as well any difficulties directly linked to the COVID pandemic to be differentiated from any other non-compliances. This first assessment role for STACTIC does not aim at revising the decision of CP to suspend a control measure, but to differentiate the reasons for the non-compliance of a measure between COVID and non-COVID-related ones.

## 29. Other matters pertaining to Conservation and Enforcement Measures

There was no further matter discussed under this agenda item.

## VIII. Finance and Administration

### 30. Report of STACFAD from this Annual Meeting

The report of STACFAD (see Part III) was presented by the Chair, Deirdre Warner-Kramer (USA). The report included recommendations for the adoption of the budget for 2020, the Auditor's Report for 2019 and the implementation of certain 2018 Performance Review Panel recommendations related to the Standing Committee. The Chair added that Robert Fagan (Canada) has been appointed the new Chair of STACFAD and Fiona MacKichan (UK) as its new vice-Chair.

### 31. Adoption of the 2021 Budget and STACFAD recommendations

The recommendations from STACFAD were the following:

#### **STACFAD recommends that:**

- **The 2019 Financial Statements be adopted.**
- **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 2021, and of which \$85,000 would be a contingency fund available to be used for unforeseen and extraordinary expenses.**
- **The recruitment and relocation fund be increased by \$12,000 to \$72,000 for future recruitment and relocation costs of internationally recruited staff.**
- **The performance review fund be increased by \$15,000 to \$30,000 for future costs associated with having an external performance review.**
- **The internship period be maintained for six (6) months during 2021.**

- **The budget for 2021 of \$2,451,000 be adopted.**
- **The Commission appoint the three Staff Committee nominees for September 2020–September 2021: Brian Healey (Canada), Ignacio Granell (European Union) and Deirdre Warner-Kramer (USA).**
- **The 2023 Annual Meeting (to be held in Halifax, Nova Scotia, Canada, unless an invitation to host is extended by a Contracting Party and accepted by the Organization) be held 18–22 September 2023.**

The recommendations of STACFAD were **adopted**.

## **IX. Closing Procedure**

### **32. Other Business**

There was no further matter discussed under this agenda item.

### **33. Time and Place of Next Annual Meeting**

The 43<sup>rd</sup> Annual Meeting will be held in Halifax, Nova Scotia, Canada from 20 to 24 September 2021.

### **34. Press Release**

The Press Release of the meeting was developed by the Executive Secretary, through consultations with the Chairs of the Commission and Scientific Council. The agreed Press Release (Annex 32) was circulated and posted to the NAFO website at the conclusion of the meeting on Friday, 25 September.

### **35. Adjournment**

The meeting adjourned 11:25 hrs on Friday, 25 September 2019.

The summary of decisions and actions taken by the NAFO Commission is presented in Annex 1.

**Annex 1. Summary of Decisions and Actions of the Commission  
from the 42<sup>nd</sup> Annual Meeting of NAFO**

<b>ANNEX #</b>	<b>NAFO WORKING PAPER #</b>	<b>DOCUMENT TITLE</b>	<b>NAFO DOCUMENT #</b>
16	COM-SC WP 20-02	Recommendations from the NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2020	COM-SC Doc. 20-07
17	COM-SC WP 20-03	Recommendations from the NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS), Aug. 2020	COM-SC Doc. 20-05
18	COM-SC WP 20-04	Recommendations from the NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), Aug. 2020	COM-SC Doc. 20-06
19	COM-SC WP 20-05	Recommendations from the NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG), Apr. 2020	COM-SC Doc. 20-08
20	COM WP 20-32 (Rev. 7)	The Commission's Request for Scientific Advice on Management in 2022 and Beyond of Certain Stocks in Subareas 2, 3 and 4 and Other Matters	COM Doc. 20-16
		Quota Table and the Effort Allocation Scheme for the Shrimp Fishery in NAFO Division 3M for 2021	see Annex 21 (below)
22	COM WP 20-34 (Rev. 2)	Flanking Measures for directed fishery of COD 3M	COM Doc. 20-14
24	COM WP 20-11	Recommendations from the NAFO Commission Ad Hoc Working Group on Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area, Apr. 2020	COM Doc. 20-15
25	STACTIC WP 20-16 (Revised)	Changes to the NAFO CEM (by the Editorial Drafting Group)	COM Doc. 20-08
26	STACTIC WP 20-17	Edits to the NAFO CEM (by the Editorial Drafting Group)	COM Doc. 20-09
27	STACTIC WP 20-24	Observer reporting timeframe and template (Article 30.14.e)	COM Doc. 20-10
28	STACTIC WP 20-25 (Rev. 2)	100% Port Inspection Benchmark for 3M Cod	COM Doc. 20-11
29	STACTIC WP 20-27 (Rev. 2)	Reporting signalling the change of fishery (Article 9.3)	COM Doc. 20-12
30	STACTIC WP 20-30 (Revised)	Reduction of Mandatory Waiting Periods in NAFO (Article 25.5.a)	COM Doc. 20-13
31	STACTIC WP 20-20 (Rev. 3)	Annual Fisheries and Compliance Review 2020 (Compliance Report for Fishing Year 2019)	COM Doc. 20-17 (Rev.)
	STACFAD WP 20-01 to STACFAD WP 20-08	STACFAD Recommendations including the 2021 Budget	see agenda item 31 (above)

**Annex 2. Agenda**

<b>I. Opening Procedure</b>	
1.	Opening by the Chair, Stéphane Artano (France, in respect of St. Pierre et Miquelon)
2.	Appointment of Rapporteur
3.	Adoption of Agenda
4.	Admission of Observers
5.	Publicity
<b>II. Supervision and Coordination of the Organizational, Administrative and other Internal Affairs</b>	
6.	Review of Membership of the Commission
7.	Administrative and Activity Report by NAFO Secretariat
8.	Recruitment of NAFO Executive Secretary for the 2022-2025 term
9.	NAFO Headquarters Agreement
10.	Review of the list of experts to serve as panelists under the NAFO Dispute Settlement provisions
11.	Guidance to STACFAD
12.	Guidance to STACTIC
<b>III. Coordination of External Affairs</b>	
13.	Report of Executive Secretary on External Meetings
14.	International Relations <ul style="list-style-type: none"> <li>a. Relations with other International Organizations</li> <li>b. NAFO Members as Observers to External Meetings</li> <li>c. Areas Beyond National Jurisdiction (ABNJ) Deep-Seas Project</li> </ul>
15.	Oil and Gas Activities in the NAFO Regulatory Area
<b>IV. Joint Session of Commission and Scientific Council</b>	
16.	Implementation of 2018 Performance Review Panel recommendations
17.	Presentation of scientific advice by the Chair of the Scientific Council <ul style="list-style-type: none"> <li>a. Response of the Scientific Council to the Commission's request for scientific advice</li> <li>b. Feedback to the Scientific Council regarding the advice and its work during this meeting</li> <li>c. Other issues as determined by the Chairs of the Commission and the Scientific Council</li> </ul>
18.	Meeting Reports and Recommendations of the Joint Commission–Scientific Council Working Groups <ul style="list-style-type: none"> <li>a. Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2020</li> <li>b. Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), February and August 2020</li> <li>c. Joint Commission–Scientific Council Working Group on Ecosystems Approach Framework to Fisheries Management (WG-EAFFM), August 2020</li> <li>d. Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), April 2020</li> </ul>
19.	Formulation of Request to the Scientific Council for Scientific Advice on Management in 2022 and Beyond of Certain Stocks in Subareas 2, 3, 4, 6 and Other Matters

<b>V. Conservation of Fish Stocks in the Regulatory Area</b>	
20.	Recommendations of the Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), August 2020 (if more discussion is required)*
21.	Management and Technical Measures for Fish Stocks in the Regulatory Area, 2021 <ul style="list-style-type: none"> <li>a. Cod in Division 3M</li> <li>b. American Plaice in Division 3M</li> <li>c. Pelagic <i>Sebastes mentella</i> (oceanic redfish) in Sub-area 2 + Divisions 1F and 3K</li> <li>d. Splendid alfonsino in Sub-area 6</li> <li>e. Shrimp in Division 3M</li> </ul>
22.	Management and Technical Measures for Fish Stocks Straddling National Jurisdictions, 2021 <ul style="list-style-type: none"> <li>a. Redfish in Divisions 3LN</li> <li>b. Skates in Divisions 3LNO</li> <li>c. Greenland halibut in Sub-area 2 and Divisions 3KLMNO</li> </ul>
23.	Other matters pertaining to Conservation of Fish Stocks <ul style="list-style-type: none"> <li>a. Cod in Division 3L</li> <li>b. Witch flounder in Divisions 3NO</li> </ul>
<b>VI. Ecosystem Considerations</b>	
24.	Recommendations of the Joint Commission–Scientific Council Working Group on Ecosystems Approach Framework to Fisheries Management (WG-EAFFM), August 2020 (if more discussion is required)*
25.	Other matters pertaining to Ecosystem Considerations
<b>VII. Conservation and Enforcement Measures</b>	
26.	Recommendations of the Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), April 2020 (if more discussion is required)*
27.	Meeting Report and Recommendations of the Ad hoc Working Group on Bycatches, Discards, and Selectivity (WG-BDS) in the NAFO Regulatory Area, April 2020
28.	Report of STACTIC from this Annual Meeting and Recommendations
29.	Other matters pertaining to Conservation and Enforcement Measures
<b>VIII. Finance and Administration</b>	
30.	Report of STACFAD from this Annual Meeting
31.	Adoption of the 2021 Budget and STACFAD recommendations
<b>IX. Closing Procedure</b>	
32.	Other Business
33.	Time and Place of Next Annual Meeting
34.	Press Release
35.	Adjournment

### Annex 3. Participant List

#### CHAIRS

##### NAFO President and Chair of the Commission

Artano, Stéphane (France in respect of St. Pierre et Miquelon). Sénateur de Saint-Pierre et Miquelon, Conseiller Territorial de Saint-Pierre et Miquelon  
Tel: +01 42 34 47 54 – Email: [s.artano@senat.fr](mailto:s.artano@senat.fr)

##### Chair of Scientific Council

Fernandez, Carmen (European Union). Instituto Español de Oceanografía (IEO). Avenida Príncipe de Asturias, 70 bis. 33212, Gijón, Spain.  
Tel: +34 (985) 308 672 – Email: [carmen.fernandez@ieo.es](mailto:carmen.fernandez@ieo.es)

#### CANADA

##### Head of Delegation

Lapointe, Sylvie. Assistant Deputy Minister, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Sylvie.Lapointe@dfo-mpo.gc.ca](mailto:Sylvie.Lapointe@dfo-mpo.gc.ca)

##### Head of Delegation (Alternate)

Perry, Jacqueline. Regional Director General, Fisheries and Ocean Canada, 80 East White Hills Rd., St John's, NL, A1C 5X1  
Tel: +1 709 772-4417 – Email: [Jacqueline.perry@dfo-mpo.gc.ca](mailto:Jacqueline.perry@dfo-mpo.gc.ca)

##### Advisers/Representatives

Barbour, Natasha. FMC Manager, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: +1 709 772-5788 – Email: [Natasha.barbour@dfo-mpo.gc.ca](mailto:Natasha.barbour@dfo-mpo.gc.ca)

Blinn, Michelle. Manager Marine Services. Nova Scotia Department of Fisheries and Aquaculture, 173 Haida Street, Cornwallis, NS B0S 1H0  
Tel: +1 902 638-2020 - Email: [Michelle.Blinn@novascotia.ca](mailto:Michelle.Blinn@novascotia.ca)

Bonnell, Carey. Vice President of Sustainability and Engagement. Ocean Choice International. 22 Wedgeport Road, St. John's, NL A1A 5A6  
Tel: +1 902 782 6244 – Email: [cbonnell@oceanchoice.com](mailto:cbonnell@oceanchoice.com)

Browne, Dion. Senior Compliance Officer, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Email: [Dion.Browne@dfo-mpo.gc.ca](mailto:Dion.Browne@dfo-mpo.gc.ca)

Burke, Brian. Executive Director, Nunavut Fisheries Association  
Tel.: +1 709-351-7263 – Email: [executivedirector@noaha.ca](mailto:executivedirector@noaha.ca)

Chapman, Bruce. President, Atlantic Groundfish Council  
Tel: +1 613 692-8249 – Email: [bchapman@atlanticgroundfish.ca](mailto:bchapman@atlanticgroundfish.ca)

Dale, Aaron. Torngat Wildlife, Plants and Fisheries Secretariat, 217 Hamilton River Road, P.O. Box 2050, Station B, Happy Valley-Goose Bay, NL, A0P 1E0 Canada  
Email: [aaron.dale@torngatsecretariat.ca](mailto:aaron.dale@torngatsecretariat.ca)

Dalley, Derrick. Chief Executive Officer, Ueushuk Fisheries Ltd., 6 Burnwood Drive, PO Box 1020 Station C, Happy Valley-Goose Bay, NL, A0P 1C0  
Tel: +1 709 884 6219 – Email: [ddalley@innudev.com](mailto:ddalley@innudev.com)

Report of the NAFO Commission, 21-25 September 2020

Diamond, Julie. Regional Manager, Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St John's, NL A1C 5X1  
Email: [Julie.Diamond@dfo-mpo.gc.ca](mailto:Julie.Diamond@dfo-mpo.gc.ca)

Dwyer, Karen. Science Branch, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel.: +1 709-772-0573 - Email: [karen.dwyer@dfo-mpo.gc.ca](mailto:karen.dwyer@dfo-mpo.gc.ca)

Edgar, Leigh. Senior Fisheries and Aquaculture Management Officer, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Leigh.Edgar@dfo-mpo.gc.ca](mailto:Leigh.Edgar@dfo-mpo.gc.ca)

Fagan, Robert. Senior Resource Manager. Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Tel: +1 709 772-2920 – Email: [Robert.Fagan@dfo-mpo.gc.ca](mailto:Robert.Fagan@dfo-mpo.gc.ca)

Fuller, Susanna. Oceans North Canada. 1533 Barrington St, Halifax, NS B3J 1E6  
Email: [susannafuller@oceansnorth.ca](mailto:susannafuller@oceansnorth.ca)

Haque, Azra. Global Affairs Canada, Oceans and Environmental Law Division, 125 Sussex Dr., Ottawa, ON, K1A 0G2  
Tel: +1 343 203 2554 – Email: [Azra.Haque@international.gc.ca](mailto:Azra.Haque@international.gc.ca)

Healey, Brian. Science Advisor, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C5X1  
Tel: +1 709 772-8674 – Email: [brian.healey@dfo-mpo.gc.ca](mailto:brian.healey@dfo-mpo.gc.ca)

Hurley, Mike. Offshore Detachment Supervisor, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: + 1 709 227-9344 – Email: [mike.hurley@dfo-mpo.gc.ca](mailto:mike.hurley@dfo-mpo.gc.ca)

Johnson, Kate. Senior Policy Advisor, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Kate.Johnson@dfo-mpo.gc.ca](mailto:Kate.Johnson@dfo-mpo.gc.ca)

Kenchington, Ellen. Research Scientist, Fisheries and Oceans Canada, 1 Challenger Drive, Dartmouth, NS B2Y 4A2  
Email: [Ellen.Kenchington@dfo-mpo.gc.ca](mailto:Ellen.Kenchington@dfo-mpo.gc.ca)

Koen-Alonso, Mariano. Science Branch, Fisheries and Oceans Canada, P.O. Box 5667, St. John's, NL. A1C 5X1  
Email: [Mariano.Koen-Alonso@dfo-mpo.gc.ca](mailto:Mariano.Koen-Alonso@dfo-mpo.gc.ca)

Krohn, Martha. Manager, Fish Population Science, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Tel.: +1 613-998-4234 – Email: [martha.krohn@dfo-mpo.gc.ca](mailto:martha.krohn@dfo-mpo.gc.ca)

Laplante, Robynn. Policy Analyst, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON; K1A 0E6  
Tel: +1 343-542-8414 – Email: [Robynn-Bella.Smith-Laplante@dfo-mpo.gc.ca](mailto:Robynn-Bella.Smith-Laplante@dfo-mpo.gc.ca)

Marsden, Dale, Deputy Director, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Dale.Marsden@dfo-mpo.gc.ca](mailto:Dale.Marsden@dfo-mpo.gc.ca)

McGrath, Miranda. Fish, Food and Allied Workers Union, 368 Hamilton Ave., St. John's, NL A1C 5H5  
Email: [mmcgrath@ffaw.ca](mailto:mmcgrath@ffaw.ca)

O'Rielly, Alastair. NAFO Commissioner, Executive Director, Northern Coalition Corporation, P.O. Box 452 Witless Bay, NL, A0A 4K0,  
Tel: + 1 709 727-3290 – Email: [alastairorielly@gmail.com](mailto:alastairorielly@gmail.com)



Pepin, Pierre. Senior Research Scientist, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C5X1  
Tel: +1 709 772-2081 – Email: [Pierre.pepin@dfo-mpo.gc.ca](mailto:Pierre.pepin@dfo-mpo.gc.ca)

Roberts-Loder, Lorelei. Assistant Deputy Minister, Fisheries, Forestry and Agriculture. Government of Newfoundland and Labrador, Confederation Building, 30 Strawberry Marsh Rd., St. John's, NL A1B 4J6  
Tel: +1 709 729-3765 – Email: [LRobertsLoder@gov.nl.ca](mailto:LRobertsLoder@gov.nl.ca)

Rowsell, Nicole. Director (A), Fisheries, Forestry and Agriculture, Government of Newfoundland and Labrador, 30 Strawberry Marsh Rd., St. John's, NL A1B 4R4  
Tel: +1 709 729-0335 – Email: [nicolerowsell@gov.nl.ca](mailto:nicolerowsell@gov.nl.ca)

Schleit, Katie. Oceans North Canada. 1533 Barrington St, Halifax, NS B3J 1E6  
Email: [kschleit@oceansnorth.ca](mailto:kschleit@oceansnorth.ca)

Sheppard, Beverley. Manager, Harbour Grace Shrimp Co. Ltd., P. O. Box 580, Harbour Grace, NL A0A 2M0  
Tel: +1 709 589-8000 – Email: [bsheppard@hgsc.ca](mailto:bsheppard@hgsc.ca)

Simpson, Mark. Science Branch, Fisheries and Oceans Canada, P.O. Box 5667, St. John's, NL A1C5X1  
Tel.: +1 709-772-4841 – Email: [Mark.Simpson2@dfo-mpo.gc.ca](mailto:Mark.Simpson2@dfo-mpo.gc.ca)

Slaney, Lloyd. Director, Conservation and Protection, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Email: [Lloyd.Slaney@dfo-mpo.gc.ca](mailto:Lloyd.Slaney@dfo-mpo.gc.ca)

Snook, Jamie. Torngat Wildlife, Plants and Fisheries Secretariat, 217 Hamilton River Road, P.O. Box 2050, Station B, Happy Valley-Goose Bay, NL, A0P 1E0  
Email: [jamie.snook@torngatsecretariat.ca](mailto:jamie.snook@torngatsecretariat.ca)

Sullivan, Blaine. COO, Ocean Choice International, 1315 Topsail Road, P.O. Box 8190, St. John's, NL, A1B 3N4  
Tel: +1 709 687 4344 – Email: [bsullivan@oceanchoice.com](mailto:bsullivan@oceanchoice.com)

Sullivan, Keith. Canadian Commissioner. President, Fish, Food and Allied Workers Union, 368 Hamilton Ave., St. John's, NL A1C 5H5  
Tel.: +1 (709) 576-7276 – Email: [ksullivan@ffaw.net](mailto:ksullivan@ffaw.net)

Sullivan, Martin. CEO, Ocean Choice International, 1315 Topsail Road, P.O. Box 8190, St. John's, NL, A1B 3N4  
Tel: +1 709 687-4343 – Email: [msullivan@oceanchoice.com](mailto:msullivan@oceanchoice.com)

Tilley, Anna. Analyst, Fisheries, Forestry and Agriculture, Government of Newfoundland and Labrador, Confederation Building, 30 Strawberry Marsh Rd., St. John's, NL A1B 4J6  
Tel: +1 709 729-3735 – Email: [AnnaTilley@gov.nl.ca](mailto:AnnaTilley@gov.nl.ca)

Treble, Margaret. Marine Fisheries Biologist, Fisheries and Oceans Canada, Freshwater Institute, 501 University Cres., Winnipeg, MT  
Tel.: +1 204-984-0985 – Email: [margaret.treble@dfo-mpo.gc.ca](mailto:margaret.treble@dfo-mpo.gc.ca)

Turple, Justin. Director, International Fisheries Management, Fisheries and Oceans Canada, , 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Justin.Turple@dfo-mpo.gc.ca](mailto:Justin.Turple@dfo-mpo.gc.ca)

Vascotto, Kris. Executive Director, Atlantic Groundfish Council  
Email: [kvascotto@atlanticgroundfish.ca](mailto:kvascotto@atlanticgroundfish.ca)

Walsh, Ray. Director, Resource Management & Indigenous Fisheries, Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C5X1  
Tel: +1 709 772- 4497 – Email: [ray.walsh@dfo-mpo.gc.ca](mailto:ray.walsh@dfo-mpo.gc.ca)

Wareham, Alberto. President & CEO, Icwater Seafoods Inc., P. O. Box 89, Arnold's Cove, NL A0B 1A0  
Tel: +1 709 463 2445 – Email: [awareham@icewaterseafoods.com](mailto:awareham@icewaterseafoods.com)

Way, Monty. Fish, Food and Allied Workers Union, 368 Hamilton Ave., St. John's, NL A1C 5H5  
Email: [mway@ffaw.net](mailto:mway@ffaw.net)



Report of the NAFO Commission, 21-25 September 2020

Wheeland, Laura. Science Branch, Fisheries and Oceans Canada, P.O. Box 5667, St. John's, NL. A1C 5X1  
Tel.: +1 709-687-8357 – Email: [Laura.Wheeland@dfo-mpo.gc.ca](mailto:Laura.Wheeland@dfo-mpo.gc.ca)

Wright, Tony. Biologist Fisheries Manager, Makivik Corporation  
Email: [twright@makivik.org](mailto:twright@makivik.org)

## CUBA

### Head of Delegation

Yong Mena, Nora. Head of the International Relations Office, Ministry of the Food Industry, Municipio Playa, Calle 41, No. 4015 e/ 48y50, Playa la Havana, Cuba  
Tel: +53 7 207 9484 – Email: [nora.yong@minal.gob.cu](mailto:nora.yong@minal.gob.cu)

### Head of Delegation (Alternate)

Milan Rodriguez, Marelis. International Relations Specialist, Ministry of the Food Industry, Municipio Playa, Calle 41, No. 4015 e/ 48y50, Playa La Havana, Cuba  
Email: [marelis.milan@geia.cu](mailto:marelis.milan@geia.cu)

## DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)

### Head of Delegation

Kærgaard, Katrine. Chief Advisor, Government of Greenland, Ministry of Fishery, Hunting and Agriculture, Imaneq 1A, P.O. Box 269, Nuuk, GREENLAND  
Tel: +299 34 53 65 – Email: [katk@nanoq.gl](mailto:katk@nanoq.gl)

Sanderson, Kate. Head of European and Ocean Affairs, , Ministry of Foreign Affairs and Culture, Government of the Faroe Islands, Tinganes, FO-100 Tórshavn, Faroe Islands  
Mobile: +298 55 10 07 – Email: [kates@uvmr.fo](mailto:kates@uvmr.fo)

### Advisers/Representatives

Bork Hansen, Signe. Head of Section, Government of Greenland, Greenland Fisheries License Control Authority. Indaleeqqap Aqqutaa 3, Postbox 501, DK-3900, Nuuk, Greenland  
Tel: +299 34 53 07 – Email: [sibh@nanoq.gl](mailto:sibh@nanoq.gl)

Christensen, Steen. Chief Advisor, Government of Greenland, Ministry of Fisheries, Hunting and Agriculture  
Tel: +299 345000 / +299 345318 – Email: [stch@nanoq.gl](mailto:stch@nanoq.gl)

Cruz, Luis Ridao. Faroe Marine Research Institute (FAMRI) – Havstovan – Faroe Islands, P. O. Box 305, Nóatún 1, FO-110 Tórshavn, Faroe Islands  
Tel: +298 353900 – Email: [luisr@hav.fo](mailto:luisr@hav.fo)

Gaardlykke, Meinhard. Adviser, The Faroe Islands Fisheries Inspection, Yviri við Strond 3, P. O. Box 1238, FO-110 Torshavn, Faroe Islands  
Tel: +298 31 1065 – Mobile: +298 29 1006 – Email: [meinhardg@vorn.fo](mailto:meinhardg@vorn.fo)

Gudmundsen, Hálvdan. Association of Long Liners in the Faroe Islands.  
Email: [halvdan@fossa.fo](mailto:halvdan@fossa.fo)

Jacobsen, Petur Meinhard. Adviser, The Faroe Islands Fisheries Inspection, Yviri við Strond 3, P. O. Box 1238, FO-110 Torshavn, Faroe Islands.  
Tel: +298 31 1065 – Mobile: +29 829 1001 – Email: [peturmj@vorn.fo](mailto:peturmj@vorn.fo)

Pedersen, Michael Dennis. Head of Greenland Fisheries License Control Authority, Greenland Fisheries License Control Authority, Indaleeqqap Aqqutaa 3, Postbox 501, DK-3900 Nuuk, Greenland  
Tel: +299 345377 – Email: [mdpe@nanoq.gl](mailto:mdpe@nanoq.gl)



Skorini, Stefan í. Managing Director, Faroese Ship Owners' Association, PO Box 361, Odinshaedd 7, 110  
Torshavn, Faroe Islands  
Tel: +298 73 99 12 – Email: [stefan@industry.fo](mailto:stefan@industry.fo)

Trolle Nedergaard, Mads. Senior Advisor, Greenland Fisheries License Control Authority, Indaleeqqap Aqqutaa  
3, Postbox 501, DK-3900 Nuuk, Greenland  
Tel: +299 345523 – Email: [mads@nanoq.gl](mailto:mads@nanoq.gl)

Wang, Ulla Svarrer. Special Adviser, Ministry of Fisheries, P. O. Box 347, FO-110 Torshavn, Faroe Islands  
Tel: +298 35 30 30 – Email: [ulla.svarrer.wang@fisk.fo](mailto:ulla.svarrer.wang@fisk.fo)

## EUROPEAN UNION

### Head of Delegation

Jessen, Anders C. European Commission, Law of the Sea and Regional Fisheries Organisations, DG-MARE B2, Rue  
Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 (2) 2967224 – Email: [Anders.JESSEN@ec.europa.eu](mailto:Anders.JESSEN@ec.europa.eu)

### Head of Delegation (Alternate)

Granell, Ignacio. International Relations Officer, Regional Fisheries Management Organizations, European  
Commission, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 2 296 74 06 – Email: [ignacio.granell@ec.europa.eu](mailto:ignacio.granell@ec.europa.eu)

### Advisers/Representatives

Alpoim, Ricardo. Instituto Portugues do Mar e da Atmosfera, Rua Alfredo Magalhães Ramalho, nº6, 1495-006  
Lisboa, Portugal  
Tel: +351 213 02 70 00 – Email: [ralpoim@ipma.pt](mailto:ralpoim@ipma.pt)

Artime Garcia, Isabel. Director General of Fishery and Resources, Ministry of Agriculture, Fisheries, and Food,  
Velazquez, 144 28006 Madrid, Spain  
Tel: +91 347 60 33/34 – Email: [iartime@mapama.es](mailto:iartime@mapama.es)

Ávila de Melo, António. Instituto Portugues do Mar e da Atmosfera, Rua Alfredo Magalhães Ramalho, nº6, 1495-  
006 Lisboa, Portugal  
Tel: +351 21 302 7000 – Email: [amelo@ipma.pt](mailto:amelo@ipma.pt)

Babcionis, Genadijus. Administrator, European Fisheries Control Agency (EFCA), Apartado de Correos 771 – E-  
36200 – Vigo, Spain  
Tel: +34 986 12 06 40 – Email: [genadijus.babcionis@efca.europa.eu](mailto:genadijus.babcionis@efca.europa.eu)

Błazkiewicz, Bernard. NAFO Desk Officer, European Commission, Law of the Sea and Regional Fisheries  
Organisations, DG-MARE B2, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32-2-299.80.47 – Email: [Bernard.BLAZKIEWICZ@ec.europa.eu](mailto:Bernard.BLAZKIEWICZ@ec.europa.eu)

Caetano, Miguel. Instituto Português do Mar e da Atmosfera (IPMA), Division of Oceanography and Marine  
Environment, Rua Alfredo Magalhães Ramalho, 6, 1495-165 Algés, Portugal  
Tel: +351 21 302 7070 – Email: [mcaetano@ipma.pt](mailto:mcaetano@ipma.pt)

Casas Sanchez, José Miguel. Instituto Español de Oceanografía, Aptdo 1552, E-36200 Vigo (Pontevedra), Spain  
Tel: +34 986 49 2111 – Email: [mikel.casas@ieo.es](mailto:mikel.casas@ieo.es)

Chamizo Catalán, Carlos. Head of Fisheries Inspection Division, Ministry of Agriculture, Fisheries and Food,  
Velázquez, 144, 28006 Madrid, Spain  
Tel: +34 347 1949 – Email: [cchamizo@mapa.es](mailto:cchamizo@mapa.es)

Batista, Emília Maria. Directorate-General for Natural Resources, Safety and Maritime Services, 1449-030 Av<sup>a</sup>  
Brasília LISBOA, Portugal  
Tel: +351 213035850 – Email: [ebatista@dgrm.mm.gov.pt](mailto:ebatista@dgrm.mm.gov.pt)

Report of the NAFO Commission, 21-25 September 2020

Danilevičius, Vytautas. Ministry of Agriculture of the Republic of Lithuania, Gedimino ave. 19, LT-01103 Vilnius  
Email: [Vytautas.Danilevicius@zum.lt](mailto:Vytautas.Danilevicius@zum.lt)

De Frutos Romo, Gema. Ministry of Agriculture, Fisheries and Food, Paseo Infanta Isabel, 1, 28014 Madrid  
Email: [gdefrutos@mapa.es](mailto:gdefrutos@mapa.es)

Durán González, José Luís. Industry representative (ARBAC)  
Email: [arbac@mundo-r.com](mailto:arbac@mundo-r.com)

Durán Muñoz, Pablo. Instituto Español de Oceanografía, Aptdo 1552, E-36280 Vigo (Pontevedra), Spain  
Email: [pablo.duran@ieo.es](mailto:pablo.duran@ieo.es)

Eliassen, Peter Jørgen. Senior Consultant, Ministry of Environment and Food of Denmark, The Department, Fisheries, Slotholmsgade 10, 1216 København K, Denmark  
Tel: +45 22 61 59 37 - Email: [pejoel@mfvm.dk](mailto:pejoel@mfvm.dk)

Fernandez, Carmen (see Chairs above).

Ferretti, Johanna. Federal Ministry of Food and Agriculture, Wilhelmstraße 54, 10117 Berlin, Belgium  
Email: [Johanna.Ferretti@bmel.bund.de](mailto:Johanna.Ferretti@bmel.bund.de)

França, Pedro Elias Salgueiro. CEO, S.A., Av. Pedro Álvares Cabral 188, 3830-786 Gafanha da Nazaré, Portugal  
Tel: (+351) 234 390 250 – Email: [pedrofranca@pedrofranca.pt](mailto:pedrofranca@pedrofranca.pt)

Garrido Fernández, Irene Instituto Español de Oceanografía  
Email: [irenegarridof@hotmail.com](mailto:irenegarridof@hotmail.com)

Gillies da Mota, Deborah. Aveiro, Portugal, 3810-162  
Tel: + 351 96 240-5393 Email: [dlouise.gillies@gmail.com](mailto:dlouise.gillies@gmail.com)

González-Costas, Fernando. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 22 39 – Email: [fernando.gonzalez@ieo.es](mailto:fernando.gonzalez@ieo.es)

González-Troncoso, Diana. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 21 11 – Email: [diana.gonzalez@ieo.es](mailto:diana.gonzalez@ieo.es)

Grossmann, Meit. Coordinator, European Fisheries Control Agency, Avenida Garcia Barbon 4, E-36201, Vigo, Spain  
Tel: +34986120610 – Email: [Meit.GROSSMANN@efca.europa.eu](mailto:Meit.GROSSMANN@efca.europa.eu)

Jacobi, Corinne. Head of Unit, Federal Agency for Agriculture and Food, Headquarters in Hamburg, Haubachstr. 86, 22765 Hamburg, Germany  
Tel: 0228 6845-5515 – Email: [corinne.jacobi@ble.de](mailto:corinne.jacobi@ble.de)

Jansone, Santa. Head of Fisheries Strategy Division, Fisheries Department, Ministry of Agriculture, Republikas sq. 2, LV1010, Riga, Latvia  
Tel: +371 29194918 – Email: [Santa.Jansone@zm.gov.lv](mailto:Santa.Jansone@zm.gov.lv)

Labanauskas, Aivaras. Director, Atlantic High Sea Fishing Company, Pylimo Str. 4, LT-91249 Klaipėda, Lithuania  
Tel: +37 (0) 46 493 105 – Email: [ala@pp-group.eu](mailto:ala@pp-group.eu)

Leduc, Xavier. Industry representative (Union armateurs à la pêche de France).  
Email: [xleduc@euronor.eu](mailto:xleduc@euronor.eu)

Liria Franch, Juan Manuel. President, Confederación Española de Pesca, Dr. Fleming 7 - 2º Dcha, 28036 Madrid, Spain  
Tel: +34 91 432 34 89 – Email: [mliria@ies.es](mailto:mliria@ies.es)

Lizcano, Antonio. Ministry of Agriculture, Fisheries and Food, Paseo Infanta Isabel, 1, 28014 Madrid  
Tel: 34 601 601 884 – Email: [alizcano@mapa.es](mailto:alizcano@mapa.es)

Lopez Van Der Veen, Iván M. Director Gerente, Pesquera Áncora S.L.U., C/Perú 1, 2ºB, 36202 Vigo, Spain  
Tel: +34 986 441 012 – Email: [ivan.lopez@pesqueraancora.com](mailto:ivan.lopez@pesqueraancora.com)



- Mancebo Robledo, C. Margarita. Ministry of Agriculture, Fisheries and Food, Velázquez, 144, 28006 Madrid, Spain  
Tel: +34 91 347 61 29– Email: [cmancebo@mapa.es](mailto:cmancebo@mapa.es)
- Märtin, Kaire. Republic of Estonia, Ministry of the Environment, Narva mnt 7a, 15172 Tallinn, Estonia  
Tel: +372 6260 711 – Email: [kaire.martin@envir.ee](mailto:kaire.martin@envir.ee)
- Meremaa, Epp. Chief Specialist, Fishery Organisation and Data Analysis Bureau, , Ministry of Rural Affairs of the Republic of Estonia, Lai tn 39 // Lai tn 41, 15056 Tallinn, Estonia  
Tel: +37 2 6256204 – Email: [epp.meremaa@agri.ee](mailto:epp.meremaa@agri.ee)
- Molares Villa, José. Subdirector, Technological Institute for the Marine Environment Monitoring of Galicia, Peirao de Vilaxoán, s/n, 36611 Vilagarcía de Arousa (Pontevedra), Spain  
Email: [jmolares@gmail.com](mailto:jmolares@gmail.com)
- Näks, Liivika. University of Tartu, University 18, 50090 TARTU, Estonia  
Email: [Liivika.naks@ut.ee](mailto:Liivika.naks@ut.ee)
- Nielsen, Lisbet. Ministry of Environment and Food, Slotsholmsgade 12, 1216 København K  
Email: [lisnie@mfvm.dk](mailto:lisnie@mfvm.dk)
- Paião, Aníbal Machado. Pascoal & Filhos, S.A. Cais dos Bacalhoeiros, Apartado 12. 3834-908 Gafanha da Nazaré, Portugal  
Tel: +351 234 390 290 – Email: [anibal.paiao@pascoal.pt](mailto:anibal.paiao@pascoal.pt)
- Parlevliet, Diederik. Parlevliet & van der Plas, Voorschoterweg 31, 2235 SE Valkenburg (ZH), Netherlands  
Email: [sec@pp-group.eu](mailto:sec@pp-group.eu)
- Poviliūnas, Justas. Head of Fisheries Division. Ministry of Agriculture of the Republic of Lithuania, J. Lelevelio str 6, Vilnius, Lithuania  
Tel. +370 5 2398408 – Email: [justas.poviliunas@zum.lt](mailto:justas.poviliunas@zum.lt)
- Quintans, Miguel. European Commission–Directorate-General for Maritime Affairs and Fisheries 1049 Bruxelles/Brussel, Belgium  
Email: [miguel.quintans@ec.europa.eu](mailto:miguel.quintans@ec.europa.eu)
- Radaitytė, Eglė. Head of Fisheries Monitoring and Control Division, Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania, Klaipėda, Lithuania  
Tel: +370 700 14920 – Email: [egle.radaityte@zuv.lt](mailto:egle.radaityte@zuv.lt)
- Remisz, Emil. North Atlantic Producers Organization Ltd. (PAOP), 00-759 Warsaw, Ul. Parkowa 13/17/123  
Email: [emil@paop.org.pl](mailto:emil@paop.org.pl)
- Ribeiro, Cristina. Scientific officer. European Commission, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 229-81663 – Email: [cristina-ribeiro@ec.europa.eu](mailto:cristina-ribeiro@ec.europa.eu)
- Riekstiņš, Normunds. Director, Fisheries Department, Ministry of Agriculture, Talejas Street 1, LV-1978, Riga, Latvia  
Tel: +371 6709 5045 – Email: [normunds.riekstins@zm.gov.lv](mailto:normunds.riekstins@zm.gov.lv)
- Rodriguez, Alexandre. Secretario General, Long Distance Advisory Council (LDAC), Calle de Dr. Fleming 7, 2 DCHA, 28036, Madrid, Spain  
Tel: +34 914 32 3623 – Email: [alexandre.rodriguez@ldac.eu](mailto:alexandre.rodriguez@ldac.eu)
- Sacau-Cuadrado, Mar. Instituto Español de Oceanografía (IEO), Centro Oceanográfico de Vigo. C.P: 36390 Vigo, Spain  
Tel: +34 986 49 21 11 – Email: [mar.sacau@ieo.es](mailto:mar.sacau@ieo.es)
- Sarevet, Mati. Managing Director, Reyktal AS, Veerenni 39, 10138 Tallinn, Estonia  
Tel: +372 627 6545 – Email: [reyktal@reyktal.ee](mailto:reyktal@reyktal.ee)

Report of the NAFO Commission, 21-25 September 2020

Sepulveda, Pedro. Secretaría General de Pesca, Subdirección General de Acuerdos y Organizaciones Regionales de Pesca, Velazquez 144, 28006 Madrid, Spain  
Tel: +34 913 476 137 – Email: [psepulve@mapama.es](mailto:psepulve@mapama.es)

Serrao, Miguel. Directorate-General for Natural Resources, Safety and Maritime Services, 1449-030 Av<sup>a</sup> Brasília LISBOA, Portugal  
Tel: +351 (21) 213025161 – Email: [mserrao@dgrm.mm.gov.pt](mailto:mserrao@dgrm.mm.gov.pt)

Silva, Nuno. Directorate-General for Natural Resources, Safety and Maritime Services, 1449-030 Av<sup>a</sup> Brasília LISBOA, Portugal  
Email: [nsilva@dgrm.mm.gov.pt](mailto:nsilva@dgrm.mm.gov.pt)

Spezzani, Aronne. European Commission – ASN  
Email: [aronne.spezzani@ext.ec.europa.eu](mailto:aronne.spezzani@ext.ec.europa.eu)

Szemioth, Bogusław. North Atlantic Producers Organization, ul. Parkowa 13/17/123, 00-759 Warsaw, Poland  
Tel: +48 22 840 8920 – Email: [szemioth@atlantex.pl](mailto:szemioth@atlantex.pl)

Szumlicz, Justyna. Head of Unit, Long Distance Fisheries Unit, Department of International Cooperation, Ministry of Maritime Economy and Inland Navigation, 6/12 Nowy Swiat St., 00-400 Warsaw, Poland  
Tel: +48 22 583 89 60 – Email: [Justyna.Szumlicz@mgm.gov.pl](mailto:Justyna.Szumlicz@mgm.gov.pl)

Taveira Da Mota, José Pedro. Industry representative (Antonio Conde)  
Email: [oficinas.epa@gmail.com](mailto:oficinas.epa@gmail.com)

Teesalu, Katri. Government of Estonia  
Email: [katri.teesalu@mfa.ee](mailto:katri.teesalu@mfa.ee)

Teixeira, Isabel. Head of External Resources Division, Directorate-General for Natural Resources, Safety and Maritime Services, 1449-030 Av<sup>a</sup> Brasília LISBOA, Portugal  
Tel: +351 21 303 5825 – Email: [iteixeira@dgrm.mm.gov.pt](mailto:iteixeira@dgrm.mm.gov.pt)

Tubio Rodriguez, Xosé. Inspector, Fisheries Control and Inspections, Directorate-General for Maritime Affairs and Fisheries, European Commission, J-99 01/074, 1049 Brussels, Belgium  
Tel: +32 2 299 77 55 – Email: [xose.tubio@ec.europa.eu](mailto:xose.tubio@ec.europa.eu)

Tuvi, Aare. Counsellor, Fishery Resources Department, Republic of Estonia, Ministry of the Environment, Narva mnt 7A, 15172, Tallinn, Estonia  
Tel: + 372 6260 712 – Email: [aare.tuvi@envir.ee](mailto:aare.tuvi@envir.ee)

Ulloa Alonso, Edelmiro. Secretario Técnico Para Asaciones, Fishing Ship-owners' Cooperative of Vigo (ARVI), Puerto Pesquero de Vigo, Apartado 1078, 36200 Vigo, Spain  
Tel: +34 986 43 38 44 – Email: [edelmiro@arvi.org](mailto:edelmiro@arvi.org)

Valletta, Marco. European Commission – DG MARE  
Email: [marco.valletta@ec.europa.eu](mailto:marco.valletta@ec.europa.eu)

Vaz Pais, Luís Carlos. Industry representative PT ind (S. Jacinto)  
Email: [saojacinto.geral@sapo.pt](mailto:saojacinto.geral@sapo.pt)

Ventura, Isabel Maria. Directorate-General for Natural Resources, Safety and Maritime Services, 1449-030 Av<sup>a</sup> Brasília LISBOA, Portugal  
Tel: + 359 96 396 7535 – Email: [isabelv@dgrm.mm.gov.pt](mailto:isabelv@dgrm.mm.gov.pt)

Vilhjálmsón, Hjálmar. Estonian Long Distance Fishing Association (ELDFA), Veerenni 39, 10138 Tallinn, Estonia  
Tel: +354 896 9713 – Email: [hjalmar@reyktal.is](mailto:hjalmar@reyktal.is)

Vicente, Luis. Secretary General, (A.D.A.P.I.) (A.D.A.P.I.) Associação dos Armadores das Pescas Industriais, Avenida Santos Dumont, Edifício Mútua, N<sup>o</sup> 57 2<sup>o</sup> Dt. 1050-202 Lisboa, Portugal  
Tel: + 351 933 361 051 – Email: [adapi.pescas@mail.telepac.pt](mailto:adapi.pescas@mail.telepac.pt)

Žundienė, Ieva. Permanent Representation of Lithuania to the European Union, Rue Belliard 41-43, 1040 Brussels, BELGIUM  
Tel: +32478689908 – Email: [ieva.zundiene@eu.mfa.lt](mailto:ieva.zundiene@eu.mfa.lt)

## **FRANCE (IN RESPECT OF ST. PIERRE ET MIQUELON)**

### **Head of Delegation**

Artano, Stéphane. (see Chairs above)

### **Head of Delegation (Alternate)**

Monneau, Marianna. Ministry for Agriculture and Food, Maritime Fisheries and Aquaculture Directorate, Subdirectorate for Fisheries Resources, European and International Affairs Unit, Tour Séquoia, 1, place Carpeaux, 92055 Paris-La Défense Cedex, France  
Tel: +33 01 40 81 90 38 – Email: [marianna.monneau@agriculture.gouv.fr](mailto:marianna.monneau@agriculture.gouv.fr)

### **Advisers/Representatives**

Bouchelaghem, Mehdi. Administrateur Principal des Affaires Maritimes (APAM), 1 Rue Gloanec BP 4206, 97500, Saint-Pierre de Miquelon  
Email : [mehdi.bouchelaghem@equipement-agriculture.gouv.fr](mailto:mehdi.bouchelaghem@equipement-agriculture.gouv.fr)

Goragner, Herlé. French Research Institute for Exploitation of the Sea (IFREMER), Quai de l'Alyse, BP 4240, 97500, St. Pierre et Miquelon  
Tel: +05 08 41 30 83 – Email: [herle.goragner@ifremer.fr](mailto:herle.goragner@ifremer.fr)

Girier, David. Coordonnateur des politiques maritimes, Service des Affaires Maritimes et Portuaires, Direction des Territoires, de l'Alimentation et de la Mer, Boulevard Constant Colmay, BP: 4217 - 97500 Saint-Pierre et Miquelon  
Tél : +05 08 41 15 39 – Email: [david.girier@equipement-agriculture.gouv.fr](mailto:david.girier@equipement-agriculture.gouv.fr)

Servetto, Camille. Overseas Directorate, Ministère de l'intérieur, de l'outre-mer et des collectivités territoriales, Département des politiques agricoles, rurales et maritimes, Délégation générale à l'outre-mer, 27, rue Oudinot, 75738 Paris SP07  
Email: [camille.servetto@outre-mer.gouv.fr](mailto:camille.servetto@outre-mer.gouv.fr)

## **ICELAND**

### **Head of Delegation**

Benediktssdóttir, Brynhildur. Senior Expert, Department of Fisheries and Aquaculture, Ministry of Industries and Innovation, Skúlagötu 4, 150 Reykjavik, Iceland  
Tel: +354 545 9700 – Email: [brynhildur.benediktssdottir@anr.is](mailto:brynhildur.benediktssdottir@anr.is)

### **Head of Delegation (Alternate)**

Freyr Helgason, Kristján. Senior Expert, Fisheries Management, Department of Fisheries and Aquaculture, Ministry of Industries and Innovation, Skúlagötu 4, 150 Reykjavik, Iceland  
Email: [kristjan.freyr.helgason@anr.is](mailto:kristjan.freyr.helgason@anr.is)

Sigurdsson, Thorsteinn. Department of Fisheries and Aquaculture, Ministry of Industries and Innovation, Skúlagötu 4, 150 Reykjavik, Iceland  
Email: [thorsteinn.sigurdsson@anr.is](mailto:thorsteinn.sigurdsson@anr.is)

### **Advisers/Representatives**

Asmundsson, Johann. Directorate of Fisheries, Ministry of Industries and Innovation, Fiskistofa, Dalshrauni 1, 220 Hafnarfjörður, Iceland  
Email: [johann@fiskistofa.is](mailto:johann@fiskistofa.is)

Report of the NAFO Commission, 21-25 September 2020

Bjornsson, Birgir H. Icelandic Coast Guard, Skógarhlíð 14, 105 Reykjavík, Iceland  
Email: [birgir@LHG.IS](mailto:birgir@LHG.IS)

## JAPAN

### Head of Delegation

Iino, Kenro. Advisor to the Minister of Agriculture, Forestry and Fisheries on International Affairs (Fisheries)  
Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3 3502 8460 – Email: [keniino@hotmail.com](mailto:keniino@hotmail.com)

### Head of Delegation (Alternate)

Moronuki, Hideki. Counsellor, Resources Management Department, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3-3502-8111 – Email: [hideki\\_moronuki600@maff.go.jp](mailto:hideki_moronuki600@maff.go.jp)

### Advisers/Representatives

Hosokawa, Natsuki. Technical Official, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel : +81 3-3502-8111 – Email: [nastuki\\_hosokawa730@maff.go.jp](mailto:nastuki_hosokawa730@maff.go.jp)

Kinoshita, Yuki. Technical Official, Fisheries and Resources Management Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel : +81 3-3502-8111 – Email: [yuki\\_kinoshita590@maff.go.jp](mailto:yuki_kinoshita590@maff.go.jp)

Kishimoto, Riki. Official, Fishery Division, Economic Affairs Bureau, Ministry of Foreign Affairs  
Email: [riki.kishimoto@mofa.go.jp](mailto:riki.kishimoto@mofa.go.jp)

Minagawa, Yasuyuki. Operating Officer, General Manager, Overseas Operations Department, Taiyo A&F Co., Ltd., Toyomishinko Bldg., 4-5, Toyomi-cho, Chuo-ku, Tokyo, Japan 104-0055  
Email: [y-minagawa@maruha-nichiro.co.jp](mailto:y-minagawa@maruha-nichiro.co.jp)

Miyagawa, Naohisa. Taiyo A&F Co., Ltd., Toyomishinko Bldg., 4-5, Toyomi-cho, Chuo-ku, Tokyo, Japan 104-0055  
Email: [n-miyagawa@maruha-nichiro.co.jp](mailto:n-miyagawa@maruha-nichiro.co.jp)

Morita, Hiroyuki. Assistant Director, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Email: [hiroyuki\\_morita970@maff.go.jp](mailto:hiroyuki_morita970@maff.go.jp)

Muraoka, Toshiharu. Taiyo A&F Co., Ltd., Toyomishinko Bldg., 4-5, Toyomi-cho, Chuo-ku, Tokyo, Japan 104-0055  
Tel : +81 3-3502-8111 – Email: [t-muraoka@maruha-nichiro.co.jp](mailto:t-muraoka@maruha-nichiro.co.jp)

Nishida, Tsutomu (Tom). Associate Scientist, National Research Institute of Far Seas Fisheries, Fisheries Research Agency, 5-7-1, Orido, Shimizu-Ward, Shizuoka-City, Shizuoka, Japan 424-8633  
Tel: +81 54 336 8534 – Email: [aco20320@par.odn.ne.jp](mailto:aco20320@par.odn.ne.jp) or [tom.nishida.9691@gmail.com](mailto:tom.nishida.9691@gmail.com)

Okamoto, Junichiro. Executive Managing Director, Japan Overseas Fishing Association, Tovei Ogawamachi-Bldg., 5F, 2-6-3 Kanda Ogawa-Machi, Chiyoda-ku, Tokyo, 101-0052, Japan  
Tel: +81 3 3291 8508 – Email: [jokamoto@jdsta.or.jp](mailto:jokamoto@jdsta.or.jp)

Sato, Fumiya. Taiyo A&F Co., Ltd., Toyomishinko Bldg., 4-5, Toyomi-cho, Chuo-ku, Tokyo, Japan 104-0055  
Email: [f-sato@maruha-nichiro.co.jp](mailto:f-sato@maruha-nichiro.co.jp)

Takekawa, Yoshihiko. Assistant Director, Fisheries and Resources Management Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3-3502-8111 – Email: [yoshihiko\\_takekaw280@maff.go.jp](mailto:yoshihiko_takekaw280@maff.go.jp)

Taki, Kenji. Principal Researcher, National Research Institute of Far Seas Fisheries, Agency, 5-7-1, Orido, Shimizu-Ward, Shizuoka-City, Shizuoka, Japan  
Email: [takistan@fra.affrc.go.jp](mailto:takistan@fra.affrc.go.jp)



Yoshioka, Akiko. Japan Overseas Fishing Association, Touei Ogawamachi-Bldg., 5F, 2-6-3 Kanda Ogawa-Machi, Chiyoda-ku, Tokyo, 101-0052, Japan  
Email: [yoshioka@jdsta.or.jp](mailto:yoshioka@jdsta.or.jp)

## NORWAY

### Head of Delegation

Vikanes, Ingrid. Senior Adviser, Norwegian Ministry of Trade, Industry and Fisheries, P.O. Box 8090 Dep, NO-0032 Oslo, Norway  
Tel: +47 957 227 03 – Email: [Ingrid.Vikanes@nfd.dep.no](mailto:Ingrid.Vikanes@nfd.dep.no)

### Advisers/Representatives

Fagerbakke, Sara Lier. Norwegian Ministry of Trade, Industry and Fisheries, P.O. Box 8090 Dep, NO-0032 Oslo, Norway  
Tel: +47 930 98 998 – Email: [Sara-Lier.Fagerbakke@nfd.dep.no](mailto:Sara-Lier.Fagerbakke@nfd.dep.no)

Hvingel, Carsten. Head of Research Group, Institute of Marine Research, P.O. Box 1870 Nordnes, 5817 Bergen, Norway  
Tel: +47 95980565 – Email: [carsten.hvingel@hi.no](mailto:carsten.hvingel@hi.no)

Ognedal, Hilde. Senior Legal Adviser, Norwegian Directorate of Fisheries, P. O. Box 185, Sentrum, 5804 Bergen, Norway  
Tel: +47 92 08 95 16 – Email: [Hilde.Ognedal@fiskeridir.no](mailto:Hilde.Ognedal@fiskeridir.no)

Vaskinn, Tor-Are. Head of Department, Norwegian Fishermen's Association, Fiskebatredernes Forbund, Strandveien 106, 9006 Tromsø, Norway  
Tel: +90 64 09 78 – Email: [tor-are@fiskebat.no](mailto:tor-are@fiskebat.no)

## REPUBLIC OF KOREA

### Head of Delegation

Kim, Jung-re Riley. Policy Officer (International Fisheries Affairs)/ Lead Negotiator, Multilateral Fisheries Cooperation Team-International Cooperation Division, Ministry of Oceans and Fisheries of Korea  
Tel: +82-44-200-5398 (office) – Email: [riley1126@korea.kr](mailto:riley1126@korea.kr)

### Advisers/Representatives

Choe, Donghwan. Assistant Manager, Korea Overseas Fisheries Association, 6th FL, Samho Center Building, 83, Nonhyeon-ro, Seocho-gu, Seoul, Korea  
Tel: + 82-02-589-1618 – Email: [dhchoe@kosfa.org](mailto:dhchoe@kosfa.org)

Yang, Jae-geol. Policy Analyst, Korea Overseas Fisheries Cooperation Center, 6th FL, S Building, 253, Hannuri-daero, Sejong, Korea  
Tel: +82-44-868-7364 – Email: [jg718@kofci.org](mailto:jg718@kofci.org)

## RUSSIAN FEDERATION

### Head of Delegation

Tairov, Temur. Representative of the Federal Agency for Fisheries of the Russian Federation in Canada, 47 Windstone Close, Bedford, Nova Scotia, B4A4L4  
Tel: +1 902 405 0655 – Email: [temurtairov@mail.ru](mailto:temurtairov@mail.ru)

### Head of Delegation (Alternate)

Badina, Julia. Deputy Head of Department of International Cooperation, Department of International Cooperation, Federal Agency for Fisheries, Russian Federation  
Tel: (495) 987-06-45 – Email: [badina@fishcom.ru](mailto:badina@fishcom.ru)

Report of the NAFO Commission, 21-25 September 2020

### **Advisers/Representatives**

Bakhtov, Alexey. Principal Specialist, Center for the Monitoring of Fisheries and Communications (CFMC),  
Rozhdestvensky Boulevard, 12/8, Building 1, Moscow, Russian Federation, 107996  
Email: [abakhtov@cfmc.ru](mailto:abakhtov@cfmc.ru)

Borisov, Alexander. Deputy General Director on Fleet Operation and Production, Murman SeaFood  
Email: [Borisov.msf@mail.ru](mailto:Borisov.msf@mail.ru)

Egochina, Victoria. Russian Research Institute for Fisheries and Oceanography, Polar branch (PINRO),  
6 Knipovich St., Murmansk 183763  
Tel: +7 8113062277 – Email: [egochina@pinro.ru](mailto:egochina@pinro.ru)

Fomin, Konstantin. Specialist, Russian Research Institute for Fisheries and Oceanography, Polar branch (PINRO),  
6 Knipovich St., Murmansk 183763  
Tel: + 7 8152 47 2469 – E-mail: [fomin@pinro.ru](mailto:fomin@pinro.ru)

Orlov, Alexei. Russian Federal Research Institute of Fisheries & Oceanography (VNIRO), K. 17, V.  
Krasnoselskaya, Moscow, 107140  
Email: [orlov@vniro.ru](mailto:orlov@vniro.ru)

Petukhova, Natalia. Russian Federal Research Institute of Fisheries & Oceanography (VNIRO), K. 17, V.  
Krasnoselskaya, Moscow, 107140  
Email: [ng\\_petukhova@mail.ru](mailto:ng_petukhova@mail.ru)

Romashevskaya, Anastasiya. Deputy Head of Information and Analytical Service, Center for the Monitoring of  
Fisheries and Communications (CFMC), Rozhdestvensky Boulevard, 12/8, Building 1, Moscow, Russian  
Federation, 107996  
Email: [aromashevskaya@cfmc.ru](mailto:aromashevskaya@cfmc.ru)

Shirvel, Irina. Director RQF Co Ltd, Tralovaya str., 12A, Office 101, Murmansk 183001  
Tel: + 79 11 300 3454 – Email: [irina.dobr@mail.ru](mailto:irina.dobr@mail.ru)

Shulaeva, Anna. Representative of the Federal Agency for Fisheries in the Kingdom of Norway  
Tel: +47 48 67 34 13 – Email: [pr-norway@fishcom.ru](mailto:pr-norway@fishcom.ru)

Skryabin, Ilya. Principal Specialist, Severomorsk Territorial Department of the Federal Agency for Fisheries, 7  
Komintern St., Murmansk 183038  
Tel: +7 815 279 8116 – Email: [skryabin@bbtu.ru](mailto:skryabin@bbtu.ru)

Tremsin, Alexander. Deputy Head, Center for the Monitoring of Fisheries and Communications (CFMC),  
Rozhdestvensky Boulevard, 12/8, Building 1, Moscow, Russian Federation, 107996  
Email: [atremsin@cfmc.ru](mailto:atremsin@cfmc.ru)

Vilkin, Artem. Head of Center for Fisheries Monitoring System and Communications. Rozhdestvensky Boulevard,  
12/8, Building 1, Moscow, Russian Federation, 107996  
Tel: +7 (495) 663-51-42 – Email: [a.vilkin@list.ru](mailto:a.vilkin@list.ru)

## **UKRAINE**

### **Head of Delegation**

Demianenko, Kostiantyn. Deputy Director of the Institute of Fisheries and Marine Ecology (IFME) of the State  
Agency of Fisheries of Ukraine  
Email: [s.erinaco@gmail.com](mailto:s.erinaco@gmail.com); [s\\_erinaco@ukr.net](mailto:s_erinaco@ukr.net)

### **Advisers/Representatives**

Didenko, Alexander (Oleksandr). Head of Sector of Water Basins of Middle Dnieper, Senior Research Scientist of  
the Institute of Fisheries of the National Academy of Agrarian Sciences  
Email: [al\\_didenko@yahoo.com](mailto:al_didenko@yahoo.com)



Ogorodnik, Artem. Deputy Head of the Department of International Cooperation and European Integration of the State Agency of Fisheries of Ukraine  
Email: [inter@darg.gov.ua](mailto:inter@darg.gov.ua); [ogorodnik89@ukr.net](mailto:ogorodnik89@ukr.net)

Paramonov, Valerii. Research Officer of the Institute of Fisheries and Marine Ecology (IFME) of the State Agency of Fisheries of Ukraine  
Email: [vpamonov@i.ua](mailto:vpamonov@i.ua)

## UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

### Head of Delegation

Keedy, Jess. Head of External Fisheries Negotiations, International Fisheries, Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Tel: 020 802 63350 – Email: [jess.keedy@defra.gov.uk](mailto:jess.keedy@defra.gov.uk)

### Head of Delegation (Alternate)

Owen, Marc. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [marc.owen@defra.gov.uk](mailto:marc.owen@defra.gov.uk)

### Advisers/Representatives

Brown, Alice. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Alice.Brown1@defra.gov.uk](mailto:Alice.Brown1@defra.gov.uk)

Daramola, Mary. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Mary.Daramola@defra.gov.uk](mailto:Mary.Daramola@defra.gov.uk)

Darby, Chris. CEFAS – Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [chris.darby@cefas.co.uk](mailto:chris.darby@cefas.co.uk)

Ferrari, Lauren. Scottish Government, St. Andrew's House, Regent Road, Edinburgh, EH1 3DG  
Email: [Lauren.Ferrari@gov.scot](mailto:Lauren.Ferrari@gov.scot)

Kenny, Andrew. CEFAS – Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [andrew.kenny@cefas.co.uk](mailto:andrew.kenny@cefas.co.uk)

Readdy, Lisa. CEFAS – Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [lisa.readdy@cefas.co.uk](mailto:lisa.readdy@cefas.co.uk)

Sandell, Jane. UK Fisheries Ltd, The Orangery, Hesslewood Country Business Park, Ferriby Road, Hessle, East Yorkshire HU13 0LH  
Email: [jane@ukfisheries.net](mailto:jane@ukfisheries.net)

Sampson, Harry. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Harry.sampson@Defra.gov.uk](mailto:Harry.sampson@Defra.gov.uk)

Windebank, James. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [james.windebank@defra.gov.uk](mailto:james.windebank@defra.gov.uk)

## UNITED STATES OF AMERICA

### Head of Delegation

Pentony, Michael. Regional Administrator for NOAA Fisheries Greater Atlantic Regional Fisheries Office, National Oceanic and Atmospheric Administration, (NOAA), NMFS Greater Atlantic Regional Office,

Report of the NAFO Commission, 21-25 September 2020

Gloucester, MA 01930  
Tel: +1 978-281-9283 – Email: [michael.pentony@noaa.gov](mailto:michael.pentony@noaa.gov)

### **Head of Delegation (Alternate)**

Warner-Kramer, Deirdre. Acting Deputy Director, Office of Marine Conservation (OES/OMC), U.S. Department of State, Washington, DC 20520  
Tel +1 202 647 2883 – Email: [warner-kramerm@fa.gov](mailto:warner-kramerm@fa.gov)

### **NAFO Commissioners**

Reid, Eric. General Manager, Seafreeze Shoreside, Inc., 75 State St., Narragansett, (Pt. Judith) Rhode Island 02882 USA  
Tel: +1 401 267 4470 – Email: [ericreidri@gmail.com](mailto:ericreidri@gmail.com)

Sissenwine, Michael. New England Fishery Management Council, 39 Mill Pond Way, East Falmouth, MA 02536 USA  
Tel: +1 508 566-3144 – Email: [m.sissenwine@gmail.com](mailto:m.sissenwine@gmail.com)

### **Advisers/Representatives**

Cyr, Kathy (Lt. Commander). Office of Law Enforcement, First Coast Guard District, United States Coast Guard, U.S. Department of Homeland Security  
Email: [Kathryn.r.cyr@uscg.mil](mailto:Kathryn.r.cyr@uscg.mil)

Fredrick, Jamie (Lt. Commander). United States Coast Guard, U.S. Department of Homeland Security  
Email: [Jamie.C.Frederick@uscg.mil](mailto:Jamie.C.Frederick@uscg.mil)

Hendrickson, Lisa. Research Fishery Biologist, National Marine Fisheries Service, Northeast Fisheries Science Center, National Oceanic and Atmospheric Administration (NOAA), 166 Water St., Woods Hole, MA 02543  
Tel: +1 508 495 2285 – Email: [lisa.hendrickson@noaa.gov](mailto:lisa.hendrickson@noaa.gov)

Henry, Michael. Assistant Special Agent in Charge, Office of Law Enforcement, District 1- New England, Boston Field Office, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA) USA  
Tel: +1 978 490-4774– Email: [Michael.henry@noaa.gov](mailto:Michael.henry@noaa.gov)

Jaburek, Shannah. Fishery Management Specialist, Sustainable Fisheries Division, Greater Atlantic Regional Fisheries Office, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA), 55 Great Republic Drive, Gloucester, MA 01930  
Tel: +1 978 282 8456 – Email: [shannah.jaburek@noaa.gov](mailto:shannah.jaburek@noaa.gov)

Kelly, Moira. Senior Fishery Program Specialist, Regional Recreational Fisheries Coordinator, Greater Atlantic Regional Fisheries Office, National Marine Fisheries Service, 55 Great Republic Drive, Gloucester, MA 01930 USA  
Tel: +1 978-281-9218 – Email: [moira.kelly@noaa.gov](mailto:moira.kelly@noaa.gov)

Lynch, Charles. Section Chief, Office of General Counsel, National Oceanic and Atmospheric Administration (NOAA), 55 Great Republic Drive, Gloucester, MA 01930  
Tel: +1 978-281-9211 – Email: [charles.lynch@noaa.gov](mailto:charles.lynch@noaa.gov)

Mencher, Elizabethann. International Policy Advisor, Office of International Affairs and Seafood Inspection, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910, USA  
Tel: +1 301 427 8362 – Email: [elizabethann.mencher@noaa.gov](mailto:elizabethann.mencher@noaa.gov)

Moran, Patrick. Foreign Affairs Analyst, National Marine Fisheries Service, Office of International Affairs, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910 USA  
Tel: +1 301 427 8370 – Email: [Pat.Moran@noaa.gov](mailto:Pat.Moran@noaa.gov)



Pohl, Katherine. Attorney Advisor, Office of General Counsel for Enforcement and Litigation, Greater Atlantic Regional Office, National Oceanic and Atmospheric Administration (NOAA), 55 Great Republic Drive, Gloucester, MA 01930 USA  
Tel: +1 978 281 9107 – Email: [katherine.pohl@noaa.gov](mailto:katherine.pohl@noaa.gov)

Raymond, Margaret. Executive Director, Associated Fisheries of Maine, P.O. Box 287, South Berwick, ME 03908 USA  
Tel: +1 603-767-0922 – Email: [Maggieraymond@comcast.net](mailto:Maggieraymond@comcast.net)

Roy, Kathryn. A.I.S. Incorporated, 14 Barnabas Road, PO Box 1009, Marion, MA 02738  
Email: [kathrynr@aisobservers.com](mailto:kathrynr@aisobservers.com)

Sosebee, Katherine. Science Advisor, National Marine Fisheries Service, Northeast Fisheries Science Center, National Oceanic and Atmospheric Administration (NOAA), 166 Water St., Woods Hole, MA 02543  
Tel: +1 508 495 2372 – Email: [katherine.sosebee@noaa.gov](mailto:katherine.sosebee@noaa.gov)

Usher, Richard. Senior Vice President, A.I.S. Incorporated, 14 Barnabas Road, PO Box 1009, Marion, MA 02738  
Tel: +1 774 200 0563 – Email: [rcku@aisobservers.com](mailto:rcku@aisobservers.com)

## OBSERVERS

### ABNJ Deep-Sea Fisheries Project

Emerson, William. Email: [william.emerson@fao.org](mailto:william.emerson@fao.org)  
Thompson, Anthony. Email: [Anthony.Thompson@fao.org](mailto:Anthony.Thompson@fao.org)

### Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)

Represented by the Delegation of the European Union (see above)

### Ecology Action Centre (EAC)

Arnold, Shannon. Marine Policy Coordinator, Ecology Action Centre, 2705 Fern Lane, Halifax, NS, B3K 4L3  
Tel: +902 446-4840 – Email: [sarnold@ecologyaction.ca](mailto:sarnold@ecologyaction.ca)

### Food and Agriculture Organization of the United Nations

Mannini, Piero. Email: [Piero.Mannini@fao.org](mailto:Piero.Mannini@fao.org)

### General Fisheries Commission for the Mediterranean (GFCM)

Srour, Abdellah – Email: [GFCM-Secretariat@fao.org](mailto:GFCM-Secretariat@fao.org)

### North Atlantic Salmon Conservation Organization (NASCO)

Represented by Patrick Moran, Delegation of the USA (see above)

### North-East Atlantic Fisheries Commission (NEAFC)

Campbell, Darius. Email: [Darius@neafo.org](mailto:Darius@neafo.org)

### North Pacific Anadromous Fish Commission (NPAFC)

Radchenko, Vladimir. Email: [vlrad@npafc.org](mailto:vlrad@npafc.org)

### North Pacific Marine Science Organization (PICES)

Batten, Sonia D. Email: [sonia.batten@pices.int](mailto:sonia.batten@pices.int)

### South East Atlantic Fisheries Organisation (SEAFO)

Voges, Lizette. Email: [lvoges@seafo.org](mailto:lvoges@seafo.org)

### Southern Indian Ocean Fisheries Agreement (SIOFA)

Clot, Thierry. Email: [thierry@siofa.org](mailto:thierry@siofa.org)

### Western Central Atlantic Fishery Commission (WECAFC)

DieiOuadi, Yvette. Email: [Yvette.DieiOuadi@fao.org](mailto:Yvette.DieiOuadi@fao.org)

**NAFO SECRETARIAT**

Summit Place, 1601 Lower Water Street, Suite 401, Halifax, Nova Scotia, Canada – Tel: +1 902 468-5590

Kingston, Fred. Executive Secretary.	Email: <a href="mailto:fkingston@nafo.int">fkingston@nafo.int</a>
Goodick, Stan. Deputy Executive Secretary/ Senior Finance and Staff Administrator.	Email: <a href="mailto:sgoodick@nafo.int">sgoodick@nafo.int</a>
Aker, Jana. Senior Fisheries Information Administrator.	Email: <a href="mailto:jaker@nafo.int">jaker@nafo.int</a>
Bell MacCallum, Dayna. Scientific Information Administrator.	Email: <a href="mailto:dbell@nafo.int">dbell@nafo.int</a>
Blasdale, Tom. Scientific Council Coordinator.	Email: <a href="mailto:tblasdale@nafo.int">tblasdale@nafo.int</a>
Federizon, Ricardo. Senior Fisheries Management Coordinator.	Email: <a href="mailto:rfederizon@nafo.int">rfederizon@nafo.int</a>
Kendall, Matthew. IT Manager.	Email: <a href="mailto:mkendall@nafo.int">mkendall@nafo.int</a>
Laycock, DJ. Database Developer/Programmer Analyst.	Email: <a href="mailto:dlaycock@nafo.int">dlaycock@nafo.int</a>
Lefort, Lisa. Senior Executive Assistant.	Email: <a href="mailto:llefort@nafo.int">llefort@nafo.int</a>
Singer, Shala. Interim Office Administrator.	Email: <a href="mailto:ssinger@nafo.int">ssinger@nafo.int</a>
Pacey, Alexis. Senior Publications/Web Manager.	Email: <a href="mailto:apacey@nafo.int">apacey@nafo.int</a>



#### **Annex 4. Opening Statement by the NAFO President**

Dear distinguished colleagues and friends,

I am very pleased to welcome you, virtually, to the 42nd Annual Meeting of the Northwest Atlantic Fisheries Organization. We are living in “interesting times”! The current global pandemic has presented us all with unprecedented and historic challenges – including the fact that we must meet virtually this week.

To begin, on behalf of all of us, I am extremely pleased to welcome the United Kingdom as NAFO’s 13th Contracting Party. I look forward very much to the valuable contribution the UK will provide to this Organization. I will also break my rule that Contracting Parties provide their opening statements in writing only, by allowing the UK to give its opening remarks after me!

As you know we were supposed to be meeting face-to-face in Halifax this week, however the pandemic has brought us to this virtual format. Meeting virtually is not ideal for our deliberations and will pose many challenges. Nevertheless, thanks to the work of Contracting Parties prior to today, we have focused the agenda, and thanks to the work Contracting Parties in the upcoming days, I am confident we will have a successful meeting

Despite the current global situation and its challenges, NAFO has remained productive and busy. After the global pandemic was declared, NAFO has conducted all its business virtually. Since early March, NAFO has held 14 virtual intersessional meetings to prepare for our Annual Meeting. We have made a lot of progress despite the pandemic and I want to thank Contracting Parties for their cooperation and understanding. In particular, I want to express my appreciation to the Scientific Council, and its Chair, for all the work it has done to provide us with all the necessary scientific advice to base the decisions we will have to make this week. We need to continue with our progress of the past few months, and in the upcoming days, we should address not only those issues that are essential for the 2021 fishing year but also those that continue the progress NAFO has made to further its commitment to the long term conservation and sustainable use of its fishery resources.

Meeting virtually was not the only big change for NAFO this year. This spring, Canada provided the NAFO Secretariat with new offices in downtown Halifax, by the waterfront. I am aware that the Executive Secretary had wanted to showcase these new offices for you this year, but sadly this will have to wait until later.

We have a lot of work to do this week. I want to reiterate my thanks to Contracting Parties for your positive contributions throughout the year, which I am sure will continue this week. I also want to thank Japan and the Republic of Korea, in particular, for sacrificing their evenings so we can all meet together in this format. Finally, I want to thank the Secretariat for its support throughout the year.

I now declare the 42nd Annual Meeting of NAFO officially open!

**Annex 5. Opening Statement by United Kingdom of Great Britain and Northern Ireland (UK)**

We would like to thank you, Chair, for providing the United Kingdom with an opportunity to make a short opening statement. We understand under normal circumstances opening statements are provided in writing only, but we appreciate the recognition that the addition of a new Contracting Party is not the norm, especially so close to an annual meeting, and we shall therefore keep it brief.

The UK is delighted to be taking part in NAFO discussions this year as an independent Contracting Party. We thank the NAFO secretariat for accommodating the UK's participation. This meeting represents the UK's first independent attendance of an RFMO since leaving the European Union at the start of this year. It is our intention to contribute fully to NAFO, and actively support the progress NAFO has made in managing the fisheries resources of the northwest Atlantic.

The UK has long been committed to sustainable fisheries, protecting the ecosystems that support those fisheries, and making fisheries management decisions based on the best available science. We shall continue to work closely with our neighbours and international partners to ensure the sustainable management of stocks. We look forward to a productive NAFO annual meeting, and to working with you all.

Thank you.

## **Annex 6. Opening Statement by the Delegation of Canada**

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

Canada is pleased to be a part of the 42nd Annual Meeting of the Northwest Atlantic Fisheries Organization (NAFO), being held in a virtual setting this year due to the challenging and unprecedented circumstances that have dramatically changed the way we live and work.

Each of NAFO's Standing Committees, Working Groups, the Scientific Council and the arrangement of the Annual Meeting itself needed to quickly adapt to a new way of operating to continue to advance the important work of the organization. It is a true testament to the commitment and determination of all Contracting Parties and participants that such considerable progress could be made this year.

In particular, it is important to highly commend the Scientific Council for accomplishing so much of their significant mandate over a virtual meeting. Their work remains critical to inform management decisions in support of the sustainable management of stocks. We, along with other Contracting Parties, share the concern about the continued heavy workload of the Council and urge all Contracting Parties to make every effort to expand their participation and increase the overall capacity of the Council.

It remains the consistent professionalism and extraordinary hard work of the NAFO Secretariat that made much of the progress this year possible. We extend our deepest appreciation to the Secretariat for organizing each of the intersessional meetings and the annual meeting this year. Their careful attention to meeting logistics and continued expertise in support of the Commission, the Scientific Council and other NAFO bodies is deeply appreciated by Canada and by all Contracting Parties.

While each of NAFO Working Groups were not able to achieve as much as originally planned, much effort was directed to revising timelines and work plans to outline clear direction on how we may be able to continue to advance many key initiatives in the short and medium term.

We are optimistic that the discussions this week will result in a clear path forward on the review of the Precautionary Approach with its renewed focus on co-operative dialogue between scientists and managers, the review of the management strategy for 3LN redfish, next steps in organizing the Ecosystem Workshop that will help identify our ecosystem objectives and elements of potential application of an ecosystem approach to fisheries management, continued protection of Vulnerable Marine Ecosystems (VME), and a revised management scheme for 3M shrimp that reflects the modern conservation principles that have made NAFO a leader among Regional Fisheries Management Organizations.

Each of these elements contributes significantly to achieving NAFO's overall objectives and serve to promote and protect our ocean resources. We need to ensure that they remain healthy for future generations, while providing important economic opportunities to Canada, its coastal communities and to all Contracting Parties.

### **Annex 7. Opening Statement by the Delegation of Denmark (in respect of the Faroe Islands and Greenland)**

The Faroe Islands and Greenland (DFG) would like to begin by conveying our appreciation and warm thanks to the Secretariat for their outstanding efforts to keep us all well informed and up to date on meetings and activities during a year with many challenges.

We would also like to welcome the United Kingdom as a new Contracting Party. We are looking forward to an active and constructive collaboration in the years to come.

This year has brought new and unforeseen challenges due to the COVID-19 pandemic. It has influenced our collaborative work in NAFO and made it difficult for Contracting Parties to follow the normal procedures with respect to control and enforcement measures. The Faroe Islands and Greenland have both been affected to some degree by this situation, but not as seriously as many other countries around the world and their fisheries administrations and industries, with whom we greatly sympathize.

Once again, this year, one of the key issues for our delegation is the conservation and sustainable management of the cod stock in 3M. While the substantial decline in stock size appears to be continuing, we are pleased to note a recent increase in recruitment. We are looking forward to discussing management options, which could also include technical measures and seasonal closures to help improve the state of the stock, while also allowing a viable fishery to continue. In the absence of a clearly defined HCR for this stock, and being aware that it is not necessarily the fishery itself that is impeding the growth of the stock, we as managers must evaluate the risks associated with different approaches, based on the best available scientific evidence and taking due account of social and economic factors.

We are further encouraged to see that the Scientific Council continues to advise a fishery for shrimp in 3M, which is positive after a 10-year closure. Our delegation is looking forward to continuing discussions over the coming year on moving from a system of fishing days to quotas.

The Faroe Islands and Greenland were looking forward to seeing the new NAFO Headquarters in Halifax and, not least, to enjoying the informal conversations with delegates that are so important for ensuring understanding and smooth collaboration. Under your able guidance Mr. Chair, we will nevertheless do our best to contribute to a constructive and successful outcome of this 42<sup>nd</sup> Annual Meeting, under these exceptional circumstances.

## **Annex 8. Opening Statement by the Delegation of the European Union**

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

First of all, we would like to express our appreciation for the efforts made by the Chair, the NAFO Secretariat and the rest of NAFO Parties in order to organize the 42<sup>nd</sup> Annual Meeting of NAFO, which for the first time takes place virtually via webex. Taking into account the difficult circumstances caused by the on-going COVID-19 pandemic, we were all required to think about alternative ways for conducting the necessary business of this important organisation, so we could still discharge our mandate to ensure the long term conservation and sustainable use of the fishery resources in the Convention Area in a format that was safe, cost efficient and which in this case also happens to be greener.

Secondly, I would like to recognise the excellent preparatory work carried out ahead of this meeting, which should allow us to reach decisions that will contribute to the effective management of international fisheries that this organisation has been entrusted to manage. This year fishable biomass shows significant decline in several areas and the situation for a number of important stocks remains difficult. The Commission will again have to set TACs for fish stocks under the purview of NAFO that ensure their sustainable management for the years to come while taking into account environmental, economic and social considerations. The EU will continue to seek and support solutions based on the best available scientific advice, aiming to ensure long-term sustainability for the stocks and predictability for the industry and areas that depend on their exploitation.

The EU has carefully studied the advice emanating from the Scientific Council and will continue to support sustainable approaches for the long-term management of key stocks, such as cod, Greenland halibut and redfish, which are of particular importance to the EU. In this regard, special consideration must also be given to technical and control measures that can help us better achieve conservation objectives of NAFO.

We are aware of the situation of Northern shrimp in division 3M, and the need to discuss a new management regime based on a TAC and quota allocation, possibly together with other management options. After the heavy sacrifices and the establishment of a moratorium in 2010 to ensure the rebuilding of the stock, it was a positive step when this fishery was re-opened last year and this year's timely scientific advice will allow the Commission to assess the status of this stock. It would appear unlikely that Contracting Parties would be able at this year's Annual Meeting to reach agreement on all the elements to allow for a transition to TAC and quota allocation for 3M shrimp, notably given that fact that the meeting will take place in a virtual format. The EU however believes that NAFO at this meeting could make a step forward in this process by agreeing on the possible building blocks upon which a future conversion mechanism could be based.

In addition, I would like to underline the importance of the Ecosystem Approach in NAFO while at the same time recognising the challenges in implementing such an approach. In this regard, I would like to recall the relevance of pursuing a global assessment of the ecosystem and its dynamics in order to allow for the best management decisions.

In the context of the 2020 re-assessment of VME closures, I reiterate the EU continuous support for a coherent policy protecting VMEs based on the latest and best science available and while recognising that this year's format for the meeting will likely require us to postpone the assessment of VME closures for another year.

Regarding control and enforcement, the EU will continue to promote compliance of the EU fleet with the NAFO rules in force, both at sea and in port, and measures that increase the efficiency of NAFO's control and inspection systems. The EU will also support giving a mandate to STACTIC to assess what elements of control would be necessary if NAFO were to adopt a landing obligation policy in order to encompass ongoing discussions in various NAFO bodies dealing with measures on discards.

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 webex Annual Meeting a joint success.

### **Annex 9. Opening Statement by the Delegation of Japan**

First of all, Japan would like to express its deepest gratitude to the NAFO Chairs and Secretariat staff for the excellent preparation and arrangements to hold the 42nd Annual Meeting in such unprecedented situation.

As Japan expressed in the past meetings, NAFO has played an important role for fisheries management through development of conservation and management measures for sustainable use of fishery resources based on scientific evidence. We should bear in mind that the NAFO Conservation and Enforcement Measures (CEM) have been taken into account by other RFMOs.

On this occasion, Japan would like to draw the attention of Contracting Parties (CPs) on two specific issues and explain its view for this year's NAFO Annual Meeting, namely management measures for Cod (3M) and re-assessment of VME closures.

Regarding 3M Cod, the stock assessment conducted by the Scientific council (SC) indicated substantial decline of the population due to very low recruitment. Decision at the coming Commission meeting is critical for proper management of this stock in future. Japan therefore believes that the Commission should show its strong commitment for the conservation of this valuable stock, while taking into account the socio-economic impact on the fishery. Japan will collaborate with all CPs for a constructive discussion on this issue.

Regarding re-assessment of VME closures, Japan supports the recommendation of WG-EAFFM to roll-over the current closures for one year. This recommendation is reasonable given this year's abnormal situation that hinders in-depth discussion. Re-assessment of VME closures should be based on the best scientific evidence available and carried out in an objective manner. From this perspective, Japan considers the set of the criteria established by the FAO, and reflected to CEM Article 22. 4 (c) accordingly, should be given the highest regard and properly applied in the re-assessment.

Once again, I would like to repeat that, as the historic RFMO, NAFO has been serving a leading role among RFMOs. This year, almost all RFMOs are obliged to fulfil their mandate to manage fisheries resources without convening in-person meetings. NAFO is the first RFMO, as far as Japan is a member, to have its annual Commission meeting in a virtual format. Our practice and achievement for the coming days would be naturally referred to by other RFMOs. The Japanese Delegation is ready to work closely and cooperatively with other delegations to find good and reasonable solutions on every issue to be discussed. It sincerely hopes that this Annual meeting will be successfully and fruitfully concluded, thereby demonstrating our capability to overcome the challenges caused by the COVID-19 pandemic.

### **Annex 10. Opening Statement by the Delegation of Ukraine**

We welcome all participants of the 42<sup>nd</sup> session of the NAFO.

First of all, we would like to express our gratitude to the NAFO Secretariat for its efforts to organize this meeting, despite the difficulties faced by the world community because of the COVID-19 pandemic.

Continued cooperation of the Parties to the Convention is very important for implementation of main objectives of the NAFO Convention, namely, ensuring the long-term conservation and sustainable use of marine resources in this Convention Area.

In this respect, it should be recalled that in due time Ukraine made an outstanding contribution to discovery and exploration of fish stocks of the World Ocean, including waters of the Atlantic Ocean. Certain types of fisheries were opened and developed in these waters together with some other States of the former USSR.

As a responsible fishery State and member of several international fisheries management organizations and bilateral agreements, as well as a signatory of main international maritime acts, including the United Nations Convention on the Law of the Sea and the Agreement for the Implementation of the Provisions of the United Nations Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Ukraine seeks to coordinate its efforts with other countries in this sphere.

Thus, Ukraine's accession to the NAFO in 1999 and further participation in its work is a logical continuation of our traditional fisheries activities.

During more than 20-year period of full membership of Ukraine in the NAFO, a number of reasons did not allow our country to fully exploit potential of its status in the Organization, and, unfortunately, current significant restrictions for Ukraine on access to living marine resources in the NAFO Area are not yet favorable for resumption of the Ukrainian fisheries in this part of the World Ocean which is especially important in the context of ensuring food security of our country.

In particular, it is important to remember that despite rich historical experience in fisheries in the NAFO Area as part of the USSR fleet, the position of Ukraine on its rights to use water bioresources had not been taken into consideration during allocation of the USSR "block-quota" in 2003, and the Ukrainian side hopes for more equitable approach on the part of the Member States to allocation of NAFO living marine resources limits at present.

We genuinely hope that the results of this meeting, in general, will ensure adoption of effective decisions for conservation of marine ecosystems and living marine resources of the NAFO Area, which will allow to continue their rational use on precautionary basis. We wish all mutual understanding and fruitful work at the end, that will bring a significant success, taking into account all the limitations, caused solely by distance form of the NAFO meetings this year.

### **Annex 11. Opening Statement by the Delegation of the United States of America (USA)**

Mr. Chair, Delegates, Ladies, and Gentlemen, the United States is pleased to be here with everyone, albeit under somewhat different and challenging circumstances. Although we are very disappointed that we will not be able to see all of our NAFO colleagues in person, we trust that the strong relationships amongst NAFO Parties will help to ensure a successful and productive meeting. We are pleased to welcome the United Kingdom to the organization; we look forward to next year's meeting for a proper in-person congratulations. Along these lines, we would like to take this opportunity to recognize and thank the NAFO Secretariat for their dedication and hard work to ensure that this Annual Meeting takes place. Under these extremely unusual circumstances, they have once again demonstrated their professionalism and commitment to NAFO and its members.

The on-going pandemic associated with COVID19 continues to affect all of us to various degrees and in various ways, and this 42nd NAFO meeting will give us an opportunity to examine how we are dealing with these challenges both on an individual member basis and as a regional fisheries management organization. Although the circumstances are difficult, the United States maintains its strong commitment to the standards we have set for ourselves relative to the conservation and management of NAFO and associated species. Thus, we will continue to insist that all of the Commission's management decisions be in line with the advice of the Scientific Council, and that these decisions be made in a collaborative and transparent fashion. We must work together to ensure that we adhere to these basic foundational principles of NAFO.

In support of these principles, we must continue to recognize and address the increasing demands on the Scientific Council and the need to ensure the availability of necessary and appropriate scientific expertise and resources. Given the current circumstances, we must recognize that the SC will face significant obstacles and potential delays as they respond to Commission requests. Some of these issues have been highlighted in the Report of the 2020 SC Meeting and others have undoubtedly not yet become apparent. For this reason, we must collaborate closely with the SC relative to setting 2020/2021 priorities to ensure that vital work can be completed – or to plan for the possibility that it will not be completed.

The United States will also continue to advocate for transparency – both in deliberations by NAFO bodies and in the decisions that result from those deliberations. Although plenary, sidebar, and other communications may be challenging in the online setting in which we are working this year, we are hopeful that a reasonable level of transparency will be maintained. On a related subject, we would like to note that we are pleased with the balance that is developing in STACTIC relative to participation by non-Governmental members of our delegations, and we look forward to continued discussions to codify fair and predictable measures for appropriate participation in that forum. The United States recognizes the commitment of NAFO to open discussion and information sharing, and we look forward to maintaining that principle this year.

Relative to NAFO stocks, while we welcome the continuing positive developments reported by the Scientific Council regarding the Division 3M shrimp stock, we also continue to urge precaution moving forward – particularly relative to the use of the previous effort-based management regime. The United States is still of the opinion that NAFO must engage in a transparent and open dialogue as soon as possible regarding how the fishery will be managed in the long-term.

The United States also looks forward to further discussion during this meeting relative to the application of the CEM to fishing operations during the COVID19 crisis. Although some discussions on this topic occurred via email and during the STACTIC intersessional meeting – and a number of papers on the subject have been submitted, we are concerned that there is still no common understanding regarding how emergency/interim measures will be applied by individual Contracting Parties, and no resolution regarding how such activities/decisions will be reported and dealt relative to the NAFO compliance process moving forward. This could impact CPs' reporting and, thus, scientific and management decisions relative to some stocks.

Thank you for your attention and, again, I am looking forward to a productive week.

## **Annex 12. Opening Statement by the Food and Agricultural Organization of the United Nations (FAO)**

Chair, Contracting Parties, Observers, and members of the Secretariat, it is with great pleasure that FAO is granted observer status to NAFO's annual meeting, a leading Regional Fisheries Management Organization (RFMO) with whom FAO enjoys a close working relationship.

NAFO has been a valuable partner of the FAO/UNEP ABNJ Deep Sea Project (2014-2019) and contributed greatly to its success through in-kind contributions on the implementation of legal instruments, vulnerable marine ecosystem (VME) protection, deep-sea fisheries management, scientific cooperation, training, and Secretariat exchange programmes. This project finished in 2019 and FAO is in the process of developing a second phase for the Project, with GEF providing the majority of the project funding.

The second phase of the Deep-sea Fisheries Project (COM WP 20-09) will be implemented by FAO and builds upon the first phase, with a greater emphasis on supporting the sustainable management of deep-sea fisheries and the reduction of significant adverse impacts on biodiversity. Focal areas will be the application of the ecosystem approach to fisheries, the assessment and management of data-limited stocks, reducing impacts on VMEs and deepwater sharks, and cross-sectoral cooperation. The Deep-sea Fisheries Project held its Inception Workshop virtually in August 2020 with representation from all the deep-sea RFMOs. The NAFO Executive Secretary contributed to the Workshop with suggestions for the project's development. The project is currently being developed in partnership with RFMOs, industry, Government and NGOs, with an aim to finalize the project document in early 2021. An invitation has been extended to NAFO to be a partner in the Project's second phase and to continue its support to FAO in promoting sustainable fisheries and biodiversity conservation. NAFO's in-kind contributions will serve to support the project and development cooperation among RFMOs. The project is planned to run from 2022-2027.

Finally, FAO would like to acknowledge the active participation of NAFO Secretariat in the FAO-supported Regional Fishery Body Secretariats' Network. In addition, FAO wishes to express its appreciation for the technical collaboration and support of NAFO Secretariat to possible transformation of the Western Central Atlantic Fishery Commission (WECAFC) into a regional fishery management entity/arrangement.

### **Annex 13. Opening Statement by the North Pacific Anadromous Fish Commission (NPAFC)**

Dear Mr. Chair, distinguished delegates, observers, ladies and gentlemen:

I am Vladimir Radchenko, Executive Director of the North Pacific Anadromous Fish Commission (NPAFC).

I am honoured to attend the NAFO 42nd Annual Meeting on behalf of the NPAFC in an observer capacity. I would like to extend the Commission's appreciation to the Honorable President Stéphane Artano, Vice-Chair Temur Tairov, members of the NAFO, including delegates from the NPAFC member countries, and Executive Secretary Fred Kingston for the invitation.

COVID-19 pandemics caused international organizations to cancel or postpone face-to-face meetings around the World. NPAFC held its 28th Annual Meeting in virtual e-mail format in May 2020 that required, even with simplified agendas, twenty-four days to complete. Significant time difference between cities in the NPAFC member countries (13 hours between Juneau and Moscow) and lack of opportunity to organize a synchronous interpretation in condition of quarantine in offices were the main difficulties prevented organizing of video sessions at our meeting. I am glad to see that the NAFO Secretariat solved the time difference problem and wish the best of success to the NAFO Annual Meeting. WebEx meeting experience will be extremely useful for the NPAFC Secretariat to prepare future events.

A regular practice of exchanging observers at the NAFO and NPAFC Annual Meeting is a valuable tool of information exchange in all areas of our organizations' activities. After the final report from the second NAFO Performance Review was presented at the 2018 Annual Meeting in Tallinn, a process to address the Performance Review recommendations, along with an annual progress reporting procedure is of particular interest for NPAFC. As a Canada-based international organization, NPAFC would appreciate to hear an update on the status of a NAFO Headquarters Agreement and details of administrative report. We are always interested in NAFO relations with other international organizations, conservation of fish stocks, and oil and gas exploration activities in the NAFO Regulatory Area.

NAFO Scientific Council has reached a considerable progress in implementation of ecosystem approach to fisheries management. New tools to assess the ecosystem productivity potential and a level of allowable catch withdrawal can increase the accuracy and coherence of scientific advice. Ecosystem approach implementation also creates new opportunities for inter-organizational scientific cooperation that is particularly important in a time of preparation to the Review Conference on the Agreement for the Implementation of the Provisions of the UN Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Fifteenth round of informal consultations of States parties to Agreement is postponed to March 2021.

The United Nations Decade of Ocean Science for Sustainable Development (2021-2030) is another global-scale initiative that combines and multiplies efforts to deliver scientific knowledge, foster technological innovation, and build capacity to achieve the 2030 Agenda. NPAFC is currently discussing its potential involvement into the UN Decade-related activities with partners including the North Pacific Marine Science Organization (PICES) and the North Pacific Fisheries Commission (NPFC). Large-scale mutual scientific project could be based on outcome of the NPAFC high-seas expeditions and PICES international networking in small pelagic fish and physical/biological oceanographic research. Organizations with experience in research and management of common pelagic fish stocks will be also invited to participate. In particular, promising discussion took place with ICES Secretariat and Working Group on Science to Support Conservation, Restoration and Management of Diadromous Species (WGDIAD).

The NPAFC and NASCO are currently implementing the International Year of the Salmon (IYS). The IYS focal year was 2019, with projects and activities continuing into 2022. The IYS Wrap up symposium is planned for the autumn 2022. Despite NAFO does not deal with salmon, the IYS scope envisage participation of experts in outreach, education and communication working for similar projects and programs in fisheries science and

management. I hope that the NAFO Secretariat will include this event into the Organization's calendar when details become available.

Because the NAFO Commission will consider an appointment of NAFO members as observers to external meetings, I would like to take this opportunity to confirm that NPAFC looks forward to seeing the NAFO representative at the NPAFC 29th Annual Meeting in Hakodate, Japan in May 2021.

Wishing the best of success and spirit of cooperation to the NAFO Annual Meeting,

Thank you for your kind attention

**Annex 14. Opening Statement by Southern Indian Ocean Fisheries Agreement (SIOFA)**

La Réunion, 21st September 2020

Mr. Fred Kingston  
Executive Secretary  
Northwest Atlantic Fisheries Organization  
Summit Place • 1601 Lower Water Street • Suite 401  
Halifax • Nova Scotia • B3J 3P6 • Canada

**Subject: SIOFA statement for the 42<sup>nd</sup> Annual Meeting of Northwest Atlantic Fisheries Organization**

Dear Mr. Chairman,  
Dear Mr. Executive Secretary,

As the Executive Secretary of the Southern Indian Ocean Fisheries Agreement, I would like to extend my thanks for the invitation to the 42<sup>nd</sup> Annual meeting of Northwest Atlantic Fisheries Organization. The SIOFA is still a very young RFMO with a lot to learn from its elders.

Attending this meeting is of a great interest for us.

On a professional level, it is as great lesson on the arrangements and procedures a way older and well-established organization applies to attain its objectives.

Furthermore, both NAFO and SIOFA are mandated to regulate demersal fisheries within their own Area. The NAFO is a lot more advanced than SIOFA, particularly in its scientific capability, and its younger siblings have a lot to learn from its experience. Cooperation is of a great importance in our field of work and that is why I am grateful to be here with you for this virtual meeting.

Sincerely yours,  
Thierry CLOT  
Executive Secretary  
SIOFA/APSOI



## Annex 15. Compilation of SC Response to Feedback Questions Regarding its Scientific Advice (From COM WP 20-38)

**From  
European Union  
[COM WP 20-12]**

### Regarding 3M cod:

The COM in its request for scientific advice for 2021 asked the Scientific Council to provide advice on gear, including sorting grids, area and time-based measures that could be used to protect and improve the productivity of the 3M cod stock.

With respects to the area closures, the Scientific Council in its June meeting responded to this COM request by advising that: “... **a seasonal closure** (no directed fishery on 3M cod during the first quarter of the year) would **protect spawning activity**, reducing the number of spawning fish that are captured and allowing them to spawn before becoming available to the fishery.”

In its response the SC further advised that “The implementation of such measures should be **accompanied by a clear definition of the objectives** (determine if and how closure effectiveness could be monitored) and a **monitoring plan** to study the impact that these measures may have on the fishery and ecosystem.”

As regards the two points highlighted above from the SC response, the EU would like to seek further guidance from the Scientific Council on the following points:

1. Should the seasonal closure of directed fisheries for 3M cod during the first quarter of the year be extended to the full Flemish cap area - NAFO division 3M - or should this prohibition instead, cover a particular area within the NAFO division 3M where the cod spawning biomass is likely to aggregate?

In the latter case, then the EU requests the SC to provide additional elements, based on the best available data, as to where the target fishery should be prohibited in light of the information available to identify the area for time/area closure.

**Scientific Council  
responded:  
[COM WP 20-24]**

*There is no simple and general answer to which type of closure is better; the optimal closure design would be expected to depend on a multiplicity of factors. There are different opinions in the literature on the best type of closure to consider: seasonal, by area, or by area / season, although closure of a wide area seems to have the most support. Eero et al. (2019) concluded that “designing relatively small area closures appropriately is highly complex and data demanding and may involve trade-offs between positive and negative impacts on the stock. Seasonal closures covering most of the stock distribution during the spawning time are more robust to data limitations, and less likely to be counterproductive if sub-optimally designed.”*

*In the case of 3M cod, it seems clear that the spawning season is the first quarter of the year. While there is no research vessel survey information during this part of the year, some general inferences can be made from commercial fisheries data. The cod trawl fishery in the first quarter is concentrated in a fairly small area where catch rates (CPUE) are higher and mean size of fish is larger than in other areas/seasons, likely indicating a major spawning area. However, the data from the cod longline fishery do not show any clear spatial concentration in its activity. Therefore,*

*even if the trawl fishery allows identifying some important spawning areas, the limited spatial coverage of this fishery prevents from assuming that these are the only spawning areas within the Flemish Cap. Given the difficulty in identifying all spawning areas, the limited spatial distribution of this stock (restricted to the Flemish Cap), and the assumed objective of protecting the spawning activity of this stock, it is more appropriate to close the entire Flemish Cap to the fishery targeting cod during the identified spawning season than to close smaller areas. This option also has operational advantages in terms of simplicity of implementation and surveillance. It also reduces the effects of any displacement of fishing activity into areas with immature and recruiting fish.*

*In conclusion, the SC considers that, if a spawning closure is agreed, a total closure of the cod fishery in Flemish Cap during the first quarter of the year would be the preferred option to protect spawning activity based on the available data.*

**From  
European Union  
[COM WP 20-12]**

2. What monitoring plan, besides the regular scientific campaigns and data collection programs carried out by CPs, would the SC advise to be put in place, considering the objective of the closures is to protect spawning biomass, to reduce spawning disturbance and therefore **contributing to decrease fishing mortality** and concomitantly **increase stock abundance**?

**Scientific Council  
responded:  
[COM WP 20-24]**

*As the SC noted in its June report, the seasonal closure would protect spawning activity, reducing the number of spawning fish that are captured, and allowing them to spawn before becoming available to the fishery, but the spawning biomass itself is not protected by the closure (as the fish may still be caught in other quarters of the year). Therefore, a spawning closure will not result in decreases to fishing mortality.*

*Furthermore, while in principle improved recruitment might result from a spawning closure, there is no clear evidence that protecting fish during spawning directly translates into increases in recruitment/productivity, particularly at this time of low productivity of the stock.*

*If any closure is established, SC advises that it will be necessary to conduct ongoing analysis of the Flemish Cap cod fishery data in order to monitor the consequences of the management decisions (including the analysis of the redistribution of the fishing effort along the year and its potential effects on ecosystems, the variation of the cod catch composition in lengths/ages, and the bycatch levels of other fish species, benthos in general, and VME taxa in particular).*

**From  
European Union  
[COM WP 20-12]**

3. If flanking measures were adopted, such as:
  - i. time/area closure during the first quarter, with the objective as detailed in point 2; and
  - ii. the implementation of sorting-grids in the Div. 3M cod fishery gear, with the objective of reduce catch of small and immature individuals of cod;

how would that affect the projections for total biomass under the different scenarios for the projected years and notably would there be catches beyond 1000 t where the probability of being below  $B_{lim}$ , beyond the year 2021, would remain within the NAFO Precautionary Approach guidelines?

**Scientific Council  
responded:  
[COM WP 20-24]**

*SC advises that the suggested measures would not allow for catches above 1 000 t in 2021 without exceeding the PA framework limits in 2022.*

*If a seasonal closure proves to be effective in improving recruitment, it would affect the level of future recruitment, and hence, its effects on the stock would be observed in the medium / long-term; however, it would have little or no impact on short-term projections (2 years). In the short-term, this measure might result in lower average catch weights (as fish would be heavier in the first quarter, i.e. at spawning time, than in later quarters of the year) than used in the projections performed by SC in June. This, in turn, and assuming no other confounding effect would simultaneously occur, would also imply that a larger number of fish would need to be caught in order to reach the TAC, which is set in weight.*

*The implementation of sorting grids, which mainly affect the exploitation pattern of younger ages, would be expected to have a more immediate effect on the stock, because it would improve the protection of young fish by delaying their recruitment into the fishery. If the relatively good recruitment observed in 2019 (2018 cohort) holds true, implementation of sorting grids would increase the selection mean length and reduce the catch of the 2018 cohort in 2021 (when those fish will be of age 3), aiding in the recovery of the stock in the short-term.*

*SC is not at this point able to quantify the full effect of implementing these management measures.*

**From DFG  
[COM WP 20-17]**

#### **Regarding 3M cod:**

In its recommendation on 3M Cod for 2021, the SC notes again this year, as it did in its 2019 advice, that the strong year classes of 2009 to 2011 are dominant in the current SSB, but that subsequent recruitments (2012-2018) are much lower, leading to recent substantial declines in stock size and expectations that this will continue in the very near future under any fishing scenario.

At the same time, the SC report indicates a clear increase in recruitment to the stock in 2019, as shown in the graph on page 8 of the SC report (NAFO SCS Doc. 20/14). This has not,

however, been taken into consideration in this year's SC advice when projecting the development of the SSB and calculating the probabilities of different fishing levels reaching or exceeding Blim and Flim in 2021, 2022 and 2023.

Although there is uncertainty in recruitment estimates for the current assessment year, the most recent survey data also suggests an increase in stock biomass for 2020 as a consequence of improved recruitment in 2019. As such, there are signs indicating that the decline in the stock in the coming years might not be as severe as the current projections indicate.

- The Scientific Council is therefore requested to provide supplementary advice on the projected scenarios, taking into account the documented increase in recruitment in 2019.

**Scientific Council  
responded:  
[COM WP 20-25]**

*The current request notes that "the most recent survey data also suggests an increase in stock biomass in 2020 as a consequence of improved recruitment in 2019". SC understands this comment refers to the results of the 2020 EU survey in Division 3M. In this regard, SC notes that the results from the 2020 survey for the cod stock are preliminary, there has been no opportunity to subject them to sufficient quality checks or to any type of scientific analysis. As such, SC notes that it is too early to draw conclusions from those (preliminary) values at this stage.*

*The 3M cod stock assessment conducted by SC in June 2020 (SCS Doc. 20-14) is based on data until the end of year 2019. This followed the standard procedure for the assessment of this stock. The assessment does indeed indicate an increase in recruitment (age 1) in 2019, by comparison with the recruitment of previous years (2015-2018), which has been very low.*

*During the 2020 June SC meeting, the estimated value of recruitment (age 1) in 2019 was used to calculate stock abundance and biomass in 2019, as well as abundance at age 2 in 2020; in this respect, it was taken into account in the projections and included in the calculation of projected SSB in future years.*

*However, the recruitment assumed for the projected years (2020, 2021 and 2022) during the June SC meeting was taken from the Recruits per Spawner derived from the estimated recruitment for years 2016-2018 and not from the estimate of recruitment in 2019. This is the common procedure for most stock assessments, since the estimate of recruitment for the most recent year included in the stock assessment is more uncertain than the estimates of recruitment for earlier years, because information about cohort abundance is gained as more ages of the cohort are observed.*

*Despite the uncertainty of the 2019 recruitment estimate, and only to address the current request, a sensitivity analysis of the 3M cod projection has been performed, where the assumed recruitment for the projected years (2020, 2021, 2022) was taken from the Recruits per Spawner derived from the estimated recruitment of years 2017-2019. The results are virtually identical to those from the June projections and do not change the Scientific Council's perception of the recent dynamics of the 3M cod stock, since the recruitment in the projected years has very little impact on short-term forecasts, because small fish contribute very little to the fishery catches or the SSB.*

**From  
European Union  
[COM WP 20-26]**

**Regarding 3M cod:**

In its advice on TAC for COD 3M the SC has based its response in results from short-term projection (3years) with four fishing mortality levels; namely 2/3 $F_{lim}$ ,  $F=0$ , catch=1000t and catch=3000t.

The EU would like to request the SC the preparation of short-term projections for additional catch levels, notably catch levels between 1000t up to 1500t, and intermediate catch levels within 100 tons steps.

The first year of the projection should assume a catch equal to the agreed TAC for that year.

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.

**Scientific Council  
responded:  
[COM WP 20-31]**

*SC has conducted projections for catch levels between 500 t and 1500 t, at 100 t intervals, and the results are presented below.*

*SC notes that, although it is technically possible to conduct projections for any catch level and this has now been done for the additional catch levels requested, the uncertainty that exists in the projections of this stock prevents the SC from being able to reliably differentiate (based on scientific information) between fine-scale catch scenarios.. SC does not consider that the resolution of the assessment framework in terms of risk-of-going-below- $B_{lim}$  in relation to TAC predictions to be as fine as 100 tons.*

## Report of the NAFO Commission, 21-25 September 2020

	B		SSB		Yield
	Median and 80% CI				
Catch=500 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	500
2022	31624	(26499 - 37490)	19687	(16045 - 23502)	500
2023	28141	(23344 - 33786)	21528	(18030 - 25623)	
Catch=600 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	600
2022	31527	(26398 - 37390)	19644	(15968 - 23387)	600
2023	27960	(23170 - 33603)	21338	(17822 - 25480)	
Catch=700 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	700
2022	31430	(26299 - 37294)	19528	(15899 - 23311)	700
2023	27778	(22996 - 33421)	21168	(17674 - 25263)	
Catch=800 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	800
2022	31330	(26198 - 37196)	19428	(15824 - 23189)	800
2023	27595	(22823 - 33234)	21009	(17517 - 25132)	
Catch=900 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	900
2022	31236	(26099 - 37100)	19382	(15750 - 23145)	900
2023	27412	(22656 - 33053)	20878	(17402 - 24955)	
Catch=1000 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	1000
2022	31132	(25996 - 37004)	19282	(15658 - 23080)	1000
2023	27230	(22475 - 32877)	20679	(17248 - 24831)	
Catch=1100 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	1100
2022	31036	(25899 - 36901)	19188	(15512 - 22980)	1100
2023	27056	(22305 - 32690)	20528	(17066 - 24661)	
Catch=1200 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	1200
2022	30936	(25797 - 36806)	19126	(15443 - 22874)	1200
2023	26877	(22127 - 32505)	20391	(16915 - 24511)	
Catch=1300 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	1300
2022	30838	(25700 - 36709)	19032	(15379 - 22795)	1300
2023	26696	(21951 - 32315)	20207	(16724 - 24313)	
Catch=1400 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	1400
2022	30743	(25602 - 36611)	18950	(15274 - 22730)	1400
2023	26519	(21772 - 32140)	20058	(16535 - 24161)	
Catch=1500 tons					
2020	48698	(42129 - 55567)	35738	(30117 - 41335)	8531
2021	35740	(30110 - 41951)	23110	(18574 - 27833)	1500
2022	30641	(25497 - 36516)	18840	(15217 - 22615)	1500
2023	26340	(21592 - 31957)	19888	(16437 - 24047)	



	Yield			P(SSB < B <sub>lim</sub> )				P(F > F <sub>lim</sub> )			P(SSB <sub>23</sub> > SSB <sub>20</sub> )
	2020	2021	2022	2020	2021	2022	2023	2020	2021	2022	
Catch=500t	8531	500	500	<1%	1%	8%	3%	4%	<1%	<1%	<1%
Catch=600t	8531	600	600	<1%	1%	8%	3%	4%	<1%	<1%	<1%
Catch=700t	8531	700	700	<1%	1%	9%	3%	4%	<1%	<1%	<1%
Catch=800t	8531	800	800	<1%	1%	9%	3%	4%	<1%	<1%	<1%
Catch=900t	8531	900	900	<1%	1%	9%	4%	4%	<1%	<1%	<1%
Catch=1000t	8531	1000	1000	<1%	1%	10%	4%	4%	<1%	<1%	<1%
Catch=1100t	8531	1100	1100	<1%	1%	10%	4%	4%	<1%	<1%	<1%
Catch=1200t	8531	1200	1200	<1%	1%	11%	5%	4%	<1%	<1%	<1%
Catch=1300t	8531	1300	1300	<1%	1%	11%	5%	4%	<1%	<1%	<1%
Catch=1400t	8531	1400	1400	<1%	1%	12%	6%	4%	<1%	<1%	<1%
Catch=1500t	8531	1500	1500	<1%	1%	13%	7%	4%	<1%	<1%	<1%

**Annex 16. Recommendations from the NAFO Working Group on Improving Efficiency of  
NAFO Working Group Process (E-WG)**  
(COM-SC WP 20-02 now COM-SC Doc. 20-07)

The Working Group on Improving Efficiency of NAFO Working Group Process (E-WG) agreed on the following recommendation via correspondence.

**The Working Group on Improving Efficiency of NAFO Working Group Process recommends that:**

- **For the 2021 NAFO year, the following two-week periods, be considered for NAFO intersessional meetings:**
  - **22 February – 05 March 2021;**
  - **19 April – 30 April 2021; and**
  - **12 – 23 July 2021**

**Annex 17. Recommendations from the NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS)**  
(COM-SC WP 20-03 now COM-SC Doc. 20-05)

As always, these two-week periods would not require meetings of NAFO subsidiary bodies to meet during those dates nor would they preclude the scheduling of meetings of NAFO subsidiary bodies outside those dates.

The NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) met via WebEx on 20-21 August and agreed on the following recommendations:

**The WG-RBMS recommends that:**

1. That in relation to the Precautionary Approach Framework revision, the Commission endorses the proposed workplan outlined in Annex 3, and the proposed funding proposal outlined in Annex 4.
2. That in relation to 3LN redfish Conservation Plan and Harvest Control Rule (Annex I.H of the NAFO CEM),
  - a. the Commission requests the Scientific Council to provide guidance on the process of conducting of a full review/evaluation of the management strategy at the end of the 7-year implementation period.
  - b. the Commission adopts a TAC of 18 100 t for 3LN Redfish, applicable for 2021 and 2022.
  - c. the Risk-based Management Strategy for 3LN Redfish outlined in Annex I.H of NAFO CEM be updated in accordance with Annex 5.

### **Annex 3. Precautionary Approach Framework Revision – Proposed Workplan**

- Review of and proposal for ToRs related to mapping objectives: ToRs 1a, 1c and 1g. Deadline for results to SC: June 2021
- Present results to WG-RBMS after the June SC
- Review of and proposal for ToRs related to structural aspects and quantification of uncertainty and risk. Deadline for results to SC: ToRs 1b, 1d, 1e and 1f. Deadline for results November 2021
- The work in the previous bullet points would need to cover the data continuum, so that the framework could be applied to all NAFO stocks (data rich and data poor).
- Consider broad associated implications for stocks managed using a Management Procedure (HCR) based on a MSE.
- Workshop - (including the group of scientists and managers), around March 2022, to address the entire ToR and make a proposal of revision of the NAFO PA framework (to be later reviewed by the WG-RBMS).
- WG-RBMS 2022, based on the SC review work, would propose a new framework for the NAFO PA, to be presented to the NAFO Commission in September 2022.
- Time for CP's internal discussions and further work if required
- Final version of framework to be considered by the NAFO Commission in September 2023

SC and WG-RBMS will be kept informed of all progress in the work.

All timings are subject to change in response to the evolving COVID situation.

A second SC workshop (including the group of scientists and managers) would be held to develop the guidelines to support the implementation of the new NAFO PA framework, (between September 2022 and April 2023). The workshop would include case studies for reference points for, at least, several data-rich and data-poor stocks.

A small group would be responsible for carrying out technical work during a 2- to 3-year period going from November 2020 to October 2022/23. They would have to dedicate substantial work time over this period of time and would report to SC and WG-RBMS. This group would include some current SC members, possibly other scientists from Contracting Parties, and likely external experts, given SC workload concerns.

#### **Annex 4. Precautionary Approach Framework Revision – Plan for the Work of External Experts**

The **financial resources** used to support the contracting of **three external experts**;

These three independent experts should each: a. Assist in steering, b. Follow the process and c. (according to ToRs) Contribute to the work of the SC;

Their work should be detailed by proper Terms of Reference;

In terms of time allocation: Two different levels of time dedication. One expert with more time and closely accompanying the works, and the other two experts joining in key periodic moments (each six months for example). These levels do not intend to identify different levels of responsibility amongst the three experts.

**In the light of the above, next steps should be:**

- Preparation of the Grant application. Should happen between now and the NAFO Annual Meeting. This is a Task to be developed in close collaboration with the NAFO Secretariat (Who: European Union together with NAFO Secretariat)
- Identification of Independent experts; (Who: Contracting Parties by the NAFO Annual Meeting propose independent experts that potentially can do de job)
- Preparation of the Terms of Reference (ToRs) for the work of the Independent Experts (Who: SC, before November 2020)

**Annex 5. Proposed Update of Risk-Based management Strategy for 3LN Redfish as outlined in Annex I.H of the NAFO CEM**

**Risk-Based Management Strategy for 3LN Redfish**

Adopted by NAFO in September 2014 for implementation effective January 1, 2015

**Management Strategy/Harvest Control Rule:**

A stepwise biannual catch increase reaching 18 100 tonnes by 2019-2020. (18 100t is the equilibrium yield in the 2014 assessment under the assumption of an MSY of 21 000 tonnes).

2015 TAC:	10 400 t
2016:	10 400 t
2017:	14 200 t
2018:	14 200 t
2019:	18 100 t
2020:	18 100 t
<b>2021 TAC:</b>	<b>18 100 t</b>
<b>2022:</b>	<b>18 100 t</b>

**Review/Monitoring:**

1. Scientific Council will monitor the performance of the HCR by examining the trends in the survey indices and by conducting a full assessment every 2-3 years and for the first time in 2016.
2. Conduct a full review/ evaluation of the management strategy at the end of the 7-year implementation period.

**Annex 18. Recommendations from the NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM)**  
(COM-SC WP 20-04 now COM-SC Doc. 20-06)

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

The WG-EAFFM recommends that:

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

8. In relation to Chapter 2, Article 24 of the NAFO CEM, that STACTIC review the implementation of chapter 2, and suggest, as necessary, any revisions to WG-EAFFM with a view to improve the effectiveness of management measures. And that the Commission request the Scientific Council to also review the effectiveness of Chapter 2 from a scientific perspective and to report back at 2022 WG-EAFFM meeting. Consequently, Article 24 of the NAFO CEM should read: The provisions of this Chapter shall be reviewed by the Commission at its Annual Meeting no later than ~~2020~~ 2022.

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

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

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
	<i>Thena valdiviae</i>	Pachastrellidae	ZTH (Thenia)
	<i>Weberella bursa</i>	Polymastiidae	
	<i>Enallopsammia rostrata*</i>	Dendrophylliidae	FEY
Stony Corals (CSS - Scleractinia)	<i>Lophelia pertusa*</i>	Caryophylliidae	LWS
	<i>Madrepora oculata*</i>	Oculinidae	MVI
	<i>Solenosmilia variabilis*</i>	Caryophylliidae	RZT
	<u><i>Stichopathes</i> sp.</u>	<u>Antipathidae</u>	<u>QYX</u>
	<u><i>Leiopathes</i> cf. <i>expansa</i></u>	<u>Leiopathidae</u>	
<u>Black corals</u> <u>(AQZ- Antipatharia)</u>	<u><i>Leiopathes</i> sp.</u>	<u>Leiopathidae</u>	
	<u><i>Plumapathes</i> sp.</u>	<u>Myriopathidae</u>	
	<u><i>Bathypathes</i> cf. <i>patula</i></u>	<u>Schizopathidae</u>	
	<u><i>Parantipathes</i> sp.</u>	<u>Schizopathidae</u>	
	<u><i>Stauropathes arctica</i></u>	<u>Schizopathidae</u>	<u>SOW</u>
	<u><i>Stauropathes</i> cf. <i>punctata</i></u>	<u>Schizopathidae</u>	
	<u><i>Telopathes magnus</i></u>	<u>Schizopathidae</u>	
	<i>Acanella arbuscula</i>	Isididae	KQL (Acanella)
	<i>Anthothela grandiflora</i>	Anthothelidae	WAG
	<i>Chrysogorgia</i> sp.	Chrysogorgiidae	FHX
Small Gorgonians (GGW)	<i>Metallogorgia melanotrichos*</i>	Chrysogorgiidae	
	<i>Narella laxa</i>	Primnoidae	
	<i>Radicipes gracilis</i>	Chrysogorgiidae	CZN
	<i>Swiftia</i> sp.	Plexauridae	
	<i>Acanthogorgia armata</i>	Acanthogorgiidae	AZC
Large Gorgonians (GGW)	<i>Calyptrophora</i> sp.*	Primnoidae	
	<i>Corallium bathyrubrum</i>	Coralliidae	COR (Corallium)
	<i>Corallium bayeri</i>	Coralliidae	COR (Corallium)
	<i>Iridogorgia</i> sp.*	Chrysogorgiidae	
	<i>Keratoisis</i> cf. <i>siemensii</i>	Isididae	

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
Sea Pens (NTW – Pennatulacea)	<i>Keratoisis grayi</i>	Isididae	
	<i>Lepidisis</i> sp.*	Isididae	QFX (Lepidisis)
	<i>Paragorgia arborea</i>	Paragorgiidae	BFU
	<i>Paragorgia johnsoni</i>	Paragorgiidae	BFV
	<i>Paramuricea grandis</i>	Plexauridae	PZL (Paramuricea)
	<i>Paramuricea placomus</i>	Plexauridae	PZL (Paramuricea)
	<i>Paramuricea</i> spp.	Plexauridae	PZL (Paramuricea)
	<i>Parastenella atlantica</i>	Primnoidae	
	<i>Placogorgia</i> sp.	Plexauridae	
	<i>Placogorgia terceira</i>	Plexauridae	
	<i>Primnoa resedaeformis</i>	Primnoidae	QOE
	<i>Thouarella (Euthouarella) grasshoffi</i> *	Primnoidae	
	<i>Anthoptilum grandiflorum</i>	Anthoptilidae	AJG (Anthoptilum)
	<i>Distichoptilum gracile</i>	Protoptilidae	WDG
	<i>Funiculina quadrangularis</i>	Funiculinidae	FQJ
	<i>Halipteris</i> cf. <i>christii</i>	Halipteridae	ZHX (Halipteris)
	<i>Halipteris finmarchica</i>	Halipteridae	HFM
	<i>Halipteris</i> sp.	Halipteridae	ZHX (Halipteris)
	<i>Kophobelemnnon stelliferum</i>	Kophobelemnidae	KVF
	<i>Pennatula aculeata</i>	Pennatulidae	QAC
	<i>Pennatula grandis</i>	Pennatulidae	
	<i>Pennatula</i> sp.	Pennatulidae	
	<i>Protoptilum carpenteri</i>	Protoptilidae	
	<i>Umbellula lindahli</i>	Umbellulidae	
	<i>Virgularia mirabilis</i>	Virgulariidae	
Tube-Dwelling Anemones	<i>Pachycerianthus borealis</i>	Cerianthidae	WQB
Erect Bryozoans (BZN – Bryozoa)	<i>Eucratea loricata</i>	Eucrateidae	WEL

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
Sea Lilies (CWD – Crinoidea)	<i>Conocrinus</i>	Bourgueticrinidae	WCF
	<i>lofotensis</i>		
	<i>Gephyrocrinus</i>	Hyocrinidae	
	<i>grimaldii</i>		
Sea Squirts (SSX – Asciacea)	<i>Trichometra</i>	Antedonidae	WBO
	<i>cubensis</i>		
	<i>Boltenia ovifera</i>	Pyuridae	
	<i>Halocynthia</i>	Pyuridae	
Unlikely to be observed in trawls; <i>in situ</i> observations only: Large xenophyophores	<i>aurantium</i>		
	<i>Syringamina</i> sp.	Syringamminidae	



**Annex 19. Recommendations from the NAFO Joint Commission-Scientific Council Catch  
Estimation Strategy Advisory Group (CESAG)**  
(COM-SC WP 20-05 now COM-SC Doc. 20-08)

The NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG) met via WebEx on 24 April 2020 (COM-SC Doc. 20-02) and agreed on the following recommendations:

**The CESAG recommends that:**

1. The Commission request STACTIC to review the haul by haul reporting template (Annex II.N of the NAFO CEM) and investigate the practicality of adding the codend mesh size or hook size to the reporting requirements.
2. The Secretariat revise the 2019 catch estimates contained in COM-SC CESAG-WP 20-05 to include the remaining Canadian data and forward it (COM-SC CESAG-WP 20-05 Revised) to the Scientific Council by the 01 May deadline.
3. The Commission request STACTIC to continue to review current measures relating to reporting of catch by NAFO Division to identify and implement improvements which ensure the most reliable information is available for catch estimation, recognizing its importance in stock assessments.
4. A meeting be held in February 2021 to review and discuss the MRAG report recommendations for potential further enhancements to the CESAG methodology of catch estimation.

## **Annex 20. The Commission's Request for Scientific Advice on Management in 2022 and Beyond of Certain Stocks in Subareas 2, 3 and 4 and Other Matters**

(COM WP 20-32 (Rev. 7) **now** COM Doc. 20-16)

Following a request from the Scientific Council, the Commission agreed that items 1, 2, 8 and 11 should be the priority for the June 2021 Scientific Council meeting subject to resources and COVID-related restrictions.

1. The Commission requests that the Scientific Council provide advice for the management of the fish stocks below according to the assessment frequency presented below. In keeping with the NAFO Precautionary Approach Framework (FC Doc. 04-18), the advice should be provided as a range of management options and a risk analysis for each option without a single TAC recommendation. The Commission will decide upon the acceptable risk level in the context of the entirety of the SC advice for each stock guided and as foreseen by the Precautionary Approach.

<b>Yearly basis</b>	<b>Two-year basis</b>	<b>Three-year basis</b>
Cod in Div. 3M Northern shrimp in Div. 3M	Redfish in Div. 3M Northern shrimp in Div. 3LNO Thorny skate in Div. 3LNO Witch flounder in Div. 3NO Redfish in Div. 3LN White hake in Div. 3NO	American Plaice in Div. 3LNO American Plaice in Div. 3M Capelin in Div. 3NO Northern shortfin squid in SA 3+4 Redfish in Div. 3O Yellowtail flounder in Div. 3LNO Cod in Div. 3NO

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

In 2021, advice should be provided for 2022 for Cod in Div. 3M and Northern shrimp in Div. 3M. With respect to Northern shrimp in Div. 3M, SC is requested to provide its advice to the Commission prior to the 2021 Annual Meeting based on the survey data up to and including 2021.

In 2021, advice should be provided for 2022 and 2023 for: Redfish in Div. 3M, Northern shrimp in Div. 3LNO, and White hake in Div. 3NO

In 2021, advice should be provided for 2022, 2023 and 2024 for: American plaice in Div. 3LNO, Capelin in Div. 3NO, Cod in Div. 3NO, Yellowtail flounder in Div. 3LNO

Advice should be provided using the guidance provided in **Annexes A or B as appropriate**, or using the predetermined Harvest Control Rules in the cases where they exist (currently Greenland halibut 2+3KLMNO).

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

2. The Commission requests the Scientific Council to monitor the status of Greenland halibut in Subarea 2+Div. 3KLMNO annually to compute the TAC using the agreed HCR and determine whether exceptional circumstances are occurring. If exceptional circumstances are occurring, the exceptional circumstances protocol will provide guidance on what steps should be taken.
3. The Commission requests that the Scientific Council continue its evaluation of the impact of scientific trawl surveys on VME in closed areas, and the effect of excluding surveys from these areas on stock assessments.

4. The Commission requests the Scientific Council to implement the steps of the Action plan relevant to the Scientific Council and in particular the tasks identified under section 2.2 of the Action Plan, for progression in the management and minimization of Bycatch and discards (COM Doc. 17-26).
  - Tasks outlined in Tasks 3.1 and 3.2 of the NAFO Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26).
5. The Commission requests that Scientific Council continue to refine work on the Ecosystem Road Map:
  - Continue to test the reliability of the ecosystem production potential model and other related models
  - Report on these results to WG-EAFFM and WG-RBMS to further develop how it may apply to management decisions
  - Develop options of how ecosystem advice could inform management decisions, an issue which is directly linked to the results of the foreseen EAFM roadmap workshop.
  - Continue its work to develop models that support implementation of Tier 2 of the EAFM Roadmap."
6. The Commission requests that the Scientific Council, in preparation of the re-assessment of NAFO bottom fisheries in 2021 and discussion on VME fishery closures:
  - Assess the overlap of NAFO fisheries with VME to evaluate fishery specific impacts in addition to the cumulative impacts for NRA fisheries;
  - Consider clearer objective ranking processes and options for objective weighting criteria for the overall assessment of significant adverse impacts and the risk of future adverse impacts;
  - Maintain efforts to assess all of the six FAO criteria including the three FAO functional SAI criteria which could not be evaluated in the current assessment.
  - Provide input and analysis of potential management options, with the goal of supporting meaningful and effective discussions between scientists and managers at the 2021 WG-EAFFM meeting;
  - Continue to work on the VME indicator species as listed in Annex IE, Section VI to prepare for the next assessment.
7. The Commission requests that the Scientific Council review the proposed revisions to Annex I.E, Part VI as reflected in COM-SC EAFFM-WP 18-01, for consistency with the taxa list annexed to the VME guide and recommend updates as necessary.
8. The Commission requests the Scientific Council to continue progression on the review of the NAFO PA Framework in accordance to the PAF review work plan approved in 2020 (NAFO COM-SC Doc. 20-04)
9. The Commission requests that the Scientific Council Work with WG- BDS to identify areas and times where bycatch and discards of Greenland sharks have a higher rate of occurrence in time for consideration by the Commission in 2021 to inform the development of measures to reduce bycatch in the NRA.
10. The Commission requests the Scientific Council to continue to develop a 3-5 year work plan, which reflects requests arising from the 2020 Annual Meeting, other multi-year stock assessments and other scientific inquiries already planned for the near future. The work plan should identify what resources are necessary to successfully address these issues, gaps in current resources to meet those needs and proposed prioritization by the Scientific Council of upcoming work based on those gaps.

11. The Commission requests that the Scientific Council, carry out a scoping exercise to provide guidance to the WG-RBMS on the process of conducting of a full review/evaluation of the management strategy of Div. 3LN redfish.
12. The Commission requests the Scientific Council review submitted protocols for a survey methodology to inform the assessment of Splendid Alfonsino. The Scientific Council to report on the outcome of this work at next Commission annual meeting.
13. The Commission requests that results from stock assessments and the scientific advice of Cod 2J3KL (Canada), Witch 2J3KL (Canada) and Pelagic *Sebastes mentella* (ICES Divisions V, XII and XIV; NAFO 1) to be presented to the Scientific Council (SC), and request the SC to prepare a summary of these assessments to be included in its annual report.
14. The Commission requests the Scientific Council, jointly with the Secretariat, to conduct ongoing analysis of the Flemish Cap cod fishery data by 2022 in order to:
  - (1) monitor the consequences of the management decisions (including the analysis of the redistribution of the fishing effort along the year and its potential effects on ecosystems, the variation of the cod catch composition in lengths/ages, and the bycatch levels of other fish species, benthos in general, and VME taxa in particular), and
  - (2) carry out any additional monitoring that would be required, including Div. 3M cod caught as bycatch in other fisheries during the closed period.
15. The Commission requests the Scientific Council,, in its future work, to consider whether other measures, such as depth restrictions, spatial and mesh changes, could reduce the catch of juvenile and immature cod across all fisheries in 3M.
16. The Commission requests the Scientific Council to continue to monitor and provide updates resulting from relevant research related to the potential impact of activities other than fishing in the Convention Area. Further, that the Secretariat and the Scientific Council work with other international organizations, such as the FAO and ICES, to bring in additional expertise to inform the Scientific Council's work.
17. The Commission requests the Scientific Council to provide information to the Commission at its next annual meeting on sea turtles, sea birds, and marine mammals that are present in NAFO Regulatory Area based on available data.
18. The Commission requests that the Scientific Council proceed with developing the ecosystem summary sheets for 3M and 3LNO move toward undertaking a joint Workshop with ICES (International Council for the Exploration of the Sea) as part of a peer review of North Atlantic ecosystems.

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

The Commission requests 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
- Catch to relative biomass
- 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 with the following constant fishing mortality levels as appropriate:

- For stocks opened to direct fishing:  $2/3 F_{msy}$ ,  $3/4 F_{msy}$ ,  $85\% F_{msy}$ ,  $90\% F_{msy}$ ,  $95\% F_{msy}$ ,  $F_{msy} 0.75 \times F_{status\ quo}$ ,  $F_{status\ quo}$ ,  $1.25 \times Status\ quo$ ,  $F=0$ ; TAC Status quo,  $85\% TAC\ Status\ quo$ ,  $90\% TAC\ Status\ quo$ ,  $95\% TAC\ Status\ quo$
- For stocks under a moratorium to direct fishing:  $F_{status\ quo}$ ,  $F = 0$ .

The first year of the projection should assume a catch equal to the agreed TAC for that year.

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													P(B2024 > B2020)
F in 2022 and following years*	Yield 2022 (50%)	Yield 2023 (50%)	Yield 2024 (50%)	P(F>F <sub>lim</sub> )			P(B<B <sub>lim</sub> )			P(F>F <sub>msy</sub> )			P(B<B <sub>msy</sub> )				
				2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024		
2/3 F <sub>msy</sub>	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
3/4 F <sub>msy</sub>	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
85% F <sub>msy</sub>	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
90% F <sub>msy</sub>																	
95% F <sub>msy</sub>																	
F <sub>msy</sub>	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0.75 X F <sub>status quo</sub>	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
F <sub>status quo</sub>	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1.25 X Status quo	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
F=0	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%
TAC Status quo																	
85% TAC Status quo																	
90% TAC Status quo																	
95% TAC Status quo																	

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:

- 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 as appropriate:

- For stocks opened to direct fishing:  $F_{0.1}$ ,  $F_{max}$ ,  $2/3 F_{max}$ ,  $3/4 F_{max}$ ,  $85\% F_{max}$ ,  $75\% F_{status\ quo}$ ,  $F_{status\ quo}$ ,  $125\% F_{status\ quo}$ ,
- For stocks under a moratorium to direct fishing:  $F_{status\ quo}$ ,  $F = 0$ .

The first year of the projection should assume a catch equal to the agreed TAC for that year.

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														P(B2024 > B2020)
				P(F.>F <sub>lim</sub> )			P(B<B <sub>lim</sub> )			P(F>F0.1)			P(F>F <sub>max</sub> )					
F in 2022 and following years*	Yield 2022	Yield 2023	Yield 2024	2022	2023	2024	2022	2023	2024		2022	2023	2024	2022	2023	2024		
F0.1	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
F <sub>max</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
66% F <sub>max</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
75% F <sub>max</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
85% F <sub>max</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
0.75 X F <sub>2018</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
F <sub>2018</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%
1.25 X F <sub>2018</sub>	t	t	t	%	%	%	%	%	%		%	%	%	%	%	%		%

**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.

**Annex 21. 2021 Annual Quota Table**

CATCH LIMITATIONS – Article 5. Total allowable catches (TACs) and quotas (metric tons in live weight) for 2021 of particular stocks in Subareas 1-4 of the NAFO Convention Area.

Species	Cod			Redfish					American plaice		Yellowtail
	COD 3L	COD 3M	COD 3NO	RED 3LN	% of 3LN Redfish TAC	RED 3M	RED 3O	REB 1F 2, 3K (i.e. Sub-Area 2 and Divs. 1F+3K)	PLA 3LNO	PLA 3M	
% of TAC					% of 3LN Redfish TAC						
Contracting Party											
Canada		12	0	7 710	42.60	500	6 000	0 <sup>1</sup>	0	0	16 575
Cuba		56	-	1 774	9.80	1 750		0 <sup>1</sup>	-	-	-
Denmark (Faroe Islands and Greenland)		335	-	-		69 <sup>10</sup>		0	-	-	-
European Union		716 <sup>5</sup>	0 <sup>4</sup>	3 300 <sup>4</sup>	18.23	7 813 <sup>4</sup>	7 000	0 <sup>07</sup>	0	0 <sup>4</sup>	-
France (St. Pierre et Miquelon)		-	-	-		69 <sup>10</sup>		0 <sup>1</sup>	-	-	340
Iceland		-	-	-		-		0	-	-	-
Japan		-	-	-		400	150	0 <sup>1</sup>	-	-	-
Korea		-	-	-		69 <sup>10</sup>	100	0 <sup>1</sup>	-	-	-
Norway		139	-	-		-		0	-	-	-
Russian Federation		97	0	5 207	28.77	9 137	6 500	0	-	0	-
Ukraine		-	-	-		-	150	0 <sup>1</sup>	-	-	-
United Kingdom		140	-	-		-			-	-	-
United States of America		-	-	-		69 <sup>10</sup>		0 <sup>1</sup>	-	-	-
Others		6	0	109	0.60	124	100	-	0	0	85
<b>TOTAL ALLOWABLE CATCH</b>	<b>*</b>	<b>1500</b>	<b>*</b>	<b>18 100<sup>8</sup></b>	<b>100.0<sup>14</sup></b>	<b>8 448</b>	<b>20 000<sup>8</sup></b>	<b>0<sup>3,9</sup></b>	<b>*</b>	<b>*<sup>11</sup></b>	<b>17 000</b>



Species	Witch		White hake	Capelin	Skates	Greenland halibut	Squid ( <i>Illex</i> )	Shrimp		Alfonsino
	WIT 3L	WIT 3NO						PRA 3L	PRA 3NO	
Stock Specification										
% of TAC			% of 3NO Witch TAC							
Contracting Party										
Canada		705	60.00	0	1 167	1 834	N.S. <sup>2</sup>	0		
Cuba		-		0		-	510	0		
Denmark (Faroe Islands and Greenland)		-		-		210	-	0		
European Union		156 <sup>4</sup>	13.27	0 <sup>5</sup>	4 408	7 168 <sup>6</sup>	N.S. <sup>2</sup> 611 <sup>5</sup>	0 <sup>6</sup>		
France (St. Pierre et Miquelon)		-		-		200	453	0		
Iceland		-		-		-	-	0		
Japan		-		0		1 253	510	0		
Korea		-		-		-	453	0		
Norway		-		0		-	-	0		
Russian Federation		302	25.73	0	1 167	1 560	749	0		
Ukraine		-		-		-	-	0		
United Kingdom		-		-		-	-			
United States of America		-		-		-	453	0		
Others		12	1.00	-	258		794	0		
TOTAL ALLOWABLE CATCH	*8	1 175	100.00 <sup>15</sup>	*	7 000 <sup>8,12</sup>	12 225	34 000 <sup>8</sup>	0	*	*



\* Ban on fishing in force.

- 1 Quota to be shared by vessels from Canada, Cuba, France (St. Pierre et Miquelon), Japan, Korea, Ukraine and USA.
- 2 The allocations 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 (= 29,467 tonnes).
- 3 Should NEAFC modify its level of TAC, these figures shall be adjusted accordingly by NAFO through a mail vote.
- 4 Including allocations to Estonia, Latvia and Lithuania in accordance with the sharing arrangement of the former USSR quota adopted by the Fisheries Commission in 2003 (FC WP 03-07), as applied by NAFO since 2005 following their accession to the European Union.
- 5 Including allocations to Estonia, Latvia and Lithuania in accordance with the sharing arrangement of the former USSR quota adopted by the Fisheries Commission in 2003 (FC WP 03-07), and to Poland, as applied by NAFO since 2005 following their accession to the European Union.
- 6 Including allocations to Estonia, Latvia, Lithuania and Poland, as applied by NAFO since 2005 following their accession to the EU.
- 7 Allocation of 17.85% to Lithuania and 2.15% to Latvia following their accession to the European Union.
- 8 Applicable to 2021 and 2022.
- 9 If an increase in the overall TAC as defined in footnote 3 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 1.
- 10 Notwithstanding the provision of Article 5.3(b) and without prejudice to future agreements on allocations, these quotas may be fished in their entirety by these Contracting Parties.
- 11 Applicable to 2021, 2022, and 2023.
- 12 Should catches exceed 5 000 tonnes, additional measures would be adopted to further restrain catches in 2021.

### Historical statements

- 13 The allocation key of this stock is based on the 1998 Quota Table. In 1999, a moratorium on cod in Division 3M was declared.
- 14 The allocation key of this stock is based on the 1997 Quota Table. In 1998, a moratorium on redfish in Division 3LN was declared.
- 15 The allocation key of this stock is based on the 1994 Quota Table. In 1995, a moratorium on witch flounder in Division 3NO was declared.



**Effort Allocation Scheme for Shrimp Fishery in the  
NAFO Regulatory Area Div. 3M, 2021**

<b>CONTRACTING PARTY</b>	<b>NUMBER OF FISHING DAYS<sup>11</sup></b>
<b>Canada</b>	114
<b>Cuba</b>	25 <sup>3</sup>
<b>Denmark</b> – Faroe Islands – Greenland	402 129
<b>European Union<sup>2</sup></b>	823 <sup>3</sup>
<b>France (in respect of St. Pierre et Miquelon)</b>	25 <sup>3</sup>
<b>Iceland</b>	N/A
<b>Japan</b>	25
<b>Korea</b>	25
<b>Norway</b>	496 <sup>3</sup>
<b>Russia</b>	525 <sup>3</sup>
<b>Ukraine</b>	25 <sup>3</sup>
<b>USA</b>	25
<b>TOTAL</b>	<b>2 640</b>

- 
- 1 When 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.
  - 2 Including fishing entitlements transferred from Poland (25 fishing days), Estonia (416 fishing days), Latvia (123 fishing days) and Lithuania (145 fishing days) following their accession to the European Union.
  - 3 In derogation of CEM Article 5.11 and CEM Article 9.4, the European Union will transfer 25 fishing days of its fishing days allocation for 2021 to France, in respect of St Pierre et Miquelon; Norway will transfer 25 fishing days of its fishing days allocation for 2021 to Ukraine; and the Russian Federation will transfer 25 fishing days of its fishing days allocation for 2021 to Cuba. The above transfers are without prejudice to the effort allocation key and are only for the year 2021. The 2021 catches under this interim regime will not create any catch history.

## **Annex 22. Flanking Measures for directed fishery of COD 3M**

(COM WP 20-34 (Rev 3) **now** COM Doc. 20-14)

EU text proposal concerning Cod 3M in NCEM:

1. TAC for 2021 shall be 1500 tonnes in Annex I.A.
2. New paragraph in Article 5.5 under sub-heading “Closure of Fisheries for Stocks listed in Annex I.A and I.B”: “close its directed fishery for cod in Division 3M between 24:00 UTC 31 December 2020 and 24:00 UTC 31 March 2021”.
3. New paragraph 9 in Article 13 under sub-heading “Use of Attachments”: “Each Contracting Party shall ensure that its trawl vessels conducting a directed fishery for cod in Division 3M, use a sorting grid for the purpose of reducing the catches of smaller individuals of cod. The minimum bar spacing of the sorting grid shall be 55 mm. The sorting grid must be placed in the top-side pannel of the trawl preceding the codend”.
4. As recommended by STACTIC, to add the following new Article 7bis:

### **“Article 7 bis – 3M Cod<sup>1</sup>”:**

#### **Control Measures**

1. *Each Contracting Party shall apply the following control measures for vessels with more than 1,250kg of 3M cod catches on board<sup>2</sup>:*
  - (a) *prohibit its vessels from landing or transshipping 3M cod catches in ports other than those designated in accordance with Article 43.*
  - (b) *require that at least 48 hours before its estimated time of arrival in port, a vessel or its representative on its behalf, advises the competent port authority of its estimated time of arrival, the estimated quantity of 3M cod retained on board, and information on the division or divisions where any other cod catches retained on board were taken.*
  - (c) *inspect each landing or transshipment of 3M cod in its ports and prepare an inspection report in the format prescribed in Annex IV.C, which it submits to the Executive Secretary within 14 working days from the date on which the inspection was completed. The PSC3 report shall identify and provide details of any infringement to the CEM detected during the port inspection. It shall include all relevant information available in reference to infringements detected at sea during the current trip of the inspected fishing vessel.*

#### **Duties of the Executive Secretary**

2. *The Executive Secretary posts without delay the port inspection report submitted in accordance with paragraph 1(c) to the NAFO MCS Website and ensures that it is made available to all Contracting Parties.*

- <sup>1</sup> *STACTIC shall review this Article and propose amendments as appropriate to the Commission at its Annual Meeting in 2021. This Article is only applicable when the TAC for Cod in Division 3M in Annex I.A is under 3000 tonnes.*
- <sup>2</sup> *Each Contracting Party shall inspect vessels with less than 1250 kg of 3M cod on board on a risk-based approach.*

5. In the context of the scientific work carried out on cod 3M, the Commission acknowledges that the Management Strategy Evaluation will resume when Scientific Council determines that conditions are such that there is a reasonable probability of success. The Commission supports the continuation of the technical work to solve the challenges posed by the strong variability observed in the stock dynamics and biological parameters. In this regard, the Commission strongly recommends that all relevant Contracting Parties give high priority to dedicated research to improve scientific knowledge on the biological parameters and other aspects relevant to improving understanding of the dynamics of this stock. [reference: 2019 (COM WP 19-42)]
6. Based on the recent SC response to the EU's question about what additional monitoring data is required, the Commission requests Scientific Council, jointly with the Secretariat, to conduct ongoing analysis of the Flemish Cap cod fishery data in order to:
  - (1) monitor the consequences of the management decisions (including the analysis of the redistribution of the fishing effort along the year and its potential effects on ecosystems, the variation of the cod catch composition in lengths/ages, and the bycatch levels of other fish species, benthos in general, and VME taxa in particular), and
  - (2) carry out any additional monitoring that would be required, including 3M cod caught as bycatch in other fisheries during the closed period.
7. In addition, the Commission notes that the interim spawning closure period is being adopted on a precautionary basis for 2021 (according to Art 5.5 mentioned above), and this peak period will be the subject of future review to identify potential further refinement and will be discussed at the 2021 Annual Meeting.
8. Amend NAFO CEM Article 38.1.g to read “*using an unauthorized mesh or grid size contrary to Article 13*”.

**Annex 23. Draft Concept Paper – Shrimp 3M**  
***“Moving from efforts scheme to a TAC and quotas”***  
 (COM WP 20-16)

## Introduction

In line with the scientific advice, the Commission agreed to re-open the shrimp 3M fishery, which has been under a moratorium since 2011. This stock has traditionally been managed through an allocation based on effort (number of fishing days and fishing vessels among Contracting Parties).

Together with re-opening, the Commission agreed on a reduction of fishing effort (days) to 25% of the 2009 levels and that the measures based on the existing effort scheme would be applicable for 2020 only. At the same time, the Commission committed to do intersessional work during a meeting in the late spring 2020 to discuss a new management regime based on a TAC and quota allocation possibly together with other management options. However, due to spread of COVID-19, the intersessional meeting did not take place. This discussion will therefore take place at the 42<sup>nd</sup> NAFO Annual Meeting of 2020 but given its virtual format it may be difficult at this meeting to agree on all the elements necessary for a transition from an efforts scheme to a TAC and quota scheme.

Similar conversion discussion have proved to be difficult in the past. In 2008, Contracting Parties discussed the elimination of the effort management regime and the adoption of a Total Allowable Catch (TAC). The discussion on a quota allocation scheme revealed a certain convergence on the elements to be used in converting an allocation based effort days to scheme based on a TAC allocation. In the end, what Contracting Parties could not agree on the weight if any given to the existing allocation key for effort days and the weight given to realised fishing patterns (historical catches), the reference period(s) to be used and the weighting given to such periods if more than one. While one delegation was of the opinion that the 3M shrimp catches from 1993 to 2007 should form the sole basis for the quota distribution, other delegations thought that a blended formula was needed that took account not only the existing allocation key for effort days but also offered greater weight in a new allocation scheme to more recent years should have the greater impact on. Canada, EU, and the Russian Federation tabled a number of proposals based on blending formulas of effort days and average catches, choosing different fishing periods and weighing for these periods, reflected the different views. Norway presented a possible compromise proposal<sup>1</sup> that both Canada and the EU accepted as a possible basis for further work. However Contracting Parties were not able to agree and the matter remained unresolved during that meeting.

As Contracting Parties did not reach a consensus, the fishing days' regime remained in place until 2010, when the fishery was closed due to the decreasing biomass of the stock. In this regard, Iceland had historically showed preference for a TAC and quota system and in 2008 expressed again their concerns that the effort allocation key based on fishing days could lead to over-fishing.

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1 A blend formula considering two elements: effort days and one fishing period (1996 - 2007), allocating different weight to each element (1/3 and 2/3 respectively).

## **Building blocks**

Drawing on lessons from the past negotiation experiences, it would seem unlikely that Contracting Parties would be able at this year's Annual Meeting on all the elements to allow for a transition to TAC and quota allocation for 3M shrimp, notably given that fact that the meeting will take place in a virtual format that will limit the time available for discussions and will prevent that kind of informal bilateral and plurilateral interactions in the margins of the meeting that are usually so critical for finding a compromise solution.

Therefore, this paper attempts to outline the possible building blocks upon which a future conversion mechanism could be based. The building blocks would reflect general principles or criteria that would be the basis for further discussions. An agreement on these elements would channel and facilitate future discussion and considerations. In light of the discussions that have previously taken place, notably in 2008, a conversion from the current scheme towards a TAC and quota allocation scheme should in order to enable a compromise be based on a blended formula with the following elements:

- current allocation key for effort days. This allocation has been already accepted by most Contracting Parties and can be converted into allocation key for quotas (including proxy values for Iceland);
- the realised fishing patterns (historical catches) that have been updated and reflect those calculated by the NAFO; These catch values, together with effort allocation keys reflect respective interest, and fishing patterns of Contracting Parties;
- Some degree of differentiation in the weighting given to different fishing periods;
- An agreement on the respective weighting to give to the above 3 elements.

## **Way forward**

Agreeing on the building blocks for a future conversion from effort to a catch limitation would facilitate and allow future negotiations to focus on the fishing periods to be included and the weighting between the different elements.

Until a new allocation key is agreed at an intersessional meeting to be organised in 2021 before the Annual Meeting, and provided that this would be consistent with the scientific advice, the current scheme would be rolled-over for one additional year.

**Annex 24. Recommendations from the NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS)**

(COM WP 20-11 now COM Doc. 20-15)

The NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area met via WebEx on 30 April 2020 (COM Doc. 20-04) and agreed on the following recommendations:

**The WG-BDS agreed that:**

1. **The Secretariat conducts complementary analysis of the haul by haul data in accordance to the further guidance from the working group and in further support of Tasks 2.1 and 2.2 of the *NAFO Action Plan in the Management and Minimization of Bycatch and Discards***
2. **The Commission includes in its SC request for advice at the 2020 Annual meeting, the tasks outlined in Tasks 3.1 and 3.2 of the *NAFO Action Plan in the Management and Minimization of Bycatch and Discards* (COM Doc. 17-26).**

**Annex 25. Changes in NAFO CEM (by the Editorial Drafting Group)**  
(STACTIC WP 20-16 (Revised) **now** COM Doc. 20-08)

In November 2019, members of the EDG met via WebEx to review the draft changes to the 2020 NAFO CEM and highlighted a few items that required further discussion by the EDG in STACTIC EDG WP 20-01. The EDG met on 25 August 2020 and proposed the following edits to the NAFO CEM.

CEM	Issue	Suggestion	
5.15.i	Use of the term “notified”	New draft: posts without delay the information <del>notified</del> <b>provided</b> in accordance with subparagraph 5.3(e) to the NAFO MCS Website and ensures that is made available to all Contracting Parties	
10.4.c	Use of the term “notified”	New draft: Each Contracting Party shall notify the Executive Secretary the name of every port it has so designated. Any subsequent change to the list shall be <del>notified</del> <b>provided</b> in replacement of the previous one no less than fifteen days before the change comes into effect.	
10.7.b	Use of the term “notified”	New draft: posts without delay the list of designated ports <del>notified</del> <b>provided</b> by the Contracting Parties for the purpose of this Article as well as any subsequent changes to the NAFO MCS Website and ensures that it is made available to all Contracting Parties;	
25.8.j	estimation of freezing capacity or, if possible, certification of refrigeration system will be provided	Discussion required on the meaning of this paragraph. Suggestion to delete “will be provided” but further discussion required.	
30.14.h	Paragraph could be interpreted as the observer completing inspection activities. Requires further discussion.	Discussion required:  make themselves available to inspectors at sea, or in port upon arrival of the vessel, for the purposes of <del>inspecting</del> <b>providing information related to</b> the fishing activities of the vessel;	
Article 30.14.j	“per haul or set” should be moved to the end of the sentence. Its current placement is grammatically incorrect, as it interrupts the list of data to be collected	for all observed hauls/ <del>sets</del> that contain Greenland shark, record the number, estimated weight, <b>length (estimated if measured length is not possible), and measured length</b> <del>(estimated length if measured length is not possible)</del> <b>per haul or set</b> , the sex, and catch disposition (alive, dead, unknown) of each individual Greenland shark <b>per haul or set</b> .	
Article 37.6	suggest “the report of at-sea inspection” be changed to “at-sea inspection report” for consistency with 37.2.b.	The Executive Secretary posts without delay the <del>report of</del> at-sea inspection <b>report</b> to the NAFO MCS Website and ensures it is made available to all Contracting Parties.	
Annex IV.A Part 3	“Contracting Party” is used, but should be “flag State” in the instance of a non-Contracting Party vessel being sighted	New Draft: 3. VESSEL SIGHTED	
		Contracting Party-Flag State	
		Vessel Name, International Radio Call Sign (IRCS), Side Number, IMO Number	

**Annex 26. Edits to the NAFO CEM (by the Editorial Drafting Group)**  
(STACTIC WP 20-17 now COM Doc. 20-09)

Below are potential edits flagged by the NAFO Secretariat that were reviewed by the Editorial Drafting Group (EDG) in STACTIC EDG WP 20-02. The EDG agreed to forward the following corrections to STACTIC.

**Article 28.9.f**

Current:

- (f) makes the logbook data specified in Article 28.8(b) available to Scientific Council upon their request, without the vessel's and flag State identification, in line with the data confidentiality rules as specified in Annex II.B...*

The Secretariat notes that the reference to Article 28.8(b) should be 28.8(c). A new article 28.8(b) was inserted in the 2020 NAFO CEM (see COM Doc. 19-12), and this reference was not updated accordingly.

Proposed correction:

- (f) makes the logbook data specified in Article 28.8(~~b~~c) available to Scientific Council upon their request, without the vessel's and flag State identification, in line with the data confidentiality rules as specified in Annex II.B...*

**Article 51.2.f**

Current:

- (f) where it permits entry, ensure the vessel is inspected by duly authorized officials knowledgeable in the CEM and that the inspection is carried out in accordance with Article 43 paragraphs 11 – 18; and*

The Secretariat notes that the reference to Article 43 paragraphs 11-18 should be Article 43 paragraphs 11-17 as article 43 only contains 17 paragraphs. This typo was present in the original document adopted for the Port State measures chapter in FC Doc. 16-06.

Proposed correction:

- (f) where it permits entry, ensure the vessel is inspected by duly authorized officials knowledgeable in the CEM and that the inspection is carried out in accordance with Article 43 paragraphs 11 – 1~~8~~7; and*

**Annex 27. Observer reporting timeframe and template – Article 30(14)(e)**(STACTIC WP 20-24 now COM Doc. 20-10)**Background**

The reporting obligations for vessels established in Article 28(6)(c) NAFO Control and Enforcement Measures (NCEM) require the catch report (CAT) “of the *quantity of catch retained and quantity discarded by species* **for the day preceding the report**” to be “*sent daily before 12:00 UTC unless otherwise submitted in a COX report.*”

Article 30(14)(e) of the NCEM requires each flag Contracting Party shall ensure that observers assigned to their vessel, without however clarifying the reporting period to be used by the observer:

- (e) *transmit daily, whether the vessel is fishing or not, before 12:00 UTC to the Fisheries Monitoring Centre (FMC) of the flag State Contracting Party, in accordance with Annex II.G, the OBR report, by division.*

As a result, observers might report on a 24 hours basis but transmitting data relating to a difference timeframe than the one which is mandatory for the master. Thus, it is proposed the reporting period to be specified.

**Proposal**

In order to align the reporting period and to facilitate the assessment and control of the reported information, it is proposed to amend Article 30(14)(e) as follows:

- (e) *transmit daily, whether the vessel is fishing or not, before 12:00 UTC to the Fisheries Monitoring Centre (FMC) of the flag State Contracting Party, in accordance with Annex II.G, the OBR report, by division, with the information for the day preceding the report.*

**Annex 28. 100% Port Inspection Benchmark for 3M Cod – Article 7 bis**  
(STACTIC WP 20-25 (Rev. 2) now COM Doc. 20-11)

## **Background**

The Total Allowable Catch (TAC) for 3M cod recommended for 2021 by the NAFO Scientific Council represents a sharp decline in catches compared to 2020. In view of the status of the stock additional measures to the TAC are being considered, including spatio-temporal closures and the use of selectivity devices to reduce the fishing mortality of juveniles.

In the context of reduced fishing opportunities, enhanced control is necessary to ensure compliance with the management measures and to guarantee an accurate data of 3M cod catches. The inspection of landings ensures the verification of the quantities caught and is deemed as an important tool to prevent misreporting. In view of the status of the stock it is proposed as regards 3M cod to implement the same port inspection benchmark that applies to Greenland halibut under Article 10(4)(e) of NAFO Conservation and Enforcement Measures (NCEM). In order to facilitate that each Contracting Party inspects each landing of 3M cod in its ports, additional elements for control such as designated ports and prior notifications are also proposed.

## **Proposal**

In CEM, after Article 7, to add the following “**Article 7 bis – 3M Cod**<sup>1</sup>”:

### **Control Measures**

1. *Each Contracting Party shall apply the following control measures for vessels with more than 1,250 kg of 3M cod catches on board<sup>2</sup>:*
  - (a) *prohibit its vessels from landing or transshipping 3M cod catches in ports other than those designated in accordance with Article 43.*
  - (b) *require that at least 48 hours before its estimated time of arrival in port, a vessel or its representative on its behalf, advises the competent port authority of its estimated time of arrival, the estimated quantity of 3M cod retained on board, and information on the division or divisions where any other cod catches retained on board were taken.*
  - (c) *inspect each landing or transshipment of 3M cod in its ports and prepare an inspection report in the format prescribed in Annex IV.C, which it submits to the Executive Secretary within 14 working days from the date on which the inspection was completed. The PSC3 report shall identify and provide details of any infringement to the CEM detected during the port*

- 
- 1 STACTIC shall review this Article and propose amendments as appropriate to the Commission at its Annual Meeting in 2021. This Article is only applicable when the TAC for Cod in Division 3M in Annex I.A is under 3000 tonnes.
  - 2 Each Contracting Party shall inspect vessels with less than 1250 kg of 3M cod onboard on a risk-based approach.

*inspection. It shall include all relevant information available in reference to infringements detected at sea during the current trip of the inspected fishing vessel.*

***Duties of the Executive Secretary***

2. *The Executive Secretary posts without delay the port inspection report submitted in accordance with paragraph 1(c) to the NAFO MCS Website and ensures that it is made available to all Contracting Parties.*

**Annex 29. Reporting signalling the change of fishery – Article 9(3)**  
(STACTIC WP 20-27 (Rev. 2) now COM Doc. 20-12)

## **Background**

The NAFO Conservation and Enforcement Measures (NCEM) require a vessel fishing for shrimp and other species on the same trip to transmit a report to the Executive Secretary signalling the change of fishery, in order to calculate the 3M shrimp fishing days accordingly.

This requirement does not specify how the notification is to be sent by the vessel, nor does it include a link to the flag State Contracting Party. In order to clarify how these reports should be channelled, the role of the different actors and to make this information available in the NAFO MCS Website, it is proposed to amend the wording in Article 9(3).

## **Proposal**

In CEM Article 9(3), to amend the text as follows:

*Each Contracting Party shall:*

- a) ensure that it receives from its vessels ~~A vessel~~ fishing for shrimp and other species on the same trip ~~shall transmit a notificationreport to the Executive Secretary~~ signalling the change of fishery and indicating date and time in UTC of the change of fishery.*
- b) ~~The flag State Contracting Party shall ttransmit the notificationreport to the Executive Secretary without delay.~~*  
*The number of fishing days shall be calculated accordingly.*

In CEM, after Article 9(7), to insert the following sub-title and paragraph 8:

### ***Duties of the Executive Secretary***

- 8. The Executive Secretary posts the report referred to in paragraph 3 to the NAFO MCS Website.

### **Annex 30. Reduction of Mandatory Waiting Periods in NAFO (Article 25.5.a)**

(STACTIC WP 20-30 (Rev.) **now** COM Doc. 20-13)

#### **Background**

Canada has noted that the requirement to submit vessel authorizations no later than 30 days in advance of a vessel's entry to the NRA is creating a 30-day waiting period for new vessels. In the digital age, this creates an undue burden on industry, despite their authorization being available in near-real-time on the NAFO Monitoring Control and Surveillance (MCS) website.

To provide a more efficient process, Canada proposes that Contracting Parties consider adjusting the 30-day notice required in Article 25.5.a.

#### **Proposed Amendments:**

#### **Article 25 – Vessel Requirements**

##### ***Authorization to Conduct Fishing Activities***

5. Each Contracting Party shall transmit to the Executive Secretary by electronic means:

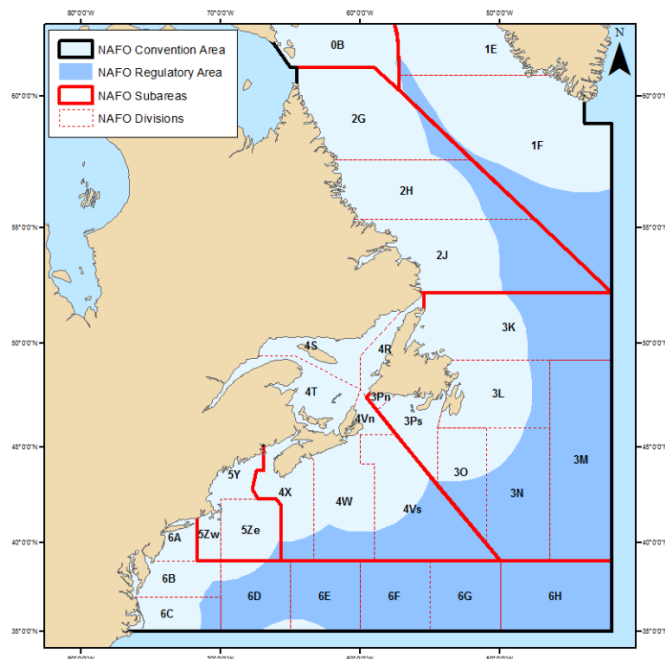
(a) the individual authorization (AUT message) for each vessel from the list of notified vessels it has authorized to conduct fishing activities in the Regulatory Area, hereinafter referred to as an “authorized vessel”, in the format prescribed in Annex II.C3 and no later than ~~530~~ days before the 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, unless exempted in Annex II.C.3. 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;

**Annex 31. Annual Fisheries and Compliance Review 2020**  
**(Compliance Report for Fishing Year 2019)**  
 (STACTIC WP 20-20 Rev. 3 now COM Doc. 20-17 Rev.)

## 1.0 Introduction

The scope of this review covers the fishing activities of NAFO-registered vessels which operated in the NAFO Regulatory Area in 2019<sup>1</sup> (see Figure 1.0).



**Figure 1.0.** Divisions of the NAFO Convention Area and the Regulatory Area (dark blue).

This review is being undertaken in accordance with NAFO Rules of Procedure 5.1 and 5.2. As part of the review process, the Secretariat compiled 2019 information from the following sources: vessel monitoring system (VMS) and hail messages delivered by the vessels (Vessel Transmitted Information – VTI), electronic logbook (haul by haul) reports, Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Infringements provided by the Contracting Parties, and Trip Observer Reports sent to the Secretariat.

<sup>1</sup> According to Article 1.7 of the 2019 NAFO Conservation and Enforcement Measures (NCEM), a fishing trip 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”. All article and annex numbers mentioned in this report have reference to the 2019 NCEM. Quantitative information presented in this report are summarized according to 2019 calendar year, unless otherwise indicated.

## 2.0 Fisheries in the NAFO Regulatory Area

### 2.1 Fishing effort by gear type

NAFO traditionally identifies three main fisheries in its Regulatory Area: the groundfish (GRO - primarily in Div. 3LMNO), shrimp (PRA - primarily in Div. 3L and Div. M) and pelagic redfish fisheries (REB - primarily in Div. 1F and Div. 2J). The PRA and the REB fisheries have been under moratoria. In 2019, fisheries in the NAFO Regulatory Area (NRA) comprised demersal fisheries and the pelagic fisheries on alfonosinos and redfish. There were 131 trips by 47 fishing vessels spending a total of 4674 days in the NRA (Table 2.1.1). One vessel (class size 5) spent 10 fishing days, as part of its fishing trip, in Division 6G catching alfonosinos. Another four vessels spent 46 fishing days in Div. 1F targeting pelagic redfish (REB) under the unilateral quota established by the Russian Federation.

Smaller vessels (<500 MT) tend to use longlines to fish for cod in Div. 3M and Atlantic halibut. The vast majority of the effort comes from larger vessels (> 500 MT) which account for 93% of fishing effort in terms of fishing days. The larger vessels use bottom trawl and fish in Divisions 3LMNO. The major species caught by the bottom trawlers are cod, Greenland halibut, yellowtail flounder, redfish, and thorny skate (see Table 2.3.1).

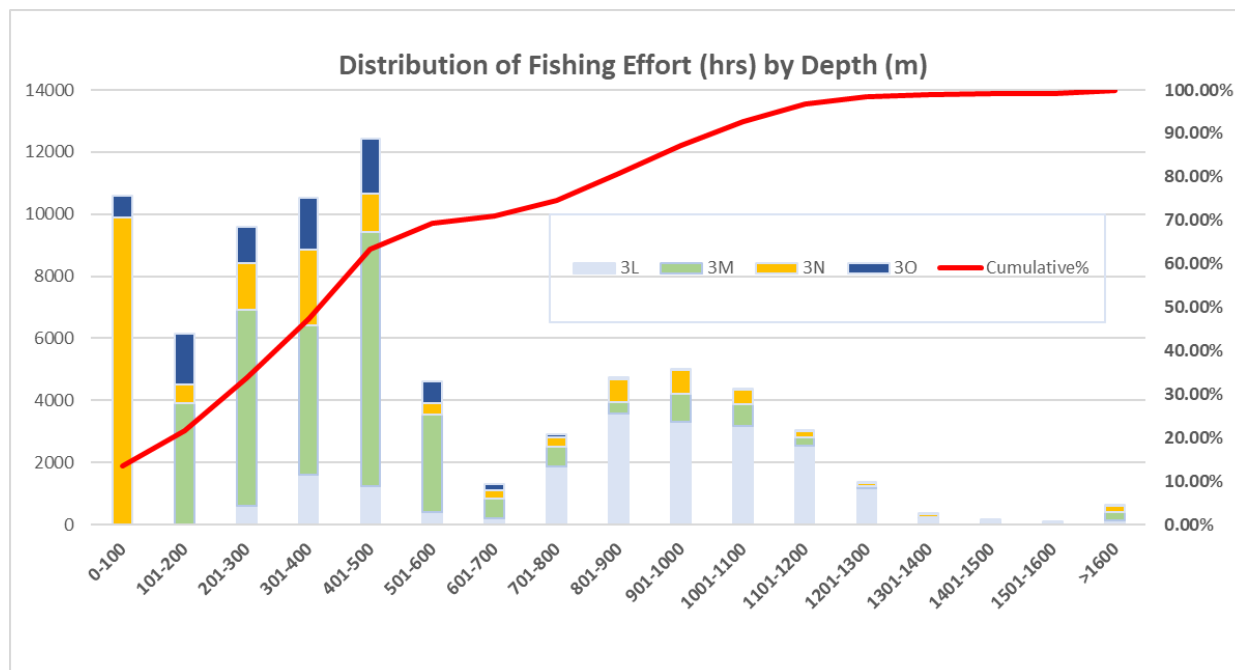
**Table 2.1.1.** *Fishing Effort in the NAFO Regulatory Area in 2019.*

Vessel Class	# of fishing vessels	# of fishing trips	Main Gear	f = Total Fishing Days	Fishing Trip Range (days)	Main Species	Fishing Area
Class 4 vessels (less than 500 MT)	5	11	Longline, bottom trawl	176	12-25 days	Cod, Yellowtail flounder	Flemish Cap (for cod); Tail of the Grand Banks (for yellowtail flounder)
Class 5 vessels (500-1000 MT)	14	40	Bottom Trawl, longline	1431	5-81 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Class 6 vessels (1000-2000 MT)	24	74	Bottom Trawl	2829	2-98 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Class 7 vessels (> 2000 MT)	4	6	Bottom Trawl	238	20-68 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
<b>Total</b>	<b>47</b>	<b>131</b>		<b>4674</b>			

### 2.2 Effort Distribution by depth of groundfish vessel

The requirement of providing the speed and course information in the position reports of Vessel Monitoring System (VMS). Hourly positions are required to be transmitted. However, activities, whether steaming or fishing, are not indicated in the position reports. In this analysis, speeds

between 0.5 and 5 knots were assumed to be fishing speeds. Figure 2.2.1 shows the distribution of fishing effort in hours of groundfish vessels is presented. About half of all groundfish effort is at depths 400 meters and shallower (longliners and trawlers catching skates, redfish and cod). Figure 2.2.1 also shows a concentration of fishing effort around 1000 meters and this can be attributed to the Greenland halibut fishery.



**Figure 2.2.1.** *Distribution of fishing effort (in hours) by depth (m) in the NRA in 2019. Vessels are assumed to be fishing at speed in the range of 0.5-5.0 knots.*

### 2.3 Catches in the NAFO Regulatory Area

A grand total of 72 350 t of fish (71 110 t retained + 1 240 t rejected) were caught by vessels authorized to fish in the Regulatory Area in 2019 (Tables 2.3.1 and 2.3.2). In terms of quantities caught, the stocks 3M Cod, 3LMNO Greenland halibut, 3M Redfish, 3LN Redfish, 3O Redfish, 3LNO Yellowtail flounder and 3NO Skates constitute the major groundfish fishery in the NRA.

**Table 2.3.1** *Total reported retained catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar 2019 (Source: CA field of CAT Reports).*

Division	1F	3L	3M	3N	3O	6G	Total
<b><i>Species subject to catch limitations (as listed in the Quota Table)</i></b>							
CAP							
COD		51.2	16039.1	346.7	98.4		<b>16535.4</b>
GHL		7486.3	1267.8	909.5	6.3		<b>9669.8</b>
HKW				13.6	86.8		<b>100.4</b>
PLA		33.9	266.6	915.5	138.5		<b>1354.5</b>
REB	1382.5						<b>1382.5</b>
RED		4470.7	10590.4	7018.1	5113.0		<b>27192.3</b>
SKA		46.5	46.6	1820.5	1103.6		<b>3017.2</b>
SQI			1.0	52.0	122.3		<b>175.2</b>
WIT		22.6	145.5	174.4	213.9		<b>556.4</b>
YEL		1.3	0.0	9510.7	68.4		<b>9580.4</b>
<b>Subtotal</b>	<b>1382.5</b>	<b>12112.4</b>	<b>28357.0</b>	<b>20760.9</b>	<b>6951.1</b>		<b>69564.0</b>
<b><i>Selected species not listed in the Quota Table</i></b>							
ALF						1.4	<b>1.4</b>
ANG				0.2	4.8		<b>5.0</b>
CAT		3.1	29.3	1.0			<b>33.4</b>
HAD			0.0	0.1	2.4		<b>2.5</b>
HAL		66.7	159.9	325.8	186.5		<b>738.9</b>
HKS				46.4	447.8		<b>494.2</b>
RHG		77.9	16.7	27.6	0.0		<b>122.2</b>
RNG		23.9	12.6	0.3	0.0		<b>36.9</b>
<b>Subtotal</b>		<b>171.7</b>	<b>218.6</b>	<b>401.4</b>	<b>641.5</b>	<b>1.4</b>	<b>1434.5</b>
<b><i>Sharks</i></b>							
BSK							<b>0.0</b>
DGX							<b>0.0</b>
GSK							<b>0.0</b>
POR			0.4				<b>0.4</b>
SHX							<b>0.0</b>
SMA							<b>0.0</b>
SRX							<b>0.0</b>
CFB							<b>0.0</b>
<b>Subtotal</b>		<b>0.0</b>	<b>0.4</b>				<b>0.4</b>
MZZ		8.1	19.5	72.5	9.6	0.2	<b>109.8</b>
<b>TOTAL</b>	<b>1382.5</b>	<b>12292.2</b>	<b>28595.5</b>	<b>21234.8</b>	<b>7602.2</b>	<b>1.6</b>	<b>71108.7</b>

**Table 2.3.2** *Total reported rejected catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar year 2019 (Source: RJ field of CAT Reports).*

Rejected (RJ)					
Division	3L	3M	3N	3O	Total
<b><i>Species subject to catch limitations (as listed in the Quota Table)</i></b>					
CAP			1.87	0.005	1.88
COD	0.2	0.6	9.9		10.70
GHL	0.0	0.0	0.0		0.06
HKW	0.3			0.6	0.93
PLA	0.1	5.0	1.3	0.1	6.47
REB	0.3				7.75
RED	2.2	14.3	3.2	30.8	43.00
SKA	19.2	5.3	313.5	0.0	337.93
SQI			0.0	0.4	0.39
WIT	0.2	3.9	2.3	2.0	8.32
YEL			10.2	0.0	10.23
<b>Subtotal</b>	<b>22.4</b>	<b>29.1</b>	<b>342.3</b>	<b>33.9</b>	<b>427.65</b>
<b><i>Selected species not listed in the Quota Table</i></b>					0.00
ALF					0.00
ANG				0.0	0.01
CAT	24.7	26.6	6.8	3.7	61.90
HAD				0.3	0.26
HAL	0.1	1.6	0.0	0.0	1.81
HKS			2.7	11.9	14.61
RHG	260.4	42.2	9.2	0.1	311.93
RNG	48.3	23.8	4.0		76.10
<b>Subtotal</b>	<b>333.5</b>	<b>94.3</b>	<b>22.7</b>	<b>16.1</b>	<b>466.61</b>
<b><i>Sharks</i></b>					0.00
BSK		4.2		3.5	7.70
DGX	5.7	1.4	0.2	0.2	7.46
GSK	54.6	38.2	39.6	41.1	173.54
POR	0.2	0.1	0.4	4.6	5.29
SHX	1.0	0.8			1.80
SMA			0.7	7.2	7.90
SRX		2.2			2.18
CFB		0.1	0.1		0.16
<b>Subtotal</b>	<b>61.4</b>	<b>47.0</b>	<b>41.1</b>	<b>56.5</b>	<b>206.02</b>
<b>MZZ</b>	<b>21.6</b>	<b>10.4</b>	<b>105.9</b>	<b>1.6</b>	<b>139.48</b>
<b>TOTAL</b>	<b>439.0</b>	<b>180.9</b>	<b>511.9</b>	<b>108.1</b>	<b>1239.75</b>

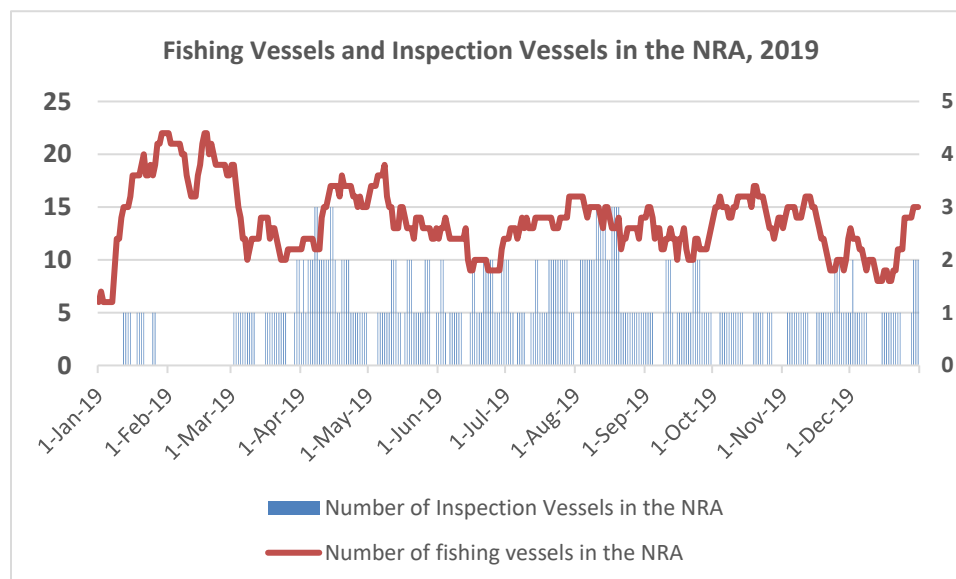
### 3.0 Inspection and Surveillance

Chapter VI of the NCEM outlines the general provisions and protocol of the at-sea inspection and surveillance in the NRA. Inspectors from Canada, the European Union, and the United States of America were deployed onboard of patrol vessels of Canada (Canada, EU and USA NAFO Inspectors) and European Union (EU and Canada inspectors). The inspectors are tasked to carry out NAFO inspection duties at sea.

#### 3.1 Patrol Activity

Five (5) patrol vessels were deployed by the CPs with inspection presence. In all 358 patrol-days were spent in the NRA. The total length of time each patrol vessel exercised its patrol duties in 2019 varied between 12 days and 177 days. However, there were 105 days when no patrol vessel, 175 days when there was one patrol vessel, 85 days when there was more than one patrol vessel present in the NRA. Figure 3.1 shows the time of the year the patrol vessels were present in the NRA.

In addition, in 2019, Canada deployed surveillance planes, collectively flying 202 hours with 698 vessel sightings in the NRA. No vessel from non-Contracting Party suspected of conducting IUU fishing activities was spotted.



**Figure 3.1** *Inspection Vessel Presence in the NRA in 2019.*

#### 3.2 At-sea inspections

A total of 106 at-sea inspections were conducted. In five of these inspections at sea, 11) Apparent Infractions (AI) were detected – two (2) serious and nine (9) non-serious AI as per Article 38 definition. Details of the apparent infractions and their disposition can be found in Section 4.2.

### 3.3 Port Inspections

According to Article 43.10, the port State Contracting Party shall carry out inspections of at least 15% of all such landings or transshipments during each reporting year, unless otherwise required in a recovery plan in which case 100% coverage is required. Greenland halibut (GHL) is the only species which presence in the landing would require a port inspection (see Article 10). Port inspection reports are accomplished by port States using a PSC3 form (Annex IV.C).

In evaluating the compliance of port State authorities to Article 10, only trips with GHL onboard were considered. Table 3.3.1 shows the coverage levels (based on the number of trips) of port inspections for vessels that had GHL onboard. One landing of a Russian flagged vessel in DFG-Faroe Islands was not inspected by the port Contracting Party.

**Table 3.3.1** *Fishing trips with Greenland halibut (GHL) catch (based on the Catch-on-Exit (COX) for the trip) and percent coverage of port inspections for that trip.*

CP	Number of trips with GHL > 0	Total amount of GHL (t)	Number of trips with GHL > 0 and PSC3	Total amount of reported landed GHL (t)	Port Inspection Coverage (% based on number of trips)
CAN	2	2.3	2	2.3	100%
EU	47	6964.2	47	6964.2	100%
DFG	1	211.6	1	235	100%
JPN	6	1104.9	6	1104.9	100%
RUS	9	1557.2	8	1493.3	89%
<b>Overall</b>	<b>65</b>	<b>9840.2</b>	<b>64</b>	<b>9799.7</b>	<b>99.58%</b>

In evaluating compliance with Port State Control measures outlined in Chapter VII of the NCEM, a review of the submission of Port State Control Prior Request (PSC1) and Port Inspection reports (PSC3) is presented in Table 3.3.2. The minimum coverage is 15% (Article 43.10).

**Table 3.3.2** *The number of PSC1s and corresponding PSC3s received by the NAFO Secretariat port States.*

Port State	PSC1 (prior request)	Number of PSC1s with intention to land catch	PSC3 (port inspection report from port State authority)	% Coverage (#PSC3 received / #PSC1 received)
Canada	16	8	8	100%
DFG (Faroe Islands)	4	4	4	100%
EU	5	5	5	100%
FRA (St. Pierre et Miquelon)	8	8	3	38%
Iceland	10	6	1	17%

## 4.0 Compliance

In this section, reporting obligations and apparent infringements (AIs) are examined. AIs are detected by at-sea inspectors and by port inspection authorities (see Section 3).

### 4.1 Reporting Obligations

The NCEM requires fishing vessels and flag State Contracting Parties (through the Fisheries Monitoring Centre) and port State Contracting Parties to provide reports on the fisheries activity within a determined time frame. Compliance of port State Contracting Parties to reporting requirements is discussed in Section 3.3.

#### 4.1.1 Vessel Activity Reporting

##### 4.1.1.1 Vessel Transmitted Information (VTI) – Catch-on-Entry (COE), Daily Catch Reports (CAT), and Catch-on-Exit (COX)

The Fisheries Monitoring Centres (FMCs) of flag States are responsible for transmitting the VTI reports to the Secretariat. The COE and COX are transmitted identifying the catches on board when entering and leaving the NRA. COE-COX information is used to estimate the fishing-days effort in a fishing trip. The CATs are daily catch quantities reported by species and by Division while on a fishing trip. CATs are used to monitor the quota uptakes by the fleet of the Contracting Parties.

In Table 4.1.1.1, the number of COE, COX, and CAT, as well as of fishing trips and fishing effort-days in the NRA, is presented. All identified 2019 fishing trips had corresponding COE and COX.

In total 4 481 CATs were received within the calendar year 2019, lower than the number of fishing days. That is because mere presence on a particular date (as reflected by the VMS position reports) is considered as a fishing day, as per Article 1.6 definition.

**Table 4.1.1.1** *Fishing effort and VTI statistics in the NRA, 2019.*

Number of fishing trips identified	131
Fishing Days	4674
Number of Daily Catch Reports (CATs)	4481
Number of Trips with Catch on Entry Reports (COEs)	131
Number of Trips with Catch on Exit Reports (COXs)	131

No major technical issue was encountered in transmission and receipt of the VTI reports. All expected reports, including the Daily Catch reports (CAT), were received by the Secretariat.

The timely receipt of the CATs allowed an effective monitoring of the quota uptakes and the effective implementation of quota transfers and charter arrangements.

##### 4.1.1.2. Catch reporting on sharks

Article 28.6.g requires that all shark catches be reported at the species level, to the extent possible. When species specific reporting is not possible shark species shall be recorded as either large sharks (SHX) or dogfishes (DGX).

The 2019 CAT reports were examined and not all shark catches were reported to the species level. It is not known how many species of the retained sharks were reported within the code SHX. Greenland shark constitutes the bulk of the total shark catches by weight (see table 4.1.1.2).

**Table 4.1.1.2.** *Amount of shark catches (t) as reported in CATs in 2019.*

3-Alpha Code	Scientific name	Common Name	Retained (t)	Rejected (t)	Total (t)	Percentage
BSK	<i>Cetorhinus maximus</i>	Basking shark	0.0	7.7	7.7	3.8%
DGX	<i>Squalidae</i>	Dogfishes	0.0	7.5	7.5	3.7%
GSK	<i>Somniosus microcephalus</i>	Boreal (Greenland) shark	0	173.5	173.5	86.0%
POR	<i>Lamna nasus</i>	Porbeagle	0.4	5.3	5.7	2.8%
SHX	<i>Squaliformes</i>	Large sharks (NS)	0.0	1.8	1.8	0.9%
SMA	<i>Isurus oxyrinchus</i>	Shortfin mako shark	0.0	7.9	7.9	3.9%
CFB	<i>Centroscyllium fabricii</i>	Black dogfish	0.0	0.2	0.2	0.1%
<b>Subtotal</b>			<b>0.4</b>	<b>203.8</b>	<b>206.2</b>	<b>100.0%</b>

#### 4.1.1.3 Electronic Fishing logbook (haul by haul) Reports

The submission of logbook data on a haul by haul basis became mandatory in 2015 (Article 28.8.b). The electronic fishing logbook information (haul by haul data) must be submitted to the Secretariat in the format prescribed in Annex II.N. for all hauls of the fishing trip (Article 288.c). The Secretariat has received haul by haul reports for all 131 trips that were completed in 2019.

#### 4.1.1.4 Position reporting – Vessel Monitoring System (VMS)

According to Article 29, every fishing vessel operating in the NRA shall be equipped with a satellite monitoring device capable of continuous automatic transmission of position to its land-based Fisheries Monitoring Centre (FMC) of the flag States, which in turn is transmitted to the Secretariat in real time. The transmission of position reports (POS) shall be no less frequently than once an hour.

The Secretariat can confirm that the requirement is fully complied with. In 2019, a total of 138 317 POS reports were received. Occasionally, technical problems were encountered by the fishing vessels or FMCs. During these occasions, the POSs were transmitted manually. Technical issues were usually resolved within a few days through the coordination between the Secretariat and the FMC.

#### 4.1.1.5 Closed Areas and Exploratory Fisheries

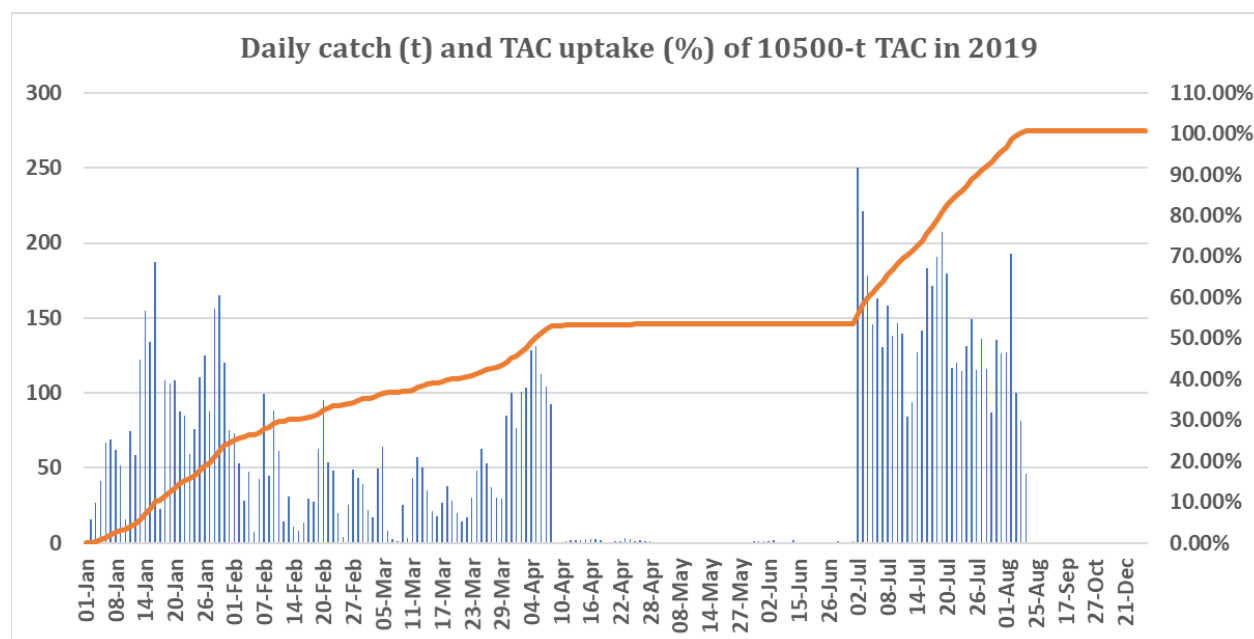
As of 2019, in total 20 areas in NAFO have been closed to bottom fishing including six seamounts and 14 areas with significant concentration of coral, sponges and sea pens, one coral protection zone, and six seamounts. The measures concerning the protection of Vulnerable Marine Ecosystems (VMEs) from bottom fishing are stipulated in Chapter II of the NCEM.

Based on the VMS positions, no bottom fishing was detected within the closed areas. The Secretariat did not receive a notification from a Contracting Party concerning its intention to conduct exploratory fisheries (as defined in Article 18) in 2019.

#### 4.1.1.6 Vessel activity after 3M redfish 50%- and 100%-TAC uptake notifications

The stock 3M redfish is the only stock listed in the Quota table which Total Allowable Catch (TAC) is considerably less than the sum of the quotas. The Secretariat monitors the TAC uptake through the daily catch reports it receives from the vessels and FMCs. When the TAC is projected to be reached, CPs are notified and are required to instruct their vessels to cease directed fishery on the stock starting on the date projected by the Secretariat.

Figure 4.1.1.6 shows the total daily catches and the percentage of cumulative catch derived from CAT reports. According to Article 5.5.d of the NCEM, not more than 50% of the TAC may be fished before 01 July. A total of 19 vessels were targeting 3M redfish in early 2019. On 02 April 2019, the five-day prior notification of 50%-TAC uptake was circulated, projecting that the 50%-uptake of the TAC would be taken by 07 April 2019, at which time the fishery would be suspended until 30 June. On 31 July 2019, the 96-hour notification was circulated, advising that 100% of the TAC was projected to be reached by 04 August. By the projected closure date, 100.3% of the 10500 t-TAC was fished. No directed fishery on this stock was conducted after the closure.



**Figure 4.1.1.6** Daily catches of 3M redfish and TAC uptake in 2019. Source: 2019 CATs.

#### 4.1.1.7 Chartering arrangement

Article 26 allows chartering arrangements between two CPs – the chartering CP (with quota) and the flag State CP (with fishing vessel). Catches by the vessel are counted against the quota of the chartering CP. In 2019 one (1) arrangement was made with a fishing possibility of 340 t of yellowtail founder.

Through the daily catch reports of the vessel where chartering catches are identified, the Secretariat could monitor the implement of the arrangement. According to the daily catch reports, the charter catches amounted to 357 t. With regards to the submission of the documentations (Article 26.7 and

26.8) and reporting of implementation dates (Article 26.9), both Parties of the charter complied to the requirements.

#### **4.1.2 Observer Reports**

In 2019, the NAFO Observer Scheme outlined in Article 30 was revised. Flag State Contracting Parties are required to have 100% observer coverage under Article 30.5, however, may allow its vessels to carry an observer for less than 100%, but not less than 25% of the fishing trips conducted by its fleet (Article 30.6).

In evaluating the compliance to observer trip report submission (see Article 30.14.a), trips were grouped according to the implementation of Article 30.5 or 30.6 which requires 100% or >25% coverage, respectively.

Under Article 30.5, there were 111 fishing trips identified. From these, trip observer reports from 106 trips were received by the Secretariat, a 94.6% coverage. The five (5) missing reports could be attributed to the non-submission by the Russian Federation. The Russian Federation agreed to submit the outstanding reports following the 2020 Annual Meeting.

Under Article 30.6, there were 16 trips from the fleet of a CP and only one (1) trip had an observer report submitted, a 6.5% coverage. Another CP had four (4) trips from its fleet and two (2) had an observer report, a 50% coverage.

#### **4.2 Apparent Infringements detected at-sea and at-port**

In 2019, a total of five (5) vessels were cited with AI by inspectors at sea and port authorities. Details on the nature of the AIs and their disposition are provided in Table 4.2.

**Table 4.2** *Details of Apparent Infringements (AI) detected by inspectors at-sea and by port authorities in 2019 and their disposition. AIs presented in bold were considered “serious” by the inspectors as per Article 38 definition.*

CP	Vessel code	Inspection Date	AI's detected at-sea. Serious AIs are indicated in bold.	Confirmation in port of AI detected at sea	AI's detected in port (PSC3: Section E.1.B. c.	Follow-up to AI (Article 40)
DFG	9	08-Mar-20			Misrecording of catches	Case Closed - fine 350000 Danish krona + 733000 Danish krona for the illegal fish (121000 EUR)
DFG	6	24-Apr-19	<b>Stowage Plan - Art.28.5(a)(i); 28.5 (b); 38 (m)</b>			CASE CLOSED - The vessel paid the fine of 25.000 Danish krona (3.400 €).
EU	1	14-Aug-19	Capacity Plan - Art. 25.9			CASE CLOSED - Preliminary investigation concluded that the capacity plan was in order and certified.
DFG	8	05-Aug-19	<b>Stowage Plan and No observer on board - Art. 28.3; 28.5 (b); 28.5 (c); 25.8 (i); 25.9; 25.10; 30.5; 38.1.(r); 38.1 (m)</b>	-	-	CASE PENDING Fined 75.000 Danish krona (10.200 €). The Master did not accept, and the case was send to court on 6 Mrch 2020.
EU	41	06-Nov-19	Product labelling - Art. 27.1. (e)			CASE CLOSED Port verification concluded that labelling of cod product was in order. OTH was used instead of GUH since cod presentation had collars on.
EU	43	07-Nov-19	-	Art. 28.2 (b); 28.3 (a); 28.5 (a)	<b>Mis-recording of catch Art. 28.2 (b)</b>	CASE PENDING - Enforcement procedure on-going

### 4.3 Follow-up to apparent infringements

NCEM Article 39 spells out obligations of a flag State Contracting Party that has been notified on an apparent infringement. It includes taking immediate judicial or administrative action in conformity with the national legislation of the flag State Contracting Party and ensuring that sanctions applicable in respect of infringements are adequate in severity.

Article 40 requires Contracting Parties to report on the disposition of the AIs. The legal resolution of AIs may take more than a year. Contracting Parties shall continue to list such infringements on each subsequent report until it reports the final disposition of the infringement. In Table 4.3, a summary of status of AI cases in the last five years (2015-2019) and their resolution are presented.

**Table 4.3** *Resolution of citations (by at-sea inspectors and port authorities) against vessels fishing in the NAFO Regulatory Area by year in which the citations were issued (as of May 2020). A citation is an inspection report that lists one or more apparent infringement. Inspections carried out for confirming a previous citation are not included.*

Year	Number of Inspection Reports with AI citation/s	Number of Resolved Cases	Number of Pending Cases*	% Resolved
2015	3	2	1	67%
2016	11	8	3	73%
2017	7	7	0	100%
2018	6	5	1	83%
2019	5	3	2	60%

\* still under investigation, litigation, or appeal.

## 5.0 Trends and Analysis

Five-year trends (2015-2019) on effort and catch, reporting obligations of CPs and observers, compliance by fishing vessels, and at-sea inspections and AIs are presented in this section.

### 5.1 Effort and Catch

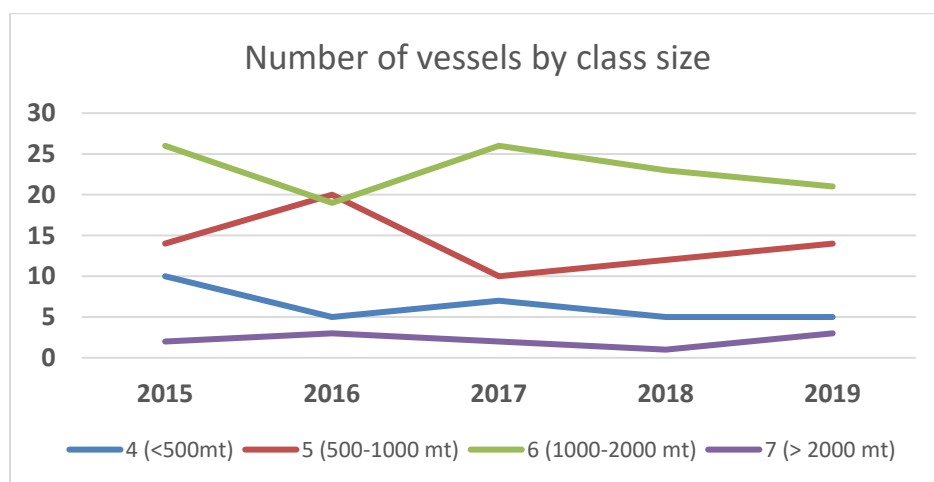
Trends in fishing effort and catches are presented in Table 5.1, Figures 5.1.1, 5.1.2 and 5.1.3.

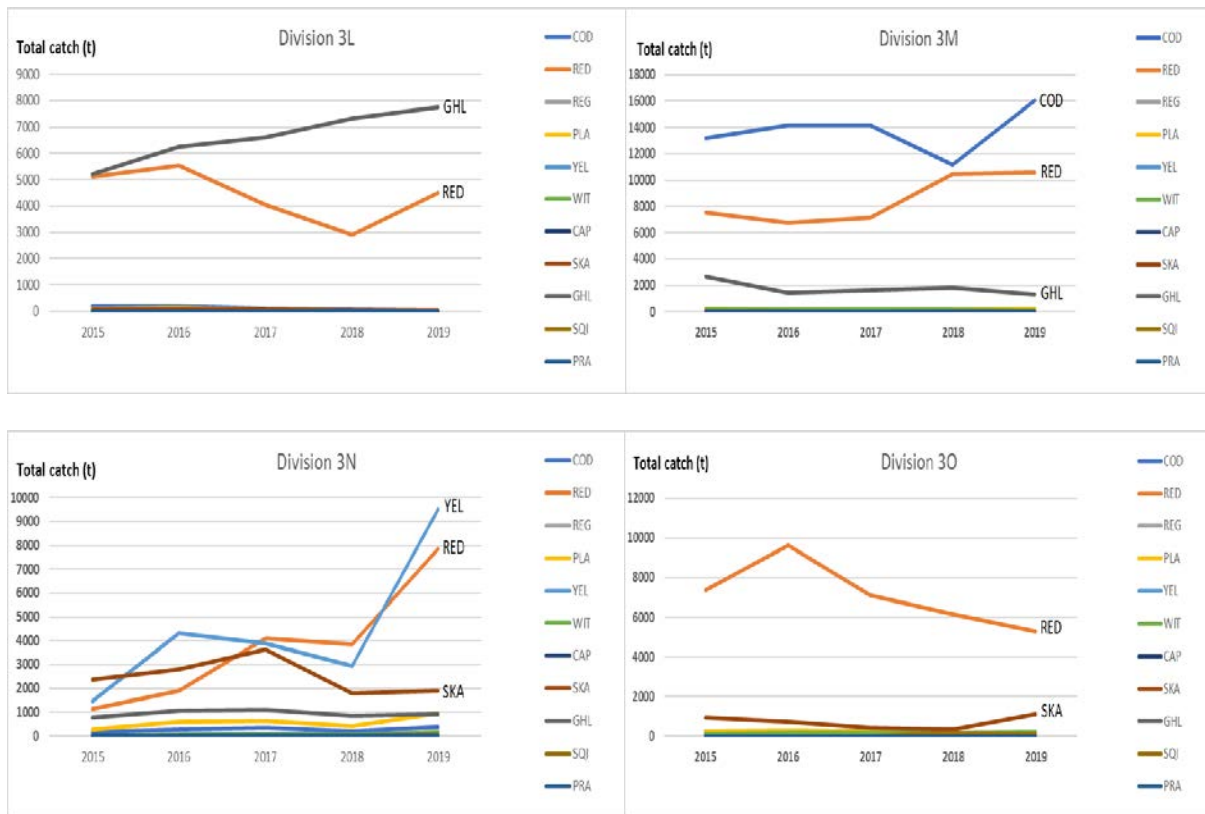
Observations:

- Fishing effort (in fishing days) is the highest in 2019 in the 2015-2019 period. The increase in fishing effort can be attributed to the increase of TAC for 3M Cod and 3LN Redfish. (Table 5.1). For 3M Cod, the TAC increase in 2019 was 57% from the previous year (from 11145 t to 17500). For 3LN, the TAC increase was 27% from 14200 t to 18100 t.
- In Divisions 3LMNO, Greenland halibut, cod, yellowtail flounder, and redfish continue to be the most dominant catch in their respective divisions. Redfish is the second most dominant catch in Divisions 3LNO.
- Catch and Catch per unit effort (CPUE is t/fishing day) was also observed to the highest in 2019. The increase can also be attributed to the increase of TAC of 3M Cod and 3LN Redfish.

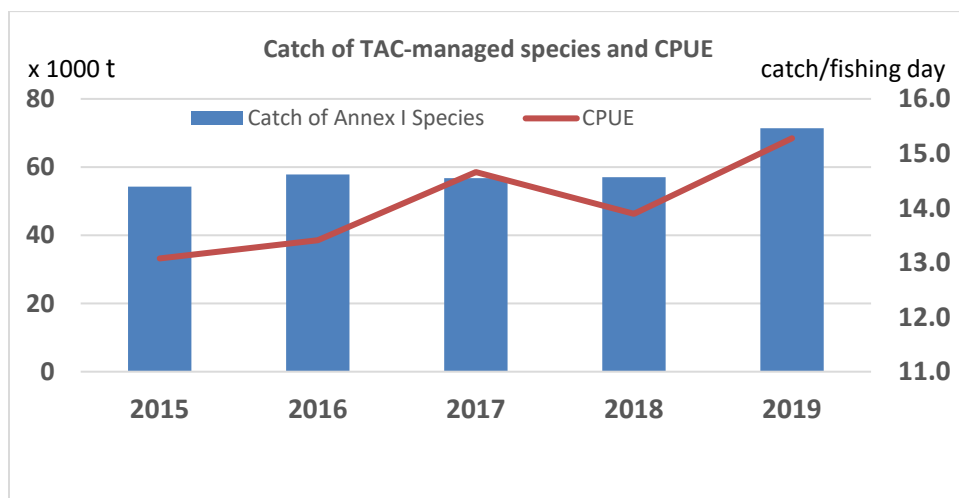
**Table 5.1.** *Fishing days, as defined by Article 1.6, by fishing gear.*

	Longline	Midwater-trawl	Bottom-Trawl	TOTAL
2015	272	93	3785	4150
2016	260	181	3873	4314
2017	314	0	3558	3872
2018	304	82	3719	4105
2019	321	56	4297	4674

**Figure 5.1.1** *Number of fishing vessels in Divisions 3LMNO by class size, 2015-2019. The class sizes are based on the STATLANT classification.*



**Figure 5.1.2** Catches (in tonnes) by Division of selected species managed by TAC, 2014-2019 (Source: CATs).

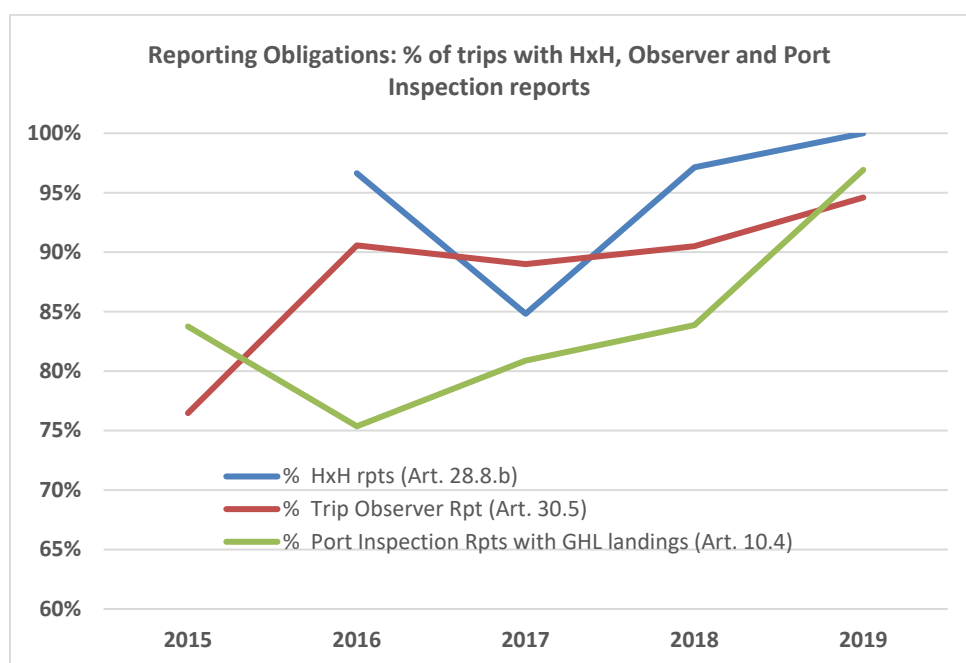


**Figure 5.1.3** Catch of TAC-managed species and CPUE in 2015 -2019, expressed in total catch of TAC-managed species per fishing day. Data Source: CATs and VMS reports.

## 5.2 Reporting Obligations by Contracting Parties

Compliance to reporting obligations is quantified as a percentage coverage – the ratio of the fishing trips accounted for by the reports and of the total number of relevant fishing trips. A 100% coverage would mean that all expected reports were delivered to the Secretariat, less than 100% means some fishing trips did not have a corresponding report. Figure 5.2 presents the percentage coverage of port inspections reports on vessels with Greenland halibut landings (in accordance to Article 10.4), observer reports from vessels operating under Article 30.5 (flag State CPs did not apply Article 30.6), and electronic fishing logbook reports in accordance with Article 28.8.b.

The year 2019 saw the marked improvement in the submission rates of reports which require 100% coverage. In 2019, the submission rates of electronic logbook reports (Article 28.8.b), trip observer reports (Article 30.5), and port inspections reports (Article 10.4) are 100%, 94.6%, and 96.9%, respectively.



**Figure 5.2** *Percentage coverage of Port Inspections reports with Greenland halibut landings reports (Arts. 10.4 and 42.10), Observer Trips Reports on fishing vessels operating under Article 30.5 (flag State CPs did not apply Article 30.6), and Haul by Haul reports (Article 28.8.b and Annex II.N), 2015-2019.*

## 5.3 Compliance by Fishing vessels

In the 5-year review period, VMS and VTI requirements (Article 28 and 29) have been fully complied with.

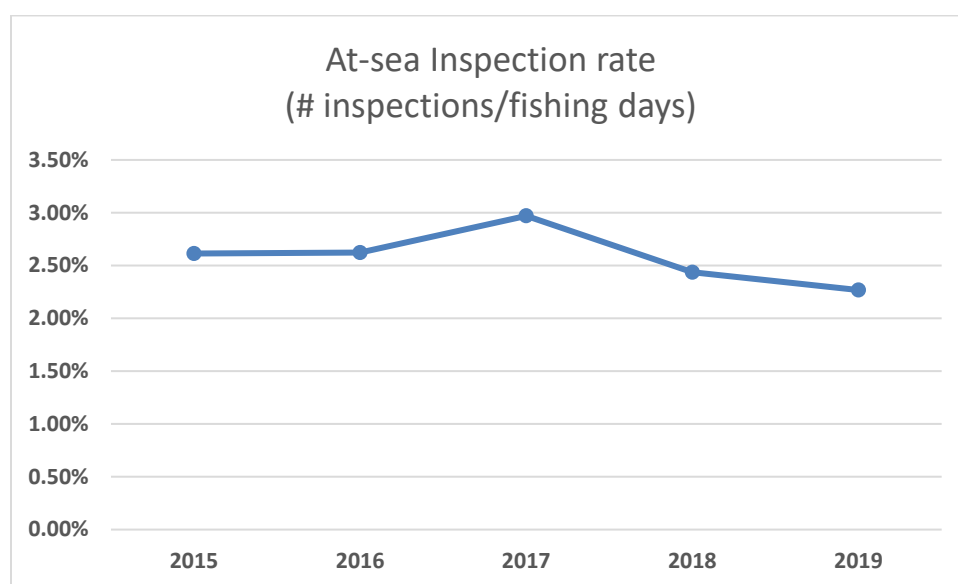
Hourly position reports (POS), as well as the Daily Catch Reports by Division (CATs), were transmitted to the Secretariat while the vessels were in the NRA. The Catch-on-Entry (COE) and Catch-on-Exit (COX) reports for each fishing trip were also transmitted.

## 5.4 Inspections and Apparent Infringements

At-sea inspection rates, computed as a ratio of the number of at-sea inspections and the total fishing effort (fishing days), in the period 2015-2019 are presented in Figure 5.4.1. Frequency of AI cases in the period 2015-2019 are presented in Figure 5.4.2.

Inspection rates have remained steady with less than 1% inter-annual difference. The 2019 inspection rate (2.27%) is the lowest in five years.

With regards to AIs detected at sea and at port, mis-reporting of catches have remains to be the most common AI (Figure 5.4.2). There is no other discernable trend with regards to the nature and frequency of the AIs.



**Figure 5.4.1** *Inspection rates (number of at-sea inspections/fishing days) in the NAFO Regulatory Area, 2015-2019.*

	2015	2016	2017	2018	2019
By-catch requirements	•	••••	••		
Catch communication violations		•			
Directed fishing of moratorium stock		•	•		
Directed fishing of stock without quota allocation				•	
Evidence tampering		•			
Fishing after date of closure		•			
Gear requirements - mesh size, illegal attachments			•		
Inspection protocol	•	•			
Mis-recording of catches - inaccurate recording	••	••••• ••	••••	••••	••
Mis-recording of catches -stowage	•	•	•••	•	•••••
Product labelling			•	••	••
Quota requirements		••			
Vessel requirements - capacity plans		•		••	••
Committing an infringement where there is no observer on board					•

**Figure 5.4.2** *Frequency of apparent infringement cases detected by at-sea inspectors and port authorities in 2015-2019. Black and blue dots represent apparent infringement issued at sea and at port, respectively.*

## 6.0 Conclusions

In NAFO, there are three main fisheries conducted mainly with trawl gear and a limited presence of longline gear. The total catches increased from around 56,000 tonnes in 2018 to approximately 72,000 tonnes in 2019.

Overall compliance with reporting obligations is high and has continued to improve in recent years. Contracting Parties are providing the required compliance indicators necessary to complete the compliance review process.

## 7.0 Recommendations

STACTIC recommends that all Contracting Parties continue to strive for coordination and collaboration.

STACTIC recommends that all Contracting Parties maintain and continue efforts to protect stocks that are subject to moratorium.

STACTIC includes in its Compliance Review the observers' compliance to Article 30.14.j, a new article in the 2020 NCEM concerning the collection of biological information on Greenland shark.

STACTIC recommends Contracting Parties to continue to urge masters to improve recording of sharks at species level (Section 4.1.1.2).

STACTIC recommends Contracting Parties continue to strive towards 100% submission of Observer Trip reports, the electronic logbook data reports (haul by haul) and Port Inspection reports, as the catch information contained in these reports are utilized by the Scientific Council and other working groups (e.g. CESAG, WG-BDS) in the fish stock assessment work (Section 5.2 and Figure 5.2).

STACTIC reflects whether the 5-yr average at-sea inspection rate of 2.5% is adequate and also notes a slow decrease in overall at-sea inspections (Sec 5.4 and Fig 5.4.1). STACTIC encourages Contracting Parties to continue to maintain inspection presence in the NRA (Section 3.1) and to continue to cooperate among them for at-sea deployments.

STACTIC reminds Contracting Parties about the requirement to inspect 100% of GHL landings.

STACTIC recommends Contracting Parties to continue cooperation and discussions on best practices for both at sea and port inspections.

STACTIC recognizes a marked improvement in report submission rates in 2019.

STACTIC encourages Contracting Parties to continue to explore ways to address repeated non-compliance by vessels in the NRA, as noted in the 2018 Performance Review.

STACTIC recommends Contracting Parties continue to ensure the protection of Vulnerable Marine Ecosystems.



**NAFO** Northwest Atlantic  
Fisheries Organization

*PRESS RELEASE*

Committed to **Conservation** and **Management** of **Fisheries** and **Ecosystems** in the Northwest Atlantic

### **Annex 32. 2020 Press Release**

#### **NAFO HOSTS 42<sup>nd</sup> ANNUAL MEETING VIRTUALLY AND WELCOMES UNITED KINGDOM AS A NAFO CONTRACTING PARTY**

FOR IMMEDIATE RELEASE

**Halifax, Canada, 25 September 2020-** The 42<sup>nd</sup> Annual Meeting of the Northwest Atlantic Fisheries Organization (NAFO) took place from 21-25 September. Due to the current global pandemic, NAFO conducted the Annual Meeting virtually for the first time in its history. During the opening session, delegates from all the NAFO Contracting Parties were welcomed to the meeting by NAFO President, Stéphane Artano. The NAFO President also formally welcomed NAFO's newest Contracting Party, the United Kingdom of Great Britain and Northern Ireland, which joined NAFO earlier this month. The United Kingdom is NAFO's 13<sup>th</sup> Contracting Party.

Despite the limitations imposed this year by the current global pandemic, NAFO continued to have a productive meeting. NAFO further advanced its revision of its Precautionary Approach (PA) Framework with the adoption of a detailed three-year workplan. Under this workplan, it is expected that NAFO's revised PA Framework will be finalized by September 2023. NAFO also adopted a number of decisions related to the further development of its ecosystem approach framework to fisheries management and the upcoming review of its measures to protect vulnerable marine ecosystems (VMEs) from bottom fishing activities. In particular, these decisions include a rollover of the current VME closures in the NAFO Regulatory Area for an additional year, pending a more comprehensive review in 2021.

In addition, to the traditional total allowable catch (TAC)\* and quota decisions, significant decisions were made regarding the following:

- Additional conservation measures were agreed for cod in Div. 3M including a closure of the directed fishery from January until March 2021; increased port inspection requirements; and introduction of sorting grids to protect juvenile fish.
- Streamlined vessel authorization process.
- The term of the Executive Secretary, Fred Kingston, was extended for an additional year until the end of 2022.

NAFO is also planning intersessional work to review the current management approach for shrimp in Div. 3M and a workshop to identify ecosystem level objectives in advance of the 2021 Annual Meeting.

The 43<sup>rd</sup> Annual Meeting will take place 20-24 September 2021, in Halifax, Nova Scotia, Canada.

\* The 2021 TACs and quotas are attached.

For further inquiries, please contact:

Dayna Bell MacCallum

Scientific Information Administrator

NAFO Secretariat Tel: +902 468-5590 ext. 203 E-mail: [dbell@nafo.int](mailto:dbell@nafo.int)

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[www.nafo.int](http://www.nafo.int)

Summit Place  
1601-401 Lower Water St.  
Halifax, Nova Scotia  
Canada B3J 3P6  
+1 (902) 468-5590  
Email: [Info@nafo.int](mailto:Info@nafo.int)

**PART II.**  
**Report of the Standing Committee on International Control (STACTIC)**

42<sup>nd</sup> Annual Meeting of NAFO, 21-25 September 2020  
via WebEx

1. Opening by the Chair, Kaire Märtin (European Union).....	112
2. Appointment of Rapporteur .....	112
3. Adoption of Agenda .....	112
4. Compliance review 2020 including review of apparent infringement reports and of chartering arrangements .....	112
5. Review of Article 30 of the NAFO CEM .....	113
6. New and Pending Proposals on Enforcement Measures: Possible revisions of the NAFO CEM .....	113
7. Discussions on the interpretation of Article 10 of the NAFO CEM .....	115
8. Practical application of Port State Measures in NAFO .....	115
9. Marking of gears .....	115
10. NAFO MCS website and application development .....	115
11. Report and recommendations of the Editorial Drafting Group (EDG) .....	115
12. Review of Current IUU list Pursuant to NAFO CEM, Article 53.....	116
13. Bycatches and Discards .....	116
a. Results of the WG-BDS meeting .....	116
b. Sorting grids and other possible measures for 3M Cod .....	117
14. Discussion of data classification and access rights .....	117
15. Discussion on garbage disposal onboard vessels .....	117
16. Discussion on labour conditions onboard vessels.....	118
17. Discussion of the reporting of shark catches in the NAFO Regulatory Area.....	118
18. Implementation of the Performance Review Recommendations.....	118
19. Issues relating to the impacts of COVID-19 .....	119
20. Other business .....	120
a. VISMA Contract Renewal .....	120
b. Update regarding NAFO security breach .....	120
c. IMO numbers.....	120
d. Report and recommendations of the Joint Advisory Group on Data Management (JAGDM) .....	120
e. Recommendations from NAFO working groups.....	120
21. Time and Place of next meeting .....	121
22. Adoption of Report .....	121
23. Adjournment .....	121
Annex 1. List of Participants.....	122
Annex 2. Agenda.....	124

## **Report of the Standing Committee on International Control (STACTIC)**

42<sup>nd</sup> Annual Meeting of NAFO, 21-25 September 2020

### **1. Opening by the Chair, Kaire Märtin (European Union)**

The Chair opened the meeting at 08:00ADT on Monday, 21 September 2020 via WebEx. The Chair welcomed representatives from the following Contracting Parties (CPs) – Canada, Denmark (in respect of Faroe Islands and Greenland), the European Union, France (in respect of St. Pierre et Miquelon), Iceland, Japan, Norway, the Russian Federation, the United Kingdom, and the United States of America (Annex 1).

### **2. Appointment of Rapporteur**

Jana Aker (NAFO Secretariat) was appointed as rapporteur.

### **3. Adoption of Agenda**

The following additions were made to the agenda under agenda Item 20 – Other Business:

- a. VISMA Contract Renewal
- b. Update regarding NAFO security breach
- c. IMO numbers
- d. Report and recommendations of the Joint Advisory Group on Data Management (JAGDM)
- e. Recommendations from NAFO working groups

The agenda was adopted, as amended (Annex 2).

The Chair noted that the NAFO ad hoc Working Group on STACTIC Participation (WG-SP) was not able to meet in March of this year due to the COVID-19 pandemic. Contracting Parties agreed to follow the procedure established at the 2019 Annual Meeting as an interim solution for this meeting without prejudice to any other future possible decisions about the issue of participation, which was that Contracting Parties identify agenda items and/or working papers which they deemed to be of a sensitive nature and discussed in an in-camera (closed) session. The in-camera (closed) sessions would be restricted to government officials and NAFO Commissioners from each delegation. Following the in-camera (closed) discussions, the Chair would report out the results or recommendations in open session. Canada, the European Union and Russian Federation reiterated their preference for all STACTIC deliberations to be open only to Government Officials of Contracting Parties due to the sensitive nature of the STACTIC discussions and information. The United States of America reiterated its preference for STACTIC discussions to be open to all Contracting Party representatives to allow for full transparency. For this meeting, Contracting Parties agreed to discuss agenda items 13.b and 19, as well as STACTIC WP 20-02 (Rev. 3), STACTIC WP 20-23, and STACTIC WP 20-29 in a closed session. The Chair thanked Contracting Parties for the compromised way forward, but noted a solution was still required for this issue.

### **4. Compliance review 2020 including review of apparent infringement reports and of chartering arrangements**

The NAFO Secretariat presented the Summary of Inspection Information for 2019 in STACTIC WP 20-03 (Rev. 3) and noted the updates received following the STACTIC Intersessional meeting had been incorporated. Contracting Parties provided additional updates at this meeting, and the final version is outlined in STACTIC WP 20-03 (Rev. 5). The European Union noted that there was still some information on port inspections missing in the working paper, and encouraged those Contracting Parties that have conducted port inspections to provide the relevant information to the NAFO Secretariat. The NAFO Secretariat presented the overview of chartering arrangements in STACTIC WP 20-14 for information.

The NAFO Secretariat presented the draft Annual Fisheries and Compliance Review 2020 in STACTIC WP 20-20. Contracting Parties offered some clarifications throughout the draft Compliance Review and representatives from the United States of America, Canada, and the European Union volunteered to continue work on the conclusions and recommendations sections. The final version of the draft Compliance Review is outlined in STACTIC WP 20-20 (Rev. 3). The Russian Federation noted that they will be submitting outstanding observer reports to the NAFO Secretariat following the meeting.

During an in-camera (closed) session, the NAFO Secretariat presented the updated draft Compilation of Fisheries Reports 2019 in STACTIC WP 20-02 (Rev. 3). Contracting Parties provided further updates to the document, including an update on an infringement that was issued to a vessel from the Faroe Islands during a port inspection, and the final version was presented in STACTIC WP 20-02 (Rev. 4).

It was **agreed** that:

- **The draft Annual Compliance Review outlined in STACTIC WP 20-20 (Rev. 3) be forwarded to the Commission for adoption.**

## 5. Review of Article 30 of the NAFO CEM

The NAFO Secretariat presented a Summary of Observer Information for 2019 in STACTIC WP 20-09 (Revised) and noted the document has been updated following input received after the Intersessional meeting. It was noted that clarity was needed around the purpose of the reporting requirements in Article 30.10.d of the NAFO CEM as it was unclear whether the reporting exercise is about compliance with the specified timelines or the effectiveness of the measures. Contracting Parties did note some issues with some of the requirements outlined in Article 30, and agreed to further discuss some deficiencies of these issues (i.e. two-way communication device, reporting templates, reporting timelines, etc...) at the 2021 STACTIC Intersessional meeting. Contracting Parties also thanked Norway for the report in relation to Article 30.6.e of the NAFO CEM, and encouraged other Contracting Parties invoking Article 30.6 to submit similar reports.

It was **agreed** that:

- **STACTIC discuss the issues relating to the Article 30 requirements at the 2021 Intersessional meeting.**

## 6. New and Pending Proposals on Enforcement Measures: Possible revisions of the NAFO CEM

Norway presented a joint Norway / European Union proposal for the inclusion of vessels from IUU list of other RFMOs to the NAFO IUU list in STACTIC WP 20-21. Contracting Parties thanked Norway and the European Union for the proposal but expressed some concern with the process for updating the IUU list and the criteria other RFMOs are using for listing vessels as IUU. Norway and the European Union, following consultation with other Contracting Parties, opted to continue working on the proposal for presentation at the 2021 STACTIC Intersessional meeting. The United States offered to assist the ongoing drafting efforts.

During an in-camera (closed) session, the European Union presented a proposal on product form presentation (Annex II.K of the NAFO CEM) in STACTIC WP 20-23. The European Union reflected on the discussion at the 2020 Intersessional meeting, noting there was no product form code available for gutted and headed with collars left on, and the proposed new code would cover that product form. Contracting Parties expressed concerns with the insertion of a new product form code, and noted that the GUH code is currently being used differently by different Contracting Parties, mainly associated to the conversion factors used. Some Contracting Parties use GUH for gutted and headed with collars on. The European Union thanked Contracting Parties for their input and withdrew the proposal, noting they would continue to use the code OTH for fish that are gutted and headed with the collars left on, and welcomed text from other Contracting Parties to resolve this issue in the future.

The European Union presented a proposal on the observer reporting timeframe and template (Article 30.14.e) in STACTIC WP 20-24. Contracting Parties thanked the European Union for the proposal, noting that it clarifies the existing requirements and agreed to forward it to the Commission for adoption.

The European Union presented a proposed revision to Article 12.1.d of the NAFO CEM relating to the prohibition of a commercial fishery on Greenland sharks in STACTIC WP 20-26, noting that the current use of “directed fishery” could create issues as Greenland sharks are large enough that they could be classified as a directed fishery based on the definition outlined in Article 5.2 of the NAFO CEM. Some Contracting Parties expressed concern with the wording in the proposal, with Norway noting they were not able to support a proposal that was adding a new discard obligation to the NAFO CEM, which is in contradiction to those Contracting Parties that have a landing obligation. Norway further explained that a similar discard obligation had been proposed for Greenland shark at the Annual Meeting in 2018, and that a proposal for a derogation for Contracting Parties with a landing obligation had been discussed. However, the Contracting Parties had agreed to the current prohibition against conducting a directed fishery for Greenland shark. Norway explained that they could not go along with the text proposed by the European Union unless a derogation for Contracting Parties with a landing obligation was included, and forwarded a proposal to the European Union. It was confirmed that the retention for the purpose of scientific measurements by the observer were permitted prior to discarding Greenland shark. The European Union thanked Contracting Parties for their feedback and withdrew the proposal from this meeting.

The European Union proposed a revision to Article 9.3 of the NAFO CEM relating to the reporting requirement signalling the change of fishery in STACTIC WP 20-27. Contracting Parties thanked the European Union for the proposal and offered some suggestions for clarity and agreed to forward the revision in STACTIC WP 20-27 (Rev. 2) to the Commission for adoption. During the discussion, it was clarified that fishing days for 3M PRA are calculated based on the definition in Article 1.6 of the NAFO CEM.

During an in-camera (closed) session, Canada presented a discussion paper on measures concerning vessels demonstrating repeat non-compliance of serious infringements in the NAFO Regulatory Area in STACTIC WP 20-29. Canada highlighted that the discussions on this issue have been ongoing since 2016 with contributions from Contracting Parties and hoped that this version of the proposal allowed all Contracting Parties the flexibility to apply the measures within their domestic regulations. Contracting Parties thanked Canada for their continued efforts to address this issue but noted some reservations with the existing proposal and agreed to provide specific comments to Canada. Canada thanked Contracting Parties for the feedback and agreed to work with Contracting Parties intersessionally and develop a revised proposal for the 2021 STACTIC Intersessional meeting.

Canada presented a discussion paper on the mandatory waiting period following authorization in STACTIC WP 20-30, noting that the requirement for the existing 30-day timeframe may no longer be required with the digital transmission of the information. Contracting Parties were in agreement with Canada that the timeframe could be reduced, and the Secretariat noted that the AUT messages are automatically updated on the MCS website, but some buffer time may want to be included in case there are any technical issues with the message transmission. Canada thanked Contracting Parties for the support and presented a proposal for a 5-day waiting period in STACTIC WP 20-30 (Revised). Contracting Parties thanked Canada for the proposal and agreed to forward it to the Commission for adoption.

It was **agreed** that:

- **Norway, the European Union, and the United States will continue working on the proposal for the inclusion of vessels from IUU lists of other RFMOs to the NAFO IUU list and provide an update at the 2021 STACTIC Intersessional meeting.**
- **The proposed changes to the NAFO CEM relating to the observer reporting timeframe and template (Article 30.14.e) outlined in STACTIC WP 20-24 be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to the reporting requirement signalling the change of fishery (Article 9.3) outlined in STACTIC WP 20-27 (Revised) be forwarded to the Commission for adoption.**
- **Canada will work with Contracting Parties intersessionally to receive feedback on STACTIC WP 20-29 relating to measures concerning vessels demonstrating repeat non-compliance of serious infringements in the NAFO Regulatory Area and present a revised proposal at the 2021 STACTIC Intersessional meeting.**
- **The proposed changes to the NAFO CEM relating to the waiting period for vessel authorization in STACTIC WP 20-30 (Revised) be forwarded to the Commission for adoption.**

#### **7. Discussions on the interpretation of Article 10 of the NAFO CEM**

This item was deferred to the 2021 STACTIC Intersessional meeting.

#### **8. Practical application of Port State Measures in NAFO**

This item was deferred to the 2021 STACTIC Intersessional meeting.

#### **9. Marking of gears**

This item was deferred to the 2021 STACTIC Intersessional meeting.

#### **10. NAFO MCS website and application development**

This item was deferred to the 2021 STACTIC Intersessional meeting.

#### **11. Report and recommendations of the Editorial Drafting Group (EDG)**

The Chair of the Editorial Drafting Group (EDG), Patrick Moran (USA), presented the meeting summary of the EDG meeting that took place on 25 August in STACTIC WP 20-18. The Chair of the EDG noted that in addition to the proposals being forwarded to STACTIC by the EDG, the EDG also requested the Secretariat to conduct an analysis on bycatch interpretations, which was discussed under agenda item 13, and requested advice from the Joint Advisory Group on Data Management (JAGDM), which was discussed under agenda item 20.d. The United States of America highlighted the recommendation from the EDG meeting summary (STACTIC WP 20-18) that stated *the EDG request STACTIC to review the text in Article 6.2.c to clarify the "Others" quota use in bycatch considerations* and committed to draft a proposal on this recommendation for discussion at the 2021 STACTIC Intersessional meeting.

The EDG Chair presented STACTIC WP 20-15 which outlined a recommendation to delete Annex II.I Part B of the NAFO CEM as there was no reference to this annex in the NAFO CEM. Some Contracting Parties noted that the codes in this annex could be used in the surveillance report form and may also be useful for moving to an ERS system of reporting. It was agreed not to delete Part B of the annex and request the EDG to investigate the possibility of inserting a relevant reference to the annex in Article 33 of the NAFO CEM or as a footnote to the Surveillance Report in Annex IV.A.

The EDG Chair presented suggestions for changes in the NAFO CEM in STACTIC WP 20-16. Norway expressed concern with the change proposed to Article 5.15.f, noting the proposal changed the meaning of the Article. Contracting Parties agreed to remove the proposed change to Article 5.15.f from the document and refer this matter back to the EDG for further discussion. Contracting Parties agreed to forward the other proposed edits outlined in STACTIC WP 20-16 (Revised) to the Commission for adoption.

The EDG Chair presented further edits relating to correcting existing references in the NAFO CEM in STACTIC WP 20-17 and Contracting Parties agreed to forward these changes to the Commission for adoption.

It was **agreed** that:

- **The United States of America will draft a proposal relating to the EDG recommendation for STACTIC to review the text in Article 6.2.c to clarify the “Others” quota use in bycatch considerations for presentation at the 2021 STACTIC Intersessional meeting.**
- **The EDG review the NAFO CEM for the possible insertion of a reference to Annex II.I Part B in Article 33 or as a footnote to the Surveillance Report in Annex IV.A.**
- **The EDG further review the edit to Article 5.15.f in STACTIC WP 20-16.**
- **The edits to the NAFO CEM outlined in STACTIC WP 20-16 (Revised) be forwarded to the Commission for adoption.**
- **The edits to the NAFO CEM outlined in STACTIC WP 20-17 be forwarded to the Commission for adoption.**

## **12. Review of Current IUU list Pursuant to NAFO CEM, Article 53**

At the 2020 Intersessional meeting, the European Union agreed to provide an update on relevant IUU listed vessels. The European Union noted that the IUU listed vessel Murtosa remains in port in Portugal in poor condition but still floating. The vessel should remain on the NAFO IUU list until the vessel has been scrapped.

## **13. Bycatches and Discards**

The NAFO Secretariat presented STACTIC WP 20-31 providing an update on the data analysis requested by the EDG. The NAFO Secretariat noted that, due to data processing issues, there is a large quantity of discard data in the database that cannot be attributed to an individual haul. This issue has made it difficult to accurately calculate the thresholds, since calculating the total catch in an individual haul is not possible for much of the data at this point. The European Union also noted that the same work is currently being completed by the WG-BDS and that the Secretariat should work to present consistent results to both groups. Denmark (in Respect of the Faroe Islands and Greenland) reiterated their suggestion to have a simpler definition of bycatch in NAFO and noted the need to continue the bycatch discussions in a face to face meeting.

It was **agreed** that:

- **The Secretariat will continue working on the data analyses requested by the EDG and the WG-BDS.**
- **The discussions on the bycatch provisions continue at the 2021 STACTIC Intersessional meeting.**

### **a. Results of the WG-BDS meeting**

The NAFO Secretariat noted that the meeting report of the Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) was now available in COM Doc. 20-04 and that the group also had an informal meeting on 18 September 2020 to discuss the data analyses going forward. The European Union reiterated that the Secretariat work to present consistent results to both the WG-BDS and STACTIC, and Norway noted the importance of having these discussions in both groups, in particular with

regard to how to address the problem of bycatches and discards. The next meeting of the WG-BDS is scheduled for the winter of 2021.

#### **b. Sorting grids and other possible measures for 3M Cod**

During an in-camera (closed) session, the Chair highlighted the request from the Commission in COM Doc. 19-30, which stated *the Commission requests STACTIC to consider the feasibility of introducing a requirement for the use of sorting grids in trawl fishery for 3M cod*. The Chair asked for guidance from Contracting Parties familiar with the use of sorting grids. Contracting Parties reflected on their experiences with sorting grids but noted that further information was required before specific measures could be proposed. STACTIC agreed that the introduction of the requirement to use sorting grids for the trawl fishery for 3M Cod seems feasible from a control and enforcement perspective by means of at-sea inspections, and to forward this assessment to the Commission. The specific parameters of the requirements would need to be developed in consultation with technical experts, the Scientific Council, and the Commission.

During an in-camera (closed) session, the European Union presented a proposal for 100% Port Inspection Benchmark for 3M Cod in STACTIC WP 20-25. The European Union noted the importance of the proposal with the likely reduction in the TAC for 3M Cod, and that this proposal aligns with the port inspection measure currently in place in the NAFO CEM for Greenland halibut. Contracting Parties thanked the European Union for the proposal and noted support for the concept presented but expressed some concerns with the proposal as drafted. Contracting Parties collaborated with the European Union to revise the proposal in a way that all Contracting Parties could agree with in STACTIC WP 20-25 (Rev. 2). STACTIC clarified that the prior notification period referred to in this proposal was only applicable to vessels that were not covered under the Port State Control Measures outlined in Chapter VII of the NAFO CEM, and that footnote 1 and 2 in the proposal were only applicable to the proposed Article 7 bis, not the entirety of Article 7. Some concerns were raised with the reference to a threshold value of 1,250 kg appearing in the proposed Article 7 bis. Some Contracting Parties also expressed a strong preference to avoid referring to the applicability of the provision based on a 3000 tonnes TAC level. These concerns were addressed with the addition of footnotes 1 and 2, which also included an agreement to review the provision in 2021. Canada requested that the placement of Article 7bis under Article 7-Cod Recovery Plans be reviewed by EDG at a future date. Contracting Parties then agreed to forward the revised proposal to the Commission for adoption.

It was **agreed** that:

- **It is feasible, from an enforcement perspective, to require the use of sorting grids for the trawl fishery for 3M Cod, but the specific parameters of the requirements would need to be developed in consultation with technical experts, the Scientific Council and the Commission.**
- **The proposal relating to 100% port inspection benchmark for 3M Cod outlined in STACTIC WP 20-25 (Rev. 2) be forwarded to the Commission for adoption.**
- **The EDG is to review the placement of Article 7bis under Article 7-Cod Recovery Plans.**

#### **14. Discussion of data classification and access rights**

This item was deferred to the 2021 STACTIC Intersessional Meeting.

#### **15. Discussion on garbage disposal onboard vessels**

The European Union presented an updated proposal for specific requirements in the NAFO CEM to address the issue of marine pollution in STACTIC WP 20-22. The European Union noted that this proposal clarifies the definitions of garbage and plastic, and measures for discarding such waste. Contracting Parties thanked the European Union for their continued efforts on this proposal, noting that they agree with the need for a reduction in marine pollution. All Contracting Parties but the European Union indicated that to address NAFO issues on marine pollution by inserting a reference to MARPOL Annex V in the NAFO CEM would be a preferable

way forward, at least as a first step, noting that this was recently agreed to in NEAFC. The European Union noted the need for specific measures in the NAFO CEM, in order for those measures to be enforceable given the limited scope of MARPOL in NRA, the lack of tailor-made provisions to address NAFO specific issues, and the need for clarity on the vessels requirements for inspectors and operators without a reference to another instrument. The European Union acknowledged the lack of appetite to adopt specific measures after three years of discussions on this subject, noted that the fisheries are very different from those in NEAFC and reflected on the recent adoption of specific measures in other RFMOs, such as CCAMLR, endorsed by several NAFO Contracting Parties. Contracting Parties were not able to agree on a way forward on this item at this meeting and agreed to continue the discussion at the 2021 STACTIC Intersessional meeting. The United States of America and Norway agreed to work on a proposal relating to the insertion of a reference to MARPOL Annex V in the NAFO CEM for presentation 2021 STACTIC Intersessional meeting.

It was **agreed** that:

- **The discussion on garbage disposal onboard vessels continue at the 2021 STACTIC Intersessional meeting**
- **The United States of America and Norway will work on a proposal relating to the insertion of a reference to MARPOL Annex V in the NAFO CEM for presentation 2021 STACTIC Intersessional meeting.**

#### **16. Discussion on labour conditions onboard vessels**

The Secretariat noted that not all Contracting Parties have provided their Single Point of Contact (SPOC) for labour conditions to the NAFO MCS Website and the Chair encouraged Contracting Parties to submit the information to the NAFO Secretariat.

It was **agreed** that:

- **Contracting Parties provide the Single Point of Contact (SPOC) for labour conditions to the NAFO Secretariat for inclusion on the NAFO MCS Website.**

#### **17. Discussion of the reporting of shark catches in the NAFO Regulatory Area**

Natasha Barbour (Canada) provided an update on behalf of the small working group responsible for the work on standardizing the identification and data collection requirements for Greenland sharks. It was noted that Canada, the European Union, Denmark (in Respect of the Faroe Islands and Greenland), and the United States of America were still committed to this initiative, but that there has not been much progress to date. The group encouraged Contracting Parties to submit any relevant information and noted the work will continue with an update being provided to STACTIC in 2021.

It was **agreed** that:

- **Canada, the European Union, Denmark (in Respect of the Faroe Islands and Greenland), and the United States of America continue the work on standardizing the identification and data collection requirements for Greenland sharks and provide an update to STACTIC in 2021.**

#### **18. Implementation of the Performance Review Recommendations**

The Chair highlighted STACTIC WP 20-28 outlining the status of the recommendations from the 2018 Performance Review that are relevant to STACTIC. The Chair suggested, in the interest of time, that a full discussion on the recommendations be deferred to the 2021 STACTIC Intersessional meeting.

It was **agreed** that:

- **A full discussion on the recommendations from the 2018 Performance Review outlined in STACTIC WP 20-28 be postponed to the 2021 STACTIC Intersessional meeting.**

## **19. Issues relating to the impacts of COVID-19**

During an in-camera (closed) session, the Chair provided an overview of the provisions in the NAFO CEM that Contracting Parties had reported having difficulty complying with due to COVID-19 at the 2020 Intersessional meeting. The specific NAFO CEM Measures were Article 10.4 (100% port inspection for GHL), Article 30.5 (100% observer coverage), Article 30.8.c (where practicable, ensure observers are not deployed on consecutive trips), Article 43.10 (15% port inspection coverage), and Chapter VI (At-sea Inspection Scheme). Contracting Parties provided updates on the status of these issues since the Intersessional meeting, noting that operations are starting to return to normal levels, but there are still some exceptions, and that could change if the pandemic starts to extend again. Contracting Parties continued the discussions on the role of STACTIC in relation to the compliance with the NAFO CEM measures during the pandemic, noting that the Commission needs still to provide guidance to STACTIC on its role with regard to the COVID-related difficulties.

The United States reiterated its concern with continuing with an unbridled ad-hoc waiver process, and maintained that the most transparent and equitable process by which to handle emergency measures arising out of the global pandemic is to suspend specific measures for a defined period by way of vote. Temporarily suspending specific measures through consensus provides all Contracting Parties with sufficient notice of their obligations and clear bounds of conduct while still affording those Parties capable of fulfilling any suspended obligation the opportunity to do so. Absent temporary suspensions, the United States suggested formalizing and setting clear parameters around the process by which Contracting Parties are derogating.

There are two main views with regard to the expected STACTIC's role, to be decided by the Commission: (a) to compile, make a first review of, including appropriate recommendations, and report for decision-making to the Commission on the measures undertaken by Contracting Parties and associated difficulties to comply with NCEM, to be reflected in the compliance review. (b) to compile and report to the Commission, identifying difficulties to comply with the CEM and identifying best practices, but without scrutinizing or making a full compliance review of the specific measures taken by each Contracting Party, since the responses to the pandemic differed from Contracting Party to Contracting Party.

Contracting Parties agreed to develop an annex to the Compliance Review for the 2020 fishing year outlining the measures taken by each Contracting Party in response to COVID-19. Canada agreed to provide the template for this annex at the 2021 STACTIC Intersessional meeting. This information would provide the rationale for certain measures not being complied with, but also would be a useful tool for reviewing the measures and facilitate discussions for best practices to address any situations like COVID-19 that may arise in the future. The Chair noted that the COVID-19 situation may return to previous levels, and Contracting Parties may again have difficulty complying with the measures, and encouraged Contracting Parties to notify the NAFO Secretariat of these instances so they can compile the information.

It was **agreed** that:

- **STACTIC will create an annex to the Compliance review in 2021 (for the 2020 fishing year) outlining Contracting Party responses to the COVID-19 pandemic with the aim to compile relevant information to facilitate further discussions.**
- **Canada will draft a template for the annex to the Compliance review for the 2020 fishing year relating to the COVID-19 measures for the 2021 STACTIC Intersessional meeting.**

## 20. Other business

### a. VISMA Contract Renewal

The NAFO Secretariat requested permission from STACTIC to renew the existing contract with Visma as the VMS service provider for an additional year, with the details outlined in STACTIC WP 20-19. The NAFO Secretariat confirmed that STACFAD had approved this item in the budget and Contracting Parties agreed the Secretariat move forward with the contract renewal for 1 year.

It was **agreed** that:

- **The NAFO Secretariat renew the existing contract with Visma for an additional year.**

### b. Update regarding NAFO security breach

The NAFO Secretariat provided a brief summary of the NAFO security breach that occurred in May 2020, and noted further information was provided to Heads of Delegation.

### c. IMO numbers

Denmark (in Respect of the Faroe Islands and Greenland) highlighted that there is an issue with the IMO requirements, where the IMO number includes the 3-alpha code IMO prefix, but the current NAF systems only allow for the seven digit number. Denmark (in Respect of the Faroe Islands and Greenland) noted that this is currently being discussed in PECMAC and may be forwarded to JAGDM and wanted to make STACTIC aware of the issue.

### d. Report and recommendations of the Joint Advisory Group on Data Management (JAGDM)

The vice-Chair of JAGDM (Natasha Barbour, Canada) presented an update on the requests from the EDG to JAGDM that were discussed at the 10 September 2020 meeting. The vice-Chair of JAGDM noted that two working papers were forwarded from the EDG with requests to determine the technical implications to the proposed changes in Annex II.C, Annex II.D (JAGDM-2020-02-08) and Annex II.J (JAGDM-2020-02-09). The advice from JAGDM was that these changes did have technical implications and would require further review. STACTIC thanked the vice-Chair of JAGDM for the presentation, agreed with JAGDM and decided to forward the review of the changes to Annex II.J back to the EDG for further assessment.

The vice-Chair of JAGDM also noted that a full report of the 10 September 2020 meeting will be circulated to STACTIC Participants when it is finalized and reminded Contracting Parties that JAGDM is still in search of a Chair.

It was **agreed** that:

- **The EDG continue discussion on the proposed changes to Annex II.J of the NAFO CEM.**

### e. Recommendations from NAFO working groups

The Commission forwarded recommendations from CESAG in COM-SC WP 20-05 and the WG-EAFFM in COM-SC WP 20-04 to STACTIC and requested them to review the recommendations addressed to STACTIC. Contracting Parties agreed to defer the discussions on the recommendations to the 2021 STACTIC Intersessional meeting.

It was **agreed** that:

- **The recommendations addressed to STACTIC from CESAG in COM-SC WP 20-05 and from the WG-EAFFM in COM-SC WP 20-04 be discussed at the 2021 STACTIC Intersessional meeting.**

## **21. Time and Place of next meeting**

The next STACTIC Intersessional meeting will be held during the week of 10 May 2021. The NAFO ad hoc Working Group on STACTIC Participation (WG-SP) will meet one day prior to the start of the 2021 STACTIC Intersessional meeting. The meetings will be held at the NAFO Secretariat in Halifax, Canada.

## **22. Adoption of Report**

The report was discussed during the meeting and adopted via correspondence following the end of the meeting.

## **23. Adjournment**

The meeting was adjourned at 09:00 hours ADT on 25 September 2020.

**Annex 1. List of Participants**

Kaire Märtin (EU)	<b>STACTIC Chair</b>
Natasha Barbour Dion Browne Mike Hurley Lloyd Slaney	<b>Canada</b>
Signe Bork Hansen Meinhard Gaardlykke Petur Meinhard Jacobsen Michael Dennis Pedersen Mads T. Nedergaard	<b>Denmark (in respect of the Faroe Islands and Greenland)</b>
Xosé Tubio Aronne Spezzani Miguel Quintans Corinne Jacobi Peter Jørgen Eliassen Epp Meremaa Carlos Chamizo Gema De Frutos Eglė Radaitytė Miguel Serrao Genadijus Babcionis Meit Grossmann	<b>European Union</b>
Mehdi Bouchelaghem David Girier	<b>France (in Respect of St. Pierre et Miquelon)</b>
Jóhann Ásmundsson Birgir H Björnsson	<b>Iceland</b>
Yuki Kinoshita Hiroyuki Morita Hideki Moronuki Yoshihiko Takekawa	<b>Japan</b>
Hilde Ognedal	<b>Norway</b>
Alexey Bakhtov Anastasiya Romashevskaya Anna Shulaeva Ilya Skryabin Alexander Tremsin Artem Vilkin	<b>Russian Federation</b>
James Windebank	<b>United Kingdom</b>
LCDR Kathy Cyr LCDR Jamie Fredrick Mike Henry Shannah Jaburek Charles Lynch Elizabethann Mencher Patrick Moran	<b>United States of America</b>

Katie Pohl Eric Reid Kathryn Roy Richard Usher	
Jana Aker Matt Kendall DJ Laycock	<b>NAFO Secretariat</b>

## **Annex 2. Agenda**

1. Opening by the Chair, Kaire Märtin (European Union)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Compliance review 2020 including review of apparent infringement reports and of chartering arrangements
5. Review of Article 30 of the NAFO CEM
6. New and Pending Proposals on Enforcement Measures: Possible revisions of the NAFO CEM
7. Discussions on the interpretation of Article 10 of the NAFO CEM
8. Practical application of Port State Measures in NAFO
9. Marking of gears
10. NAFO MCS website and application development
11. Report and recommendations of the Editorial Drafting Group (EDG)
12. Review of Current IUU list Pursuant to NAFO CEM, Article 53
13. Bycatches and Discards
  - a. Results of the WG-BDS meeting
  - b. Sorting grids and other possible measures for 3M Cod
14. Discussion of data classification and access rights
15. Discussion on garbage disposal onboard vessels
16. Discussion on labour conditions onboard vessels
17. Discussion of the reporting of shark catches in the NAFO Regulatory Area
18. Implementation of the Performance Review Recommendations
19. Issues relating to the impacts of COVID-19
20. Other business
  - a. VISMA Contract Renewal
  - b. Update regarding NAFO security breach
  - c. IMO numbers
  - d. Report and recommendations of the Joint Advisory Group on Data Management (JAGDM)
  - e. Recommendations from NAFO working groups
21. Time and Place of next meeting
22. Adoption of Report
23. Adjournment

**PART III.**  
**Report of the NAFO Standing Committee on Finance and Administration (STACFAD)**

42<sup>nd</sup> Annual Meeting of NAFO, 21-25 September 2020  
via WebEx

1. Opening by the Chair, Deirdre Warner-Kramer (USA).....	126
2. Appointment of Rapporteur .....	126
3. Adoption of Agenda .....	126
4. Audited Financial Statements for 2019.....	126
5. Administrative and Activity Report by NAFO Secretariat.....	127
6. Financial Statements for 2020.....	127
7. Review of Accumulated Surplus and Funds .....	127
8. Update on the NAFO websites .....	128
9. Personnel Matters .....	128
10. Review of the Recruitment Process for the NAFO Executive Secretary.....	128
11. Internship Program.....	128
12. Report on the Annual Meeting of International Fisheries Commissions Pension Society (IFCPS).....	129
13. Implementation of 2018 Performance Review Panel recommendations .....	129
14. Budget Estimate for 2021 .....	130
15. Budget Forecast for 2022 and 2023 .....	130
16. Adoption of 2020/2021 Staff Committee Appointees .....	131
17. Other Business.....	131
18. Election of Chair.....	131
19. Time and Place of 2021-2023 Annual Meetings.....	131
20. Adjournment .....	132
Annex 1. List of Participants.....	133
Annex 2. Agenda.....	134
Annex 3. Budget Estimate for 2021.....	135
Annex 4. Preliminary Budget Forecast for 2022 and 2023 .....	138
Annex 5. Preliminary Calculation of Billing for Contracting Parties for 2021 .....	139

## **Report of the NAFO Standing Committee on Finance and Administration (STACFAD) Meeting**

42<sup>nd</sup> Annual Meeting of NAFO, 21-25 September 2020  
via WebEx

### **1. Opening by the Chair, Deirdre Warner-Kramer (USA)**

The first session of STACFAD was opened by the Chair, Deirdre Warner-Kramer (USA) at 10:00 hours on Tuesday, 22 September 2020. The Chair welcomed representatives to the meeting from Canada, Denmark (in respect of the Faroe Islands and Greenland), European Union, France (in respect of St. Pierre et Miquelon), Japan, Norway, Russian Federation, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America and the NAFO Secretariat (Annex 1).

Under the unusual circumstances of the COVID-19 pandemic and with travel restrictions being in place, the Chair thanked delegates for their flexibility and willingness to maximize the efficiency of STACFAD's virtual work by being able to handle most of the routine items in advance of the meeting.

To facilitate the process, the Chair identified agenda items that could be coded "open limited" or "advance agreement by correspondence". This format allowed these agenda items to be quickly adopted, noting the draft recommendations which were also provided in advance of the meeting.

### **2. Appointment of Rapporteur**

The NAFO Secretariat was appointed as Rapporteur.

### **3. Adoption of Agenda**

The agenda was adopted as circulated (Annex 2).

### **4. Audited Financial Statements for 2019**

Grant Thornton LLP performed the audit for the 2019 fiscal year, in accordance with the NAFO Financial Regulations. The draft audited financial statements for the year ended December 31, 2019 were circulated to the Heads of Delegations and STACFAD delegates in advance of the meeting. As is practice, the financial statements are presented as draft until after they are reviewed by STACFAD and approved by the Organization.

The excess of revenues over expenditures for 2019 was \$58,862 (2018 – deficiency of \$79,552)

Total expenditures incurred for the fiscal period ending 2019, as shown in the draft financial statements, amounted to \$2,208,549, which was \$65,451 under the approved budget of \$2,274,000. It was noted that the total expenditures included an extraordinary item of \$11,394 for the MSC Website in which grant revenue was received to offset the expense. Excluding this extraordinary item, expenses for the year were \$76,845 under budget.

The operating fund had a balance of \$340,004 at year end which was used to reduce 2020 Contributions from Contracting Parties. As approved at the September 2019 Annual Meeting, the contingency fund remained at \$285,000; the relocation fund was increased to \$60,000 and the newly established performance review fund was set at \$15,000.

**STACFAD recommends that:**

- **The 2019 Financial Statements be adopted.**

**5. Administrative and Activity Report by NAFO Secretariat**

Highlights of the Secretariat's activities for the period September 2019 to August 2020 have been summarized in the Administrative and Activity Report (COM Doc. 20-07 Revised).

**6. Financial Statements for 2020**

Financial Statements projected to 31 December 2020 have been provided by the Secretariat in COM Doc. 20-07 (Revised).

**Operating Expenses for 2020**

The operating budget for 2020 was approved at \$2,369,000 while expenditures for the year are projected to be at \$2,254,000, or \$115,000 under the approved budget. Overall savings for the year can be attributed to the reduction in travel and meeting costs with meetings being held virtually, although, some cost overages were incurred in computer and professional services as a result of the Secretariat's servers being compromised by a cyberattack. Some minor costs were also incurred because of the Headquarters relocation although these were covered by additional funds being added to the 2020 equipment and supplies budget.

All remaining 2020 operating expenses are anticipated to be on or near budget for the year. The above noted cost savings of \$115,000 will be returned to the accumulated surplus and will be available to reduce Contracting Parties contributions in 2021.

**Assessed Contributions**

At the beginning of 2020, the accumulated surplus had \$340,004, which was deemed to be in excess of the needs of the Organization and was allocated towards the 2020 operating budget. Therefore, in order to meet the 2020 operations budget of \$2,369,000, Contracting Parties were assessed contributions in the amount of \$2,028,996.

**Balance Sheet**

The Organization's cash position at 31 December 2020 is estimated to be \$1,167,490. The cash balance will be sufficient to finance appropriations in early 2021 pending the receipt of annual payments by Contracting Parties in the Spring of 2021. Assessed contributions from the Republic of Korea and Ukraine for 2020 are currently outstanding.

**7. Review of Accumulated Surplus and Funds**

According to the NAFO Financial Regulations, STACFAD and the Commission 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. In addition, the Organization shall also maintain a recruitment and relocation fund, up to a maximum of \$100,000, for relocation costs of internationally recruited staff. In addition, the Organization shall also maintain a performance review fund to pay costs associated with having an external performance review. The performance review fund balance shall be kept at a maximum of \$100,000.

The accumulated surplus account at 31 December 2020 is estimated to be \$764,000.

**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 2021, and of which \$85,000 would be a contingency fund available to be used for unforeseen and extraordinary expenses.
- The recruitment and relocation fund be increased by \$12,000 to \$72,000 for future recruitment and relocation costs of internationally recruited staff.
- The performance review fund be increased by \$15,000 to \$30,000 for future costs associated with having an external performance review.

**8. Update on the NAFO websites**

As agreed at the last Annual Meeting of NAFO, the *Ad Hoc* virtual NAFO Website Re-Design Working Group: Data Classification reconvened in 2020. It was noted that during the meeting in June 2020, the *Ad Hoc* virtual Working Group agreed that before a formal policy could be developed, specifically in regards to the posting and distribution of meeting documentation, that feedback was required from NAFO Bodies, Standing Committees, and Working Groups. This feedback would be sought during upcoming meetings in 2020/2021.

STACFAD endorses the recommendation of the *Ad Hoc* virtual Working Group, and an update will be provided at the 2021 Annual Meeting of NAFO (COM Doc. 20-06).

**9. Personnel Matters**

No personnel matters were presented this year.

**10. Review of the Recruitment Process for the NAFO Executive Secretary**

The second and final term of the current Executive Secretary's (ES) contract is scheduled to conclude at the end of 2021. A recruitment process for the next ES was scheduled to be launched in 2021 with an appointment for the 2022-2025 term. However, due to the unprecedented circumstances of the COVID-19 pandemic, a decision was made by the Heads of Delegations to extend the contract of the current Executive Secretary for at least another year.

Even though the recruitment process for the NAFO Executive Secretary has been delayed, the Chair encouraged Contracting Parties to review STACFAD WP 20-02 in anticipation for discussion at an upcoming Annual Meeting of NAFO.

**11. Internship Program**

Activities and tasks of the 2020 NAFO internship program were presented in STACFAD WP 20-03. The NAFO internship was postponed for the second half of 2020 due to the COVID-19 pandemic allowing only one intern to participate.

The Committee recognized the considerable benefits of the internship program to the Organization and the intern themselves. It is hoped that the internship program may resume in 2021.

**STACFAD recommends that:**

- The internship period be maintained for six (6) months during 2021.

## 12. Report on the Annual Meeting of the International Fisheries Commissions Pension Society (IFCPS)

The annual meeting of the International Fisheries Commissions Pension Society (IFCPS) scheduled to be hosted by the U.S. Department of State during 15-17 April 2020 in Washington, DC, USA. As a result of current travel restrictions, the meeting was held by video-conference. The meeting was attended by the Executive Directors and Finance Officers of the seven International Fisheries Commissions with headquarters located in Canada and the United States of America. NAFO was represented by Fred Kingston, Executive Secretary, and Stan Goodick, Deputy Executive Secretary/Senior Finance and Staff Administrator. Also attending the meeting were the IFCPS Directors appointed by the Governments of Canada and the United States of America. Background information on the pension plan, audit, actuarial valuation, electronic files, society governance, as well as the financial status, was presented within the information paper (STACFAD WP 20-04).

The Commissions which are members of the Pension Plan of the IFCPS, rely on an actuarial valuation to ensure the Plan's sustainability and inter-generational equity as well as determining the required employee/employer current year service contributions and potential special deficit payments. The latest funding valuation of the Plan's assets and liabilities was performed as of 01 January 2020 by the actuarial firm, Mercer (Canada) Limited. In accordance with the results from the January 2020 preliminary valuation, the 2021 budget estimate includes a provision for the following costs within the Superannuation and Annuities budget line item.

Deficit Payment	\$310,260
Employer Current Service and Admin. Costs	\$178,740
Total	\$489,000

The next annual meeting of the IFCPS will be hosted by the North Pacific Marine Science Organization (PICES) 13-15 April 2021 in Victoria, British Columbia, Canada.

## 13. Implementation of 2018 Performance Review Panel recommendations

STACFAD WP 20-05 provided an update on the implementation of the recommendations of the 2018 Performance Review Panel, specifically those assigned for STACFAD's future consideration:

Recommendation 26, Chapter V.3.2 *"Recommends NAFO makes all working documents publicly available, unless otherwise requested by a Contracting Party or subject to confidentiality rules". [pg. 36]*

Recommendation 35, Chapter VII.1 *"Recommends NAFO develops an annual operational plan for the NAFO Secretariat outlining key objectives and specifying resources required to meet these objectives." [pg. 48]*

Recommendation 36, Chapter VII.2 *"Recommends NAFO initiates a process to design a new visual identity for NAFO that reflects the role and responsibilities of the Organization." [pg. 48].*

As the 2020 Annual Meeting is taking place virtually, agenda items were prioritized for time limitations. For that reason, recommendation 35 and recommendation 36 (a new visual identity and draft annual operational plan) are currently being developed by the NAFO Secretariat for presentation to STACFAD at the 2021 Annual Meeting of NAFO.

It was further noted that recommendation 26 was addressed under agenda item 8 *"Update on the NAFO websites"* (see above).

#### 14. Budget Estimate for 2021

The 2021 budget estimate, as prepared by the Secretariat, was provided in COM WP 20-05 (Revised). Additional details and highlights on the 2021 budget estimate were provide in STACFAD WP 20-08.

Approved Budget 2020	Preliminary Budget Forecast 2021	Budget Estimate 2021 (Revised)
\$2,369,000	\$2,417,000	\$2,451,000

In light of the decision by Heads of Delegation to extend the contract of the current Executive Secretary and to postpone the recruitment process for at least another year, the budget estimate was revised to remove the recruitment costs for 2021.

The 2021 budget estimate of \$2,451,000 represents an increase of \$82,000 or 3.5% over the prior years approved budget.

The personnel services budget accounts for an increase of \$65,000 or 2.74% of the total increase for 2021. NAFO follows the salary scales of similar positions held in the Public Service of Canada which provide for routine economic and salary step increases. In addition, superannuation and annuities include the employer's contributions, administration costs, actuarial fees, and the required annual payment towards previous pension plan deficits. The latest funding valuation of the pension plan's assets and liabilities was performed as of 01 January 2020 and changes to assumptions used in the valuation (i.e. - decrease in net discount rate) resulted in an increase to the employer current service costs..

The computer services budget increased by \$7,000. This can be attributed to security enhancements implemented to NAFO's firewall, servers, and software.

The sessional meetings budget increased by \$8,000. This can be attributed to anticipated increases in hosting the Annual Meeting in Halifax.

The intersessional scientific meetings budget increased by \$5,000 as it includes a sponsorship of a Joint NAFO/ICES 2021 symposium on decadal oceanographic variations in the North Atlantic.

Due to the COVID-19 pandemic, the planned NAFO WG-EAFFM Workshop of fisheries managers and scientists to draft ecosystem objectives, which was scheduled to take place over 2 days in Brussels in August 2020 (immediately before the WG-EAFFM and WG-RBMS meetings), had to be postponed. The planning of this workshop continues, and it is expected to take place sometime in 2021. The Working Group inquired if it may be possible for NAFO to find money to cover the expenses of the 5 or so corresponding invited external experts. STACFAD noted that the budget estimate currently does not include a provision for workshop expenses, however, these could potentially be paid out of the contingency fund if so approved.

#### STACFAD recommends that:

- **The budget for 2021 of \$2,451,000 (Annex 3) be adopted.**

A preliminary calculation of billing for the 2021 financial year is included in Annex 5.

#### 15. Budget Forecast for 2022 and 2023

The preliminary budget forecast for 2022 (\$2,545,000) and 2023 (\$2,510,000) (Annex 4) was provided in COM WP 20-05 (Revised). It was noted that the decision to extend the contract for the current Executive Secretary

for one or two years was still under discussion by the Commission and therefore recruitment and relocation expense projections may change. The forecasts were approved in principle and it was noted that the budget for 2022 will be reviewed in detail at the next Annual Meeting.

## **16. Adoption of 2020/2021 Staff Committee Appointees**

The NAFO Secretariat has a mechanism in place known as the NAFO Staff Committee to help in the rare event that a conflict cannot be solved internally in which the Staff Committee may be asked to intervene and to assist in achieving a solution through mediation. The Staff Committee has not been called on since its inception in 2005.

The Secretariat members nominated the following people to serve as members of the Staff Committee for September 2020–September 2021: Brian Healey (Canada), Ignacio Granell (European Union) and Deirdre Warner-Kramer (USA).

### **STACFAD recommends that:**

- **The Commission appoint the three Staff Committee nominees for September 2020–September 2021: Brian Healey (Canada), Ignacio Granell (European Union) and Deirdre Warner-Kramer (USA).**

## **17. Other Business**

No other matters were discussed under this agenda item.

## **18. Election of Chair**

According to Rule 5.4 of the NAFO Rules of Procedure: Commission *“The Committee shall elect, to serve for two years, their own Chairperson and Vice-Chairperson, who shall be allowed a vote.”*

Robert Fagan (Canada) was nominated and elected as Chair for a two-year term.

This appointment results in a vacancy in the vice-Chair position. The Chair encouraged nominations for the vice-Chair position be submitted.

The Committee expressed its sincere appreciation to the outgoing Chair for her expertise and guidance over the past ten years.

## **19. Time and Place of 2021-2023 Annual Meetings**

As previously agreed, the 2021 and 2022 Annual Meetings will be held 20-24 September and 19-23 September, respectively. The meetings will be held in Halifax, Nova Scotia, Canada, unless an invitation to host is extended by a Contracting Party and accepted by the Organization.

### **STACFAD recommends that:**

- **The 2023 Annual Meeting (to be held in Halifax, Nova Scotia, Canada, unless an invitation to host is extended by a Contracting Party and accepted by the Organization) be held 18–22 September 2023.**

The Committee strongly reiterated Contracting Parties strive, whenever possible, to provide more than 12 months notice of the intention to extend an invitation to host a NAFO Annual Meeting to avoid unnecessary fiscal implications of the Organization having to make a non-refundable deposit to secure conference space.

**20. Adjournment**

The final session of the STACFAD meeting adjourned at 10:45 hours on 22 September 2020.

Gratitude was expressed to the Committee members for their effective cooperation this week, and to the NAFO Secretariat for its excellent support.

**Annex 1. List of Participants**

Fagan, Robert (vice-Chair) Johnson, Kate	<b>Canada</b>
Christensen, Steen	<b>Denmark (in respect of the Faroe Islands and Greenland)</b>
Blazkiewicz, Bernard Marot, Laura	<b>European Union</b>
Monneau, Marianna Servetto, Camille	<b>France (in respect of St. Pierre et Miquelon)</b>
Hosokawa, Natsuki Iino, Kenro Morita, Hiroyuki Moronuki, Hideki	<b>Japan</b>
Fagerbakke, Sara-Lier Vikanes, Ingrid	<b>Norway</b>
Badina, Julia Tairov, Temur	<b>Russian Federation</b>
Demianenko, Kostiantyn Didenko, Oleksandr Ohorodnik, Artem Paramonov, Valerii	<b>Ukraine</b>
Brown, Alice Daramola, Mary	<b>United Kingdom of Great Britain and Northern Ireland</b>
Mencher, Elizabethann Warner-Kramer, Deirdre (Chair)	<b>United States of America</b>
Kingston, Fred Goodick, Stan LeFort, Lisa	<b>NAFO Secretariat</b>

**Annex 2. Agenda**

1. Opening by the Chair, Deirdre Warner-Kramer (USA)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Audited Financial Statements for 2019
5. Administrative and Activity Report by NAFO Secretariat
6. Financial Statements for 2020
7. Review of Accumulated Surplus and Funds
8. Update on the NAFO websites
9. Personnel Matters
10. Review of the Recruitment Process for the NAFO Executive Secretary
11. Internship Program
12. Report of the Annual Meeting of the International Fisheries Commissions Pension Society (IFCPS)
13. Implementation of 2018 Performance Review Panel recommendations
14. Budget Estimate for 2021
15. Budget Forecast for 2022 and 2023
16. Adoption of 2020/2021 Staff Committee Appointees
17. Other Business
18. Election of Chair
19. Time and Place of 2021-2023 Annual Meetings
20. Adjournment

**Annex 3. Budget Estimate for 2021**

## NORTHWEST ATLANTIC FISHERIES ORGANIZATION

## Budget Estimate for 2021

(Canadian Dollars)

	Approved Budget 2020	Projected Expenditures 2020	Preliminary Budget Forecast 2021	Budget Estimate 2021
1 Personnel Services				
a) Salaries	\$1,186,000	\$1,186,000	\$1,217,000	\$1,221,000
b) Superannuation and Annuities	470,000	470,000	474,000	489,000
c) Medical and Insurance Plans	99,000	97,000	104,000	102,000
d) Employee Benefits	72,000	73,000	77,000	80,000
Subtotal Personnel Services	1,827,000	1,826,000	1,872,000	1,892,000
2 Additional Help	2,000	2,000	2,000	2,000
3 Communications	24,000	27,000	25,000	27,000
4 Computer Services	54,000	58,000	56,000	61,000
5 Equipment	33,000	33,000	29,000	27,000
6 Fishery Monitoring	42,000	42,000	43,000	42,000
7 Hospitality Allowance	3,000	3,000	3,000	3,000
8 Internship	11,000	4,000	11,000	11,000
9 Materials and Supplies	35,000	31,000	32,000	31,000
10 NAFO Meetings				
a) Sessional	178,000	35,000	179,000	186,000
b) Inter-sessional Scientific	25,000	20,000	30,000	30,000
c) Inter-sessional Other	37,000	14,000	37,000	40,000
Subtotal NAFO Meetings	240,000	69,000	246,000	256,000
11 Other Meetings and Travel	39,000	6,000	39,000	40,000
12 Professional Services	45,000	139,000	45,000	45,000
13 Publications	14,000	14,000	14,000	14,000
14 Recruitment	-	-	-	-
	\$2,369,000	\$2,254,000	\$2,417,000	\$2,451,000

Notes on Budget Estimate 2021  
(Canadian Dollars)

Item 1(a)	<b>Salaries</b> Salaries budget estimate for 2021.		\$1,221,000
Item 1(b)	<b>Superannuation and Annuities</b> Employer's pension plan which includes employer's contributions, administration costs, actuarial fees and the required annual payment towards previous pension plan deficits.		\$489,000
Item 1(c)	<b>Group Medical and Insurance Plans</b> Employer's portion of Canada Pension Plan, Employment Insurance, Group Life Insurance, Long Term Disability Insurance and Medical Coverage.		\$102,000
Item 1(d)	<b>Employee Benefits</b> Employee benefits as per the NAFO Staff Rules including overtime, repatriation grant, termination benefits, vacation pay, and home leave travel for internationally recruited members of the Secretariat.		\$80,000
Item 2	<b>Additional Support</b> Other assistance as required.		\$2,000
Item 3	<b>Communications</b> Phone, fax and internet services Postage and Courier	\$20,000 7,000	\$27,000
Item 4	<b>Computer Services</b> Computer hardware, software, supplies, support and website hosting.		\$61,000
Item 5	<b>Equipment</b> Leases (print department printer, photocopier and postage meter) Purchases Maintenance	\$14,000 10,000 3,000	\$27,000
Item 6	<b>Fishery Monitoring</b> Vessel Monitoring System (VMS) annual maintenance fee including programming changes as required due to changes to CEM Oracle database annual maintenance	\$39,000 3,000	\$42,000

Item 10(a)	<b>NAFO Sessional Meetings</b> Annual Meeting, September 2021, Halifax, Canada SC Meeting, June 2021, Halifax, Canada SC Meeting, October 2021		\$186,000
Item 10(b)	<b>NAFO Inter-sessional Scientific Meetings</b> Provision for inter-sessional meetings, symposia and a general provision for unforeseen expenses necessarily incurred by SC required for the provision of answering requests for advice from the Commission.		\$30,000
Item 10(c)	<b>NAFO Inter-sessional Other</b> General provision for Commission inter-sessional meetings.		\$40,000
Item 11	<b>Other Meetings and Travel</b> International Meetings regularly attended by the NAFO Secretariat which may include the following: Aquatic Sciences and Fisheries Abstracts (ASFA), Committee on Fisheries (COFI), Co-ordinating Working Party on Fishery Statistics (CWP), Fisheries Resources Monitoring Systems (FIRMS), International Fisheries Commissions Pension Society (IFCPS), Inspector Workshops, Regional Fishery Body Secretariats' Network (RSN), United Nations, etc.		\$40,000
Item 12	<b>Professional Services</b> Professional Services (audit, consulting, legal fees, and insurance) Professional Development and Training Public Relations	\$29,000 11,000 5,000	\$45,000
Item 13	<b>Publications</b> Production costs of NAFO publications, booklets, brochures, posters, etc., 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.		\$14,000
Item 14	<b>Recruitment and Relocation</b> Recruitment process for the next NAFO Executive Secretary has been delayed due to continued uncertainties surrounding the COVID-19 pandemic.		\$0

**Annex 4. Preliminary Budget Forecast for 2022 and 2023**

## NORTHWEST ATLANTIC FISHERIES ORGANIZATION

## Preliminary Budget Forecast for 2022 and 2023

(Canadian Dollars)

	Preliminary Budget Forecast 2022	Preliminary Budget Forecast 2023
1 Personnel Services		
a) Salaries	\$1,221,000	\$1,255,000
b) Superannuation and Annuities	490,000	494,000
c) Medical and Insurance Plans	108,000	112,000
d) Employee Benefits	75,000	78,000
Subtotal Personnel Services	1,894,000	1,939,000
2 Additional Help	2,000	2,000
3 Communications	27,000	27,000
4 Computer Services	62,000	62,000
5 Equipment	27,000	27,000
6 Fishery Monitoring	43,000	44,000
7 Hospitality Allowance	3,000	3,000
8 Internship	11,000	11,000
9 Materials and Supplies	32,000	33,000
10 NAFO Meetings		
a) Sessional	189,000	191,000
b) Inter-sessional Scientific	30,000	30,000
c) Inter-sessional Other	40,000	40,000
Subtotal NAFO Meetings	259,000	261,000
11 Other Meetings and Travel	40,000	40,000
12 Professional Services	46,000	47,000
13 Publications	14,000	14,000
14 Recruitment and Relocation	85,000	-
	\$2,545,000	\$2,510,000

## Annex 5. Preliminary Calculation of Billing for Contracting Parties for 2021



### Preliminary calculation of billing for the 2021 financial year (Canadian Dollars)

Budget Estimate	\$2,451,000
Deduct: Amount Allocated from Accumulated Surplus	\$377,000
<b>Funds required to meet 2021 Administrative Budget</b>	<b>\$2,074,000</b>

#### Part A

Contracting Parties	2018 nominal catches (metric tons)	Catch %	NAFO Convention Article IX.2.a,b,c			
			10%	30%	60%	Subtotal
Canada	172,387	39.64%	\$94,403	\$47,862	\$493,279	\$635,544
Cuba	-	-	-	\$47,862	-	\$47,862
Denmark (in respect of Faroe Islands and Greenland) (Note 2)	160,072	36.80%	\$87,659	\$47,862	\$457,939	\$593,460
European Union	40,632	9.34%	-	\$47,862	\$116,226	\$164,088
France (in respect of St. Pierre et Miquelon)	950	0.22%	\$520	\$47,862	\$2,738	\$51,120
Iceland	-	-	-	\$47,862	-	\$47,862
Japan	2,963	0.68%	-	\$47,862	\$8,461	\$56,323
Norway	2,541	0.58%	-	\$47,862	\$7,217	\$55,079
Republic of Korea	-	-	-	\$47,862	-	\$47,862
Russian Federation	10,070	2.32%	-	\$47,862	\$28,869	\$76,731
Ukraine	-	-	-	\$47,862	-	\$47,862
United Kingdom	-	-	-	\$47,862	-	\$47,862
United States of America	45,318	10.42%	\$24,818	\$47,862	\$129,665	\$202,345
<b>Total</b>	<b>434,933</b>	<b>100.00%</b>	<b>\$207,400</b>	<b>\$622,206</b>	<b>\$1,244,394</b>	<b>\$2,074,000</b>

#### Part B

Contracting Parties	Subtotal from Part A	NAFO Convention Article IX.2.d (Note 1)						Total contribution
		% Contribution	Catch % minus DFG	10%	30%	60%	Subtotal	
Canada	\$635,544	30.63%	62.72%	\$27,166	\$8,615	\$129,672	\$165,453	\$800,997
Cuba	\$47,862	2.31%	-	-	\$8,615	-	\$8,615	\$56,477
Denmark (in respect of Faroe Islands and Greenland) (Note 2)	\$593,460	28.61%	-	-\$34,458	-\$103,380	-\$206,748	-\$344,586	\$248,874
European Union	\$164,088	7.91%	14.78%	-	\$8,615	\$30,557	\$39,172	\$203,260
France (in respect of St. Pierre et Miquelon)	\$51,120	2.46%	0.35%	\$150	\$8,615	\$724	\$9,489	\$60,609
Iceland	\$47,862	2.31%	-	-	\$8,615	-	\$8,615	\$56,477
Japan	\$56,323	2.72%	1.08%	-	\$8,615	\$2,233	\$10,848	\$67,171
Norway	\$55,079	2.66%	0.92%	-	\$8,615	\$1,902	\$10,517	\$65,596
Republic of Korea	\$47,862	2.31%	-	-	\$8,615	-	\$8,615	\$56,477
Russian Federation	\$76,731	3.70%	3.66%	-	\$8,615	\$7,567	\$16,182	\$92,913
Ukraine	\$47,862	2.31%	-	-	\$8,615	-	\$8,615	\$56,477
United Kingdom	\$47,862	2.31%	-	-	\$8,615	-	\$8,615	\$56,477
United States of America	\$202,345	9.76%	16.49%	\$7,142	\$8,615	\$34,093	\$49,850	\$252,195
<b>Total</b>	<b>\$2,074,000</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,074,000</b>

#### Note 1

The annual contribution of any Contracting Party which has a population of less than 300,000 inhabitants shall be limited to a maximum of 12% of the total budget. When this contribution is so limited, the remaining part of the budget shall be divided among the other Contracting Parties in accordance with Article IX.2.a,b and c of the NAFO Convention.

#### Note 2

Faroe Islands 3,444 metric tons  
Greenland 156,628 metric tons





Northwest Atlantic Fisheries Organization



**Report of the NAFO Working Group on Improving Efficiency of NAFO Working Group  
Process (E-WG) Meeting**

18 March 2021  
via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2021

Report of E-WG,  
18 March 2021

## **Report of the NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG) Meeting**

18 March 2021  
via WebEx

1. Opening by the Chair, Fred Kingston (NAFO Secretariat).....	3
2. Appointment of Rapporteur .....	3
3. Adoption of Agenda .....	3
4. Finalize schedule for upcoming meetings scheduled for 2021 (COM-SC WP 21-01) .....	3
a. WG-BDS Meeting.....	3
b. WG-EAFFM Meeting .....	3
c. WG-EAFFM Workshop.....	4
d. WG-RBMS Meeting.....	4
e. Fishing Regime for Shrimp in Division 3M Meeting.....	4
5. Set the three two-week periods during the NAFO year for possible intersessional meetings 2022 .....	4
6. Recommendations to forward to the Commission and Scientific Council .....	5
7. Other matters .....	5
8. Adjournment.....	5
Annex 1. List of Participants .....	6
Annex 2. Agenda.....	7
Annex 3. 2021 NAFO Meeting Schedule – COM-SC Working Paper 21-01 (Revised) .....	8



## **Report of the NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG) Meeting**

18 March 2021  
via WebEx

### **1. Opening by the Chair, Fred Kingston (NAFO Secretariat)**

The Chair, Fred Kingston (NAFO Secretariat) opened the meeting on Thursday, 18 March 2021 at 10:00 hours. The Chairs and co-Chairs of the NAFO Working Groups were welcome to the virtual meeting (Annex 1).

### **2. Appointment of Rapporteur**

The NAFO Secretariat was appointed rapporteur.

### **3. Adoption of Agenda**

The agenda was adopted as circulated (Annex 2).

### **4. Finalize schedule for upcoming meetings scheduled for 2021 (COM-SC WP 21-01)**

For information purposes, the calendar of regional fisheries meetings for 2021, which was prepared by the Australian National Centre for Ocean Resources and Security (ANCORS) of the University of Wollongong, was presented (COM-SC WP 21-03).

The 2021 NAFO Meeting Schedule to-date was presented in COM-SC WP 21-01. The group focused its discussions on the NAFO Meetings still to be scheduled for 2021.

It was noted that traditionally meetings are scheduled back-to-back to reduce travel requirements for delegates. Due to the ongoing global pandemic, meetings are anticipated to continue to be held virtually throughout the summer 2021.

The 2021 NAFO Meeting Schedule was revised in COM-SC WP 21-01 (Revised) to incorporate the discussions of the group below (Annex 3).

#### **a. WG-BDS Meeting**

It was agreed that the WG-BDS meeting should take place following the Scientific Council meeting in June as input is required from Scientific Council regarding the *Action Plan in the Management and Minimization of Bycatch and Discards* (NAFO/COM Doc 17-26).

Two days would be required to cover all the agenda items intended for this meeting.

**The E-WG proposes to hold the WG-BDS as follows:**

- **A virtual meeting from 12–13 July 2021.**

#### **b. WG-EAFFM Meeting**

It was agreed that there are enough issues to be discussed by this Working Group this year that it should meet over five virtual days. However, rather than scheduling the meeting over five straight days, it was agreed that

Report of E-WG,  
18 March 2021

the meeting could be scheduled for three days (14-16 July), then two days the following week (20-21 July), with the Monday (19 July) free to enable coordination both within and among delegations.

However, it was noted that vacation schedules may not allow for this proposed extended format. As well, only one of the WG-EAFFM co-Chairs was able to attend this E-WG meeting. This proposed format will need to be confirmed with the other co-Chair before circulation to all Contracting Parties for consideration and approval.

**The E-WG tentatively proposes to hold the WG-EAFFM as follows:**

- **A virtual meeting from 14–16 July 2021 and 20-21 July 2021 with 19 July 2021 to enable coordination both within and among delegations.**

#### **c. WG-EAFFM Workshop**

A one-day planning meeting is proposed to be scheduled for the *NAFO WG-EAFFM Workshop of fisheries managers and scientists to draft ecosystem objectives* prior to 2021 Annual Meeting of NAFO. It is envisaged that the meeting will be held virtually in late August or early September.

The NAFO Secretariat will circulate a letter from the co-Chairs of WG-EAFFM informing Contracting Parties of this proposal, requesting their agreement and proposing a 'Doodle poll' to select a date.

#### **d. WG-RBMS Meeting**

The selection of a proposed date for the WG-RBMS depends on progress from the PA-WG. Currently the work of the PA-WG is behind schedule and it is not clear whether there would be enough progress for the WG-RBMS to meet in July, as originally envisaged. Consequently, this meeting may have to be held in late August or September before the Annual Meeting.

For that reason, the scheduling of the WG-RBMS will await the revision of the PA-WG timeline, of which a further update will be provided following the PA-WG meeting expected to be held on 08 April 2021.

#### **e. Fishing Regime for Shrimp in Division 3M Meeting**

At least one Contracting Party, has the position that an intersessional meeting concerning the fishing regime for shrimp in Division 3M should only take place in person as soon as the epidemiological situation due to the Covid pandemic permits and travel restrictions are lifted. Currently it is not clear when this will occur.

Considering all this, the NAFO President sought feedback from Contracting Parties regarding the scheduling and format of the Fishing Regime for Shrimp in Division 3M Meeting (NAFO/21-074 of 04 March 2021). A further update to be provided following review of the responses received from Contracting Parties.

### **5. Set the three two-week periods during the NAFO year for possible intersessional meetings 2022**

The proposed three two-week periods during 2022 to be recommended to the Commission and Scientific Council for possible NAFO intersessional meetings 2022 were presented in COM-SC WP 21-02 as follows:

- **For the 2022 NAFO year, the following two-week periods, be considered for NAFO intersessional meetings:**
  - **21 February – 04 March 2022;**
  - **25 April – 06 May 2022; and**
  - **08 – 19 August 2022**

The participants were requested to consider these dates and contact the Secretariat if there are any concerns. The Chair will send a note to this Working Group in April to finalize by written procedure this proposed recommendation to the Commission and Scientific Council.

#### **6. Recommendations to forward to the Commission and Scientific Council**

The recommendations of this Working Group to forward to the Commission and Scientific Council at the 2021 Annual Meeting of NAFO, will be agreed on via correspondence (see agenda item 5 above).

#### **7. Other matters**

No other matters were raised under this agenda item.

#### **8. Adjournment**

The meeting was adjourned at 11:15 hours.

### **Annex 1. List of Participants**

vice-Chair of Commission	Temur Tairov (Russian Federation)
Chair of Scientific Council	Carmen Fernández (European Union)
Chair of STACFAD	Robert Fagan (Canada)
co-Chairs of CESAG	Katherine Sosebee (USA) Temur Tairov (Russian Federation)
Chair of WG-BDS	Temur Tairov (Russian Federation)
co-Chair of WG-EAFFM	Elizabethann Mencher (USA)
co-Chair of WG-ESA	Pierre Pepin (Canada)
co-Chairs of WG-RBMS	Fernando González -Costas (European Union) Ray Walsh (Canada)
NAFO Secretariat	Fred Kingston (Executive Secretary) Jana Aker (Senior Fisheries Information Administrator) Tom Blasdale (Scientific Council Coordinator) Ricardo Federizon (Senior Fisheries Management Coordinator) Sarah Guile (Office Administrator) Lisa LeFort (Senior Executive Assistant)

**Annex 2. Agenda**

1. Opening by the Chair, Fred Kingston (NAFO Secretariat)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Finalize schedule for upcoming meetings scheduled for 2021 (COM-SC WP 21-01)
5. Set the three two-week periods during the NAFO year for possible intersessional meetings 2022 (COM-SC WP 21-02)
6. Recommendations to forward to the Commission and Scientific Council
7. Other matters
8. Adjournment

Report of E-WG,  
18 March 2021

### Annex 3. 2021 NAFO Meeting Schedule – COM-SC Working Paper 21-01 (Revised)

The following NAFO Meetings are scheduled for 2021:

Date	Title	Venue
	<b><i>*Second period for the scheduling of Working Group meetings 19 – 30 Apr. 2021</i></b>	
18 Mar.	NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG)	WebEx
13 Apr.	NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG) Meeting	WebEx
08 Apr.	NAFO Scientific Council Precautionary Approach Framework Working Group (PA-WG)	WebEx
10–13 May	NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting	WebEx
26 May	Joint Advisory Group on Data Management (JAGDM)	Virtual
27 May–11 Jun.	NAFO Scientific Council and its Standing Committees Meeting	WebEx
	<b><i>*Third period for the scheduling of Working Group meetings 12 – 23 Jul. 2021</i></b>	
08–14 Sept.	NAFO/ICES <i>Pandalus</i> Assessment Meeting	Copenhagen (TBD)
20–24 Sept.	NAFO 43 <sup>rd</sup> Annual Meeting	TBD
Oct./Nov. TBD	NAFO/ICES <i>Pandalus</i> Assessment Meeting	Copenhagen (TBD)
16–25 Nov.	NAFO Working Group on Ecosystem Science and Assessment (WG-ESA) Meeting	Halifax, Nova Scotia

\* As always, these two-week periods would not require meetings of NAFO subsidiary bodies to meet during those dates nor would they preclude the scheduling of meetings of NAFO subsidiary bodies outside those dates.

The following NAFO Meetings are still **to be** scheduled for 2021:

Date	Title	Venue
Aug./Sept. (TBC)	NAFO Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS) Meeting To be further discussed following the PA-WG meeting on 08 April	WebEx (TBC)
14–21 July (TBC)	NAFO Joint Commission–Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) Meeting To be proposed: 14-16 and 20-21 July 2021 to be held virtually with 19 July to enable coordination both within and among delegations.	WebEx (TBC)
12–13 July (TBC)	NAFO Commission Ad Hoc Working Group on Bycatches, Discards and Selectivity (WG-BDS) in NAFO Regulatory Area Meeting To be proposed: 12-13 July 2021 to be held virtually	WebEx (TBC)
TBD	NAFO <i>Ad hoc</i> virtual NAFO Working Group: Data Classification Meeting	WebEx
TBD	NAFO STACTIC Editorial Drafting Group of the NAFO CEM (EDG) Meeting	TBD
End of Aug./ Early Sept. TBD	One-day Planning Meeting for the NAFO WG-EAFFM Workshop of fisheries managers and scientists to draft ecosystem objectives	WebEx (TBD)
Postponed until it can be held in-person	NAFO <i>Ad hoc</i> Working Group on STACTIC Participation (WG-SP) Meeting	TBD
TBD	NAFO Fishing Regime for Shrimp in Division 3M Meeting Feedback sought from Contracting Parties re: format of the meeting	TBD



Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission–Scientific Council  
Catch Estimation Strategy Advisory Group (CESAG) Meeting**

13 April 2021  
via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2021

## Report of the NAFO Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG) Meeting

13 April 2021  
via WebEx

1.	Opening by the co-Chairs, Katherine Sosebee (USA) and Temur Tairov (Russian Federation) .....	3
2.	Appointment of Rapporteur .....	3
3.	Adoption of the Agenda .....	3
4.	Review and finalization of the 2020 catch estimates .....	3
5.	Review of statistics and catch data comparison prepared by the Secretariat.....	3
6.	Continuation of discussion on the implementation of PR2 Recommendation #4, MRAG report.....	3
7.	Other Business .....	4
8.	Recommendations.....	4
9.	Date and time of next meeting.....	4
10.	Adjournment.....	4
	Annex 1. List of Participants .....	5
	Annex 2. Agenda.....	7
	Annex 3. Guidance on Best Practices: Catch Estimation Methodology Study.....	8

## **Report of the NAFO Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG) Meeting**

24 April 2020  
via WebEx

### **1. Opening by the co-Chairs, Katherine Sosebee (USA) and Temur Tairov (Russian Federation)**

The NAFO Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG) met via WebEx on 13 April 2021. The meeting was opened at 9:30 hours (Atlantic Daylight Time) by co-Chairs Katherine Sosebee (USA) and Temur Tairov (Russian Federation). Representatives from NAFO Contracting Parties (Canada, European Union, Japan, Ukraine) were in attendance. The Scientific Council Chair was also in attendance (Annex 1).

### **2. Appointment of Rapporteur**

The NAFO Secretariat was appointed rapporteur for this meeting.

### **3. Adoption of the Agenda**

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

### **4. Review and finalization of the 2020 catch estimates**

The Secretariat presented the catch estimates of all NAFO TAC-managed stocks and all other species for 2020 (COM-SC WP 21-05). This represents the core task that was assigned to the Secretariat --- applying the Catch Estimation Strategy in deriving the catch estimates.

One Contracting Party indicated that it would provide the remaining supplementary data (3L Shrimp, and Grenadier) to complete the estimates. Once received, the Secretariat would update the working paper accordingly and forward to the Scientific Council by 01 May for consideration in its fish stock assessment work (see agenda item 7).

A recommendation to this effect would be forwarded to the Commission (see agenda item 8).

### **5. Review of statistics and catch data comparison prepared by the Secretariat**

On the request of CESAG, three working papers were prepared and presented by the Secretariat:

- COM-SC CESAG-WP 21-02, on the comparison of catch data sources,
- COM -SC CESAG-WP 21-03, on the calculation of the availability of catch amounts on a division basis in port inspection, and
- COM-SC CESAG-WP 21-04, on the calculation of the percentage of catch (from CATs – Daily Catch Report) for species by weight that was inspected in port.

Upon review of these working papers, it was noted that the information contained in these working papers complements COM-SC WP 21-05 and helpful when calculating the catch estimates using the Catch Estimation Strategy.

### **6. Continuation of the discussion on the implementation of PR2 Recommendation #4, the MRAG report**

In accordance with the 2018 NAFO Performance Review Panel Recommendations #4 (NAFO COM Doc. 19-32), CESAG identified the elements in the 2019 report *Catch Estimates Methodology Study* completed by MRAG Americas that could be applied by CESAG towards the improvement of the catch estimation strategy. These

Report of CESAG,  
13 April 2021

elements pertain to best practices for 1) data submission, and 2) tow catch estimates in NAFO fisheries (COM-SC CESAG-WP 21-01 Revised, see Annex 3).

A recommendation to this effect would be forwarded to the Commission (See agenda item 8).

## **7. Other Business**

There was no other business discussed.

## **8. Recommendations**

**The CESAG recommends that:**

- 1) The Secretariat revise the 2020 catch estimates contained in COM-SC CESAG-WP 20-05 to include the remaining data and forward it (COM-SC CESAG-WP 20-05 Revised) to the Scientific Council by the 01 May deadline.**
- 2) The Commission request STACTIC review best practices outlined in COM-SC CESAG-WP 21-01 Revised to identify the possible application of these best practices to improve tow catch estimates in the NAFO Regulatory Area and consider the specific guidance on the International Observer Program as part of its planned review of the NAFO Observer Program scheduled for 2022.**

## **9. Date and time of next meeting**

The next meeting will be in April 2022 via WebEx. A doodle survey will be circulated to determine the date and time.

## **10. Adjournment**

The meeting was adjourned at 10:10 hours (Atlantic Daylight Time)

**Annex 1. List of Participants****CESAG CO-CHAIRS**

Sosebee, Katherine. Science Advisor, Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA) USA  
Tel: +1 508 495 2372 – Email: [katherine.sesebee@noaa.gov](mailto:katherine.sesebee@noaa.gov)

Tairov, Temur. Representative of the Federal Agency for Fisheries of the Russian Federation in Canada, 47 Windstone Close, Bedford, Nova Scotia, B4A4L4  
Tel: +1 902 405 0655 – Email: [temurtairov@mail.ru](mailto:temurtairov@mail.ru)

**SCIENTIFIC COUNCIL CHAIR**

Fernández, Carmen. Instituto Español de Oceanografía (IEO). Avenida Príncipe de Asturias, 70 bis. 33212, Gijón, Spain  
Tel: +34 (985) 308 672 - Email: [carmen.fernandez@ieo.es](mailto:carmen.fernandez@ieo.es)

**CANADA**

Browne, Dion. Senior Compliance Officer, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Email: [Dion.Browne@dfo-mpo.gc.ca](mailto:Dion.Browne@dfo-mpo.gc.ca)

Fagan, Robert. Senior Resource Manager. Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Tel: +1 709 772 2920 – Email: [Robert.Fagan@dfo-mpo.gc.ca](mailto:Robert.Fagan@dfo-mpo.gc.ca)

Hurley, Mike. Offshore Detachment Supervisor, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: +1 709 227-9344 – Email: [mike.hurley@dfo-mpo.gc.ca](mailto:mike.hurley@dfo-mpo.gc.ca)

Johnson, Kate. Senior Policy Advisor, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Kate.Johnson@dfo-mpo.gc.ca](mailto:Kate.Johnson@dfo-mpo.gc.ca)

Pond, Nancy. Resource Manager. Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Email: [Nancy.Pond@dfo-mpo.gc.ca](mailto:Nancy.Pond@dfo-mpo.gc.ca)

Simpson, Mark. Science Branch, Fisheries and Oceans Canada, P.O. Box 5667, St. John's, NL A1C5X1  
Tel.: +1 709-772-4841 – Email: [Mark.Simpson2@dfo-mpo.gc.ca](mailto:Mark.Simpson2@dfo-mpo.gc.ca)

**EUROPEAN UNION**

Alpoim, Ricardo. Instituto Portugues do Mar e da Atmosfera, Rua Alfredo Magalhães Ramalho, nº6, 1495-006 Lisboa, Portugal  
Tel: +351 213 02 70 00 – Email: [ralpoim@ipma.pt](mailto:ralpoim@ipma.pt)

González-Costas, Fernando. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 22 39 – Email: [fernando.gonzalez@ieo.es](mailto:fernando.gonzalez@ieo.es)

González-Troncoso, Diana. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 21 11 – Email: [diana.gonzalez@ieo.es](mailto:diana.gonzalez@ieo.es)

Granell, Ignacio. International Relations Officer, Regional Fisheries Management Organizations, European Commission, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 2 296 74 06 – Email: [ignacio.granell@ec.europa.eu](mailto:ignacio.granell@ec.europa.eu)



Report of CESAG,  
13 April 2021

Merino-Buisac, Adolfo. Policy Officer, Scientific advice supporting the Common Fisheries Policy, European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE), Unit C.3 – Scientific advice and data collection, J99 03/003, B-1049 Brussels/Belgium  
Tel: +32 2 29 590 46 – Email: [adolfo.merino-buisac@ec.europa.eu](mailto:adolfo.merino-buisac@ec.europa.eu)

#### **JAPAN**

Morita, Hiroyuki. Assistant Director, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +03-3502-8460 – Email: [hiroyuki\\_morita970@maff.go.jp](mailto:hiroyuki_morita970@maff.go.jp)

Taki, Kenji. Scientist, National Research Institute of Far Seas, Fisheries, Agency, 5-7-1, Orido, Shimizu-Ward, Shizuoka-City, Shizuoka, Japan  
Email: [takistan@fra.affrc.go.jp](mailto:takistan@fra.affrc.go.jp)

#### **UKRAINE**

Demianenko, Kostiantyn. Deputy Director of the Institute of Fisheries and Marine Ecology (IFME) of the State Agency of Fisheries of Ukraine  
Email: [s.erinaco@gmail.com](mailto:s.erinaco@gmail.com); [s\\_erinaco@ukr.net](mailto:s_erinaco@ukr.net)

Paramonov, Valerii. Research Officer of the Institute of Fisheries and Marine Ecology (IFME) of the State Agency of Fisheries of Ukraine  
Email: [vparamonov@i.ua](mailto:vparamonov@i.ua)

#### **NAFO SECRETARIAT**

Summit Place, 1601 Lower Water Street, Suite 401, Halifax, Nova Scotia, Canada – Tel: +1 902 468-5590

Jana Aker. Senior Fisheries Information Administrator.

Email: [jaker@nafo.int](mailto:jaker@nafo.int)

Tom Blasdale. Scientific Council Coordinator.

Email: [tblasdale@nafo.int](mailto:tblasdale@nafo.int)

Ricardo Federizon. Senior Fisheries Management Coordinator.

Email: [rfederizon@nafo.int](mailto:rfederizon@nafo.int)

Fred Kingston. Executive Secretary.

Email: [fkingston@nafo.int](mailto:fkingston@nafo.int)

Lisa LeFort. Senior Executive Assistant.

Email: [llefors@nafo.int](mailto:llefors@nafo.int)



**Annex 2. Agenda**

1. Opening by the co-Chairs, Katherine Sosebee (USA) and Temur Tairov (Russian Federation)
2. Appointment of Rapporteur
3. Adoption of the Agenda
4. Review and finalization of the 2020 catch estimates
5. Review of statistics and catch data comparison prepared by the Secretariat
6. Continuation of the discussion on the implementation of PR2 Recommendation #4, the MRAG report
7. Other Business
8. Recommendations
9. Date and time of next meeting
10. Adjournment

**Annex 3. Guidance on Best Practices: Catch Estimation Methodology Study****(COM-SC CESAG-WP 21-01 Revised)**

This table is a summation of Table 6 (page 58) *Guidance on Best Practices for tow catch estimation in NAFO fisheries* and Table 7 *Assessment of catch estimates resources needs* (page 63-64) of the *Catch Estimates Methodology Study, 2019*.

It reflects the discussion at the most recent CESAG meeting where it was suggested to attempt separate those practices that would be considered general in nature and those that would be considered more specific in nature. In our earlier discussion, it was also recognized that Contracting Parties would require more time to assess these best practices and engagement by other NAFO bodies (e.g. STACTIC) would be also be required.

The table also suggests revised timelines for possible implementation. However, it is important to note that while further discussion or analysis may take place, some best practices may ultimately prove to be impractical in a NAFO context. Estimates of potential cost associated with each best practice are excluded from this table but listed in Table 8 (page 65-66) of the report.

Further, given the varying complexity of each best practice, these timelines are notional and subject to change pending further discussion by STACTIC and possible integration with ongoing work. Most timelines have been extended to medium term as the suggested timeline included in the report as “could be implemented in <1 year with dedication” is likely unachievable.

It is also noted that in regards to identified best practices relating to the International Observer Program, in accordance with the *NAFO Conservation and Enforcement Measures, Chapter V – Observer Scheme, Article 30 – Observer Program 19) Implementation*, the observer program will be reviewed by STACTIC in 2022.

<b>Guidance on Best Practices for data submission</b>	
<b>Best Practice</b>	<b>Timeline<sup>1</sup></b>
<p>1. NAFO to receives complete observer reports and data directly and in a format that enables their routine and efficient use in compliance and scientific analyses, including data quality screening procedures. (<i>Catch Estimates Methodology Study, MRAG Americas p. 18</i>)</p> <p><u>Comment:</u> 4.1.1.3 Electronic Fishing logbook (haul by haul) Reports The submission of logbook data on a haul-by-haul basis became mandatory in 2015 (Article 28.8.b). The electronic fishing logbook information (haul by haul data) must be submitted to the Secretariat in the format prescribed in Annex II.N. for all hauls of the fishing trip (Article 288.c).</p>	<p>All data currently being submitted in Excel format.</p> <p><i>Complete</i></p>

<sup>1</sup> Given the varying complexity of each best practice, these timelines are notional and subject to change pending further discussion by STACTIC and possible integration with ongoing work.

The Secretariat has received haul by haul reports for all 131 trips that were completed in 2019. (NAFO/COM Doc. 20-17 (Revised), <i>Annual Fisheries and Compliance Review 2020 (Compliance Report for Fishing Year 2019)</i> )	
<b>Guidance on Best Practices for Tow Catch Estimates in NAFO Fisheries (Table 6, <i>Catch Estimates Methodology Study</i>)</b>	
<b>International Observer Program</b>	
Best Practice	Timeline
1. Observers deployed from a different flag state to the vessel, either through a central provider or through a bilateral agreement or MoU between designating and receiving CPs.	Long Term
2. Common Standards and program accreditation	Short Term
3. Regular verification of average box weights	Medium Term
4. Regular verification conversion factors	Medium Term
5. Regular verification of volume to mass ratio	Medium Term
6. Observers provided with independent means of communication  <u>Comment:</u> a) NAFO CEM Article 30. Duties of the flag state Contracting Party 8) (e), ensure that observers are equipped with an independent two-way communication device at sea.  b) Still pending full implementation by several CPs.	Short Term
7. Photos and Video	Long Term
8. Catch data verification (Recommendation from STACTIC OPR-WP 18-11)	Short Term
<b>Guidance for Vessels</b>	
1. Vessels submit documentation on how catches are estimated on-board	Short Term
2. Motion compensated flow scales	Long Term
3. Codend weigher	Long Term
4. Discard estimation	Medium Term
5. Remote electronic monitoring (REM)	Medium Term
6. Electronic Reporting Scheme (ERS)	Long Term



Northwest Atlantic Fisheries Organization



**Report of the NAFO Standing Committee on International Control (STACTIC)  
Intersessional Meeting**

10-13 May 2021

NAFO  
Dartmouth, Nova Scotia, Canada  
2021

## Report of the NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting

10-13 May 2021

1. Opening by the Chair, Kaire Märtin (European Union) .....	3
2. Appointment of Rapporteur .....	3
3. Adoption of Agenda .....	3
4. Annual Compliance Review, 2020.....	3
5. Review of Article 30 of the NAFO CEM .....	4
6. STACTIC Participation.....	4
7. New and pending proposals on enforcement measures: Possible revisions of the NAFO CEM.....	4
8. Discussions on the interpretation of Article 10 of the NAFO CEM .....	6
9. Practical application of Port State Measures in NAFO .....	6
10. Marking of gears .....	6
11. NAFO MCS website and application development.....	6
12. Report and recommendations of the Editorial Drafting Group (EDG) .....	7
13. Half-year review of the implementation of new NAFO CEM measures.....	8
14. Review and evaluation of Practices and Procedures.....	8
15. NAFO Inspectors workshop.....	8
16. Review of current IUU list Pursuant to NAFO CEM, Article 53.....	8
17. Bycatch, discards, and selectivity .....	9
a. STACTIC input in the development of management options as outlined in sections 4.1 and 4.2 of the Action Plan in the Management and Minimization of Bycatch and Discards (NAFO/COM Doc. 17-26) .....	9
b. Measures on discards.....	9
c. Bycatch and discard analysis.....	9
18. Discussion of data classification and access rights.....	10
19. Report and advice of the Joint Advisory Group on Data Management (JAGDM).....	10
20. Recommendations from NAFO working groups.....	10
21. Discussion on garbage disposal onboard vessels.....	11
22. Discussion on labour conditions onboard vessels.....	11
23. Discussion of the reporting of shark catches in the NAFO Regulatory Area .....	11
24. Implementation of the Performance Review Recommendations .....	11
25. Issues relating to the impacts of COVID-19 .....	12
26. Other business .....	12
27. Time and place of next meeting .....	12
28. Adoption of Report .....	12
29. Adjournment.....	12
Annex 1. Participant List .....	13
Annex 2. Agenda.....	18

## **Report of the NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting**

10-13 May 2021

### **1. Opening by the Chair, Kaire Märtin (European Union)**

The Chair of STACTIC, Kaire Märtin (European Union) opened the meeting at 11:05UTC on 10 May 2021 via WebEx. The Chair welcomed representatives from the following Contracting Parties (CPs) – Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union, Iceland, Japan, Norway, the Russian Federation, the United Kingdom and the United States of America (Annex 1).

### **2. Appointment of Rapporteur**

The NAFO Secretariat (Jana Aker) was appointed as rapporteur.

### **3. Adoption of Agenda**

The agenda was adopted as circulated, with some agenda items being deferred.

The Chair noted that the NAFO ad hoc Working Group on STACTIC Participation (WG-SP) was not able to meet again this year due to the COVID-19 pandemic. Contracting Parties agreed to follow the procedure established at the 2019 Annual Meeting as an interim solution for this meeting without prejudice to any other future possible decisions. Contracting Parties agreed to identify agenda items and/or working papers which they deemed to be of a sensitive nature and discussed in a closed session. The closed sessions would be restricted to government officials and NAFO Commissioners from each delegation. Following the closed discussions, the Chair would report out the results or recommendations in open session. The United States of America noted their disagreement with having any agenda items in a closed session but agreed to continue with this procedure for this meeting and encouraged Contracting Parties to draft proposals on how to move forward with the issue of STACTIC Participation. For this meeting, Contracting Parties agreed to discuss agenda items 4, 5 and 25 in a closed session.

### **4. Annual Compliance Review, 2020**

The NAFO Secretariat highlighted the Draft 2020 Compilation of Fisheries Reports table in STACTIC WP 21-01 (Rev. 3). Contracting Parties thanked the Secretariat for the work and provided comments and clarifications. Contracting Parties agreed to forward any further comments on STACTIC WP 21-01 (Rev. 3) to the NAFO Secretariat by 14 June 2021 for inclusion in the final version that will be circulated on 21 June 2021.

The NAFO Secretariat presented the Summary of Inspection Information for 2020 in STACTIC WP 21-02 (Rev. 2). Contracting Parties noted that some port inspection data were not included in Part 2 of the document and the Secretariat agreed to include those in the next revision, along with any comments received by Contracting Parties by 14 June 2021.

In addition to the summary of inspection information, the United States of America highlighted the provisions in Article 31.7 of the NAFO CEM outlining that Contracting Parties with inspection presence should conduct inspections in an equitable manner. STACTIC agreed that, to reflect on the requirement established by Article 31.7, the Secretariat will provide information comparing the number of NAFO at sea inspections by inspecting Contracting Party with regard to each Contracting Party's level of catches and days at sea for the last 5 years, noting that the compilation of this information is only a basis to inform further discussions on the issue.

The NAFO Secretariat presented the draft NAFO 2020 Fisheries and Compliance in STACTIC WP 21-15 (Rev. 2). Contracting Parties offered some suggestions for improvements in the document and some corrections which will be incorporated by the Secretariat in addition to any comments received by Contracting Parties by 14 June 2021.

Report of STACTIC,  
10-13 May 2021

Canada presented a format for the COVID-19 Annex to the 2020 Compliance Review in STACTIC WP 21-12. Contracting Parties thanked Canada for drafting the template for reporting, and provided some further comments. Contracting Parties agreed to complete the template for 2020 information outlined in STACTIC WP 21-12 (Revised) to the NAFO Secretariat by 14 June 2021. Contracting Parties also noted their preference for a summarized version of the submissions following the template to be included into the annex of the Compliance Review that is presented to the Commission at the Annual Meeting.

It was **agreed** that:

- **Contracting Parties will provide written comments on the Draft Compilation table of Fisheries Reports 2020 (STACTIC WP 21-01 (Rev. 3)), the Summary of Inspection Information for 2020 (STACTIC WP 21-02 (Rev. 2)), and the draft NAFO 2020 Fisheries and Compliance (STACTIC WP 20-15 (Rev. 2)) to the NAFO Secretariat by 14 June 2021.**
- **The NAFO Secretariat will provide information comparing the number of NAFO at sea inspections by inspecting Contracting Party with regard to each Contracting Party's level of catches and days at sea for the last 5 years, noting that the compilation of this information is only a basis to form further discussion on the issue.**
- **Contracting Parties will complete the template for 2020 information outlined in STACTIC WP 21-12 (Revised) to the NAFO Secretariat by 14 June 2021.**
- **The information submitted following the template in STACTIC WP 21-12 (Revised) will be summarized by the NAFO Secretariat and included as an annex in the draft Compliance Review.**

## 5. Review of Article 30 of the NAFO CEM

The NAFO Secretariat presented the summary of observer information for 2020 in STACTIC WP 21-03 Revised. Contracting Parties highlighted the benefits of the annual review of the implementation of the observer program, and noted the importance of flagging specific limitations of the program to facilitate the 2022 review as per Article 30.19 of the NAFO CEM. The European Union noted the importance of training and interaction with the observers and observer contractors for the proper implementation of the programme, the early submission of the observers' trip report by the flag Contracting Party to the port Contracting Party, and thanked Canada for their assistance in a 2021 case of removal of the observer on board. Contracting Parties agreed to submit comments and missing information/reports, including the analysis under Article 30.6.e of the NAFO CEM, for inclusion in the working paper by 14 June 2021.

It was **agreed** that:

- **Contracting Parties would provide any comments and outstanding information for inclusion in the working paper on the summary of observer information for 2020 (STACTIC WP 21-03 Rev. 2) by 14 June 2021.**

## 6. STACTIC Participation

This item was deferred, however, a discussion regarding the format of the next meeting occurred under agenda item 27 – Time and place of next meeting.

## 7. New and pending proposals on enforcement measures: Possible revisions of the NAFO CEM

The United States of America presented a proposal for the to modify the definition of serious infringements in STACTIC WP 21-05. The working paper sought to remove directed fishing from the list of serious infringements if the move-along provisions were followed. The United States also called for a longer-term solution to convene a working group of STACTIC to review the bycatch provisions and the directed fishery definition in the NAFO CEM. Contracting Parties thanked the United States for their proposal and agreed to further discuss the issues raised with respect to the bycatch and directed fisheries provisions of the NAFO CEM and supported the development of a working group. Contracting Parties requested further time to review the specific proposal for

changes to the NAFO CEM and agreed to forward comments to the United States of America on the proposal before the 2021 Annual Meeting.

Japan presented a proposal to amend NAFO CEM Article 13 - Gear Requirements in STACTIC WP 21-09 and highlighted that the issue being addressed is similar to the issue being addressed in the proposal from the United States of America. Japan noted that the proposal aimed to address a situation where redfish would accidentally compose the greatest weight, and therefore the directed fishery, during a fishery for squid with a 60mm mesh size, which would result in a serious infringement for directed fishery for redfish with an illegal mesh size. Some Contracting Parties indicated support to the proposed text although noting it would not solve the issues relating to the mesh size requirement. Japan revised its WP to amend NAFO CEM Article 13 and 38, incorporating the idea of move-along provision as a short-time solution. Contracting Parties thanked Japan for the proposal and agreed to provide comments to Japan in advance of the 2021 Annual Meeting and to include this subject within the discussions of a possible working group.

Canada presented a discussion paper on measures concerning vessels demonstrating repeat non-compliance of serious infringements in the NAFO Regulatory Area in STACTIC WP 21-13. Canada noted that this version of the paper considered comments received at the 2020 Annual Meeting and aims to address the issue of repeat non-compliance of serious infringements that is within the domestic legislation of Contracting Parties. Contracting Parties thanked Canada for their continued efforts on this issue and offered further revisions, and it was agreed to forward the proposal outlined in STACTIC WP 21-13 (Revised) to the Commission for adoption.

The European Union presented a proposal to amend the list of serious infringements: use of sorting grids – Article 38.1 (g) outlined in STACTIC WP 21-20. The European Union highlighted that the measures in Article 38.1.g adopted for 3M cod (in COM Doc. 20-14) were not clear as there is no regulated grid size in the fishery and the proposal aimed to correct that. Contracting Parties thanked the European Union for the proposal, and offered some additional edits, and agreed to forward the proposal outlined in STACTIC WP 21-20 (Revised) to the Commission for adoption.

The United States of America presented a proposal aimed to standardize observer data collection in STACTIC WP 21-22. Contracting Parties thanked the United States for the proposal and supported the standardization of data collection, however, expressed concerns with making the use of English a specific requirement in the NAFO CEM. Contracting Parties offered edits including the use of English being “to the extent possible” in the annex and not to change the text in Article 30. Contracting Parties agreed to forward the revisions in STACTIC WP 21-22 (Revised) to the Commission for adoption.

Canada, the European Union, and the United States of America presented a joint proposal on the modification to the bycatch definition of the “Others” category in STACTIC WP 21-04 (Revised). Contracting Parties thanked Canada, the European Union and the United States of America for the proposal and requested further time to review the proposal. Contracting Parties agreed to forward comments on the proposal to Canada, the European Union, and the United States of America in advance of the 2021 Annual Meeting.

The Chair highlighted that several of the proposals aim to address the issue of bycatch, directed fisheries and discards in the NAFO CEM and that further discussion on how to move forward on these issues will be discussed under agenda item 17. Norway, Denmark (in Respect of the Faroe Islands and Greenland), and Iceland reiterated their position that NAFO should aim to develop provisions to reduce bycatch rather than having provisions that limit retention onboard, noting several Contracting Parties of NAFO have domestic discard bans.

It was **agreed** that:

- **Contracting Parties will forward comments on the proposal in STACTIC WP 21-05 on the modification to the definition of serious infringement to the United States of America in advance of the 2021 Annual Meeting.**

- **Contracting Parties will forward comments on the proposal in STACTIC WP 21-09 (Revised) to amend NAFO CEM Article 13 - Gear Requirements to Japan in advance of the 2021 Annual Meeting.**
- **The proposal on measures concerning vessels demonstrating repeat non-compliance of serious infringements outlined in STACTIC WP 21-13 (Revised) be forwarded to the Commission for adoption.**
- **The proposal to amend the list of serious infringements: use of sorting grids – Article 38.1 (g) outlined in STACTIC WP 21-20 (Revised) be forwarded to the Commission for adoption.**
- **The proposal on observer data collection outlined in STACTIC WP 21-22 (Revised) be forwarded to the Commission for adoption.**
- **Contracting Parties will forward comments on the proposal in STACTIC WP 21-04 (Revised) to modify the bycatch definition of the “Others” category to Canada, the European Union, and the United States of America in advance of the 2021 Annual Meeting.**

## **8. Discussions on the interpretation of Article 10 of the NAFO CEM**

The Chair opened this agenda item and recalled the discussions from previous meetings on the differences in interpretations of the provisions of Article 10 of the NAFO CEM, specifically in relation to the 100% port inspection requirements for Greenland halibut. Most Contracting Parties indicated that the provisions were clear that 100% port inspection was required for any landings of Greenland halibut, while others interpreted the provisions to be applicable only for vessels participating in a directed fishery for Greenland halibut, and that small quantities should not be subject to 100% inspection. The European Union noted that, in the case of 3M cod, there is a threshold of 1,250 kg on board for the inspection to be mandatory. Contracting Parties suggested to resolve the issue, that a proposal should be developed for a threshold for inspection similar to what was adopted for 3M cod at the 2020 Annual Meeting (in COM Doc. 20-14). Denmark (on behalf of the Faroe Islands and Greenland) agreed to draft a proposal, with assistance from the European Union, for a threshold for Greenland halibut port inspection for presentation at the 2021 Annual Meeting.

It was **agreed** that:

- **Denmark (on behalf of the Faroe Islands and Greenland) will draft a proposal for a threshold for Greenland halibut port inspections for presentation at the 2021 Annual Meeting.**

## **9. Practical application of Port State Measures in NAFO**

This item was deferred.

## **10. Marking of gears**

This item was deferred.

## **11. NAFO MCS website and application development**

The NAFO Secretariat presented a brief overview of some of the latest enhancements to the MCS Website and an update on the NAFO Observer application. Contracting Parties thanked the NAFO Secretariat for the presentation and noted the importance of the MCS Website to facilitate NAFO Inspectors in their work. The European Union highlighted some additional enhancements for the website and agreed to submit those to the NAFO Secretariat in writing following the meeting. Contracting Parties supported the NAFO Secretariat to continue work on the MCS Website enhancements and the NAFO Observer application.

The NAFO Secretariat also presented a proposal for an enhancement for the user login/authentication for the MCS Website in STACTIC WP 21-14, and Contracting Parties supported the proposal.

It was **agreed** that:

- **The NAFO Secretariat continue the work on the enhancements to the MCS Website and the NAFO Observer application.**
- **The NAFO Secretariat move forward with the enhancements to the login procedure for the MCS Website outlined in STACTIC WP 21-14.**

## **12. Report and recommendations of the Editorial Drafting Group (EDG)**

The Chair of the Editorial Drafting Group (EDG), Patrick Moran (United States of America), presented the report of the EDG from the November 2020 meeting in STACTIC WP 20-32.

The Chair highlighted STACTIC WP 21-06, which included a poll for STACTIC participants on the time it would take to implement the proposed changes from the EDG on Annex II.J of the NAFO CEM outlined in STACTIC EDG-WP 20-03 (Revised). Contracting Parties indicated in the poll that it could take up to nine months for their FMCs to implement the changes. Contracting Parties also requested that the changes in STACTIC EDG-WP 20-03 (Revised) be forwarded to the Scientific Council for review to determine if there would be any impact their work and requested the Secretariat to investigate whether the changes will be applied historically in the NAFO database, or if it is possible for linkages to be made for the new codes. Contracting Parties agreed to continue discussions on the proposed changes outlined in STACTIC EDG-WP 20-03 (Revised) at the 2021 Annual Meeting.

The Chair highlighted the EDG proposal for the insertion of reference to Annex II.I Part B in Annex IV.A outlined in STACTIC WP 21-07 and Contracting Parties agreed to forward this proposal to the Commission for adoption.

The Chair highlighted the EDG proposal to change Article 5.15.f of the NAFO CEM outlined in STACTIC EDG-WP 20-05 and Contracting Parties agreed to forward this proposal to the Commission for adoption.

The Chair highlighted the draft legend for Annex I.A of the NAFO CEM outlined in STACTIC WP 21-17. Contracting Parties agreed on the incorporation of a legend into Annex I.A of the NAFO CEM, but required further time to review the draft, and agreed to discuss this at the 2021 Annual Meeting.

The Chair highlighted STACTIC WP 21-18 outlining the request from the EDG to review the text placement of Article 7bis in the NAFO CEM. Canada presented STACTIC WP 21-28 in response to the request from the EDG to realign Article 7 and Article 7bis of the NAFO CEM. Contracting Parties thanked Canada for the proposal and agreed to provide comments to Canada in advance of the 2021 Annual Meeting.

The Chair noted that the recommendation from the EDG to review the text of Article 38.1.g outlined in STACTIC WP 21-19 was addressed under agenda item 7.

It was **agreed** that:

- **The proposed changes to Annex II.J of the NAFO CEM outlined in STACTIC EDG-WP 20-03 (Revised) be forwarded to the Scientific Council for their review.**
- **The NAFO Secretariat investigate whether the changes to Annex II.J of the NAFO CEM outlined in STACTIC EDG-WP 20-03 (Revised) will be applied historically in the NAFO database, or if it is possible for linkages to be made for the new codes.**
- **The discussion on the proposed changes to Annex II.J of the NAFO CEM outlined in STACTIC EDG-WP 20-03 (Revised) continue at the 2021 Annual Meeting.**
- **The EDG proposal for the insertion of reference to Annex II.I Part B in Annex IV.A outlined in STACTIC WP 21-07 be forwarded to the Commission for adoption.**
- **The EDG proposal to change Article 5.15.f of the NAFO CEM outlined in STACTIC EDG-WP 20-05 be forwarded to the Commission for adoption.**

- **STACTIC continue discussions on the draft legend for Annex I.A of the NAFO CEM outlined in STACTIC WP 21-17 at the 2021 Annual Meeting.**
- **Contracting Parties will provide comments on the proposal from Canada to realign Article 7 and Article 7bis of the NAFO CEM in STACTIC WP 21-28 to Canada in advance of the 2021 Annual Meeting.**
- **STACTIC continue discussions on the proposal from Canada to realign Article 7 and Article 7bis of the NAFO CEM in STACTIC WP 21-28 at the 2021 Annual Meeting.**

### **13. Half-year review of the implementation of new NAFO CEM measures**

The European Union highlighted that the provisions relating to the closure of the 3M cod fishery in Article 5.5.j (adopted in COM Doc. 20-14) may require further clarification at a later date.

### **14. Review and evaluation of Practices and Procedures**

The Chair highlighted the latest list of Contracting Party practices and procedures in STACTIC WP 21-08 and requested Contracting Parties to review the submissions to ensure they are up to date. The European Union provided four new documents for inclusion onto the Practices and Procedures webpage: the Sanitary precautionary approach in relation to the outbreak of coronavirus disease (COVID-19) to be taken on board of the EFCA chartered vessel(s) in view of the boarding of fishing vessels in EU and in International waters, the EU guidelines for port State control of vessels landing fish from the NAFO Regulatory Area, the fish products sampling for DNA testing International Manual of Procedures, and the ICES advice on the International Manual of Procedures (IMP) to be used in the NAFO Regulatory. The European Fisheries Control Agency made a brief presentation of the first two documents and Contracting Parties thanked the European Union for the presentation of the documents.

### **15. NAFO Inspectors workshop**

Canada reported that the NAFO Inspectors Workshop has not been held since the COVID-19 pandemic started, noting that it is preferred to hold the workshop in person. Canada will host the next workshop once travel restrictions are lifted and will circulate any relevant information when it becomes available.

### **16. Review of current IUU list Pursuant to NAFO CEM, Article 53**

The Chair highlighted STACTIC WP 21-23, noting that NEAFC has adopted a provision to include vessels from other RFMOs in their IUU list. In accordance with Article 49.1.c of the NAFO CEM, any vessel on the NEAFC IUU list is to be included in the NAFO IUU list, and the Secretariat sought advice on how to make these changes. Contracting Parties agreed that the Secretariat will draft a provisional IUU list based on the NEAFC IUU list for presentation to STACTIC at the 2021 Annual Meeting.

The European Union, Norway, and the United States of America also indicated that they are still working on a proposal for the revision of the IUU provisions in the NAFO CEM to include vessels from IUU lists of other RFMOs on the NAFO IUU list, and to revise the section of the NAFO CEM relating to the procedures on IUU listing which will be presented at the 2021 Annual Meeting.

It was **agreed** that:

- **The Secretariat will draft a provisional IUU list based on the NEAFC IUU list for presentation to STACTIC at the 2021 Annual Meeting.**
- **The European Union, Norway, and the United States will continue working on the proposal for the inclusion of vessels from IUU lists of other RFMOs to the NAFO IUU list and the revision of the IUU listing procedures for presentation at the 2021 Annual Meeting.**

**17. Bycatch, discards, and selectivity****a. STACTIC input in the development of management options as outlined in sections 4.1 and 4.2 of the Action Plan in the Management and Minimization of Bycatch and Discards (NAFO COM Doc. 17-26)**

The Chair opened the discussions noting the Action Plan in the Management and Minimization of Bycatch and Discards in COM Doc. 17-26 and highlighting the need for cooperation between STACTIC and the WG-BDS. The Chair of the WG-BDS, Temur Tairov (Russian Federation) also provided an update on the status of the work of the WG-BDS. STACTIC agreed that the vice-Chair of STACTIC will participate in the upcoming WG-BDS Meeting to facilitate this cooperation.

**b. Measures on discards**

The European Union presented a discussion paper on measures on discards and control elements that would be necessary to consider for NAFO to adopt a landing obligation policy in STACTIC WP 21-21. The European Union also highlighted the mandate to STACTIC from the Commission at the 2020 Annual Meeting to consider what control elements would be necessary for NAFO to adopt a landing obligation policy, representing an additional task although closely linked to those relating to the Action Plan for the Management and Minimization of Bycatch and Discards. The European Union noted that several proposals at this meeting were relating to the issue of discards in NAFO and reflecting on the domestic landing obligations in many Contracting Parties and suggested to cover the subject matters of discards, bycatches and landing obligation under a dedicated working group or meetings. Contracting Parties thanked the European Union for the presentation and noted that some work to address these issues has already been done in STACTIC. However further work is required, including a review of the status of discard policies in Contracting Parties to ensure the information is up to date. All Contracting Parties agreed on the importance of addressing the issue of bycatch and discards as well as the definition of directed fishery in NAFO. Some Contracting Parties also highlighted that the most important aspect of a discard ban/ landing obligation would be to include measures to prevent bycatches and discards, such as gear selectivity, time and area closures etc. STACTIC agreed that a dedicated working group would be required to discuss these issues in detail following the WG-BDS Meeting and before the 2021 Annual Meeting to facilitate further discussions.

STACTIC further considered how to best coordinate this work with the ongoing discussions in BDS. It was agreed that the STACTIC Vice Chair would participate as a liaison to the BDS group. Additionally, the United States of America suggested that a joint STACTIC – BDS meeting would be useful in addressing the both the discard and the bycatch action plans.

It was **agreed** that:

- **A STACTIC working group meeting be held prior to the 2021 Annual Meeting to discuss the issue of bycatch, directed fisheries, discards, and consider the elements necessary to adopt a landing obligation policy in NAFO.**
- **The NAFO Secretariat circulate a Doodle Poll for the end of August and beginning of September to find a date for the meeting.**
- **The vice-Chair of STACTIC agreed to participate in the next WG-BDS Meeting to facilitate collaboration.**
- **The STACTIC Chair and Vice Chair, in collaboration with the Secretariat, will work to develop an agenda for this working group meeting.**

**c. Bycatch and discard analysis**

The NAFO Secretariat presented the preliminary bycatch analysis to determine difference in the interpretations of bycatch calculations using only Annex I.A species versus the total catch in any one haul and the impacts it would have on employing the move-along provisions. The Secretariat highlighted some data

Report of STACTIC,  
10-13 May 2021

deficiencies with the analysis but noted that the preliminary analysis shows there is little to no difference in the final calculations based on the different interpretations. The data deficiencies were discussed and clarity on the details of the exact issue was sought from NAFO Secretariat, including whether or not other working groups were made aware and if the data gap has been resolved. Contracting Parties thanked the Secretariat for their work on the analysis.

## **18. Discussion of data classification and access rights**

This item was deferred.

## **19. Report and advice of the Joint Advisory Group on Data Management (JAGDM)**

This item was deferred.

## **20. Recommendations from NAFO working groups**

The Chair highlighted a recommendation from the Joint Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) in STACTIC WP 21-25 that proposed an addition footnote into Annex II.N of the NAFO CEM to align the definition for start and end of haul with the observer reporting template in Annex II.M. During the discussion, it was highlighted that Contracting Parties may be using different definitions for start and end of haul in trawl fisheries and that this issue needed to be clarified before any changes could be made to the reporting templates. It was noted that from a control point of view, the start of the fishing operation can be considered as the moment the net touches the water instead of when it reaches the fishing depth and that the end of the haul would be the moment the net leaves the water instead of the beginning of the retrieval of the net. Contracting Parties agreed to provide the definitions they are using in connection with Annex II.A fishing logbook requirements advance of the 2021 Annual Meeting to facilitate further discussion on this proposal.

The Chair highlighted the second recommendation from the WG-EAFFM in STACTIC WP 21-26 in relation to the review of Chapter 2 of the NAFO CEM. The Co-Chair of WG-EAFFM, Elizabethann Mencher (United States of America), also provided some background information on the recommendation, noting that WG-EAFFM is tasked with reviewing the provisions of Chapter, but input from STACTIC would greatly facilitate this review. Denmark (in Respect of the Faroe Islands and Greenland) highlighted that there is some difficulty in identifying VME species when they are brought onboard the vessels. Contracting Parties agreed to submit any comments in relation to the review of Chapter 2 of the NAFO CEM to the Secretariat by 14 June 2021 and those comments be forwarded to the WG-EAFFM in advance of their next meeting.

The Chair highlighted the recommendations from the Catch Estimation Strategy Advisory Group (CESAG) in STACTIC WP 21-27. On the first recommendation in relation to the inclusion of codend (minimum) mesh size and hook size to be included in the Annex II.N template, several Contracting Parties noted these requirements were already in place for the logbooks, so could be included in Annex II.N, but requested more time to review and agreed to continue this discussion at the 2021 Annual Meeting. On recommendation number three from STACTIC WP 21-27, STACTIC noted that they continually strive to make improvements in the data collection methods outlined in the NAFO CEM.

It was **agreed** that:

- **Contracting Parties will provide their definitions of the start and end of a haul in advance of the 2021 Annual Meeting to facilitate further discussion on the proposal from the WG-EAFFM outlined in STACTIC WP 21-25.**
- **Contracting Parties will submit any comments in relation to the review of Chapter 2 of the NAFO CEM to the Secretariat by 14 June 2021 and those comments be forwarded to the WG-EAFFM in advance of their next meeting.**
- **The discussion on the inclusion of a field for reporting codend (minimum) mesh size or hook size in Annex II.N of the NAFO CEM continue at the 2021 Annual Meeting.**

## 21. Discussion on garbage disposal onboard vessels

Norway and the United States of America presented a proposal to address marine pollution in STACTIC WP 21-11 by including a reference to MARPOL Annex V in Article 25 of the NAFO CEM. Contracting Parties thanked Norway and the United States of America for the proposal and supported the inclusions of measures relating to addressing the issue of marine pollution in the NAFO CEM. The European Union recalled its past proposal on this subject and, together with some Contracting Parties, indicated their preference for concrete and enforceable measures to be included in the NAFO CEM. The European Union noted that it is already mandatory for all NAFO Contracting Parties to apply MARPOL Annex V so the text being proposed would not be necessary. The European Union offered its support to the proposed text if it was the starting point to look into concrete measures on the subject of marine pollution, such as those previously tabled by the European Union (e.g. the prohibition to use plastic bands in bait boxes). The European Union noted that considering the adoption of such measures in NAFO is within the remit of the amended NAFO Convention and a NAFO Commission's recommendation. Other Contracting Parties preferred to keep the measures as a reference to MARPOL Annex V. Norway noted that the IMO is the organization responsible for addressing marine pollution, and that there is currently a process in IMO to strengthen the reporting requirements for lost gear in MARPOL Annex V. Norway was of the opinion that measures related to marine pollution should be adopted by the IMO instead. In their opinion, adopting different measures in different RFMOs could lead to confusions and misunderstandings with regard to which measures should be applied. In an effort to find some common ground, the United States suggested that incorporating a reference to MARPOL Annex V into the NAFO CEM may be a mechanism for NAFO Inspectors to enforce MARPOL Annex V obligations within the NRA. Contracting Parties agreed to continue discussions on this issue in advance of the 2021 Annual Meeting to facilitate further discussions on this proposal at the meeting.

It was **agreed** that:

- **Contracting Parties will continue discussions on the marine pollution provisions in advance of the 2021 Annual Meeting to facilitate discussions at the 2021 Annual Meeting.**

## 22. Discussion on labour conditions onboard vessels

This item was deferred.

## 23. Discussion of the reporting of shark catches in the NAFO Regulatory Area

Canada provided an update on behalf of the group that is working to develop a single methodology for the collection of information in Greenland sharks by Observers in NAFO. Canada noted that the group has developed a document based on the contributions from Contracting Parties comparing the methodologies currently in use and will continue to work toward the development of a proposal for the methodology and provide an update at the Annual Meeting.

## 24. Implementation of the Performance Review Recommendations

The Chair highlighted STACTIC WP 21-10 outlined the recommendations from the Performance Review that are relevant to STACTIC. Contracting Parties reviewed each of the proposed actions and provided updates outlined in STACTIC WP 21-10 (Revised).

It was agreed that Contracting Parties will submit comments on the FAO Voluntary Guidelines for Flag State Performance by 01 September 2021.

It was **agreed** that:

- **Contracting Parties will submit comments on the FAO Voluntary Guidelines for Flag State Performance by 01 September 2021.**
- **Contracting Parties will provide feedback on STACTIC WP 21-10 (Revised) by 14 June 2021.**

Report of STACTIC,  
10-13 May 2021

## **25. Issues relating to the impacts of COVID-19**

Contracting Parties shared their current experiences with the impacts related to the COVID-19 pandemic under this agenda item. The Chair highlighted that the Contracting Parties of NAFO are making efforts to cope in 2021 with complying with the provisions of the NAFO CEM during the COVID-19 pandemic. However, the situation with the pandemic changes rapidly, and some Contracting Parties have not started their fishing activity yet, therefore it is too early to assess the impact of COVID-19 to the implementation of the NAFO rules.

## **26. Other business**

No other business was discussed.

## **27. Time and place of next meeting**

The 2021 Annual Meeting will be held virtually from 20-24 September 2021.

The working group to discuss the issue of bycatch, directed fisheries, discards and the elements necessary to adopt a landing obligation policy will take place prior to the 2021 Annual Meeting as outlined under agenda item 17.

STACTIC also agreed to hold the working group meeting on STACTIC Participation prior to the Annual Meeting, and a poll will be circulated to Contracting Parties to select a date.

## **28. Adoption of Report**

The report was adopted via correspondence following the end of the meeting.

## **29. Adjournment**

The Chair noted that her term as chair will be up after the 2021 Annual Meeting and offered to put herself forward for another term, noting the official decision will be taken at the 2021 Annual Meeting.

The meeting was adjourned at 13:25UTC on 13 May 2021. The Chair thanked meeting participants for their cooperation and input. The participants likewise expressed their thanks and appreciation to the Chair for her leadership.

## Annex 1. Participant List

### CHAIR

Märtin, Kaire. Republic of Estonia, Ministry of the Environment, Narva mnt 7a, 15172 Tallinn, Estonia  
Tel: +372 6260 711 – Email: [kaire.martin@envir.ee](mailto:kaire.martin@envir.ee)

### CANADA

McCready, Heather. Director General, Conservation and Protection, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6.  
Tel: +1 (343) 573-0624 – Email: [Heather.Mccready@dfo-mpo.gc.ca](mailto:Heather.Mccready@dfo-mpo.gc.ca)

Browne, Dion. Senior Compliance Officer, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Email: [Dion.Browne@dfo-mpo.gc.ca](mailto:Dion.Browne@dfo-mpo.gc.ca)

Barbour, Natasha. FMC Manager, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: +1 709 772-5788 – Email: [Natasha.barbour@dfo-mpo.gc.ca](mailto:Natasha.barbour@dfo-mpo.gc.ca)

Fagan, Robert. Senior Resource Manager. Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Tel: +1 709 772-2920 – Email: [Robert.Fagan@dfo-mpo.gc.ca](mailto:Robert.Fagan@dfo-mpo.gc.ca)

Hurley, Mike. Offshore Detachment Supervisor, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: +1 709 227-9344 – Email: [mike.hurley@dfo-mpo.gc.ca](mailto:mike.hurley@dfo-mpo.gc.ca)

Hickey, Jenelle. FMC Administrator, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: +1 709 772-5743 – Email: [Jenelle.Hickey@dfo-mpo.gc.ca](mailto:Jenelle.Hickey@dfo-mpo.gc.ca)

Napier, Brent. Director, Enforcement Policy and Programs, Conservation and Protection, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Tel: +1 613-790-4760 – Email: [Brent.Napier@dfo-mpo.gc.ca](mailto:Brent.Napier@dfo-mpo.gc.ca)

Warren, Genevieve. FMC Regional Staff Officer, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C 5X1  
Tel: +1 709 772-6519 – Email: [Genevieve.Warren@dfo-mpo.gc.ca](mailto:Genevieve.Warren@dfo-mpo.gc.ca)

Johnson, Kate. Senior Policy Advisor, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Tel: +1 343-551-5295 – Email: [Kate.Johnson@dfo-mpo.gc.ca](mailto:Kate.Johnson@dfo-mpo.gc.ca)

### DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)

Bork Hansen, Signe. Head of Section, The Greenland Fisheries License Control Authority, Indaleeqqap Aqqutaa 3, Postbox 501, DK-3900, Nuuk, Greenland  
Tel: +299 34 53 07 – Email: [sibh@nanog.gl](mailto:sibh@nanog.gl)

Pedersen, Michael Dennis. Head of Greenland Fisheries License Control Authority, Greenland Fisheries License Control Authority, Indaleeqqap Aqqutaa 3, Postbox 501, DK-3900 Nuuk, Greenland  
Tel: +299 345377 – Email: [mdpe@nanog.gl](mailto:mdpe@nanog.gl)

Trolle Nedergaard, Mads. Senior Advisor, Greenland Fisheries License Control Authority, Indaleeqqap Aqqutaa 3, Postbox 501, DK-3900 Nuuk, Greenland  
Tel: +299 345523 – Email: [mads@nanog.gl](mailto:mads@nanog.gl)

Report of STACTIC,  
10-13 May 2021

Gaardlykke, Meinhard. Adviser, The Faroe Islands Fisheries Inspection, Yviri við Strond 3, P. O. Box 1238,  
FO-110 Torshavn, Faroe Islands  
Tel: +298 31 1065 – Mobile: +298 29 1006 – Email: [meinhardg@vorn.fo](mailto:meinhardg@vorn.fo)

Jacobsen, Petur Meinhard. Advisor, The Faroe Islands Fisheries Inspection, Yviri við Strond 3, P. O. Box 1238,  
FO-110 Torshavn, Faroe Islands.  
Tel: +29 831 1065 – Mobile: +29 829 1001 – Email: [peturmj@vorn.fo](mailto:peturmj@vorn.fo)

### EUROPEAN UNION

Tubio Rodriguez, Xosé. Control and Inspection Unit, Directorate-General for Maritime Affairs and Fisheries,  
European Commission, J-99 01/074, 1049 Brussels, Belgium  
Tel: +32 2 299 77 55 – Email: [xose.tubio@ec.europa.eu](mailto:xose.tubio@ec.europa.eu)

Spezzani, Aronne. Control and Inspection Unit, Directorate-General for Maritime Affairs and Fisheries, European  
Commission.  
Email: [aronne.spezzani@ext.ec.europa.eu](mailto:aronne.spezzani@ext.ec.europa.eu)

Quintans, Miguel. Control and Inspection Unit, Directorate-General for Maritime Affairs and Fisheries, European  
Commission, J-99 01, 1049 Brussels, Belgium  
Email: [miguel.quintans@ec.europa.eu](mailto:miguel.quintans@ec.europa.eu)

Villar Cora. Control and Inspections Unit, Directorate-General for Maritime Affairs and Fisheries, European  
Commission, J-99 01, 1049 Brussels, Belgium  
Email: [Cora.VILLAR-ARRIBI@ext.ec.europa.eu](mailto:Cora.VILLAR-ARRIBI@ext.ec.europa.eu)

Babcionis, Genadijus. Administrator, European Fisheries Control Agency (EFCA), Avenida Garcia Barbon 4,  
E-36201, Vigo, Spain  
Tel: +34 986 12 06 40 – Email: [genadijus.babcionis@efca.europa.eu](mailto:genadijus.babcionis@efca.europa.eu)

Grossmann, Meit. Coordinator, European Fisheries Control Agency, Avenida Garcia Barbon 4, E-36201, Vigo,  
Spain  
Tel: +34986120610 – Email: [Meit.GROSSMANN@efca.europa.eu](mailto:Meit.GROSSMANN@efca.europa.eu)

Saenz, Idoia. Coordinator, European Fisheries Control Agency, Avenida Garcia Barbon 4, E-36201, Vigo, Spain  
Tel: +34986120692 – Email: [Idoia.SAENZ@efca.europa.eu](mailto:Idoia.SAENZ@efca.europa.eu)

Eliassen, Jørgen. Senior Consultant, Ministry of Food, Agriculture and Fisheries of Denmark, The Department,  
Sustainable Fisheries, Slotholmsgade 12, 1216 København K, Denmark  
Tel: +45 22 61 59 37 – Email: [pejoel@fvm.dk](mailto:pejoel@fvm.dk)

Kruse Nielsen, Henrik. Ministry of Food, Agriculture and Fisheries of Denmark. Danish Fisheries Agency,  
Nyropsgade 30 | 1780 Copenhagen V  
Tel: +45 72 18 56 72 – Email: [hkn@fiskeristyrelsen.dk](mailto:hkn@fiskeristyrelsen.dk)

Meremaa, Epp. Chief Specialist, Fishery Organisation and Data Analysis Bureau, Ministry of Rural Affairs of the  
Republic of Estonia, Lai tn 39 // Lai tn 41, 15056 Tallinn, Estonia  
Tel: +37 2 6256204 – Email: [epp.meremaa@agri.ee](mailto:epp.meremaa@agri.ee)

Okas, Reemet. Estonian Environmental Board. Roheline 64, Pärnu, 80010, Estonia.  
Email: [Reemet.Okas@keskkonnaamet.ee](mailto:Reemet.Okas@keskkonnaamet.ee)

Chamizo Catalán, Carlos. Head of Fisheries Inspection Division, Ministry of Agriculture, Fisheries and Food,  
General Secretary of Fisheries, Deputy Direction of Control and Inspection, Velázquez, 144, 28006 Madrid,  
Spain  
Tel: +34 347 1949 – Email: [cchamizo@mapama.es](mailto:cchamizo@mapama.es)

De Frutos Romo, Gema. Ministry of Agriculture, Fisheries and Food, Paseo Infanta Isabel, 1, 28014 Madrid  
Email: [gdefrutos@mapa.es](mailto:gdefrutos@mapa.es)

Mancebo Robledo, C. Margarita. Ministry of Agriculture, Fisheries and Food, Velázquez, 144, 28006 Madrid, Spain  
Tel: +34 91 347 61 29 – Email: [cmancebo@mapa.es](mailto:cmancebo@mapa.es)

Wolff, Gunnar. The Federal Office of Agriculture and Food (BLE), Haubachstr. 86, 22765 Hamburg, Germany  
Email: [Gunnar.Wolff@ble.de](mailto:Gunnar.Wolff@ble.de)

Radaitytė, Eglė. Head of Fisheries Monitoring and Control Division, Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania, Klaipėda, Lithuania  
Tel: +370 700 14920 – Email: [egle.radaityte@zuv.lt](mailto:egle.radaityte@zuv.lt)

Ferreira, Carlos. Director, Direção de Serviços de Inspeção, Monitorização e Controlo das Atividades Marítimas, 1449-030 Av<sup>a</sup> Brasília Lisboa, Portugal.  
Tel: +351213025192 – Email: [csferreira@dgrm.mm.gov.pt](mailto:csferreira@dgrm.mm.gov.pt)

Silva, Carlos. Head of the Division of Inspection and control, Direção de Serviços de Inspeção, Monitorização e Controlo das Atividades Marítimas, 1449-030 Av<sup>a</sup> Brasília Lisboa, Portugal.  
Tel: +35121 302 5142 – Email: [csilva@dgrm.mm.gov.pt](mailto:csilva@dgrm.mm.gov.pt)

Serrão, Miguel. Inspector, Direção de Serviços de Inspeção, Monitorização e Controlo das Atividades Marítimas, 1449-030 Av<sup>a</sup> Brasília Lisboa, Portugal.  
Tel: +351213025161 – E mail: [mserrao@dgrm.mm.gov.pt](mailto:mserrao@dgrm.mm.gov.pt)

Head, François. General Secretariat of the Council of the European Union, Rue de la Loi/Wetstraat 175, B-1048 Brussel, Belgium  
Tel: +3222816083 – Email: [francois.head@consilium.europa.eu](mailto:francois.head@consilium.europa.eu)

## ICELAND

Ásmundsson, Jóhann. Directorate of Fisheries, Surveillance Department. Directorate of Fisheries. Fiskistofa, Dalshrauni 1, 220 Hafnarfjörður, Iceland  
Email: [johann@fiskistofa.is](mailto:johann@fiskistofa.is)

Benediktssdóttir, Brynhildur. Senior Expert, Department of Fisheries and Aquaculture, Ministry of Industries and Innovation, Skúlagötu 4, 150 Reykjavík, Iceland  
Tel: +354 545 9700 – Email: [bb@anr.is](mailto:bb@anr.is)

Greil, Snorre. Icelandic Coast Guard, Skógarhlíð 14, 105 Reykjavík, Iceland  
Email: [Snorre@LHG.IS](mailto:Snorre@LHG.IS)

## JAPAN

Iino, Kenro. Advisor to the Minister of Agriculture, Forestry and Fisheries on International Affairs (Fisheries) Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3 3502 8460 – Email: [keniino@hotmail.com](mailto:keniino@hotmail.com)

Hosokawa, Natsuki. Technical Official, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3-3502-8111 – Email: [nastuki\\_hosokawa730@maff.go.jp](mailto:nastuki_hosokawa730@maff.go.jp)

Kinoshita, Yuki. Technical Official, Fisheries and Resources Management Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3-3502-8111 – Email: [yuki\\_kinoshita590@maff.go.jp](mailto:yuki_kinoshita590@maff.go.jp)

Matsumura, Shungo. Ministry of Agriculture, Forestry and Fisheries (MAFF) Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku. 100-8907 Tokyo, Japan  
Email: [shungo\\_matsumura880@maff.go.jp](mailto:shungo_matsumura880@maff.go.jp)

Morita, Hiroyuki. Assistant Director, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Email: [hiroyuki\\_morita970@maff.go.jp](mailto:hiroyuki_morita970@maff.go.jp)

Report of STACTIC,  
10-13 May 2021

Nakasu, Maiko. Ministry of Agriculture, Forestry and Fisheries (MAFF) Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku. 100-8907 Tokyo, Japan  
Email: [maiko\\_nakasu100@maff.go.jp](mailto:maiko_nakasu100@maff.go.jp)

Nomura, Ichiro. Special Advisor, Ministry of Agriculture, Forestry and Fisheries (MAFF) Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku. 100-8907 Tokyo, Japan  
Tel: +81-3-3591-1086 – Email: [inomura75@gmail.com](mailto:inomura75@gmail.com)

Okamoto, Junichiro. Executive Managing Director, Japan Overseas Fishing Association, Tovei Ogawamachi-Bldg., 5F, 2-6-3 Kanda Ogawa-Machi, Chiyoda-ku, Tokyo, 101-0052, Japan  
Tel: +81 3 3291 8508 – Email: [jokamoto@jdsta.or.jp](mailto:jokamoto@jdsta.or.jp)

### **NORWAY**

Ognedal, Hilde. Senior Legal Adviser, Norwegian Directorate of Fisheries, P. O. Box 185, Sentrum, 5804 Bergen, Norway  
Tel: +47 92 08 95 16 – Email: [Hilde.Ognedal@fiskeridir.no](mailto:Hilde.Ognedal@fiskeridir.no)

### **RUSSIAN FEDERATION**

Tairov, Temur. Representative of the Federal Agency for Fisheries of the Russian Federation in Canada, 47 Windstone Close, Bedford, Nova Scotia, B4A 4L4  
Tel: +1 902 405 0655 – Email: [temurtairov@mail.ru](mailto:temurtairov@mail.ru)

Mikhailov, Alexandr. Acting Head of the Center for the Fisheries Monitoring and Communications (CFMC), Rozhdestvensky Boulevard, 12/8, Building 1, Moscow, Russian Federation, 107996  
Email: [amikhailov@cfmc.ru](mailto:amikhailov@cfmc.ru)

Romashevskaya, Anastasya. Head of the International cooperation service, Center for the Fisheries Monitoring and Communications (CFMC), Rozhdestvensky Boulevard, 12/8, Building 1, Moscow, Russian Federation, 107996  
Email: [aromashevskaya@cfmc.ru](mailto:aromashevskaya@cfmc.ru)

Bakhtov, Alexey. Deputy Head of the International cooperation service, Center for the Fisheries Monitoring and Communications (CFMC), Rozhdestvensky Boulevard, 12/8, Building 1, Moscow, Russian Federation, 107996  
Email: [abakhtov@cfmc.ru](mailto:abakhtov@cfmc.ru)

Lizogub, Alexander. Senior Adviser to the Director of the Severomorskoye Territorial Department of the Federal Agency for Fisheries, 7 Komintern St., Murmansk 183038  
Tel: +7 815 279 8111 – Email: [lizogub@sevtu.ru](mailto:lizogub@sevtu.ru)

Skryabin, Ilya. Principal Specialist, Severomorskoye Territorial Department of the Federal Agency for Fisheries, 7 Komintern St., Murmansk 183038  
Tel: +7 815 279 8116 – Email: [skryabin@sevtu.ru](mailto:skryabin@sevtu.ru)

### **UNITED KINGDOM**

Windebank, James. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [james.windebank@defra.gov.uk](mailto:james.windebank@defra.gov.uk)

Muir, Sandie-Gene. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Sandie-Gene.Muir@defra.gov.uk](mailto:Sandie-Gene.Muir@defra.gov.uk)



**UNITED STATES OF AMERICA**

Henry, Michael. Assistant Special Agent in Charge, Office of Law Enforcement, District 1- New England, Boston Field Office, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA) USA

Tel: +1 978 490-4774 – Email: [Michael.henry@noaa.gov](mailto:Michael.henry@noaa.gov)

Lynch, Charles. Section Chief, Office of General Counsel, National Oceanic and Atmospheric Administration (NOAA), 55 Great Republic Drive, Gloucester, MA 01930

Tel: +1 978-281-9211 – Email: [charles.lynch@noaa.gov](mailto:charles.lynch@noaa.gov)

Mencher, Elizabethann. International Policy Advisor, Office of International Affairs and Seafood Inspection, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910, USA

Tel: +1 301 427 8362 – Email: [elizabethann.mencher@noaa.gov](mailto:elizabethann.mencher@noaa.gov)

Moran, Patrick. Foreign Affairs Analyst, National Marine Fisheries Service, Office of International Affairs, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910 USA

Tel: +1 301 427 8370 – Email: [Pat.Moran@noaa.gov](mailto:Pat.Moran@noaa.gov)

Pohl, Katherine. Attorney Advisor, Office of General Counsel for Enforcement and Litigation, Greater Atlantic Regional Office, National Oceanic and Atmospheric Administration (NOAA), 55 Great Republic Drive, Gloucester, MA 01930 USA

Tel: +1 978 281 9107 – Email: [katherine.pohl@noaa.gov](mailto:katherine.pohl@noaa.gov)

**NAFO SECRETARIAT**

Summit Place, 1601 Lower Water Street, Suite 401, Halifax, Nova Scotia, Canada – Tel: +1 902 468-5590

Aker, Jana. Senior Fisheries Information Administrator.

Email: [jaker@nafo.int](mailto:jaker@nafo.int)

Federizon, Ricardo. Senior Fisheries Management Coordinator

Email: [rfederizon@nafo.int](mailto:rfederizon@nafo.int)

Kendall, Matthew. IT Manager.

Email: [mkendall@nafo.int](mailto:mkendall@nafo.int)

Kingston, Fred. Executive Secretary.

Email: [fkingston@nafo.int](mailto:fkingston@nafo.int)

Laycock, DJ. Database Developer/Programmer Analyst.

Email: [dlaycock@nafo.int](mailto:dlaycock@nafo.int)



## **Annex 2. Agenda**

1. Opening by the Chair, Kaire Märtin (European Union)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Annual Compliance Review, 2020
5. Review of Article 30 of the NAFO CEM
6. STACTIC Participation
7. New and pending proposals on enforcement measures: Possible revisions of the NAFO CEM
8. Discussions on the interpretation of Article 10 of the NAFO CEM
9. Practical application of Port State Measures in NAFO
10. Marking of gears
11. NAFO MCS website and application development
12. Report and recommendations of the Editorial Drafting Group (EDG)
13. Half-year review of the implementation of new NAFO CEM measures
14. Review and evaluation of Practices and Procedures
15. NAFO Inspectors workshop
16. Review of current IUU list Pursuant to NAFO CEM, Article 53
17. Bycatch, discards, and selectivity
  - a. STACTIC input in the development of management options as outlined in sections 4.1 and 4.2 of the Action Plan in the Management and Minimization of Bycatch and Discards (NAFO/COM Doc. 17-26)
  - b. Measures on discards
  - c. Bycatch and discard analysis
18. Discussion of data classification and access rights
19. Report and advice of the Joint Advisory Group on Data Management (JAGDM)
20. Recommendations from NAFO working groups
21. Discussion on garbage disposal onboard vessels
22. Discussion on labour conditions onboard vessels
23. Discussion of the reporting of shark catches in the NAFO Regulatory Area
24. Implementation of the Performance Review Recommendations
25. Issues relating to the impacts of COVID-19
26. Other business
27. Time and place of next meeting
28. Adoption of Report
29. Adjournment



## Report of the Joint Advisory Group on Data Management (JAGDM) Meeting

26 May 2021  
Virtual Meeting

1.	Opening of the meeting .....	2
2.	Appointment of the rapporteur .....	2
3.	Discussion and adoption of the agenda.....	2
4.	Data Exchange Statistics.....	2
	a. NAFO .....	2
	b. NEAFC.....	2
5.	NEAFC issues .....	3
	a. Technical implications of the implementation of recommendations .....	3
	i. Recommendation 13:2021; amendment to the NEAFC Scheme to add an option to the backup procedures. ....	3
	ii. 2021 Recommendations regarding the implementation of the Electronic Reporting System. ....	3
	b. Issues Raised by PECMAC .....	3
	i. Introducing the NEAFC Master Data Register.....	3
	ii. NEAFC Master Data Register – review of code lists .....	3
	iii. Adding PSC Species to Annex V of NEAFC Scheme .....	4
	c. NEAFC Information Security Management System (ISMS) .....	5
	i. Update on upgrade to ISO 27001:2013; Security Policies .....	5
	ii. Risk management (ISMS article 3).....	5
	iii. Annual Review of the NEAFC Inventory (ISMS article 7.1).....	5
	iv. ISMS Incident Log.....	6
6.	NAFO issues.....	6
	a. Technical implications of Recommendations .....	6
	b. ISMS for NAFO.....	6
	c. Items Requested by STACTIC .....	6
7.	Any other business.....	6
8.	Election of Chair.....	6
9.	Report to the Annual Meeting.....	6
10.	Date and place of the next meeting.....	6
11.	Closure of the meeting .....	7



## **Report of the Joint Advisory Group on Data Management (JAGDM) Meeting**

26 May 2021  
Virtual Meeting

### **1. Opening of the meeting**

- 1.1 The Vice Chair, Natasha Barbour (Canada), opened the meeting and welcomed participants to the virtual meeting of JAGDM.
- 1.2 The following Contracting Parties were present: Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union, Iceland, Norway, the Russian Federation and the United Kingdom. The NAFO and NEAFC Secretariats were also present.
- 1.3 The Chair noted in her opening remarks the great contribution of Ellen Fasmer (Norway) – now retired - to the work of JAGDM and its predecessors.

### **2. Appointment of the rapporteur**

- 2.1 The NEAFC Secretariat was appointed as rapporteur.

### **3. Discussion and adoption of the agenda**

- 3.1 The agenda was adopted without changes, although some re-ordering of points was agreed to facilitate discussion.

### **4. Data Exchange Statistics**

#### **a. NAFO**

- 4.1 The NAFO Secretariat presented its data on fishing days at sea in the NAFO area (document JAGDM 2021-01-12)
- 4.2 After a brief query, JAGDM noted the presentation by the NAFO Secretariat.

#### **b. NEAFC**

- 4.3 The NEAFC Secretariat presented its data exchange statistics overview (document JAGDM 2021-01-13) together with a more detailed analysis (document JAGDM 2021-01-14).
- 4.4 The Secretariat noted that the departure of the United Kingdom from the European Union had more than doubled the number of entries under the Port State Control system. An additional change in the figures reflected the move from NAF-based position reports to FLUX-based ones for the European Union.
- 4.5 In discussion, JAGDM enquired about the numbers of denials of PSC forms, which were subsequently followed by resubmission of a new form leading to authorisation to land.

- 4.6 **In conclusion, it was agreed that the NEAFC Secretariat would carry out an analysis of denials of forms and subsequent re-submission of new forms and succeeding authorisations. This would be presented to JAGDM, and also to PECMAC if of interest.**

**5. NEAFC issues**

**a. Technical implications of the implementation of recommendations**

[JAGDM-2021-01-03\\_tech-implications-of-neaft-recommendations](#)

*i. Recommendation 13:2021; amendment to the NEAFC Scheme to add an option to the backup procedures.*

*ii. 2021 Recommendations regarding the implementation of the Electronic Reporting System.*

- 5.1 The NEAFC Secretariat presented information on the technical implications of 2021 Recommendations adopted by its Annual Meeting (document JAGDM 2021-01-03). The first of these Recommendations added a backup procedure for PSC forms to be sent by e-mail when the e-PSC system was unavailable (a very rare occurrence). The second group of Recommendations covered the implementation of the new ERS system in NEAFC. Provision had been made for 2 versions FLUX Fishing Activities (FA) with either time of sending or time of acceptance to be used as a time stamp. Three systems (NAF, ERS FLUX FA version 1 and ERS FLUX FA version 2) would run in parallel until all Contacting Parties have moved to a FLUX version that included the date and time of transmission data element.

**JAGDM noted the update**

**b. Issues Raised by PECMAC**

*i. Introducing the NEAFC Master Data Register*

[JAGDM-2021-01-04\\_NEAFC\\_MDR\\_Introduction](#)

[JAGDM-2021-01-09\\_iso-progress-summary](#)

- 5.2 The Secretariat explained the use of a Master Data Register (MDR) by NEAFC in the context of the ERS (document JAGDM 2021-01-04). The code lists use by NEAFC were now being moved into the MDR with appropriate links provided in the NEAFC Scheme. Advice was sought from JAGDM on how to harmonise lists with similar existing lists at the European Union. This would not only deal with existing species, location and territories lists, but agreeing a protocol, versioning and distribution to deal with future lists.

*ii. NEAFC Master Data Register – review of code lists*

[JAGDM-2021-01-05\\_NEAFC\\_MDR-Code-List-Management](#)

**Species code:**

- 5.3 The European Union explained that there were no discrepancies between the EU list of species and that of AFSIS, additional species were just a record of older codes used. It advised the Secretariat (supported by other JAGDM members) that the full AFSIS list should be used; this would save effort in continually needing to update a shorter list based only on regulated species. On the concern expressed by other members of JAGDM on codes entered in error, it was noted that warnings ‘for review’ could be used to highlight potential errors without risking rejecting valid catch messages.
- 5.4 **JAGDM noted the above explanation for apparent discrepancies between EU and AFSIS lists, as well as the advice to keep a full list of species with a warning system to alert for errors in codes.**

### Location Code:

- 5.5 The European Union and Norway explained that the UN had so far not included smaller ports with location codes, which explained the difference between the EU list and the UN/LOCODE. It was also noted that business rules could be developed to exclude internal ports/airports, as well as the option of using geographical references or specific NEAFC codes. In terms of an option to restrict location code lists to only the NEAFC region, it was noted that for reefer vessels a wider list would be needed.
- 5.6 **In conclusion, it was agreed that the aim should be to end up with an MDR location code list that included the UN/LOCODE and any additional ports needed by NEAFC (i.e. equivalent to the EU MDR with any additional ports needed, and any duplications removed). Business rules could be used to remove any additional codes, such as airports.**
- 5.7 **The Secretariat would first carry out an analysis of the UN/LOCODE and additional location codes used by the Contracting Parties/NEAFC and report back to JAGDM.**

### Territories

- 5.8 The NEAFC Secretariat explained that the MDR Territory code list included 5 locations more than the ISO Code country code list. The Contracting Parties noted that the 4 sub-regions of the NEAFC international waters would need to be included along with some other potential codes. The Secretariat explained that it could use the current MDR list and would need also to understand how the locations operated within the new ERS application.
- 5.9 **JAGDM agreed that the MDR should go ahead with inclusion of the longer territories list. At the same time a structured approach to decisions to add locations would need to be developed.**

### Code List Management; Protocol:

- 5.10 JAGDM discussed a protocol on code list management. The European Union explained it no longer used versioning information for code lists, but instead used date-based validation periods. This retained historic information. Other JAGDM members agreed that such a date-based approach was useful, but also that such lists needed to be distributed and maintained. It was also explained that changes could be agreed by Recommendations on the NEAFC Scheme then communicated by distribution lists and publication. The European Union added that Webservices based on FLUX could allow queries on historic codes. In terms of process, it was suggested it was important to have a single owner of code lists. If for instance a Working Group such as NEAFC Statistics proposed content, a decision on adoption and start and end date could be agreed by JAGDM as owner of the code list.
- 5.11 **In conclusion, JAGDM agreed that a proposition for a change/update to a code list should come from the NEAFC body needing to make the change but JAGDM would then need to examine the proposal for technical issues. The proposal could then be forwarded to the Annual Meeting for adoption as a Recommendation. JAGDM agreed that, rather than versioning, a start date and end date should be used. The Secretariat was tasked to double check on all code list ownership in case of conflicts with the above proposal.**

#### *iii. Adding PSC Species to Annex V of NEAFC Scheme*

#### [JAGDM-2021-01-06\\_Species-listed-in-EPSC-not-in-AnnexV](#)

- 5.12 The NEAFC Secretariat introduced document JAGDM 2021-01-06, explaining the background to an established process for automatically forwarding codes in use in NEAFC PSC application to JAGDM for assessment regarding their formal inclusion into the NEAFC Scheme. In most recent years this had involved the inclusion of a few stocks each year, however due to changes in patterns of fisheries landings

following Brexit, there was now an addition of about 162 species to the existing species list in Annex V of 118 stocks. The Secretariat also explained that fishing activity reporting under FLUX would use the FAO AFSIS list of fish species.

- 5.13 In discussion, there was support for the use of the complete AFSIS list, but with automatic warnings if wrong codes were entered. This was thought preferable by some to adding stocks in a piecemeal fashion. This would however also require consideration of how to manage drop-down lists in the PSC application to make these manageable. The code MZZ for non-specified fish below 50 kg catch would also need consideration.
- 5.14 **JAGDM agreed to add the current further 162 species to the PSC application with relevant changes made in the NEAFC Scheme Annex V. It would also propose to PECMAC that the full AFSIS list should then be adopted into the Scheme Annex V. The Secretariat should at the same time investigate how best to implement a full list within the electronic PSC system.**

**c. NEAFC Information Security Management System (ISMS)**

[JAGDM-2021-01-011\\_Info-sec-summary](#)

- 5.15 The NEAFC Secretariat introduced document JAGDM 2021-01-11, a summary of standing items and actions related to the ISMS. This included an update on the ongoing review of security policy, risk management, the NEAFC information system inventory and the incident log. No further items had been identified by an Internal Security Review by the Secretariat.
- 5.16 JAGDM noted the overview. Detailed discussion of the key points followed in subsequent agenda sub-items.

***i. Update on upgrade to ISO 27001:2013; Security Policies***

- 5.17 The NEAFC Secretariat updated the meeting on the review of security policies and management actions that was helping NEAFC making progress towards aligning with ISO 27001:2013. The Security Policy Review group with experts from Contracting Parties was playing the key role in this, reviewing 17 out of 25 policies so far. The Secretariat noted that the current Statement of Applicability (SOA) remained too wide and too detailed, for an organisation such as NEAFC. It was therefore continuing work into 2022 to harmonise the SOA with the ISMS and contextualizing work. The external audit on the corporate environment had already been responded to on high priority issues, such as closing down the outlook web service and carrying out IT security awareness training for staff.
- 5.18 JAGDM noted the update.

***ii. Risk management (ISMS article 3)***

[JAGDM-2021-01-08\\_risk-assessment](#)

- 5.19 The NEAFC Secretariat presented the detail of the NEAFC Risk assessment framework (document JAGDM 2021-01-08), which included 20 risks and their impact/likelihood ratings.
- 5.20 JAGDM noted the details within the framework.

***iii. Annual Review of the NEAFC Inventory (ISMS article 7.1)***

- 5.21 JAGDM had noted earlier the key points in document JAGDM 2021-01-11.

***iv. ISMS Incident Log***

[JAGDM-2021-01-010\\_incidnetlog](#)

- 5.22 The NEAFC Secretariat presented the ISMS incident log (document JAGDM 2021-01-10), which included incidents related to data forwarding to active inspectors; PECMAC documents release; and on Linux server patching.
- 5.23 JAGDM noted the incident log

**6. NAFO issues**

**a. Technical implications of Recommendations**

**b. ISMS for NAFO**

**c. Items Requested by STACTIC**

- 6.1 No papers were tabled under these items.
- 6.2 In response to a query as to whether it was possible to implement an electronic Port State Control in NAFO, the NAFO Secretariat explained there was a plan to do so. However, a timeline had yet to be established to do this.

**7. Any other business**

[JAGDM-2021-01-07\\_JAGDM-Output-to-NEAFC-2020](#)

- 7.1 The NEAFC Secretariat presented a summary of JAGDM 2020 outputs to NEAFC (document JAGDM 2021-01-07). It pointed out that some actions were ongoing. These included implementing a new password policy for NEAFC and JAGDM websites, developing a policy on archiving operational data and a delayed adoption of a draft Recommendation to update references in the ISMS to the PSC publicly accessible pages.
- 7.2 JAGDM noted the update.

**8. Election of Chair**

- 8.1 JAGDM discussed the apparent inability to find a Chair for the joint group since the departure of Leifur Magnusson (Iceland)
- 8.2 **The European Union, Norway and the United Kingdom indicated they would each discuss the issue at their home administrations, including the possible need for an extraordinary meeting. The Secretariat would liaise with these parties to provide any required information.**

**9. Report to the Annual Meeting**

- 9.1 The Vice-Chair would update NAFO, while the Vice-Chair (or NEAFC Secretary on behalf of the Vice-Chair) would update NEAFC.

**10. Date and place of the next meeting**

- 10.1 Date and place of the next meeting was planned to be held after NAFO Annual Meeting and PECMAC 2, so on **Tuesday 12 October 2021.**

**11. Closure of the meeting**

- 11.1 The Chair closed the meeting and thanked everyone for their positive and effective participation in the virtual meeting.



Northwest Atlantic Fisheries Organization



**Report of the NAFO Commission Ad hoc Working Group to Reflect on the  
Rules Governing Bycatches, Discards and Selectivity (WG-BDS) in the  
NAFO Regulatory Area Meeting**

12-13 July 2021  
via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2021

## Report of the NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area Meeting

12–13 July 2021  
via WebEx

1. Opening by Chair, Temur Tairov (Russian Federation) .....	3
2. Appointment of Rapporteur .....	3
3. Adoption of Agenda .....	3
4. Update on the complementary analysis conducted by the Secretariat of the HxH in further support of Tasks 2.1 and 2.2 of the Action Plan .....	3
5. Discussion of Scientific Council responses to Commission requests for advice relevant to the working group .....	5
a. Species/stocks with high survivability rates (COM Doc. 19-29 and SCS Doc. 20-19) in support of Task 2.2 of the Action Plan .....	6
b. Moratoria stocks where bycatch/discards maybe impeding recovery and have high rates of occurrence (COM Doc. 20-16 and SCS Doc. 21-14) in support of Tasks 3.1 and 3.2 of Action Plan .....	7
c. Greenland sharks bycatch and discards (Request #9 in COM Doc. 20-16) .....	8
6. Discussion on Development of management options in support of Tasks 4.1, 4.2, and 4.3 of the Action Plan .....	10
7. Discussion on policies to minimize or eliminate discards in NAFO (COM Doc. 17-23) .....	11
8. Implementation of 2018 Performance Review Panel recommendations .....	11
a. Input regarding data classification and access rights of the NAFO websites .....	11
9. Other Matters .....	12
10. Recommendations .....	12
11. Adoption of Report .....	12
12. Adjournment .....	12
Annex 1. List of Participants .....	13
Annex 2. Agenda .....	16

## **Report of the NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area Meeting**

12–13 July 2021  
via WebEx

### **1. Opening by Chair, Temur Tairov (Russian Federation)**

The meeting was opened at 10:05 hours (Atlantic Daylight Time in Halifax, Nova Scotia) on Monday, 12 July 2021 by the Chair, Temur Tairov (Russian Federation). He welcomed representatives from Canada, Denmark (in respect of Faroe Islands and Greenland), European Union, Iceland, Japan, Norway, United Kingdom, and the United States of America. The SC Chair and the STACTIC vice Chair were also in attendance (Annex 1).

The Chair gave the summary of the results of the previous meeting (COM Doc. 20-04) and recalled that subsequent guidance and instructions were given to the Secretariat with regards to the spatio-temporal re-analysis of the Haul by Haul data. The Secretariat presented the update on this in agenda item 4.

### **2. Appointment of Rapporteur**

The NAFO Secretariat (Ricardo Federizon, Senior Fisheries Management Coordinator) was appointed as Rapporteur.

### **3. Adoption of Agenda**

The provisional agenda previously circulated was amended with the following insertions (Annex 2):

- Sub-agenda item 5.c – *“Greenland sharks bycatch and discards (Request #9 in COM Doc. 20-16)”*
- Agenda item 8.a – *“Implementation of 2018 Performance Review Panel recommendations – Input regarding data classification and access rights of the NAFO websites.”*

### **4. Update on the complementary analysis conducted by the Secretariat of the HxH in further support of Tasks 2.1 and 2.2 of the Action Plan**

The Secretariat presented the update on the complementary analysis conducted by the Secretariat of the Haul by Haul data in COM BDS-WP 21-01.

At the April 2020 meeting of the WG, the Secretariat presented the preliminary results of spatio-temporal analysis (COM Doc. 20-04). The methodology of the analysis, including the concepts of directed fishery (NAFO CEM Article 5.2), directed stock-moratorium stock interaction (Article 6.2.b), bycatch thresholds (Article 6.3), as well as other preliminary results are explained in COM BDS-WP 20-01 (Rev.). An update was requested regarding if any additional direction had been received following the May 2021 meeting of STACTIC on the bycatch definition application as this interpretation had previously been identified by the Secretariat as a stumbling block in completing the analysis.

Following the subsequent guidance from this WG which was provided during an informal WebEx meeting in September 2020, a re-analysis was done using the general methodology and the concepts applied in the 2020 analysis by mapping the incidence of the eleven (11) directed fishery-bycatch interactions on a monthly basis (See Figures 1–11 of COM BDS-WP 21-01). Also, in the 2020 analysis, bycatch thresholds were considered exceeded if either the percentage value or the absolute value (kg) condition was satisfied (represented by a red dot on the map). In this 2021 re-analysis both the percentage and absolute value conditions must be satisfied. This resulted to fewer incidence of bycatch threshold exceedance (TE) in this 2021 analysis than in the 2020 analysis. The change in interpretation of *“whichever is greater”* in Article 6.3 was applied after an informal consultation with some members of STACTIC who are also regular participants in this WG. While the WG agreed with this approach for the purposes of the analysis, one Contracting Party noted that the NAFO CEM specifies

“*whichever is greater*” not both. This re-analysis includes the submissions of the 2019 Haul by Haul reports received after the first analysis, making the data set for that year complete. Thus, the following serve as the data material for the re-analysis:

- 2016 data set: 7655 hauls from all fisheries, 107 of the 119 identified fishing trips, performed by 46 vessels;
- 2017 data set: 6745 hauls from all fisheries, 93 of the 112 identified fishing trips, performed by 38 vessels.
- 2018 data set: 8831 hauls from all fisheries, 101 of the 105 fishing trips, performed by 39 vessels,
- 2019 data set: 12 395 hauls from all fisheries, 131 of the 131 fishing trips, performed by 47 vessels.

The data set was limited to the hauls only in the Regulatory Area. In the spatio-temporal analysis, the data set was limited to bottom trawl hauls only.

Part of the guidance was to conduct two sets of TE calculations for each of the two differing interpretations of NAFO CEM Article 6.9 in the determination of TE – the denominator is the sum of Annex I stocks, and the denominator is the total weight of the haul. (In the 2020 analysis, the first interpretation – sum of Annex I stocks – was applied.) The Secretariat conducted the comparison calculations using the 2019 data in STACTIC WP 21-16, that showed there is little to no difference in the final calculations based on the different interpretations. Thus, in the re-analysis, the first interpretation – the sum of Annex I stocks in the haul – was applied throughout the 2016-2019 data set.

The spatio-temporal re-analysis yields the same “*takeaways*” from the 2020 spatial-temporal analysis and reiterated here (COM BDS-WP 21-01):

*General:*

- There is no remarkable spatial and interannual variability within each fishery, *i.e.*, their respective behaviours have not changed.
- Cod (COD) and American plaice (PLA) are the major bycatch species of the ground fish fisheries in the NAFO Regulatory Area. They comprise the moratorium stocks 3L COD, 3NO COD, 3M PLA, and 3LNO PLA.

*Fishery-specific:*

- In COD and redfish (RED) fisheries in the Flemish Cap (3M), PLA is the most common bycatch among the Annex I species.
- The RED fisheries hotspots in the Nose and Tail of the Grand Banks (3LNO) are located near the slopes of the bank.
- Similar bycatch species of COD and PLA occur both in Yellowtail (YEL) and Skate (SKA) fisheries in 3LNO
- In 3LN RED fishery, two stocks of COD were observed to be significant bycatch, 3NO and 3L Cod. In case of the latter, the 3LN RED fishery in Division 3L was limited to the last 3 quarters of 2019.

Major observations that may merit further scrutiny:

- Bottom fishing gears requirement for 3LNO YEL and 3LNO SKA fisheries is the minimum mesh size 130 mm and 280 mm, respectively. The similar bycatch profile of these fisheries may be attributed to either one or both of the following factors – gear selectivity and compliance to minimum mesh size requirements.
- 3LN Redfish fishery occurring in both Divisions has primary bycatch of two stock of cod – 3L Cod and 3NO Cod

Due to data processing issues from one CP, there is a large quantity of discard data covering 2016-2019 in the database that cannot be attributed to an individual haul. In 2019 for instance, out of the 12 395 hauls identified, 9024 hauls (73%) come from the CP concerned. This issue was already identified in September 2020 when the WG gave the further guidance for the re-analysis and identified as a stumbling block in proceeding with the re-analysis since calculating the total catch in an individual haul is not possible for much of the data at this point.

One CP expressed that with this discard data issue, the spatio-temporal re-analysis might not give a fully accurate description of the bycatch situation (as defined in Article 6.2.b) in the NAFO Regulatory Area (NRA) and noted the identification of data gaps was identified as a task in Section 1.3 of the Action Plan.

The Secretariat explained that this will always be a caveat in the spatio-temporal analysis when dealing with discard data. The Secretariat recalled that the focus of the analysis is the directed stocks and their interactions with the moratorium stocks, and the frequency of bycatch occurrence and of bycatch TE. Both require information of the total catch which comprises the retained and the rejected catch. The total catch is used as the denominator in the percentage calculations. (In the case of the latter, instead of the total catch of the haul, it is the sum of Annex I species in the haul in an alternative interpretation of Article 6.9).

In any Haul by Haul report compliant to Annex II.N without discard, it is indistinguishable whether it is a non-event or an unrecorded discard. Examination of the hauls with both retained and rejected catches reveals that the latter were of much lesser quantity and therefore the percentage calculation results would remain practically unchanged. It is for this reason that the Secretariat proceeded with the re-analysis.

A particular scenario could distort the picture derived from the analysis of the directed stock-moratorium stock interactions: when a moratorium stock (*e.g.*, 3NO Cod) comprises the largest percentage by weight in a haul and hence considered a directed stock by virtue of Article 5.2. Such scenario is extremely rare. From thousands of hauls from 2016-2019, only one haul was detected where the directed stock was a moratorium stock.

The Secretariat informed the WG that it has been working with the CP concerned in resolving the discard reporting issue. The CP concerned reported that in 2021 all the discard data are now attributable to the respective hauls. The Secretariat indicated it will continue to work with the CP concerned and report to this WG the progress in addressing the discard issue. The Secretariat indicated it continues to monitor Haul by Haul reports, as well as the observer reports to ensure that the discard information are reported in accordance with the reporting templates prescribed in the NAFO CEM.

In addition to COM BDS-WP 21-01, the Secretariat also presented the following Working Papers which the WG have noted:

- COM BDS-WP 21-05 – *Bycatch in accordance with Article 6.2 (a) and 6.2 (c)*,
- COM BDS-WP 21-06 – *Probabilities of moratorium stocks occurring in trawl hauls*,
- COM BDS-WP 21-07 – *Reported Rejects (RJ) in the 2016-2019 Haul by Haul Data*,
- COM BDS-WP 21-09 – *Catch records of Greenland shark (GSK) in the Haul by Haul Reports, 2016-2019*.

Contracting Parties thanked the Secretariat for their extensive work on the catch data analysis.

## **5. Discussion of Scientific Council responses to Commission requests for advice relevant to the working group**

In support of the Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26), the Commission requested SC for scientific advice. The SC Chair presented the response and advice. The summary of the advice is encapsulated in the grey box, taken from SCS Doc. 20-19 and SCS Doc. 21-14.

**a. Species/stocks with high survivability rates (COM Doc. 19-29 and SCS Doc. 20-19) in support of Task 2.2 of the Action Plan**

The Commission requested (COM Doc. 19-29):

*The Commission requests the Scientific Council to implement the steps of the Action plan relevant to the SC and in particular the tasks identified under section 2.2 of the Action Plan, for progression in the management and minimization of Bycatch and discards (COM Doc. 17-26), giving priority in 2020 to the identification of discard species/ stocks listed in Annex I.A. and Annex I.B of the NAFO CEM with high survivability rates.*

Scientific Council responded (SCS Doc. 20-19):

There are few discard survival rate studies involving NAFO fisheries and the species / stocks listed in Annex I.A. and Annex I.B of the NCEM. SC also notes that there is no clear definition of what is considered 'high survivability' rate.

The survival of discarded specimens depends on a multitude of factors related to both the biology and habitat of the species, as well as the conditions of their capture and subsequent release. As a consequence, discard survivability values from a given fishery can not be extrapolated to different fisheries. Furthermore, many of the existing discard survivability studies have been criticized for lacking appropriate experimental controls and/or for having experimental conditions that do not replicate real world conditions sufficiently well.

In order to know the survival of discards from NAFO fisheries, specific studies would need to be designed and carried out. SC notes that the design and development of these studies with the appropriate methodology would be quite complex and require considerable financial and technical means.

The following are selected highlights from her presentation:

- From literature review, discard mortality rates vary considerably according to species biology, environmental conditions, and fishing technical factors General characteristics of survivability.
  - Flatfish including American plaice, yellowtail flounder, witch flounder and Greenland halibut: Discard survival of flatfish is generally higher than of gadoids, due mainly to the absence of swim bladder in adults,
  - Gadoids including cod and white hake: generally significant mortality upon capture due to swim bladder,
  - Deep-water species, including alfonosinos: Little information on survivability. Species lacking swim bladders may be expected to have relatively high survival rates.
  - Skates and rays: Survival rates in the range 64-79% across all gears,
  - Redfish: Not much information. Attributed a mortality rate approaching 100%,
  - Crustaceans and molluscs, including shrimp and squid (*Illex*): Survival rate of crustaceans largely depends on the physical damage caused by fishing and sorting activities; molluscs tend to have higher survival if discarded in the same location of capture.
  - Small pelagics, including capelin: Mortalities related to crowding and slipping.
- Discard mortality studies only be undertaken for NAFO fisheries if a specific conservation concern is noted based on discard rates and/or stock trajectories.

**b. Moratoria stocks where bycatch/discards maybe impeding recovery and have high rates of occurrence (COM Doc. 20-16 and SCS Doc. 21-14) in support of Tasks 3.1 and 3.2 of the Action Plan**

The Commission requested (Request # 4 in COM Doc. 20-16):

*The Commission requests the Scientific Council to implement the steps of the Action plan relevant to the Scientific Council and in particular the tasks identified under section 2.2 of the Action Plan, for progression in the management and minimization of Bycatch and discards (COM Doc. 17-26).*

- Tasks outlined in Tasks 3.1 and 3.2 of the NAFO Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26).

**Task. 3.1. Moratoria species. Identify moratoria stocks where the level of bycatch/discards may be impeding recovery.**

Scientific Council responded:

Evidence suggests that current stock dynamics in most moratoria stocks are being driven primarily by natural causes (high natural mortality, low ecosystem productivity). Under these conditions, SC noted that even the low levels of bycatch observed in recent years may be contributing to the lack of recovery of these stocks, particularly for American plaice in Div. 3LNO and cod in 3NO.

The following are selected highlights from her presentation:

- Shrimp in 3LNO, Capelin in 3NO and Alfonsino in 6G have zero or near-zero catch. The impact of this catch on stock recovery is considered negligible.
- Cod in 2J3KL: under moratorium since 1992. Biomass began to increase in 2007 and is now at 52% of  $B_{lim}$ , but has plateaued in recent years.  $F$  has been low for more than a decade. Levels of  $M$  are thought to be delaying stock recovery.
- Cod in 3NO: under moratorium since 1994. The Grand Bank Ecosystem is experiencing low productivity and, despite very low  $F$  for well over a decade, the stock is at only 12% of  $B_{lim}$ . Current stock dynamics are likely primarily driven by natural causes (high  $M$ , low ecosystem productivity). However, under these conditions even the low levels of bycatch observed in recent years may be contributing to the lack of stock recovery
- American plaice in 3LNO: under moratorium since 1995. Biomass remains well below  $B_{lim}$ . Despite problematic assessment issues, the information points towards a recent relative increase in mortality, although separating the impacts of  $M$  and  $F$  is difficult. While recruitment continues to be poor, current levels of bycatch may also be contributing to a lack of stock recovery.
- American plaice in 3M: under moratorium since 1996. Stock was at a minimum in 2007, after 15 years of consistent recruitment failure. Recruitment subsequently improved and stock biomass increased. Stock biomass recently reached the levels of mid 90s, when the fishery was closed. Both catches and  $F$  remain low, although slightly higher catches are observed since 2013. Bycatch may be delaying recovery, but the main factor is inconsistency of recruitment
- Witch flounder in 2J3KL: under moratorium since 1998. Although the stock is below  $B_{lim}$ , biomass indices have been steadily increasing since the early 2000s. Bycatch remains low, averaging 106 t annually from 2015-2019. Current levels of  $F$  do not appear to be limiting recovery of this stock.

**Task 3.2. Areas where there is a risk of causing serious harm to by-catch species: Identify areas, times and fisheries where by-catch and discards, notably of moratoria species, that have a higher rate of occurrence.**

Report of WG-BDS,  
12–13 July 2021

Scientific Council responded:

In the NRA, the moratoria stocks with the highest levels of bycatch are American plaice 3LNO, Cod 3NO and American plaice 3M. The highest frequencies of hauls with bycatch occur in the fisheries that are being carried out at less than 200 meters: Yellowtail flounder 3LNO, Thorny Skate 3LNO and cod 3M. Differences in the distribution of bycatch were observed among quarters. However, there were no differences in the distribution of sets with and without bycatch within fisheries within quarters.

The following are selected highlights from her presentation:

- Cod and American plaice are the major bycatch species of NRA groundfish fisheries
- A temporal and spatial analysis aimed to identify “hotspots” of bycatch occurrence in fisheries.
  - No interannual spatial and temporal variation observed in the 11 interactions
  - Redfish fisheries hotspots in the Nose and Tail of the Grand Bank (Div. 3LN and 3O) are located near the slopes of the Bank.
  - Similar “Directed stock - Bycatch stock” interactions observed in the YEL and skate fisheries despite different minimum mesh size (130 & 280 mm, resp.)
  - YEL fishery: A. plaice bycatch generally bigger than cod bycatch (weight)
  - YEL fishery: A. plaice bycatch is prevalent in non-winter months.
  - Skate fishery: no monthly trend discerned regarding A. plaice or cod bycatch.
- 3M American plaice: The frequency of A. plaice bycatch occurrence in the cod fishery shows a clear increasing trend throughout the year, while it remains much more constant in the redfish fishery. The cod fishery moves to shallower areas of Flemish Cap in the second half of the year, increasing the frequency of A. plaice bycatch occurrence.
- 3LNO American plaice: Frequency of A. plaice bycatch occurrence in the YEL & skates fisheries increases throughout the year, whereas it is quite stable in the redfish fishery (except for a lower value in quarter 3). YEL and skates fisheries in the NRA Div. 3LNO are mainly at < 200 m depth, and it seems that A. plaice is caught much more frequently than at the greater depths of the redfish fishery
- 3NO Cod: Frequency of cod bycatch occurrence has no clear pattern throughout the year. The YEL and skates fisheries in the NRA Division 3NO are mainly conducted in similar areas, at < 200 m depth. Although the fisheries take place in similar areas, cod bycatch is more frequent in the skates than in the YEL fishery.

**c. Greenland sharks bycatch and discards (Request #9 in COM Doc. 20-16)**

The Commission requested (Request # 9 in COM Doc. 20-16):

*The Commission requests that the Scientific Council work with WG-BDS to identify areas and times where bycatch and discards of Greenland sharks have a higher rate of occurrence in time for consideration by the Commission in 2021 to inform the development of measures to reduce bycatch in the NRA.*

Scientific Council responded:

Greenland shark (*Somniosus microcephalus*) are caught as bycatch in fisheries throughout the Northwest Atlantic Fisheries Organization Convention Area (NCA). The highest levels are outside the NAFO Regulatory Area (NRA) in the Canadian and Greenland EEZs. Within the NRA, the slopes of the Flemish Cap and the shelf edge of Divs. 3LNO are areas of predicted Greenland shark bycatch. A higher occurrence of Greenland shark bycatch relative to the fishing effort was found during December to March, and August to September, for the Canadian fishery within the NRA.

Greenland shark bycatch within the NCA were analyzed using a variety of models. Given that not all fisheries have At-Sea Observers (ASOs) and that logbooks provide less precise data that are prone to bias, it is difficult to make definitive conclusions on the times/location of areas with higher rates of bycatch, which consequently affects inferences about the suitability of spatial or temporal fishing closures. SC reiterates that alternative management methods should also be considered (SCS Doc. 18/19). SC notes that management measures applied should be consistent across the NCA owing to the broad distribution of Greenland sharks.

SC reiterates its recommendation for reporting of all shark bycatch by species from all fisheries within the NCA as outlined in the current NCEM, and recommends including the collection of shark numbers, sex, measurements (when feasible without causing undue harm), and bycatch discard disposition (*i.e.*, dead or alive) in all fisheries.

The following are selected highlights from her presentation:

- In NRA, areas of modelled Greenland shark bycatch distribution are along the slopes of the Flemish Cap, and the shelf edge in Divisions 3LNO,
- Data from the Canadian fishery in the NRA suggest higher occurrence of Greenland shark bycatch relative to the fishing effort during December to March, and August to September,
- SC emphasized that for all observed hauls/sets that contain Greenland shark, record the number, estimated weight, length (estimated if measured length is not possible), sex, and catch disposition (alive, dead, unknown) of each individual Greenland shark per haul or set.

The following discussion points emerged after the scientific presentation in sub-items a, b and c:

- The Haul by Haul analysis conducted by the Secretariat are complementary. The Secretariat first identified the directed fishery and looked at the bycatch of moratorium stock; SC started with the examination of the moratorium stocks and identified at the directed fishery which contributes to the bycatch of the moratorium stocks.
- High shrimp survivability rate may be due to sorting grids installed in the experimental gear
- The results of the Haul by Haul analyses conducted by the Secretariat and SC for stocks in Division 3LNO are considered partial, *i.e.*, limited to NRA.
- In the spatial distribution analysis, the Greenland shark catch is higher in Canadian waters than in the NRA.

Canada noted its agreement with the need to protect this species with a large geographic range and is undertaking additional analysis of bycatch of Greenland shark in Canadian waters. Canada highlighted that it would prepare an updated analysis of reported catch of Greenland shark for the 2019-2021 period subject to domestic privacy requirements. Canada also noted its concern with Scientific Council advice that goes beyond the NRA and has implications on the jurisdiction and sovereignty of Coastal States.

## **6. Discussion on Development of management options in support of Tasks 4.1, 4.2, and 4.3 of the Action Plan**

The WG thanked the Secretariat and SC for considerable efforts in compiling and analyzing all of the Haul by Haul data. It acknowledged that the new information emanating from the work of the Secretariat and SC be instrumental in developing of management options, specifically into Tasks 4.1 and 4.2 which pertain to time-area management and fishery-specific solution as outlined in the Action Plan.

According to the Action Plan, STACTIC is identified as one of the NAFO bodies engaged in performing Tasks 4.1 and 4.2. The STACTIC vice Chair informed that this matter discussed at its intersessional meeting in May 2021 and it was agreed that he would participate at this WG meeting to facilitate collaboration.

The STACTIC vice Chair informed the WG that during the intersessional meeting, a small working group was created to address issues relating to bycatch, discards, and selectivity (BDS), including among others, pending proposals pertaining to “*directed fishery*”, landing obligations and discards, and bycatch thresholds and move-away provisions.

One CP commented that the BDS agenda in STACTIC sounds ambitious. Some of the issues like the application and definition of bycatch is what this WG has been trying to address. An SC representative commented there should be a clear definition of “*bycatch*”. The Secretariat clarified that NAFO has precise description of what constitutes a bycatch situation. In Article 6.2.a) and c), the bycatch occurs depending on the availability of the fish stocks to Contracting Parties which are eligible to fish the said stocks. In Article 6.2.b, a moratorium stock appearing is a haul or set is considered bycatch. Corollary to these situations, any stock not listed in Annex I could not be considered bycatch. Bycatch thresholds are quantities agreed by the Commission.

Contracting Parties thanked the Secretariat and the Scientific Council for their considerable efforts in compiling and analyzing all of the Haul by Haul data and noted that it will be instrumental in developing management recommendations to the Commission under Action Plan Section 4. The United States noted that BDS now has a significant amount of information across several stocks, and that narrowing the focus at first would help in refining and exploring how the items under Action Plan Item 4, which include identifying management options for possible time-area management and fishery-specific solutions, can move forward. The United States recommended creating a pilot study by choosing one (or up to two) of the moratoria species as a starting point to go through this process. Based on the presentations given, the United States would recommend that BDS start with 3LNO American Plaice. The idea with starting with one species is not to hamstring the working group into only one species, but instead to give the group a starting point so that the process does not get overwhelmed and no progress is made.

Contracting Parties discussed that in 2022 a special meeting should be convened specifically to consider the management options for 3LNO American Plaice and other species suggested by Contracting Parties. This meeting could be co-chaired by BDS, SC, and STACTIC. The objective of this meeting would be to explore management options to address the bycatch of American Plaice and other priority stock(s) for consideration of the Commission at the 2022 Annual Meeting. Contracting Parties agreed that, prior to this joint meeting, a smaller group from BDS should meet to determine the scope of the study, including which species should be included, and the development of possible questions for SC.

An SC representative expressed that, on the basis of the new information from the Haul by Haul analysis and the quantity of bycatch reported in the Haul by Haul reports, the two moratorium stocks 3LNO American plaice and 3NO Cod should be analyzed more in depth.

Canada expressed that this WG is at the crossroads. It sees the merit of the creation of the small group. However, it should not be limited only to American plaice but it should consider a larger number if possible and could align with the priority stocks identified in the Action Plan which would provide a broader representation of Contracting Party activity *e.g.* 3NO Cod. Further, Canada agreed that this analysis should carefully consider the identified data gap in the Haul by Haul analysis. It recognized the challenges in moving forward as each stock has unique set of circumstances. Furthermore, all discard data have to be attributable to specific hauls in order

to have accurate calculations of bycatch thresholds, which is not currently the case (see also discussion on this issue in Section 4 of this report), recognizing that analysis to date indicated the difference may be quite small. It also expressed that, given these challenges, specific management recommendations cannot be developed in accordance with the timeline prescribed in the Action Plan. In moving forward, getting the three Bodies – this WG, STACTIC and SC – to comprise a small group seems like a sound approach.

The sentiment expressed by Canada was echoed by the European Union. Iceland also expressed its support in the creation of the small group.

Contracting Parties noted that given the summer holiday period, an upcoming meeting of WG-RBMS and a meeting of the new STACTIC Working Group as well as preparations for the Annual Meeting, it may be problematic for Contracting Parties to participate in a meeting of this smaller group prior to the NAFO Annual Meeting.

The Chair summarized the discussion: there is a general support of the creation of a smaller group which will coordinate with STACTIC and SC in furthering Task 4 of the Action Plan and may consider, among others, a pilot case of American plaice and possibly others (*e.g.*, 3NO COD) in the development of a fisheries-specific solution.

## **7. Discussion on policies to minimize or eliminate discards in NAFO (COM Doc. 17-23)**

Some Contracting Parties reported on the domestic policies as a point of information.

Canada indicated that its domestic policies do not include a ban on discards. Total catch must be accounted for and included into the established TAC. Whether species should be retained are not fisheries specific. US indicated that it has a very similar policy, *i.e.*, there is no blanket discard ban. The European Union reported that the updated state of play for its landing obligation was discussed at the STACTIC Intersessional Meeting in May 2021 following the mandate given by the Commission to STACTIC to discuss the landing obligations vis-à-vis the policy of a discard ban. Norway indicated that it has a general landing obligation in place for a number of years now. The landing obligation is supported by many measures, the most important part of which is to avoid unwanted bycatch.

The WG noted that it has performed the exercise of collecting the domestic policies pertaining the discards. US suggested that Contracting Parties should submit any updated policy and that the Secretariat share the documents to STACTIC in support of its mandate to discuss landing obligations of a discard ban policy.

## **8. Implementation of 2018 Performance Review Panel recommendations**

### **a. Input regarding data classification and access rights of the NAFO websites**

In response to Recommendation #26 of the 2018 NAFO Performance Review, the Ad Hoc virtual NAFO Website Re-Design Working Group: Data Classification was tasked with development of a formal policy regarding the posting and distribution of meeting documentation. This Ad Hoc Working Group will give its report to STACFAD.

At the 2020 Annual Meeting, STACFAD agreed that before a formal policy could be developed, feedback would be sought from NAFO Bodies, Standing Committees, and Working Groups during upcoming meetings in 2020/2021.

The Executive Secretary presented COM WP 21-04 and sought feedback of this WG on a policy of making working documents being made accessible to the public.

Contracting Parties expressed general support for transparency. However, given the sensitivity of the data contained in some working papers, a blanket policy of making the working documents be made available to the public would run counter to the domestic policy of some Contracting Parties. Some participants indicated they would need further consultations with their respective delegations.

Report of WG-BDS,  
12-13 July 2021

## **9. Other Matters**

The Chair announced that he is stepping down from the position when his term ends in September 2021. Participants expressed thanks to the Chair for his leadership of this WG.

## **10. Recommendations**

**In relation to the development of management options in support of Tasks 4 of the Action Plan, the WG-BDS recommends that:**

- 1. The Working Group creates a smaller group which will coordinate with STACTIC and SC in furthering Task 4 of the Action Plan and may consider a pilot case to examine bycatch of 3LNO American plaice and others in the development of potential fisheries-specific management options for further discussion by the full Working Group.**

**In relation to bycatch and discard information, the WG-BDS recommends that:**

- 2. The Commission request STACTIC to provide a single interpretation of the application of the term bycatch for the purpose of the spatial temporal analysis undertaken by the Secretariat according to the agreed methodology.**
- 3. The Secretariat monitor the discard data in the Haul by Haul reports and in observers reports, continue working with Contracting Parties to ensure that the discard information are reported in the Haul by Haul reports in accordance with Annex II.N and in the observer reports in accordance with Annex II.M, and report to this WG on the progress in resolving this discard data issue.**

**In relation to discards in NAFO, the WG-BDS recommends that:**

- 4. The Secretariat gather the updated domestic policies of Contracting Parties on discards and share them to STACTIC in support of STACTIC's mandate in discussing landing obligations of a discard ban policy.**

## **11. Adoption of Report**

This report was adopted by correspondence after the adjournment.

## **12. Adjournment**

The meeting adjourned at 11:11 hours (Atlantic Daylight Time in Halifax, Nova Scotia) on 13 July 2021.

**Annex 1. List of Participants****WG-BDS CHAIR**

Tairov, Temur. Representative of the Federal Agency for Fisheries of the Russian Federation in Canada, 47 Windstone Close, Bedford, Nova Scotia, B4A4L4  
Tel: +1 902 405 0655 – Email: [temurtairov@mail.ru](mailto:temurtairov@mail.ru)

**CHAIR OF SCIENTIFIC COUNCIL**

Fernandez, Carmen. Instituto Español de Oceanografía (IEO). Avenida Príncipe de Asturias, 70 bis. 33212, Gijón, Spain  
Tel: +34 (985) 308 672 - Email: [carmen.fernandez@ieo.es](mailto:carmen.fernandez@ieo.es)

**VICE-CHAIR OF STACTIC**

Moran, Patrick. Foreign Affairs Analyst, National Marine Fisheries Service, Office of International Affairs, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910 USA  
Tel: +1 301 427 8370 – Email: [Pat.Moran@noaa.gov](mailto:Pat.Moran@noaa.gov)

**CANADA**

Browne, Dion. Senior Compliance Officer, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Email: [Dion.Browne@dfo-mpo.gc.ca](mailto:Dion.Browne@dfo-mpo.gc.ca)

Diamond, Julie. Regional Manager, Groundfish, International Fisheries & Species at Risk, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Tel: +1 709-772-5041 – Email: [Julie.diamond@dfo-mpo.gc.ca](mailto:Julie.diamond@dfo-mpo.gc.ca)

Fagan, Robert. Senior Resource Manager. Groundfish, International Fisheries & Species at Risk, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Tel: +1 709 772 2920 – Email: [Robert.Fagan@dfo-mpo.gc.ca](mailto:Robert.Fagan@dfo-mpo.gc.ca)

Her, Natalie. Junior Policy Analyst, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Natalie.Her@dfo-mpo.gc.ca](mailto:Natalie.Her@dfo-mpo.gc.ca)

Hurley, Mike. Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C5X1  
Tel: + 1 709 227-9344 – Email: [mike.hurley@dfo-mpo.gc.ca](mailto:mike.hurley@dfo-mpo.gc.ca)

Johnson, Kate. Senior Policy Advisor, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Kate.Johnson@dfo-mpo.gc.ca](mailto:Kate.Johnson@dfo-mpo.gc.ca)

Pond, Nancy. Resource Manager. Groundfish, International Fisheries & Species at Risk Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Email: [Nancy.Pond@dfo-mpo.gc.ca](mailto:Nancy.Pond@dfo-mpo.gc.ca)

Simpson, Mark. Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL. A1C5X1  
Tel.: +1 709-772-4841 - Email: [Mark.Simpson2@dfo-mpo.gc.ca](mailto:Mark.Simpson2@dfo-mpo.gc.ca)

Turple, Justin. Director, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Justin.Turple@dfo-mpo.gc.ca](mailto:Justin.Turple@dfo-mpo.gc.ca)



### DENMARK (IN RESPECT OF FAROE ISLANDS AND GREENLAND)

Gaardlykke, Meinhard. Adviser, The Faroe Islands Fisheries Inspection, Yviri við Strond 3, P. O. Box 1238, FO-110 Torshavn, Faroe Islands  
Tel: +298 31 1065 – Mobile: +298 29 1006 – Email: [meinhardg@vorn.fo](mailto:meinhardg@vorn.fo)

### EUROPEAN UNION

Beijoco, Catarina. Ministry of the Sea, Directorate General for Natural Resources, Safety and Maritime Services (DGRM), Avenida Brasilia, 1449-030 Lisbon, Portugal  
Email: [cbeijoco@dgrm.mm.gov.pt](mailto:cbeijoco@dgrm.mm.gov.pt)

González -Costas, Fernando. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 22 39 – Email: [fernando.gonzalez@ieo.es](mailto:fernando.gonzalez@ieo.es)

González-Troncoso, Diana. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 21 11 – Email: [diana.gonzalez@ieo.es](mailto:diana.gonzalez@ieo.es)

Granell, Ignacio. International Relations Officer, Regional Fisheries Management Organizations, European Commission, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 2 296 74 06 – Email: [ignacio.granell@ec.europa.eu](mailto:ignacio.granell@ec.europa.eu)

Mancebo Robledo, C. Margarita. Ministry of Agriculture, Fisheries and Food, Velázquez, 144, 28006 Madrid, Spain  
Tel: +34 91 347 61 29 – Email: [cmancebo@mapa.es](mailto:cmancebo@mapa.es)

Merino-Buisac, Adolfo. Policy Officer, Scientific advice supporting the Common Fisheries Policy, European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE), Unit C.3 – Scientific advice and data collection, J99 03/003, B-1049 Brussels/Belgium  
Tel: +32 2 29 590 46 – Email: [adolfo.merino-buisac@ec.europa.eu](mailto:adolfo.merino-buisac@ec.europa.eu)

Teixeira, Isabel. Head of External Resources Division, Ministry of the Sea, Directorate General for Natural Resources, Safety and Maritime Services (DGRM), Avenida Brasilia, 1449-030 Lisbon, Portugal  
Tel: +351 21 303 5825 – Email: [iteixeira@dgrm.mm.gov.pt](mailto:iteixeira@dgrm.mm.gov.pt)

Tubio Rodriguez, Xosé. Inspector, Fisheries Control and Inspections, Directorate-General for Maritime Affairs and Fisheries, European Commission, J-99 01/074, 1049 Brussels, Belgium  
Tel: +32 2 299 77 55 – Email: [xose.tubio@ec.europa.eu](mailto:xose.tubio@ec.europa.eu)

Tuvi, Aare. Counsellor, Fishery Resources Department, Republic of Estonia, Ministry of the Environment, Narva mnt 7A, 15172, Tallinn, Estonia  
Tel: + 372 6260 712 – Email: [aare.tuvi@envir.ee](mailto:aare.tuvi@envir.ee)

### ICELAND

Benediktsdóttir, Brynhildur. Senior Expert, Department of Fisheries and Aquaculture, Ministry of Industries and Innovation, Skúlagötu 4, 150 Reykjavik, Iceland  
Tel: +354 545 9700 – Email: [brynhildur.benediktsdottir@anr.is](mailto:brynhildur.benediktsdottir@anr.is)

### JAPAN

Iino, Kenro. Advisor to the Minister of Agriculture, Forestry and Fisheries on International Affairs (Fisheries) Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3 3502 8460 – Email: [keniino@hotmail.com](mailto:keniino@hotmail.com)

Okamoto, Junichiro. Executive Managing Director, Japan Overseas Fishing Association, Tovei Ogawamachi-Bldg., 5F, 2-6-3 Kanda Ogawa-Machi, Chiyoda-ku, Tokyo, 101-0052, Japan  
Tel: +81 3 3291 8508 – Email: [jokamoto@jdsta.or.jp](mailto:jokamoto@jdsta.or.jp)

Taki, Kenji Scientist, National Research Institute of Far Seas. Fisheries, Agency, 5-7-1, Orido, Shimizu-Ward, Shizuoka-City, Shizuoka, Japan  
E-mail: [takistan@affrc.go.jp](mailto:takistan@affrc.go.jp)



**NORWAY**

Ognedal, Hilde. The Norwegian Directorate of Fisheries, Postboks 185 Sentrum, N-5804 Bergen, Norway  
Mobile: +47 920 89 516 – E-mail: [hilde.ognedal@fiskeridir.no](mailto:hilde.ognedal@fiskeridir.no)

**UNITED KINGDOM**

Ryan, Jack. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Jack.Ryan@defra.gov.uk](mailto:Jack.Ryan@defra.gov.uk)

**UNITED STATES OF AMERICA**

Jaburek, Shannah. Fishery Management Specialist, Sustainable Fisheries Division (SFD), Greater Atlantic Regional Fisheries Office (GARFO), National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA).  
Tel: + 1 978 282 8456 – Email: [shannah.jaburek@noaa.gov](mailto:shannah.jaburek@noaa.gov)

Mencher, Elizabethann. Foreign Affairs Analyst, National Marine Fisheries Service, Office of International Affairs and Seafood Inspection, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910, USA  
Tel: +1 301 427 8362 – Email: [Elizabethann.Mencher@noaa.gov](mailto:Elizabethann.Mencher@noaa.gov)

Sosebee, Katherine. Science Advisor, Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA) USA  
Tel: +1 508 495 2372 – Email: [katherine.sosebee@noaa.gov](mailto:katherine.sosebee@noaa.gov)

Warner-Kramer. Deirdre. Acting Deputy Director, Office of Marine Conservation (OES/OMC), U.S. Department of State, Washington, DC 20520  
Tel +1 202 647 2883 – Email: [warner-kramerdm@fan.gov](mailto:warner-kramerdm@fan.gov)

**NAFO SECRETARIAT**

1601 Lower Water Street, Suite 401, Halifax, Nova Scotia, Canada – Tel: +1 902 468-5590

Kingston, Fred. Executive Secretary.	Email: <a href="mailto:fkingston@nafo.int">fkingston@nafo.int</a>
Aker, Jana. Senior Fisheries Information Administrator.	Email: <a href="mailto:jaker@nafo.int">jaker@nafo.int</a>
Blasdale, Tom. Scientific Council Coordinator.	Email: <a href="mailto:tblasdale@nafo.int">tblasdale@nafo.int</a>
Federizon, Ricardo. Senior Fisheries Management Coordinator.	Email: <a href="mailto:rfederizon@nafo.int">rfederizon@nafo.int</a>
LeFort, Lisa. Senior Executive Assistant.	Email: <a href="mailto:llefors@nafo.int">llefors@nafo.int</a>



## **Annex 2. Agenda**

1. Opening by Chair, Temur Tairov (Russian Federation)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Update on the complementary analysis conducted by the Secretariat of the HxH in further support of Tasks 2.1 and 2.2 of the Action Plan
5. Discussion of Scientific Council responses to Commission requests for advice relevant to the working group
  - a. Species/stocks with high survivability rates (COM Doc. 19-29 and SCS Doc. 20-19) in support of Task 2.2 of the Action Plan
  - b. Moratoria stocks where bycatch/discards maybe impeding recovery and have high rates of occurrence (COM Doc. 20-16 and SCS Doc. 21-14) in support of Tasks 3.1 and 3.2 of the Action Plan
  - c. Greenland sharks bycatch and discards (Request #9 in COM Doc. 20-16)
6. Discussion on Development of management options in support of Tasks 4.1, 4.2, and 4.3 of the Action Plan
7. Discussion on policies to minimize or eliminate discards in NAFO (COM Doc. 17-23)
8. Implementation of 2018 Performance Review Panel recommendations
  - a. Input regarding data classification and access rights of the NAFO websites
9. Other Matters
10. Recommendations
11. Adoption of Report
12. Adjournment

Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission-Scientific Council Working Group on the  
Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) Meeting**

14–16 July 2021 and 20-21 July 2021  
Via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2021

Report of WG-EAFFM,  
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## **Report of the NAFO Joint Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) Meeting**

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1.	Opening by the co-Chairs, Andrew Kenny (United Kingdom) and Elizabethann Mencher (USA) .....	3
2.	Appointment of Rapporteur .....	3
3.	Adoption of Agenda .....	3
4.	Review of the August 2020 recommendations (COM-SC Doc. 20-06) .....	3
5.	Presentation and discussion of SC responses to Commission requests for advice (COM Doc. 20-16 and SCS Doc. 21-14) relevant to EAFFM .....	4
	a. Commission Request # 6 – Re-assessment of NAFO bottom fisheries and analysis of potential management options (VME closures) .....	4
	b. Commission Request # 7 – Taxa list in NAFO CEM Annex I.E. Part VI as reflected in COM-SC EAFFM-WP 18-01 .....	8
	c. Commission Request # 5 – Ecosystem Road Map .....	8
	d. Commission Request # 18 – 3M and 3LNO Ecosystem Summary Sheets .....	9
6.	Update on the WG-EAFFM Workshop (2022), including the Open Dialogue Meeting (September 2021) .....	9
7.	Review/Revision of NAFO CEM Chapter 2 Provisions .....	10
8.	Implementation of 2018 Performance Review Panel recommendations .....	11
	a. Input regarding data classification and access rights of the NAFO websites .....	11
9.	Other Matters .....	11
	a. Proposed Memorandum of Understanding (MoU) with the Sargasso Sea Commission .....	11
	b. Update on the possible renewal of the ABNJ Deep-Seas Fisheries Project .....	12
	c. Joint ICES/IUCN workshop on OECMs – NAFO sponge VMED case study .....	12
	d. Other International relations .....	12
10.	Recommendations .....	12
11.	Adoption of the report .....	14
12.	Adjournment .....	14
	Annex 1. List of Participants .....	15
	Annex 2. Agenda .....	19
	Annex 3. Location of existing VME closures, extensions and new closures and removals as proposed by SC .....	20
	Annex 4. Biomass protection levels with the proposed changes in the VME closures .....	21
	Annex 5. Location of existing seamount closures and proposed changes .....	23
	Annex 6. Updated List of VME Indicator Species for inclusion in Part. VI, Annex I.E of the NCEM .....	24
	Annex 7. Discussion Points in relation to Total Catch Indices and Possible Management Actions .....	28

## Report of the NAFO Joint Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) Meeting

14–16 July 2021 and 20-21 July 2021  
via WebEx

### 1. Opening by the co-Chairs, Andrew Kenny (United Kingdom) and Elizabethann Mencher (USA)

The meeting was opened by the chairs, Andy Kenny (United Kingdom) and Elizabethann Mencher (USA), at 08:30 hours (Atlantic Daylight Time in Halifax, Nova Scotia) on Wednesday, 14 July 2021.

The co-Chairs welcomed the scientists and fisheries managers from Canada, European Union, Iceland, Japan, Norway, Russian Federation, Ukraine, the United Kingdom, and the United States of America. The Chair of the Scientific Council (SC) was present. Observers from FAO and Ecology Action Centre were also welcomed (Annex 1).

### 2. Appointment of Rapporteur

The NAFO Secretariat (Ricardo Federizon, Senior Fisheries Management Coordinator and Tom Blasdale, Scientific Council Coordinator) were appointed co-Rapporteurs of this meeting.

### 3. Adoption of Agenda

The provisional agenda as previously circulated was adopted with the following amendments (see Annex 2):

- Sub-items under agenda item 5 were re-ordered,
- Agenda item 8.a was inserted.

### 4. Review of the August 2020 recommendations (COM-SC Doc. 20-06)

WG-EAFFM reviewed the recommendations and the status of their implementation. The summary is presented in the table below.

Recommendations	Status
Roll over of all closures for one year (until 2021)	Adopted at the 2020 annual meeting
Inclusion of Black coral to the VME indicator list	Adopted at the 2020 annual meeting. Black corals were added to Annex I.E. Part VI of the CEM in 2021.
For 2021 re-assessment of bottom fishing and for VME fisheries closures, request SC to “provide input and analysis of potential management options	See agenda item 5a, part ii.
Insertion of a footnote in Annex II.N of the NCEM (Haul by haul report template) to clarify and match the definition of Start and End time of fishing in Annex II.M (Observer report template)	WG-EAFFM noted that STACTIC is still discussing start and stop times and the respective footnote, and will have further information during the 2021 Annual Meeting following CP’s consultation with the industry.
Regarding Roadmap, WG-EAFFM re-consider the recommendations to the 2020 AM at the 2021 meeting and develop options of how ecosystem advice could inform management decisions	See agenda items 5.d and 6.

Report of WG-EAFFM,  
14–16 July 2021 and 20-21 July 2021

Scientific Council to continue its work to develop models that support implementation of Tier 2 of the EAFM Roadmap	See agenda item 5c.
Regarding the Ecosystem Summary Sheets, CPs proactively provide any relevant research to inform the Scientific Council's work, as well as identify scientific and management experts in non-fisheries related sectors to participate in Scientific Council and WG-EAFFM discussions. Further, that the Secretariat and the Scientific Council work with other international organizations, such as the FAO and ICES, to bring in additional expertise to inform the Scientific Council's work.	See agenda item 5d.
STACTIC review the implementation of chapter 2, and suggest, as necessary, any revisions to WG-EAFFM. And that the Commission request the Scientific Council to also review the effectiveness of Chapter 2 from a scientific perspective and to report back at 2022 WG-EAFFM meeting. Update the CEM to reflect 2022 deadline for Chapter 2 review	See agenda item 7

**5. Presentation and discussion of SC responses to Commission requests for advice (COM Doc. 20-16 and SCS Doc. 21-14) relevant to EAFFM**

**a. Commission Request # 6 – Re-assessment of NAFO bottom fisheries and analysis of potential management options (VME closures)**

Dr. Andrew Kenny (co-Chair of this WG and co-Chair of the SC Working Group on Ecosystem Science and Assessment (WG-ESA)), and Pierre Pepin, (co-Chair of WG-ESA) on behalf of SC presented the response provided by SC in June 2021 based on work undertaken by WG-ESA in 2020 (SCS Doc. 21-14). The response comprised three parts: i) assessment of the risk of significant adverse impact (SAI) from bottom fishing activities on VMEs in the NRA, ii) potential management options in relation to VME closures, and iii) review of seamount closure boundaries

**i) assessment of the risk of significant adverse impact (SAI) from bottom fishing activities on VMEs in the NRA**

SC completed the assessment of the risk of Significant Adverse Impacts (SAIs) from bottom fishing activities on VMEs in the NRA. The assessment methodology was similar to that used in the previous assessment (in 2016) but with greater spatial resolution of updated survey trawl biomass and commercial fishing effort data. It was noted that the greater spatial resolution applied in the present assessment (from 5km to 1km) results in more precise and generally larger estimates of the biomass protected by the current VME closures, compared to the analysis conducted for the 2020 review of VME closures. This response also builds upon the outcome of the review of VMEs reported in 2020 which provided a more accurate and up-dated delineation of VME polygon boundaries.

The assessment included for the first time an evaluation of the ecological functions associated with VMEs and the application of a VME fragmentation index.

Assessment metrics considered within the assessment were:

- Area/Biomass protected (low risk of SAI)
- Area/Biomass impacted
- Area/Biomass unprotected (high risk of SAI)
- Proportion of overlapping VMEs in closures
- Index of VME sensitivity
- Index of fishing stability
- Index of VME fragmentation/ proximity
- Number of important functions in unprotected portions of VME

These assessment metrics were cross referenced against the six FAO SAI criteria in order to ensure all 6 metrics were assessed and also to inform an appropriate weighting of the metrics as applied in the overall assessment of SAI. The results indicated that the assessment metrics associated with the first two FAO criteria (*e.g.*, fishing intensity and fishing extent) are directly related to the fishing effort and are therefore manageable. These assessment metrics (*e.g.*, area/biomass protected, area/biomass impacted, area/biomass unprotected, index of fishing stability and index of VME fragmentation) were therefore given more weight in the overall SAI assessment and of these, the VME area/biomass protected was considered the most important.

Overall SAI scores for each VME type were assigned to three categories: good (low SAI risk, >60% of the VME biomass protected), limited (intermediate SAI risk, 30-60% of the VME biomass protected), and poor (high SAI risk, <30% of the VME biomass protected).

Results of the assessment indicated that small gorgonian, black coral, erect bryozoan and sea squirt VMEs have a high overall risk of SAI, whereas the large-sized sponges and large gorgonian coral VMEs have a low overall risk of SAI. The sea pen VME was assessed as having an intermediate risk of SAI.

WG-EAFFM thanked SC and acknowledged the work to be ground-breaking.

WG-EAFFM concurs with SC's conclusions. WG-EAFFM further **recommends** that the Commission direct the Secretariat to share its work on bottom fishing impacts along with any potential update of the SAI outcome (pending management action) with the UNGA VME review process in 2022.

## ii) potential management options in relation to VME closures

Based upon the outcome of the SAI analysis, SC considered a number of options to improve VME protection, including move-on rules and buffer zones, however it was considered that these would have limited efficacy, and consequently an expert group was assembled to evaluate the benefits and consequences of extending existing closures as well as considering the addition of new closures. This group included fisheries specialists as well as experts in benthic ecology. The analysis considered both VME area and biomass values, connectivity between VMEs, distribution of fishing effort and inter-year fishing stability over a ten-year period. The overall aim was to improve the protection of VMEs, while limiting the impact and/or consequences in terms of access to fishing locations and overall catches.

This work was further developed by the Scientific Council at its June 2021 meeting, allowing input from a wider range of experts.

Changes to current VME protection (as recommended by SC) include ten extensions to existing closures, the creation of three new closures and modifications to Area 14 (See Annex 3):

- Extension of Area Closure 1 (Area 1a), to protect large-sized sponges;
- Establishment of two new closures (Areas 17 & 18) on the tail of the Grand Bank, to protect sea squirts;
- Establishment of a new closure (Area 16) on the tail of the Grand Bank, to protect erect bryozoans;

Report of WG-EAFFM,  
14–16 July 2021 and 20–21 July 2021

- Creation of a new closure (Area 15a) to the northeast of the 30 Closure in the NRA, to protect important concentrations of small gorgonian coral, sea pens and large gorgonian coral;
- Westward extension of the Area 2 closure, in the form of the closure of the “*notch*” on the northwestern side of the Area 2, to better protect large gorgonian coral (Area 2a);
- Northward extension of Area 2, to protect significant concentrations of sea pens and black coral (Area 2b);
- Extension of closures between Area Closures 4 & 5 (Area 4a), to increase protection of large gorgonian coral and large-sized sponges;
- Eastward extension of Area Closure 7, to provide greater protection for sea pens and black coral (Area 7a);
- Extension to Area Closures 8 & 9 (linking with Area Closures 8, 9 & 12), to provide a more continuous closure to protect sea pens and black coral (Areas 8a & 9a) and improve connectivity;
- Westward extension to Area Closure 10, to provide combined protection for sea pens and large-sized sponges (Area 10a);
- Northeastward extension of Area Closure 11, to provide enhanced protection for sea pens (Area 11a);
- Re-establishment of a modified Area Closure 14 (Areas 14a & 14b), over areas of high sea pen concentrations in the eastern portion of the Flemish Cap.

Adoption of these recommended closures would substantially improve the protected status of VMEs in the NRA. In terms of biomass protected, the current VME closures result in 2 VME types having good protection, one of limited protection and four VME having poor protection. Under the new proposals (if adopted) six would be considered to have good status (*e.g.*, black coral, erect bryozoans, sea squirts, large sponges, large gorgonian coral, sea pen) and only one having limited status (small gorgonian coral) – there would be no VMEs classified as having poor protection or being at high-risk of SAI.

With respect to assessing what impact these proposals would have on the fishery, analysis of VME and fishing logbook data (haul by haul) indicated that the adoption of all the proposed changes would result in a less than 1% overall impact on current (2010–2019) catches and fishing activity.

During the WG-EAFFM meeting, the co-Chair of WG-ESA performed further analysis to break down the contribution that individual proposed changes would make to the protection of VMEs identified by SC as requiring essential management action owing to their high risk of SAI status: Black Coral, Erect Bryozoan, Sea Squirt and Small Gorgonian Coral. (See Annex 4)

Closure	Biomass protected
<b>Black coral</b>	
Existing Closures	25%
Proposal 7a	10%
Proposal 2b	5%
Proposal 9a	36%
Total Proposed Protection	76%
<b>Erect Bryozoans</b>	
Existing Closures	0%
Proposal 16	78%
Total Proposed Protection	78%
<b>Sea Squirts (<i>Boltenia</i> sp.)</b>	
Existing Closures	0%
Proposal 17	55%
Proposal 18	5%
Total Proposed Protection	60%
<b>Small Gorgonian Corals</b>	
Existing Closures	2%
Proposal 15a	29%
Total Proposed Protection	31%

WG-EAFFM acknowledged and thanked the SC for their efforts and noted the usefulness of having VME closure management options for its consideration. Several CPs noted the importance of balancing protection of VMEs with fishing effort and opportunities.

One CP noted the need for consideration of non-fishing impacts to the VMEs and possible implications concerning the effectiveness of the proposed closures with respect to the non-fishing activities. Other CPs noted that managing non-fishing impacts were outside the mandate of NAFO. Furthermore, CPs noted that chapter 2 specifically addresses fishing impacts to VMEs and not other activities.

The WG agreed the need for greater VME protections based on the SC's SAI analysis and recommendations.

The WG discussed a range of possible management options and a variety of views were expressed by CPs, including: 1) that particular attention should be allocated to VMEs most in need of increased protection from SAI as outlined in Table above; 2) that the WG should recommend all of the SC's proposed closures to the Commission; and 3) that they required additional time for consultations with scientists and other stakeholders

Accordingly, WG-EAFFM encourages that Contracting Parties to work together in the intersessional period before the Annual Meeting to consider and develop proposals for VME protection based on the SC advice.

Consequently, WG-EAFFM **recommends** that the Commission extend the current closures in Chapter 2 of the NAFO CEM for five (5) years and that additional VME protections are needed, and therefore,

WG-EAFFM **recommends** that the Commission consider the SC's advice regarding additional area-based management measures to protect VMEs from SAI, and consider adopting additional measures if proposed at the 2021 Annual Meeting.

### iii) review of seamount closure boundaries

Dr. Andrew Kenny presented the SC advice on seamount closures.

In 2020, SC recommended the continued designation seamount as VME and the continuation of current closures (SCS Doc. 20/14), and proposed new boundaries for the Corner Rise Seamounts and Newfoundland

Report of WG-EAFFM,  
14–16 July 2021 and 20–21 July 2021

Seamounts to maintain connectivity across the seamount chains and to improve the protection of vulnerable seamounts in the NRA. Given the availability of new bathymetric data towards the end of 2020, SC in 2021 undertook a more extensive review of the seamounts in the NAFO Areas Beyond National Jurisdiction (ABNJ).

As a result, SC recommended changes to the existing boundaries for the Fogo, Newfoundland and Corner Rise Seamount closures, as well as the implementation of seven new individual seamount closures in the NRA north of Orphan Knoll (see Annex 5). WG-EAFFM notes that current and proposed seamount closures have no impact on ongoing fishing activities as all Seamounts and current seamount closures fall outside the NAFO fishing footprint. There are no bottom-contacting fishing activities outside the NAFO fishing footprint, and any exploratory bottom fishing activity in this area is subject to the provisions of Chapter 2 of the NAFO CEM, including the prohibition of bottom-contact fishing within seamount closures.

WG-EAFFM welcomes the recommendation from the SC on the proposal on revision of boundaries of seamount closures and **recommends** the proposal be forwarded to the Commission for consideration, noting that some Contracting Parties required some additional time for consultation on the proposed boundary revisions with scientists and stakeholders.

WG-EAFFM discussed the timeframe for review/expiration of the seamount closures. For other VME closures, it has been suggested that future review should be linked to the five-year SAI analysis, however, since there is no ongoing fishing on the seamounts, it was agreed that linking such a review to the SAI assessment timetable would not be necessary or appropriate. It was therefore agreed that the review of the seamount closures should be linked to other international processes, such as the five-year UNGA review process, noting that the timing of the UNGA review is not fixed. The group agreed that the timeframe should be, in general, not more than five years and should be a review rather than expiration.

**b. Commission Request # 7 – Taxa list in NAFO CEM Annex I.E. Part VI as reflected in COM-SC EAFFM-WP 18-01**

WG-EAFFM considered the revised list of VME indicator species noting that the changes reflect recent taxonomic revisions and correction of various spelling errors in the current CEM annex I.E. The revised list of VME taxa is included in this report as Annex 6.

WG-EAFFM **recommends** that the Commission adopt the Scientific Council recommended changes to Annex I.E. Part VI “*List of VME Indicator Species*” of the NAFO CEM.

**c. Commission Request # 5 – Ecosystem Road Map**

While there has been no further scientific development of Tier 1-related work (*e.g.*, Fisheries Production Potential models, Total Catch Index (TCI)) in 2021, the SC reiterated the advice provided on this topic in 2020 (SCS Doc 20/14).

Dr. Pierre Pepin presented a recap of the work that has been done by SC up to 2020 on the development of Ecosystem Production Modeling and Total Catch Indices.

To facilitate discussion, Dr. Pepin presented a number of possible management actions that could be considered in relation to TCI advice. This is outlined in Annex 7. It was noted that these options were not part of the SC advice, but included as suggestions to illustrate the type of management decisions that could be considered by managers, for example during the planned dialogue meeting and WG-EAFFM workshop (see agenda item 6).

WG-EAFFM continued to express its appreciation of this ground-breaking work, and noted the need for managers and the Commission to consider how these provisions might be reflected in the Commission decision making processes.

One CP noted that current catches are well below 2 times TCI for all functional groups, and so it is unlikely that these management measures would be triggered in the imminent future; further discussion between fisheries managers would be needed before any decision could be taken on appropriate management options if these exceptional circumstances ever occur. The WG agreed that there are many options for the practical implementation of the Roadmap (including the existing Total Catch Index) and that managers need to give greater consideration to those options for practical application purposes, noting that while this work would add complexity to the work of the Commission it should not be a reason to not move forward.

One CP commented that, given the “*ground-breaking*” nature of this work, it be useful to have an independent review of the work. SC members pointed out that the NAFO performance review provided review of the process, but agreed technical review of the ecosystem production model would be beneficial. One CP suggested that ICES could be approached to perform such a review, while others noted that it may be useful to consider a panel of experts from various backgrounds and organizations. It was also noted that the type of modeling approach used here has been applied by other organizations and included in a number of primary publications.

Given the long-term importance and ground-breaking nature of this work, WG-EAFFM **recommends** that the Commission request Scientific Council, in consultation with WG-EAFFM, to engage an external independent scientific review of the NAFO Roadmap, perhaps as a function of the EAFFM workshop process. This review would include estimating fisheries production and total catches (Tier 1) whilst considering a full range of species interactions (Tier 2). The outcomes of this would be available in advance of the planned workshop in 2022.

#### **d. Commission Request # 18 – 3M and 3LNO Ecosystem Summary Sheets**

Dr. Pepin updated WG-EAFFM on progress related to the development of the Ecosystem Summary Sheets (EES).

Owing to demands to complete Commission Request #6, development of Ecosystem Summary Sheets for 3M could not be completed during the 2020 meeting of WG-ESA. The Ecosystem Summary Sheets for 3LNO was completed in 2019.

As a result of pandemic related limitations, and the need to establish ecosystem level objectives by the Commission, undertaking a joint Workshop with ICES on the subject of developing EES has been postponed until the situation improves.

#### **6. Update on the WG-EAFFM Workshop (2022), including the Open Dialogue Meeting (September 2021)**

At the 41<sup>st</sup> Annual Meeting (2019) it was agreed that WG-EAFFM would convene a workshop in 2020 to progress the implementation of all aspects of the NAFO Roadmap (COM-SC Doc 19-10).

- To advance the drafting of ecosystem level objectives.
- Identify elements for their application.
- Explore existing practice.
- Identify information needs for future development.

At the 2020 WG-EAFFM meeting it was agreed that a workshop planning sub-group should be convened to make preparations for the workshop. Due to the COVID-19 pandemic, the workshop was delayed until 2022.

Given the delay, in early 2021 the WG-EAFFM sub-group decided that in order to maintain the momentum in implementing the NAFO ecosystem roadmap and to initiate discussions ahead of the workshop in 2022, a half-day virtual ‘EAF open-dialogue’ meeting should be convened in 2021 (Correspondence NAFO/21-099, March 2021). This meeting date has been scheduled for 07 October 2021.

The purpose of the “*open dialogue*” meeting is to:

- understand the current state-of-play of the EAF Roadmap in NAFO
- Identify any concerns in progressing towards its operational implementation
- provide a foundation (defining the scope) for more detailed discussions at the NAFO ecosystem roadmap workshop in 2022.

Report of WG-EAFFM,  
14–16 July 2021 and 20–21 July 2021

The provisional agenda of the “*open dialogue*” meeting is presented in the table below:

Item	Suggested Lead/Presentation
1. Introductions/Purpose/background	WG-EAFFM co-Chairs
2. Current state of play - an overview of the present NAFO EAF, Roadmap	WG-ESA co-Chair
3. EAF advice in ICES	ICES ACOM Chair
4. Managers’ perspectives on the opportunities and challenges for the development and implementation of the NAFO EAF Roadmap.	NAFO CPs
5. Summary and Conclusions - agreeing objectives for the WG-EAFFM workshop in 2022	WG-EAFFM co-Chairs

It was noted that, when originally planned, this was intended to be a joint workshop between WG-EAFFM and WG-RBMS. Several CPs commented that it would be very useful to include representatives from both WGs in the EAFFM workshop and the dialogue meetings, given the linkages between the PAF review and the Roadmap Process. It was also suggested that the workshop could be co-chaired by representatives of the two WGs and that representatives of other organisations, including NEAFC, could be invited to the workshop.

In regard to the 2022 workshop and 2021 Open Dialogue meetings, WG-EAFFM requests Contracting Parties develop specific questions/ideas about their concerns or thoughts they may have in moving the Roadmap from the conceptual elements (see agenda item 5.c) to practical considerations of how these (or other elements) would work in practice at the Commission level. Feedback from Contracting Parties on this matter will be an important part of the Open Dialogue meeting in October 2021 and subsequently at next year’s WG-EAFFM Workshop. These questions/ideas should be sent to the Secretariat soon to inform the open dialogue meeting.

WG-EAFFM **recommends** that the Commission strongly encourage participation by Contracting Parties and observers at both the open dialogue and subsequent WG-EAFFM Workshop meetings.

WG-EAFFM **recommends** that the Commission request the participation of WG-RBMS representatives and co-Chairs at both the open dialogue meeting and the subsequent WG-EAFFM Workshop, including potentially co-chairing the meetings, as many of these issues could overlap with its work, particularly the review of the PA Framework.

## 7. Review/Revision of NAFO CEM Chapter 2 Provisions

In 2020, WG-EAFFM recommended that STACTIC review the implementation of the NAFO CEM Chapter 2 provisions and suggest to WG-EAFFM, as necessary, any revisions to it with a view to improving the effectiveness of the management measures. It was also recommended that the Commission request the Scientific Council to also review the effectiveness of Chapter 2 from a scientific perspective and to report back at 2022 WG-EAFFM meeting.

This recommendation was not included in the Commission requests to SC for 2021 and consequently, WG-EAFFM **re-iterates its prior recommendation** that the Commission request the Scientific Council to review the effectiveness of the NAFO CEM Chapter 2 provisions from a scientific and technical perspective and to report back at 2022 WG-EAFFM meeting.

With regard to the STACTIC review, feedback was received from two CPs:

- At the STACTIC Intersessional Meeting, Denmark (in respect of the Faroe Islands and Greenland) highlighted that there is some difficulty in identifying VME species when they are brought onboard the vessels.

- In an effort to ensure real time compliance with VME closures, Canada suggests that the NAFO Secretariat could implement Geo-Fences around each closure to facilitate generation of an automated report (with the Vessel Name, Date, Time, Speed, Heading, VME Closure, Vessel's Geographic Location) whenever a vessel is within a boundary at a speed less than four knots. This report could then be automatically sent to the inspection presences within the area for further triage and necessary follow-up if required.

Regarding the difficulty experienced by observers in identifying VME species at sea, it was noted that SC has never received any feedback regarding the use of the existing VME identification handbook by observers, which could potentially be used as a basis for their improvement. WG-EAFFM **recommends** that the Commission request STACTIC and the Secretariat to work with the NAFO fishery observers to determine if, and how, the current VME identification guides can be improved to assist in the identification of VME species.

It was noted that the Secretariat is developing a smart phone app for data entry by observers, and WG-EAFFM reaffirm the request to include features that would assist the identification of the VMEs in the smart phone app for observers where possible.

Regarding geo-fencing of fishing vessel activity in VME closed areas, the Senior Fisheries Management Coordinator noted that this point is partially addressed by the Secretariat's monitoring of VMS transmissions. The Secretariat has set up a system to send an automated alert when a vessel enters a closed area. Secretariat staff then determine from VMS whether it is moving at speed consistent with transiting or fishing. So far, there have been infrequent occurrences of detection of steaming vessel. No vessel has been detected fishing in the closed area. At present, the Secretariat does not inform Contracting Parties with an inspection presence when vessels are detected operating in VME closed areas. WG-EAFFM therefore **recommends** that the Commission request STACTIC, for WG-EAFFM's 2022 meeting, develop CEM text requiring the Secretariat to inform those Contracting Parties with an inspection presence when vessels are operating in closed areas at speeds indicating fishing may be occurring.

At its next WG-EAFFM meeting, the Chairs will develop a revised Chapter 2 text, to better reflect the requested language from STACTIC, as well as revising Art 17 in order to refer to all VME types and not just sponge and corals, and to update the relevant annex with a new field reporting the vessel location when it encounters a VME, and its subsequent move-on position 2 nm away.

## 8. Implementation of 2018 Performance Review Panel recommendations

### a. Input regarding data classification and access rights of the NAFO websites

In alignment with the 2018 Performance Review Panel Recommendations and their implementation, *the Ad Hoc virtual NAFO Website Re-design Working Group: Data Classification* at the 2020 Annual Meeting of NAFO was tasked with development of a formal policy regarding the posting and distribution of meeting documentations. In this regard, feedback from the WG-EAFFM was sought on whether working papers and other meeting working documents be made available to the public by posting them in the NAFO public website.

The WG expressed that in principle, there ought to be greater transparency. However, there are situations where some documents can not be made public for confidentiality reasons, *e.g.*, survey data, memos, papers as a basis for discussion or negotiation.

## 9. Other Matters

### a. Proposed Memorandum of Understanding (MoU) with the Sargasso Sea Commission

The Executive Secretary reported that the NAFO Secretariat has been approached by the Secretariat of the Sargasso Sea Commission (SSSC) about the possibility of signing a Memorandum of Understanding (MOU) between the two Secretariats. An updated draft text of the MOU was presented to the Working Group (COM-SC EAFFM 21-02).

The draft MOU was reviewed. WG-EAFFM **recommends** the Commission support the development of an MOU between the Sargasso Sea Commission Secretariat and NAFO Secretariat.

It was agreed that WG-EAFFM will invite a representative of the Sargasso Sea Commission to give a presentation on its work at the 2022 WG-EAFFM meeting.

### **b. Update on the possible renewal of the ABNJ Deep-Seas Fisheries Project**

Tony Thompson (FAO) provided an update of the development of the *ABNJ Deep-sea Fisheries (DSF) Project* (COM-SC EAFFM-WP 21-01). Dr. Thompson reported that the DSF Project's Concept Note was accepted by GEF on 1 June 2020 and that the Inception workshop was held on 24 August 2020. The Theory of Change has been finalised and the in-kind partnership activities to support the project's objectives have been identified. Those aspects of the project most relevant to NAFO were briefly presented, and include work on data-limited stocks, deepwater sharks, VMEs, and cross-sectoral interactions with deep-sea fisheries. The DSF Project document is currently being drafted by FAO and drafts will be shared with partners at the project's Validation Workshop in August 2021. The next steps by NAFO will be to review the co-financing support letter confirming commitment to the project.

WG-EAFFM noted that the recently completed ABNJ deep sea fisheries project has been informative and beneficial to the work of WG-EAFFM and NAFO generally, and that the work of WG-EAFFM has also been informative to the deep sea fisheries project. It expressed its support to NAFO's role in becoming a partner to the DSF Project.

WG-EAFFM **recommends** the Commission support the ABNJ deep sea fisheries project, including offering in-kind support from NAFO.

### **c. Joint ICES/IUCN workshop on OECMs – NAFO sponge VMED case study**

In March 2021, NAFO scientists participated in a joint ICES/IUCN-CEM FEG workshop on testing OECM (Other Effective area-based Conservation Measures) practices and strategies in relation to several different types of spatial fishery management measures (*e.g.*, VME fishery closures). Included as case studies were the NAFO large sponge VME and NAFO Corner Rise Seamount which were both positively evaluated against the OECM criteria (ICES, 2021)

The WG requested that the Secretariat work with CBD to inform the WG on the OECM process for closed area nomination by RFMOs, including what role, if any, RFMOs have had to date.

The WG agree to form an informal group of managers and scientists. This group's purpose is two-fold: 1) to evaluate current NAFO VME closures and other relevant management measures against the OECM criteria, and 2) to consider the implications of presenting NAFO's VME closures and any other relevant management measures to the CBD as possible classification as OECMs. The group will present their results at the WG-EAFFMs 2022 meeting with a goal of reporting to the Commission at the 2022 Annual Meeting.

Contracting Parties are encouraged to send names of participants to the Secretariat by **30 September 2021**.

### **d. Other International relations**

There were no further developments regarding a possible establishment of possible informal consultation mechanisms with the International Seabed Authority (ISA), however the Executive Secretary attended virtually an ISA Workshop on the Development of a Regional Environmental Management Plan for the Area of the Northern Mid-Atlantic Ridge (23 November–04 December 2020) and gave a presentation about area-based management tools used by NAFO.

## **10. Recommendations**

### **The WG-EAFFM:**

#### **In regards to SAI work,**

- 1. Recommends that the Commission direct the Secretariat to share its work on bottom fishing impacts along with any potential up-date of the SAI outcome with the UNGA VME review in 2022.**

#### **In regards to Seamounts,**

- 2. Welcomes the recommendation from the SC on the proposal on revision boundaries of seamount closures and recommend the proposal be forwarded to the Commission for consideration, noting that some Contracting Parties need additional time for consultation on the revision with scientists and stakeholders.**

**In regards to Taxa Changes,**

3. Recommends that the Commission adopt the Scientific Council recommended changes to Annex I.E.6 “*VME Indicator Species*” of the NAFO CEM (Annex 6).

**In regards to Roadmap/Workshop**

4. Recommends, given the long-term importance and ground-breaking nature of this work, that the Commission request Scientific Council, in consultation with WG-EAFFM, engage an external independent panel to conduct a scientific review of the NAFO Roadmap as it applies to estimating fisheries production and total catches (Tier 1) whilst considering a full range of species interactions (Tier 2). The outcomes of this would be available in advance of the planned workshop in 2022.
5. Recommends that the Commission strongly encourage participation by Contracting Parties and observers at both the open dialogue meeting and the subsequent WG-EAFFM Workshop.
6. Recommends that the Commission request the participation of WG-RBMS representatives and co-Chairs at both the open dialogue meeting and the subsequent WG-EAFFM Workshop, including potentially co-chairing the meetings, as many of these issues could overlap with its work, particularly the review of the PA Framework.

**In regards to the review of NAFO CEM Chapter 2,**

7. Re-iterates its prior recommendation that the Commission request the Scientific Council to review the effectiveness of NAFO CEM, Chapter 2 from a scientific and technical perspective and to report back at 2022 WG-EAFFM meeting.
8. Recommends that the Commission request STACTIC and the Secretariat to work with NAFO fishery observers to determine if, and how, the current VME identification guides can be improved to assist in VME species identification.
9. Recommends that the Commission request STACTIC, for WG-EAFFM’s 2022 meeting, to develop NAFO CEM text requiring the Secretariat to inform those Contracting Parties with an inspection presence when vessels are operating in closed areas at speeds indicating fishing may be occurring.

**In regards to VMEs,**

10. Recommends that the Commission extend the current closures in Chapter 2 of the NAFO CEM for five (5) years. Consequently,
  - a. Article 17.1 of the NAFO CEM should read: Until 31 December ~~2024~~ 2026, no vessel shall engage in bottom fishing activities in any of the areas illustrated in Figure 3 and defined by connecting the following coordinates specified in Table 5 in numerical order and back to coordinate 1.
  - b. Article 17.2 of the NAFO CEM should read: Until 31 December ~~2024~~ 2026, no vessel shall engage in bottom fishing activities in the area of Division 3O illustrated in Figure 4 and defined by connecting the coordinates specified in Table 6 in numerical order and back to coordinate 1.
  - c. Article 17.3 of the NAFO CEM should read: Until 31 December ~~2024~~ 2026, no vessel shall engage in bottom fishing activities in the areas 1-13 illustrated in Figure 5 and defined by connecting the coordinates specified in Table 7 in numerical order and back to coordinate 1.
11. Additional VME protections are needed, therefore, recommends that the Commission consider the SC’s advice regarding additional area-based management measures to protect VMEs from SAI, and consider adopting additional measures if proposed at the 2021 Annual Meeting.

**In regards to ABNJ Deep Sea Fisheries Project,**

12. Recommends the Commission support the ABNJ Deep Sea Fisheries Project, including offering in-kind support from NAFO.

Report of WG-EAFFM,  
14–16 July 2021 and 20–21 July 2021

**In regards to Sargasso Sea Commission,**

**13. Recommends the Commission support the development of an MOU between the Sargasso Sea Commission Secretariat and NAFO Secretariat.**

**11. Adoption of the report**

The report was adopted via correspondence.

**12. Adjournment**

The meeting was adjourned at 12:30 (Atlantic Daylight Time in Halifax, Nova Scotia) on 20 July 2021.

**Annex 1. List of Participants****WG-EAFFM CO-CHAIRS**

Kenny, Andrew. Centre for Environment, Fisheries, and Aquaculture Science (CEFAS) – Lowestoft Laboratory,  
Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [andrew.kenny@cefas.co.uk](mailto:andrew.kenny@cefas.co.uk)

Mencher, Elizabethann. Foreign Affairs Analyst, National Marine Fisheries Service, Office of International Affairs  
and Seafood Inspection, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy.,  
Silver Spring, MD 20910, USA  
Tel: +1 301 427 8362 – Email: [Elizabethann.Mencher@noaa.gov](mailto:Elizabethann.Mencher@noaa.gov)

**CHAIR OF SCIENTIFIC COUNCIL**

Fernandez, Carmen. Instituto Español de Oceanografía (IEO). Avenida Príncipe de Asturias, 70 bis. 33212, Gijón,  
Spain  
Tel: +34 (985) 308 672 - Email: [carmen.fernandez@ieo.es](mailto:carmen.fernandez@ieo.es)

**CANADA**

Burns, Adam. Director General, Fisheries Resource Management, Fisheries and Oceans Canada, 200 Kent Street,  
Ottawa, ON K1A 0E6  
Email: [Adam.Burns@dfo-mpo.gc.ca](mailto:Adam.Burns@dfo-mpo.gc.ca)

Chapman, Bruce. Executive Director, Groundfish Enterprise Allocation Council, 1362 Revell Dr., Manotick,  
Ontario K4M 1K8  
Tel: +1 613 692-8249 – Email: [bchapman@sympatico.ca](mailto:bchapman@sympatico.ca)

Cogliati, Karen. Science Advisor III. International Fisheries Management, Fisheries and Oceans Canada, 200 Kent  
Street, Ottawa, ON K1A 0E6  
Email: [Karen.Cogliati@dfo-mpo.gc.ca](mailto:Karen.Cogliati@dfo-mpo.gc.ca)

Dwyer, Karen. Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL. A1C5X1  
Tel: +1 709-772-0573 – Email: [karen.dwyer@dfo-mpo.gc.ca](mailto:karen.dwyer@dfo-mpo.gc.ca)

Fuller, Susanna. Oceans North Canada, 1533 Barrington Street, Suite 202, Halifax, NS B3J 1Z4  
Email: [susannafuller@oceansnorth.ca](mailto:susannafuller@oceansnorth.ca)

Her, Natalie. Junior Policy Analyst, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street,  
Ottawa, ON K1A 0E6  
Email: [Natalie.Her@dfo-mpo.gc.ca](mailto:Natalie.Her@dfo-mpo.gc.ca)

Johnson, Kate. Senior Advisor, International Fisheries Policy, Strategic Policy, Fisheries & Oceans Canada  
Tel: +1 (343) 551-5295 – Email: [Kate.Johnson@dfo-mpo.gc.ca](mailto:Kate.Johnson@dfo-mpo.gc.ca)

Kennington, Ellen. Research Scientist, Fisheries and Oceans Canada, 1 Challenger Drive, Dartmouth, Nova Scotia  
Tel: +1 902-426-2030 – Email: [Ellen.Kennington@dfo-mpo.gc.ca](mailto:Ellen.Kennington@dfo-mpo.gc.ca)

Koen-Alonso, Mariano Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL. A1C 5X1  
Email: [Mariano.Koen-Alonso@dfo-mpo.gc.ca](mailto:Mariano.Koen-Alonso@dfo-mpo.gc.ca)

Marsden, Dale, Deputy Director, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street,  
Ottawa, ON K1A 0E6  
Email: [Dale.Marsden@dfo-mpo.gc.ca](mailto:Dale.Marsden@dfo-mpo.gc.ca)

O'Rielly, Alastair. NAFO Commissioner, Executive Director, Northern Coalition Corporation, P.O. Box 452 Witless  
Bay, NL, A0A 4K0  
Tel: + 1 709 727-3290 Email: [alastairorielly@gmail.com](mailto:alastairorielly@gmail.com)

Pepin, Pierre. Fisheries & Oceans Canada, P. O. Box 5667, St. John's, NL A1C 5X1  
Email: [pierre.pepin@dfo-mpo.gc.ca](mailto:pierre.pepin@dfo-mpo.gc.ca)

Report of WG-EAFFM,  
14–16 July 2021 and 20–21 July 2021

Pond, Nancy. Resource Manager. Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Email: [Nancy.Pond@dfo-mpo.gc.ca](mailto:Nancy.Pond@dfo-mpo.gc.ca)

Rowsell, Nicole. Director (A), Sustainable Fisheries and Oceans Policy, Fisheries and Land Resources, Government of Newfoundland and Labrador, 30 Strawberry Marsh Rd., St. John's, NL A1B 4R4  
Tel: +1 (709) 729-0335 – Email: [nicolerowsell@gov.nl.ca](mailto:nicolerowsell@gov.nl.ca)

Simpson, Mark. Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL. A1C5X1  
Tel.: +709-772-4841 - Email: [mark.r.simpson@dfo-mpo.gc.ca](mailto:mark.r.simpson@dfo-mpo.gc.ca)

Templeman, Nadine. Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL. A1C5X14  
Tel: +1 709-772-0573 – Email: [Nadine.templeman@dfo-mpo.gc.ca](mailto:Nadine.templeman@dfo-mpo.gc.ca)

Turple, Justin. Director, International Fisheries Policy, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Justin.Turple@dfo-mpo.gc.ca](mailto:Justin.Turple@dfo-mpo.gc.ca)

### EUROPEAN UNION

Beijoco, Catarina. Ministry of the Sea, Directorate General for Natural Resources, Safety and Maritime Services (DGRM), Avenida Brasilia, 1449-030 Lisbon, Portugal  
Email: [cbeijoco@dgrm.mm.gov.pt](mailto:cbeijoco@dgrm.mm.gov.pt)

Durán Muñoz, Pablo. Instituto Español de Oceanografía (IEO), Centro Oceanográfico de Vigo, Subida a Radio Faro, 50, 36390 Vigo, ESPAÑA  
Email: [pablo.duran@ieo.es](mailto:pablo.duran@ieo.es)

Granell, Ignacio. International Relations Officer, Regional Fisheries Management Organizations, European Commission, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 2 296 74 06 – Email: [ignacio.granell@ec.eurpoa.eu](mailto:ignacio.granell@ec.eurpoa.eu)

Mancebo, C. Margarita. Head of International Fisheries Relations, Ministry of Agriculture, Food and Environment, C/Velazquez, 144, 28006 Madrid, Spain  
Tel: +34 91 3476129 – Email: [cmancebo@mapa.es](mailto:cmancebo@mapa.es)

Merino-Buisac, Adolfo. Policy Officer, Scientific advice supporting the Common Fisheries Policy, European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE), Unit C.3 – Scientific advice and data collection, J99 03/003, B-1049 Brussels/Belgium  
Tel: +32 2 29 590 46 – Email: [adolfo.merino-buisac@ec.europa.eu](mailto:adolfo.merino-buisac@ec.europa.eu)

Sacau-Cuadrado, Mar. Instituto Español de Oceanografía (IEO), Centro Oceanográfico de Vigo, Subida a Radio Faro, 50, 36390 Vigo, ESPAÑA  
Email: [mar.sacau@ieo.es](mailto:mar.sacau@ieo.es)

Teixeira, Isabel. Head of External Resources Division, Ministry of the Sea, Directorate General for Natural Resources, Safety and Maritime Services (DGRM), Avenida Brasilia, 1449-030 Lisbon, Portugal  
Tel: +351 21 303 5825 – Email: [iteixeira@dgrm.mm.gov.pt](mailto:iteixeira@dgrm.mm.gov.pt)

Tuvi, Aare. Counsellor, Fishery Resources Department, Republic of Estonia, Ministry of the Environment, Narva mnt 7A, 15172, Tallinn, Estonia  
Tel: + 372 6260 712 – Email: [aare.tuvi@envir.ee](mailto:aare.tuvi@envir.ee)

Ulloa Alonso, Edelmiro. Secretario Técnico Para Asaciones, Fishing Ship-owners' Cooperative of Vigo (ARVI), Puerto Pesquero de Vigo, Apartado 1078, 36200 Vigo, Spain  
Tel: +34 986 43 38 44 – Email: [edelmiro@arvi.org](mailto:edelmiro@arvi.org)



**ICELAND**

Benediktssdóttir, Brynhildur. Senior Expert, Department of Fisheries and Aquaculture, Ministry of Industries and Innovation, Skúlagötu 4, 150 Reykjavík, Iceland  
Tel: +354 545 9700 – Email: [brynhildur.benediktssdottir@anr.is](mailto:brynhildur.benediktssdottir@anr.is)

**JAPAN**

Iino, Kenro. Advisor to the Minister of Agriculture, Forestry and Fisheries on International Affairs (Fisheries) Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3 3502 8460 – Email: [keniino@hotmail.com](mailto:keniino@hotmail.com)

Morita, Hiroyuki. Assistant Director, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Email: [hiroyuki\\_morita970@maff.go.jp](mailto:hiroyuki_morita970@maff.go.jp)

Nakasu, Maiko. Ministry of Agriculture, Forestry and Fisheries (MAFF) Agency, Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku. 100-8907 Tokyo, Japan  
Email: [maiko\\_nakasu100@maff.go.jp](mailto:maiko_nakasu100@maff.go.jp)

Okamoto, Junichiro. Executive Managing Director, Japan Overseas Fishing Association, Tovei Ogawamachi-Bldg., 5F, 2-6-3 Kanda Ogawa-Machi, Chiyoda-ku, Tokyo, 101-0052, Japan  
Tel: +81 3 3291 8508 – Email: [jokamoto@jdsta.or.jp](mailto:jokamoto@jdsta.or.jp)

Taki, Kenji Scientist, National Research Institute of Far Seas. Fisheries, Agency, 5-7-1, Orido, Shimizu-Ward, Shizuoka-City, Shizuoka, Japan  
Email: [takistan@affrc.go.jp](mailto:takistan@affrc.go.jp)

**NORWAY**

Hvingel, Carsten. Head of Research Group, Institute of Marine Research, P.O. Box 1870 Nordnes, 5817 Bergen, Norway  
Tel: +47 95980565 – Email: [carsten.hvingel@hi.no](mailto:carsten.hvingel@hi.no)

**RUSSIAN FEDERATION**

Fomin, Konstantin. Knipovich Polar Research Institute of Marine, Fisheries and Oceanography, Murmansk, Russian Federation  
Email: [fomin@pinro.ru](mailto:fomin@pinro.ru)

**UNITED KINGDOM**

Hackett, Michelle. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Michelle.Hackett@defra.gov.uk](mailto:Michelle.Hackett@defra.gov.uk)

Readdy, Lisa. Centre for Environment, Fisheries, and Aquaculture Science (CEFAS) – Lowestoft Laboratory, Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [lisa.readdy@cefass.co.uk](mailto:lisa.readdy@cefass.co.uk)

Round, Jake. Department for Environment, Food & Rural Affairs (DEFRA), Seacole Building, 2 Marsham Street, London, United Kingdom W1P 4DF  
Tel: +078 603 47 486 – Email: [jake.Round@defra.gov.uk](mailto:jake.Round@defra.gov.uk)

Ryan, Jack. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P 3JR  
Email: [Jack.Ryan@defra.gov.uk](mailto:Jack.Ryan@defra.gov.uk)

Report of WG-EAFFM,  
14–16 July 2021 and 20–21 July 2021

### UNITED STATES OF AMERICA

Kelly, Moira. Senior Fishery Program Specialist, Regional Recreational Fisheries Coordinator, Greater Atlantic Regional Fisheries Office, National Marine Fisheries Service, 55 Great Republic Drive, Gloucester, MA 01930 USA

Tel: +1 978-281-9218 – Email: [moira.kelly@noaa.gov](mailto:moira.kelly@noaa.gov)

Sosebee, Katherine. Science Advisor, Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA) USA

Tel: +1 508 495 2372 – Email: [katherine.seosebee@noaa.gov](mailto:katherine.seosebee@noaa.gov)

Warner-Kramer. Deirdre. Acting Deputy Director, Office of Marine Conservation (OES/OMC), U.S. Department of State, Washington, DC 20520

Tel +1 202 647 2883 – Email: [warner-kramerm@fan.gov](mailto:warner-kramerm@fan.gov)

### UKRAINE

Litvinov, Valentin. Executive Director/Head of the Secretariat, Federation of the Ukrainian Fisheries, All-Ukrainian Public Organization

Tel: +38 099 536 3550 – Email: [rybalky@ukr.net](mailto:rybalky@ukr.net)

### OBSERVERS

#### ABNJ Deep Seas Project

Thompson, Anthony. Email: [Anthony.Thompson@fao.org](mailto:Anthony.Thompson@fao.org)

#### Ecology Action Centre

Pardo, Sebastián. Ecology Action Centre, 2705 Fern Lane, Halifax, NS, B3K 4L3, Canada

Email: [sebpardo@ecologyaction.ca](mailto:sebpardo@ecologyaction.ca)

### NAFO SECRETARIAT

Summit Place, 1601 Lower Water Street, Suite 401, Halifax, Nova Scotia, Canada – Tel: +1 902 468-5590

Kingston, Fred. Executive Secretary.

Email: [fkingston@nafo.int](mailto:fkingston@nafo.int)

Blasdale, Tom. Scientific Council Coordinator.

Email: [tblasdale@nafo.int](mailto:tblasdale@nafo.int)

Federizon, Ricardo. Senior Fisheries Management Coordinator.

Email: [rfederizon@nafo.int](mailto:rfederizon@nafo.int)

LeFort, Lisa. Senior Executive Assistant to the Executive Secretary.

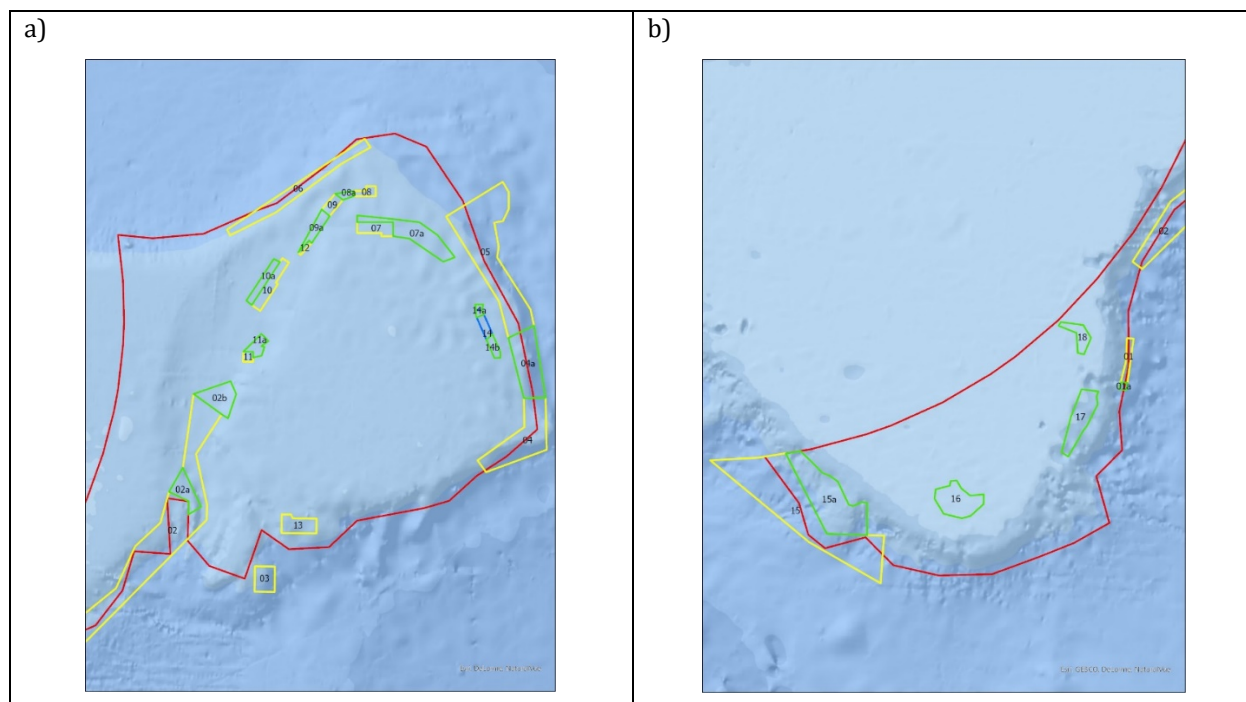
Email: [llefors@nafo.int](mailto:llefors@nafo.int)



## **Annex 2. Agenda**

1. Opening by the co-Chairs, Andrew Kenny (United Kingdom) and Elizabethann Mencher (USA)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Review of the August 2020 recommendations (COM-SC Doc. 20-06)
5. Presentation and discussion of SC responses to Commission requests for advice (COM Doc. 20-16 and SCS Doc. 21-14) relevant to EAFFM
  - a. Commission Request # 6 – Re-assessment of NAFO bottom fisheries and analysis of potential management options (VME closures)
  - b. Commission Request # 7 – Taxa list in NAFO CEM Annex I.E. Part VI as reflected in COMSC EAFFM-WP 18-01
  - c. Commission Request # 5 – Ecosystem Road Map
  - d. Commission Request # 18 – 3M and 3LNO Ecosystem Summary Sheets
6. Update on the WG-EAFFM Workshop (2022), including the Open Dialogue Meeting (September 2021)
7. Review/Revision of NAFO CEM Chapter 2 Provisions
8. Implementation of 2018 Performance Review Panel recommendations
  - a. Input regarding data classification and access rights of the NAFO websites
9. Other Matters
  - a. Proposed Memorandum of Understanding (MoU) with the Sargasso Sea Commission
  - b. Update on the possible renewal of the ABNJ Deep-Seas Fisheries Project
  - c. Joint ICES/IUCN workshop on OECMs – NAFO sponge VMED case study
  - d. Other International Relations
10. Recommendations
11. Adoption of the Report
12. Adjournment

### Annex 3. Location of existing VME closures, extensions and new closures and removals as proposed by SC



**Figure 1.** Location of existing closures (in yellow) proposed extensions and new closures (in green), and removals (in blue) in a) the northern, and b) the southern portions of the NRA. The fishing footprint is indicated in red. Numerals represent existing or proposed new closures; number-letter combinations represent extensions or modifications to existing closures. (Source: SCS Doc 21-14)

**Annex 4. Biomass protection levels with the proposed changes in the VME closures****Biomass Protected**

Existing Closures = 25%

All Proposal Areas = 77%

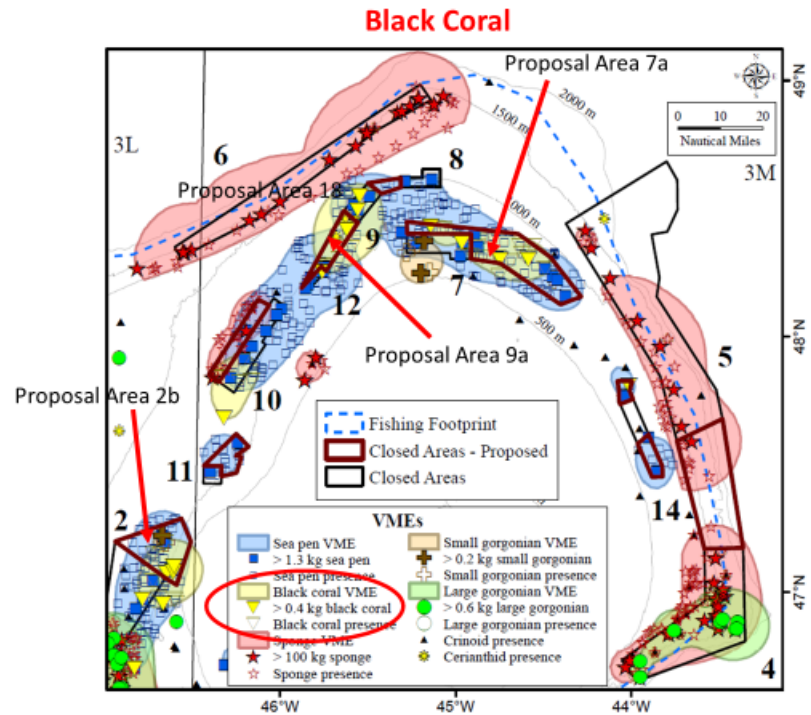
Proposal 7a = 10%

Proposal 2b = 5%

Proposal 9a = 36%

Total  
Protection with  
7a, 9a and 2b = 77%

Low Risk

**Erect Bryozoans****Biomass Protected**

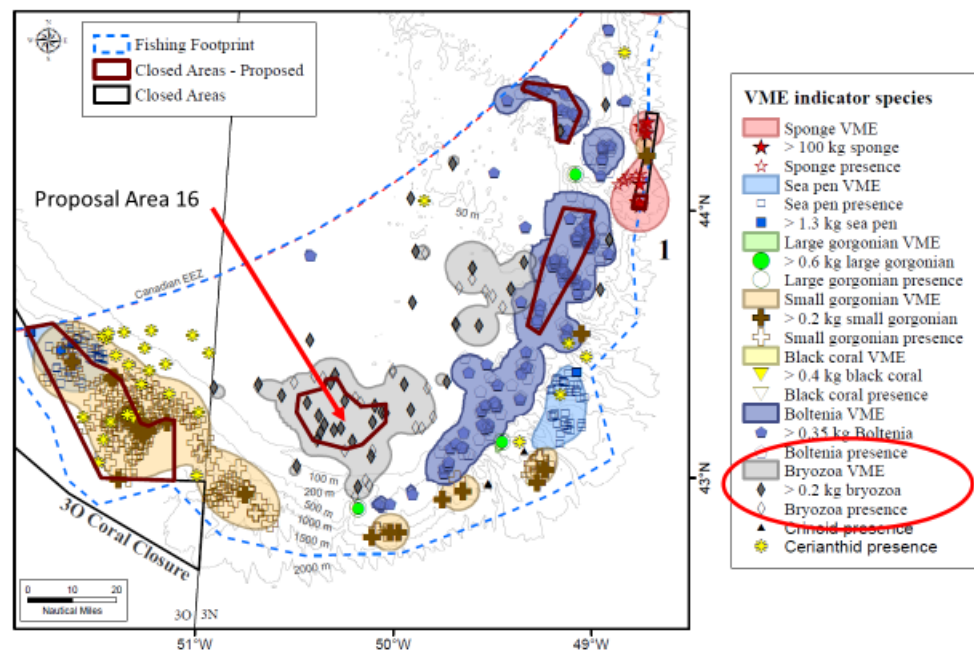
Existing Closures = 0%

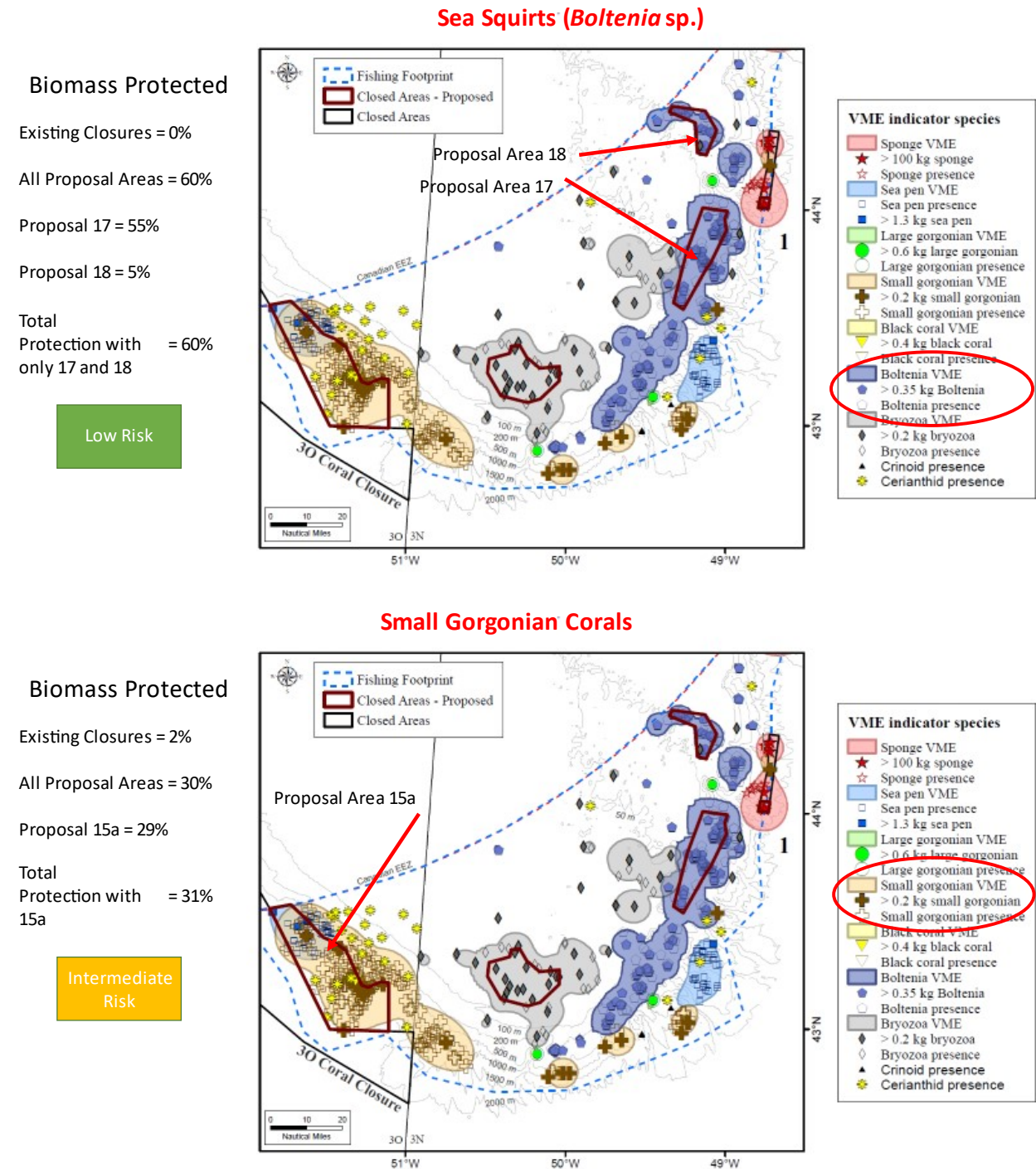
All Proposal Areas = 78%

Proposal 16 = 78%

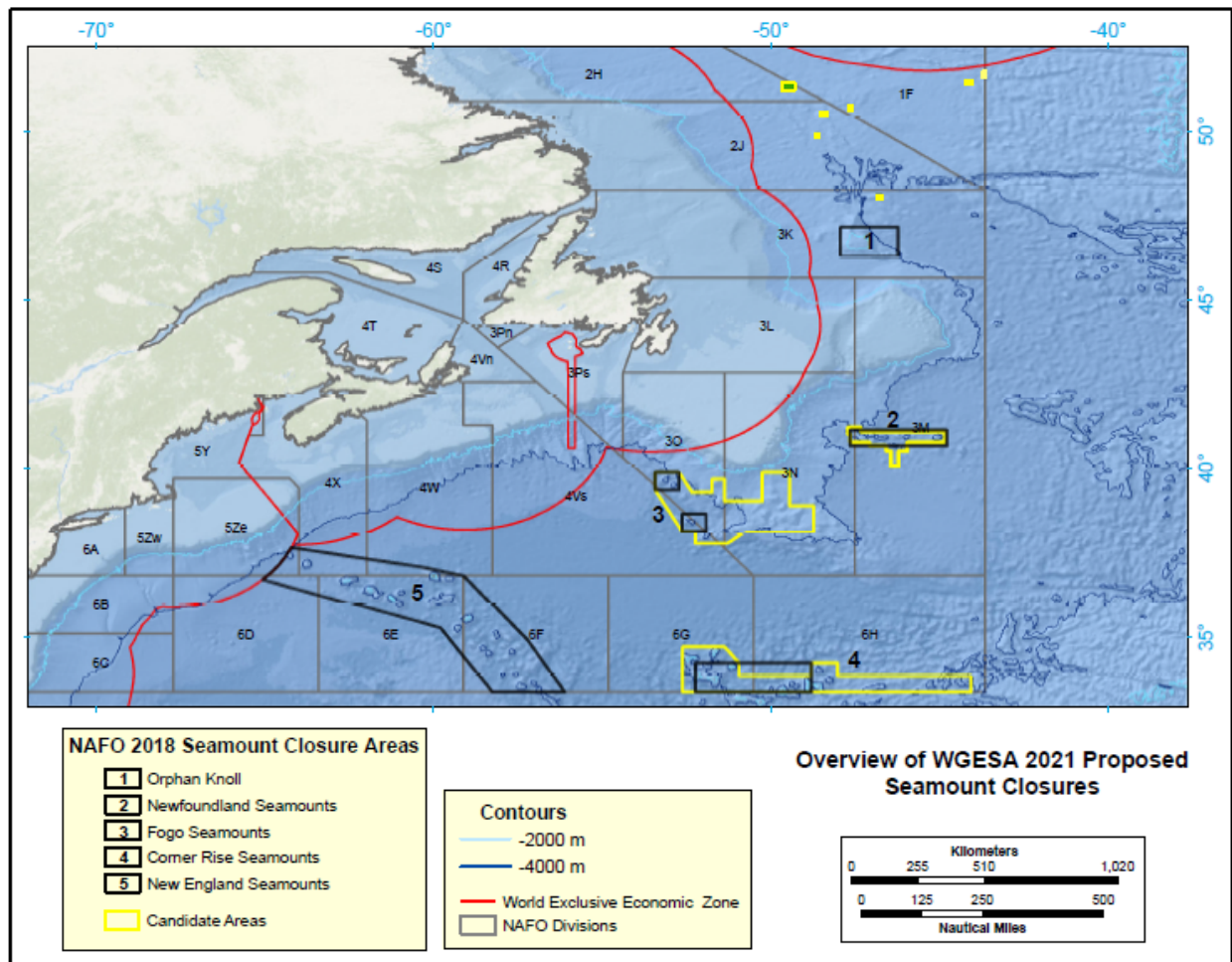
Total  
Protection with  
16 = 78%

Low Risk





**Figure 2.** Biomass protection levels of black coral, erect bryozoans, sea squirts, and small gorgonians with the proposed changes in the VME closures.

**Annex 5. Location of existing seamount closures and proposed changes**

**Figure 3.** Location of the seamount areas in the NAFO Regulatory Area with current closures indicated in black outline (SCS Doc. 20/14). Proposed changes and new closures are indicated by yellow lines.

## Annex 6. Updated List of VME Indicator Species for inclusion in Part. VI, Annex I.E of the NCEM

### List of VME Indicator Species

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

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3-ALPHA CODE
	<i>Thenia valdiviae</i>	Pachastrellidae	ZTH (Thenia)
	<i>Weberella bursa</i>	Polymastiidae	ZWB (Weberella spp.)
Stony Corals (CSS - Scleractinia)	<i>Enallopsammia rostrata</i>	Dendrophylliidae	FEY
	<i>Lophelia pertusa</i>	Caryophylliidae	LWS
	<i>Madrepora oculata</i>	Oculinidae	MVI
	<i>Solenosmilia variabilis</i>	Caryophylliidae	RZT
	<i>Stichopathes</i> sp.	Antipathidae	QYX
Black corals (AQZ- Antipatharia)	<i>Leiopathes</i> cf. <i>expansa</i>	Leiopathidae	
	<i>Leiopathes</i> sp.	Leiopathidae	
	<i>Plumapathes</i> sp.	Myriopathidae	
	<i>Bathypathes</i> cf. <i>patula</i>	Schizopathidae	
	<i>Parantipathes</i> sp.	Schizopathidae	
	<i>Stauropathes arctica</i>	Schizopathidae	SQW
	<i>Stauropathes</i> cf. <i>punctata</i>	Schizopathidae	
	<i>Telopathes magnus</i>	Schizopathidae	
Small Gorgonians (GGW)	<i>Acanella arbuscula</i>	Isididae	KQL (Acanella)
	<i>Anthothela grandiflora</i>	Anthothelidae	WAG
	<i>Chrysogorgia</i> sp.	Chrysogorgiidae	FHX
	<i>Metallogorgia melanotrichos</i>	Chrysogorgiidae	QFY (Chrysogorgiidae)
	<i>Narella laxa</i>	Primnoidae	QON (Primnoidae)
	<i>Radicipes gracilis</i>	Chrysogorgiidae	CZN
	<i>Swiftia</i> sp.	Plexauridae	
Large Gorgonians (GGW)	<i>Acanthogorgia armata</i>	Acanthogorgiidae	AZC
	<i>Calyptraphora</i> sp.	Primnoidae	QON (Primnoidae)
	<i>Hemicorallium bathyrubrum</i>	Coralliidae	COR (Corallium)
	<i>Hemicorallium bayer</i>	Coralliidae	COR (Corallium)
	<i>Iridogorgia</i> sp.	Chrysogorgiidae	QFY (Chrysogorgiidae)

Report of WG-EAFFM,  
14–16 July 2021 and 20-21 July 2021

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3-ALPHA CODE
	<i>Keratoisis</i>	cf. Isididae	IQO (Isididae)
	<i>siemensii</i>		
	<i>Keratoisis grayi</i>	Isididae	IQO (Isididae)
	<i>Lepidisis</i> sp.	Isididae	QFX (Lepidisis)
	<i>Paragorgia arborea</i>	Paragorgiidae	BFU
	<i>Paragorgia</i>	Paragorgiidae	BFV
	<i>johnsoni</i>		
	<i>Paramuricea</i>	Plexauridae	PZL (Paramuricea)
	<i>grandis</i>		
	<i>Paramuricea</i>	Plexauridae	PZL (Paramuricea)
	<i>placomus</i>		
	<i>Paramuricea</i> spp.	Plexauridae	PZL (Paramuricea)
	<i>Parastenella</i>	Primnoidae	QON (Primnoidae)
	<i>atlantica</i>		
	<i>Placogorgia</i> sp.	Plexauridae	
	<i>Placogorgia</i>	Plexauridae	
	<i>terceira</i>		
	<i>Primnoa</i>	Primnoidae	QOE
	<i>resedaeformis</i>		
	<i>Thouarella</i>	Primnoidae	QON (Primnoidae)
	<i>(Euthouarella)</i>		
	<i>grasshoffi</i>		
	<i>Anthoptilum</i>	Anthoptilidae	AJG (Anthoptilum)
	<i>grandiflorum</i>		
	<i>Distichoptilum</i>	Protoptilidae	WDG
	<i>gracile</i>		
	<i>Funiculina</i>	Funiculinidae	FQJ
	<i>quadrangularis</i>		
	<i>Halipteris</i> cf. <i>christii</i>	Halipteridae	ZHX (Halipteris)
	<i>Halipteris</i>	Halipteridae	HFM
	<i>finmarchica</i>		
Sea Pens (NTW – Pennatulacea)	<i>Halipteris</i> sp.	Halipteridae	ZHX (Halipteris)
	<i>Kophobelemnnon</i>	Kophobelemnidae	KVF
	<i>stelliferum</i>		
	<i>Pennatula aculeata</i>	Pennatulidae	QAC
	<i>Ptilella</i> spp.	Pennatulidae	
	<i>Pennatula</i> sp.	Pennatulidae	
	<i>Protoptilum</i>	Protoptilidae	
	<i>carpenteri</i>		
	<i>Umbellula lindahli</i>	Umbellulidae	OJZ (Umbellula spp)
	<i>Virgularia mirabilis</i>	Virgulariidae	
Tube-Dwelling Anemones	<i>Pachycerianthus</i>	Cerianthidae	WQB
	<i>borealis</i>		

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3-ALPHA CODE
Erect Bryozoans (BZN – Bryozoa)	<i>Eucratea loricata</i>	Eucrateidae	WEL
	<i>Conocrinus lofotensis</i>	Bourgueticrinidae	WCF
Sea Lilies (CWD – Crinoidea)	<i>Gephyrocrinus grimaldii</i>	Hyocrinidae	
	<i>Trichometra cubensis</i>	Antedonidae	
Sea Squirts (SSX – Asciacea)	<i>Boltenia ovifera</i>	Pyuridae	WBO
	<i>Halocynthia aurantium</i>	Pyuridae	
Unlikely to be observed in trawls; <i>in situ</i> observations only:			
Large xenophyophores	<i>Syringamina</i> sp.	Syringamminidae	

### **Annex 7. Discussion Points in relation to Total Catch Indices and Possible Management Actions**

- TCIs (and Ecosystem Summary Sheets) are *strategic* – link to 2-3 year assessment cycle
- TACs for multiple stocks involve trade-offs among CPs through allocation tables
- Some possible operational solutions (looking for more from managers)
  1. When functional group is approaching 2TCI ( $\Sigma$  TACs) during assessment cycle
    - a. Change probabilities of exceeding Limit Reference Points (LRPs) in single species assessment projections to reduce risk of exceeding 2TCI
    - b. Apply to all stocks in functional group during assessment cycle (2-3 y)
  2. When exceeding 2TCI during assessment cycle
    - a. Apply penalty (2TCI/ $\Sigma$  TACs) to all projected TACs for stocks in functional group during assessment cycle (2-3 y)
    - b. Consider historical TACs/biomass from Ecosystem Summary Sheets
  3. Use multispecies models to evaluate interaction among stock and consequences to TACs – prioritize model development

Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

24–26 August 2021  
via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2021

Report of WG-RBMS,  
24–26 August 2021

## **Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

24–26 August 2021  
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1.	Opening by co-Chairs, Fernando González-Costas (European Union) and Ray Walsh (Canada) .....	3
2.	Appointment of Rapporteurs .....	3
3.	Adoption of Agenda .....	3
4.	Greenland halibut Management Strategy Evaluation .....	3
5.	Review/Evaluation of Risk-Based management Strategy for 3LN Redfish (Annex I.H of the NAFO CEM)4	
6.	Progress on the Precautionary Approach Framework revision.....	5
7.	Discussion on the SC short-term tasks pertaining to Risk-Based Management Strategies.....	8
8.	Implementation of 2018 Performance Review Panel recommendations .....	8
a.	Input regarding data classification and access rights of the NAFO websites .....	8
9.	Other Matters .....	9
10.	Recommendations .....	9
11.	Adoption of the Report .....	9
12.	Adjournment .....	9
	Annex 1. List of Participants.....	10
	Annex 2. Agenda .....	14



## **Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

24–26 August 2021  
via WebEx

### **1. Opening by co-Chairs, Fernando González-Costas (European Union) and Ray Walsh (Canada)**

The meeting was opened by the co-Chairs Fernando González-Costas (European Union) and Ray Walsh (Canada) at 08:30 hours (Atlantic Daylight Time in Halifax, Nova Scotia) on Tuesday, 24 August 2021.

The co-Chairs welcomed the representatives from Canada, European Union, Japan, Norway, Russian Federation, United Kingdom and the United States of America. The Scientific Council (SC) Chair, SC Precautionary Approach Working Group (PA-WG) co-Chairs were also welcomed (Annex 1).

### **2. Appointment of Rapporteurs**

The NAFO Secretariat (Ricardo Federizon, Senior Fisheries Management Coordinator and Tom Blasdale, Scientific Council Coordinator) were appointed co-Rapporteurs of this meeting.

### **3. Adoption of Agenda**

The provisional agenda was adopted as previously circulated without amendment (Annex 2). As requested by Japan, a discussion item, on the Ecosystem Approach to inform WG-RBMS participants involvement in the upcoming WG-EAFFM Workshop '*Open Dialogue*' meeting, was inserted in agenda item 9.

### **4. Greenland halibut Management Strategy Evaluation**

In 2020, the Commission requested Scientific Council (SC) to monitor the status of Greenland halibut in Subarea 2+ Division 3KLMNO annually to compute the TAC using the agreed harvest Control Rule (HCR) and determine whether exceptional circumstances (EC) are occurring. If EC are occurring, the EC protocol will provide guidance on what steps should be taken (see Commission Request #2 in COM Doc. 20-16).

Carmen Fernández (Chair of the SC) presented the response to Commission Request #2 that the SC made at its 2021 June meeting (SCS Doc. 21-14). The main conclusions of the SC response are as follows:

It calculated the 2022 TAC for Greenland halibut in 2+3KLMNO to be 15 864 t, based on the Harvest Control Rule (HCR) being applied (SCS Doc. 21-14).

SC also advises that Exceptional Circumstances (EC) are not occurring in 2021.

It noted that the disruption of the 2021 Canadian Spring survey, in addition to the years 2020 and 2017, will trigger EC in 2022. In accordance with the Exceptional Circumstances Protocol outlined in Annex I.G of the NAFO Conservation and Enforcement Measures (CEM), SC conducted an initial evaluation of the severity of EC identified.

- Past TACs were recalculated using the HCR with and without the Canada Spring survey series and it showed minimal impact on the TACs (<3% difference),
- The impact is small because the Canada Spring survey has the lowest weight in the HCR TAC calculation,

Report of WG-RBMS,  
24–26 August 2021

Assuming that no other reason for EC arises in 2022; SC proposed deriving the TAC for 2023 by adjusting the 2022 TAC using the HCR with only 4 survey indices: Canada Fall 2J3K, Canada Fall 3LNO, EU 3M, and EU-Spain 3NO.

Article 10 of NAFO CEM states that “*The current Management Strategy (MS) for Greenland halibut stock in Subarea 2 + Divs. 3KLMNO adopted by NAFO in 2017 shall be in force from 2018 to 2023 inclusive.*” Following this Rebuilding Program, a TAC for 2024 will need to be recommended using a revised MS developed before September 2023. In anticipation of this required review of the MS for Greenland halibut, SC has developed a coarse work plan outlining the time required to conduct this review. SC notes that this process is expected to take two years and its timing is conditional on decisions on the agenda item 7.

WG-RBMS **endorses** the SC’s calculation of 2022 TAC of 15 864 t in 2+3KLMNO based on the HCR.

In relation to the EC for Greenland halibut in 2022 (COM-SC RBMS-WP 21-02) and conditional on the absence of other reasons for EC arising, the WG **recommends** that Commission request the SC to calculate in 2022 the HCR adjusting the TAC advised for 2022 using four survey indices (Canadian fall 2J3K, Canadian fall 3LNO, EU 3M 0-1400m, and EU-Spain 3NO surveys) to provide TAC advice for 2023 (see agenda item 10).

WG-RBMS participants supported the general work plan for the review of the Management Strategy for Greenland halibut with further discussion on specific timelines deferred to agenda item 7.

## **5. Review/Evaluation of Risk-Based management Strategy for 3LN Redfish (Annex I.H of the NAFO CEM)**

In 2014, the Commission adopted a management strategy/HCR which specified TACs until 2020. No review of the MS occurred in 2020 and the Commission, based on SC advice, extended the application of the HCR for another 2 years (COM-SC Doc. 20-04). The Commission requested SC to carry out a scoping exercise to provide guidance to WG-RBMS on the process of a full review/evaluation of the management strategy of Div. 3LN redfish (see Commission Request #11 in COM Doc. 20-16). Carmen Fernández (Chair of the SC) presented the SC response to this request.

SC advised that a full review/evaluation of the MSE for Div. 3LN redfish should include review of data and model inputs, followed by the identification of a suite of models to test the robustness of management procedures to alternative scenarios. A provisional workplan that reflects these requirements was provided to WG-RBMS for consideration:

1. SC Jun 2021: Scoping discussion providing possible direction for WG-RBMS on a full evaluation of the existing MS
2. WG-RBMS Aug 2021: discussion on scoping exercise and a possible calendar for developing the MSE, which is a 3-year process.
3. Year 1: SC must review the data to be used; consensus is required for Operating Model (OM) development to commence.
4. Year 2: SC must review the proposed OMs to be used; obtain consensus on Candidate Management Procedures (CMPs) and, with WG-RBMS, refine the Performance Statistics, including risk tolerances and constraints.
5. Year 3: SC must review and test CMPs; finalize the suite of CMPs to be used in the MSE; with WG-RBMS, evaluate Performance Statistics and make a final decision on the MS to propose to COM

SC noted that this process is expected to take 3 years and its timing is conditional on decisions on the overall SC 5-year workplan which was also developed on the request of the Commission (see Commission request #10

in COM Doc. 20-16 and the SC response in SCS Doc. 21-14). SC also noted that a stock assessment is scheduled for June 2022 to provide TAC advice for 2023 and 2024. WG-RBMS noted that the approach to be used as the basis for advice in 2022 has not been specified and recommended that the Commission should specify the approach in its request for advice.

The timing of the MSE revision engendered considerable discussions and this issue was further addressed under agenda item 7.

## **6. Progress on the Precautionary Approach Framework revision**

Karen Dwyer (Chair of the SC- Precautionary Approach Working Group (PA-WG), on behalf of SC, provided an update on efforts to identify and select external experts to assist in steering and supporting the work of the Scientific Council in response to the Commission request to review the Precautionary Approach Framework (PAF) (SCS Doc. 21-14, pg. 94-95).

Initially CPs were requested to nominate qualified external experts from which the PA WG and WG-RBMS Co-Chairs selected the following three candidates in February 2021:

Dr. Jan Harbowy, National Marine Fisheries Resources Institute, Gdynia, Poland.  
Dr. Daniel Howell, Institute of Marine Research, Bergen, Norway.  
Dr. Steve Cadrin, School of Marine Science and Technology, Dartmouth, USA.

Dr. Cadrin was also identified as the coordinator of the external experts and co-chair of the PA WG.

The three chosen candidates have extensive experience in the assessment and management of marine resources in different international organizations.

She also provided a historical background on NAFO PAF revision and highlighted the status of the PA-WG Terms of Reference (ToR) which was originally outlined as the scope of the review of the PAF in FC Doc. 15/19:

1. To clarify the following elements:
  - a. To confirm/review the NAFO PA reference points definition in page 3 NAFO/FC Doc. 04/18.
  - b. To confirm/review the NAFO Management strategies and courses of action, including risk levels, on page 3 NAFO/FC Doc. 04/18
  - c. Distinction between MSY and limit/target related reference points.
  - d. Analysis in support of the development of other reference points (*e.g.*, targets, buffers).
  - e. To review the methods for the calculation and interpretation of risk and the quantification and qualification of uncertainties related to them.
  - f. For stocks where risk analyses are not possible, provide options on how to establish buffer reference points on a stock-by-stock basis.
  - g. Determine the conditions for when/if reference points should change and / or be re-evaluated.
2. Consider how a revised PA can fit within an Ecosystem Approach.
3. In reviewing the NAFO PAF the WG will also take into consideration other Precautionary Approach Frameworks with a focus in the North Atlantic.

Report of WG-RBMS,  
24–26 August 2021

ToRs 1a and 1c have been completed by PA-WG and presented to SC during their June 2021 meeting (COM-SC RBMS-WP 21-08). As a result of delays in starting this project, PA-WG was unable to complete ToR 1.g in time for the June 2021 SC meeting. A meeting of PA-WG was held on 17 August 2021, where a working paper *Conditions for Re-evaluating Reference Points for the NAFO PA* in support of ToR 1g was presented and discussed (COM-SC RBMS-WP 21-09). It was agreed that this work should be presented to WG-RBMS as a “*work in progress*” prior to presentation to SC during the Annual meeting. Collectively, ToR 1 a, c, and g support the task *Mapping Objectives* in accordance with the PA-WG task- and timetable (COM-SC Doc. 20-04), and deliverable 1 will be therefore considered to be complete following presentation of ToR 1.g to SC in September.

Dr. Cadrin, coordinator of the external experts and co-Chair of the PA-WG elaborated on progress of these ToRs and presented the conclusions arising from the work:

PA-WG considered the PA in the context of the NAFO convention and concluded that many of the objectives and general principles of the NAFO Convention can be represented in the Precautionary Approach Framework.

### **On ToR 1.a – Confirm/review reference points,**

The PA Framework should include limit reference points for fishing mortality and stock biomass as well as either buffer reference points or other risk-based management procedures to achieve sustainability and optimum yield in the context of uncertainty.

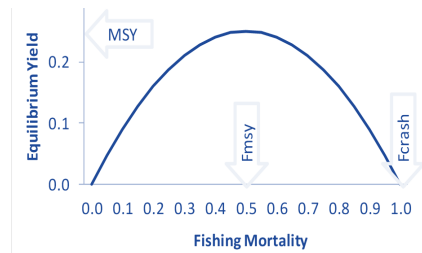
- There are valid options for defining  $F_{lim}$ 
  - $F_{MSY}$
  - the  $F$  associated with  $B_{lim}$
  - the  $F$  associated with very low risk of  $B < B_{lim}$ .
- There are valid options for defining  $B_{lim}$ 
  - stock-recruit threshold
  - $B_{loss}$
  - $0.3 B_0$
- There are valid options for a precautionary approach:
  - buffer reference points (*i.e.*, based on low probability of exceeding a limits)
  - proxy targets (*e.g.*, 75%  $F_{lim}$ )
  - Management Strategy Evaluation to confirm low probability of exceeding limits

### **On ToR 1.c – Distinction of MSY, limits and targets,**

In the context of uncertainty and natural variability, MSY can be approximately achieved by a variety of alternative management procedures that define limit and target reference points differently.

- UN (1995) has been interpreted in various ways to justify  $F_{MSY}$  as a limit or a target reference point.
- The NAFO Convention does not necessarily prescribe  $F_{MSY}$  as a limit.

- There are other valid options for defining the limit reference point (*e.g.*,  $F_{lim}$  associated  $B_{lim}$  or with very low risk of  $B < B_{lim}$ ) that are potentially greater than  $F_{MSY}$ .



### On ToR 1.g -Revising Reference Points (This item was noted to be a work in progress)

1. The decision to estimate either MSY reference points or proxies should be reconsidered when the content and quality of information substantially changes.
2. Reference points should be re-evaluated when there is strong evidence of a shift in productivity regime, the mechanism of the shift is understood, the current productivity has persisted, the current productivity is expected to continue, the stock would be viable if managed with the revised reference points, and there is sufficient information to estimate revised reference points.
  - evidence that current reference points are unsustainable is sufficient to revise reference points
  - operational stock assessments should routinely test for a shift back to greater productivity.
3. Reference points can be revised when new information indicates that management procedures based on current reference points do not perform well for meeting NAFO Convention objectives, and alternative management procedures are expected to perform better.

### Preliminary General Conclusions

- All options for the NAFO PA framework, including the existing framework (NAFO 2004) require full implementation to achieve objectives.
  - The current Precautionary Approach Framework could perform well for achieving the NAFO objective and principles
  - It would need to be fully implemented and performance tested for a range of specific stock conditions, including the possibility of environmental regime shifts.
- Flexibility will be needed in the PA framework to achieve NAFO's objectives and conform to principles for all NAFO stocks.
  - Management procedures expected to perform well for longer-lived stocks may not perform well for short-lived stocks, like squid and capelin.
  - Several NAFO stocks are data-moderate to data-rich, but stock assessments are complicated by important environmental factors that influence PA reference points.

### Preliminary Specific Conclusions

- All options considered for a revised NAFO PA framework should be performance tested with respect to whether management measures set in accordance with the framework could achieve the following objectives:
  - Achieve very low risk of stock depletion (*i.e.*,  $B < B_{lim}$ )
  - Rebuild stocks to  $B_{MSY}$
  - Maintain stocks above  $B_{MSY}$  more often than not
  - Maintain approximately MSY in the long-term.

WG-RBMS reviewed the progress report on Mapping Objectives on the Precautionary Approach Framework revision and supported the work done so far. WG-RBMS shares the interpretation that the PA WG and SC have made of how to implement the General Objectives of the NAFO Convention within the PAF and its preliminary conclusions. WG-RBMS notes that the MSY related objectives are readily applicable to most stocks but there may need to be flexible in applying some objectives to shorter-lived stocks or stocks that experience episodic recruitment. It recommends the work to continue according to the schedule approved last year.

### 7. Discussion on the SC short-term tasks pertaining to Risk-Based Management Strategies

Carmen Fernández (Chair of the SC) presented the response to Commission Request 10 about the 3-5 year SC work plan. SC updated the 5-year work plan including the identification of priorities and required resources, noting this is an iterative discussion between the Commission and SC.

The SC presented the preliminary calendars for the review of the Redfish 3LN and Greenland halibut Subarea 2 + 3KLMNO MSE. The SC noted that the revision of the Management Strategies for 3LN Redfish and 2+3KLMNO GHL, as well as the PAF review are all required. Given the complexity of these tasks and the resources required, the SC strongly recommended against performing all three tasks concurrently (see also SCS Doc. 21-14, pg. 99-101). The PAF review is already underway so that SC recommends that the Commission prioritize one of the MSEs to commence first. SC consequently recommended postponing one of the MSE processes.

WG-RBMS could not reach a consensus on prioritization among the two MSEs and the PAF review, and indeed whether any postponement is necessary, during this meeting. In order to inform a decision on work planning, the parties agreed that additional information should be provided to the Commission and SC for consideration during the 2021 Annual Meeting. In this regard:

- Canada noted that it had allocated funding for a position dedicated to the 3LN redfish MSE review, and considers that this will ease the workload on SC allowing both MSEs to proceed simultaneously, while recognizing that some trade-offs may be necessary later in the process. Canada agreed to identify tasks and/or deliverables that could be made available for SC and RBMS review/ consideration during 2022.
- Expanding on the existing coarse workplans for GHL and 3LN Redfish; SC will prepare a detailed schedule and timeline outlining what is required for each of these tasks, as well as, a scenario which includes both reviews proceeding simultaneously.

### 8. Implementation of 2018 Performance Review Panel recommendations

#### a. Input regarding data classification and access rights of the NAFO websites

In alignment with the 2018 Performance Review Panel Recommendations and their implementation, *the Ad Hoc virtual NAFO Website Re-design Working Group: Data Classification* at the 2020 Annual Meeting of NAFO

was tasked with development of a formal policy regarding the posting and distribution of meeting documentations. In this regard, feedback from WG-RBMS was sought whether working papers and other meeting working documents be made available to the public by posting them in the NAFO public website.

The WG expressed general support for ongoing efforts to enhance transparency. However, it was noted that there are situations where it may not be appropriate to share documents publicly, in particular for confidentiality reasons, *e.g.*, catch data.

## **9. Other Matters**

Japan brought an external paper (COM-SC RBMS-WP 21-01) on the implementation of Ecosystem Based Fisheries Management (EBFM) to the attention of WG-RBMS.

WG-RBMS noted the potential linkage between NAFO's efforts to implement an ecosystems approach and the review of the PA Framework. RBMS members were encouraged to participate in the Ecosystem Approach Framework (EAF) Open Dialogue meeting (Oct 7/2021) and ecosystem roadmap workshop (2022).

## **10. Recommendations**

**In regard to Greenland halibut Management Strategy Evaluation,**

- 1. WG-RBMS endorses the continued application of the HCR to derive the TAC for 2022.**
- 2. Regarding the Exceptional Circumstances for Greenland halibut in 2022 (COM-SC RBMS-WP 21-02) and conditional on the absence of other reasons for Exceptional Circumstances arising; WG-RBMS recommends that the Commission request the SC to calculate in 2022 the HCR adjusting the TAC advised for 2022 using four survey indices (Canadian fall 2J3K, Canadian fall 3LNO, EU 3M 0-1400m, and EU-Spain 3NO surveys) to provide TAC advice for 2023.**

**In regard to 3LN Redfish,**

- 3. Noting that a review and update of the existing Management Strategy is required; WG-RBMS recommends that the Commission request SC, at its meeting in June 2022, to provide a full assessment and advice (based on an approach to be determined by the Commission in September 2021) on a TAC for 3LN Redfish for the years 2023 and 2024.**

**In regard to Precautionary Approach Framework (PAF),**

- 4. WG-RBMS shares the interpretation that the SC/PA-WG has made of how to implement the General Objectives of the NAFO Convention within the PAF and its preliminary conclusions and recommends the work to continue according to the schedule approved last year.**

## **11. Adoption of the Report**

The report was adopted via correspondence.

## **12. Adjournment**

The meeting was adjourned at 11:00 hours (Atlantic Daylight Time in Halifax, Nova Scotia) on 26 August 2021.

## **Annex 1. List of Participants**

### **CO-CHAIRS**

González-Costas, Fernando. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain

Tel: +34 986 49 22 39 – Email: [fernando.gonzalez@ieo.es](mailto:fernando.gonzalez@ieo.es)

Walsh, Ray. Director, Resource Management & Indigenous Fisheries, Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills, St. John's, NL A1C5X1

Tel: +1 709 772- 4497 – Email: [ray.walsh@dfo-mpo.gc.ca](mailto:ray.walsh@dfo-mpo.gc.ca)

### **SC CHAIR**

Fernandez, Carmen. Instituto Español de Oceanografía (IEO). Avenida Príncipe de Asturias, 70 bis. 33212, Gijón, Spain

Tel: +34 (985) 308 672 - Email: [carmen.fernandez@ieo.es](mailto:carmen.fernandez@ieo.es)

### **PA-WG CO-CHAIRS**

Cadrin, Steven X. Professor, School for Marine Science & Technology, Department of Fisheries Oceanography, 836 South Rodney French Boulevard, New Bedford MA 02744 USA

Email: [SCadrin@UMassD.edu](mailto:SCadrin@UMassD.edu)

Dwyer, Karen. Science Branch, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1

Tel.: +1 709 772-0573 - Email: [karen.dwyer@dfo-mpo.gc.ca](mailto:karen.dwyer@dfo-mpo.gc.ca)

### **CANADA**

Beauchamp, Brittany. Senior Science Advisor, Fish Population Science, Fisheries and Oceans Canada, 200 Kent St., Ottawa, ON, K1A 0E6

Email: [Brittany.Beauchamp@dfo-mpo.gc.ca](mailto:Brittany.Beauchamp@dfo-mpo.gc.ca)

Boudreau, Cyril L. Senior Fisheries Strategist, Marine and Coastal Advisory Services, Nova Scotia Department of Fisheries & Aquaculture

Email: [Cyril.Boudreau@novascotia.ca](mailto:Cyril.Boudreau@novascotia.ca)

Chapman, Bruce. Executive Director, Groundfish Enterprise Allocation Council, 1362 Revell Dr., Manotick, Ontario K4M 1K8

Tel: +1 613 692-8249 – Email: [bchapman@sympatico.ca](mailto:bchapman@sympatico.ca)

Diamond, Julie. A/ Regional Manager, Groundfish, International Fisheries & Species at Risk, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1

Tel: +1 709 772-5041 – Email: [julie.diamond@dfo-mpo.gc.ca](mailto:julie.diamond@dfo-mpo.gc.ca)

Edgar, Leigh. Senior Fisheries and Aquaculture Management Officer, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6

Email: [Leigh.Edgar@dfo-mpo.gc.ca](mailto:Leigh.Edgar@dfo-mpo.gc.ca)

Her, Natalie. Junior Policy Analyst, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6

Email: [Natalie.Her@dfo-mpo.gc.ca](mailto:Natalie.Her@dfo-mpo.gc.ca)

Johnson, Kate. Senior Advisor, International Fisheries Management, Strategic Policy, Fisheries & Oceans Canada

Tel: +1 343 551-5295 – Email: [Kate.Johnson@dfo-mpo.gc.ca](mailto:Kate.Johnson@dfo-mpo.gc.ca)

Koen-Alonso, Mariano Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL. A1C 5X1

Email: [Mariano.Koen-Alonso@dfo-mpo.gc.ca](mailto:Mariano.Koen-Alonso@dfo-mpo.gc.ca)

Marsden, Dale. Deputy Director, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Dale.Marsden@dfo-mpo.gc.ca](mailto:Dale.Marsden@dfo-mpo.gc.ca)

O'Rielly, Alastair. NAFO Commissioner, Executive Director, Northern Coalition Corporation, P.O. Box 452 Witless Bay, NL, A0A 4K0  
Tel: +1 709 727-3290 Email: [alastairorielly@gmail.com](mailto:alastairorielly@gmail.com)

Pond, Nancy. Resource Manager. Fisheries Management, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, 80 East White Hills Road, St. John's, NL, A1C 5X1  
Email: [Nancy.Pond@dfo-mpo.gc.ca](mailto:Nancy.Pond@dfo-mpo.gc.ca)

Rowsell, Nicole. Director (A), Sustainable Fisheries and Oceans Policy, Fisheries and Land Resources, Government of Newfoundland and Labrador, 30 Strawberry Marsh Rd., St. John's, NL A1B 4R4  
Tel: +1 709 729-0335 – Email: [nicolerowsell@gov.nl.ca](mailto:nicolerowsell@gov.nl.ca)

Simpson, Mark. Science Branch, Fisheries & Oceans Canada, P.O. Box 5667, St. John's, NL A1C5X1  
Tel.: +1 709 772-4841 - Email: [mark.r.simpson@dfo-mpo.gc.ca](mailto:mark.r.simpson@dfo-mpo.gc.ca)

Turple, Justin. Director, International Fisheries Management, Fisheries and Oceans Canada, 200 Kent Street, Ottawa, ON K1A 0E6  
Email: [Justin.Turple@dfo-mpo.gc.ca](mailto:Justin.Turple@dfo-mpo.gc.ca)

#### EUROPEAN UNION

Alpoim, Ricardo. Instituto Portugues do Mar e da Atmosfera, Rua Alfredo Magalhães Ramalho, nº6, 1495-006 Lisboa, Portugal  
Tel: +351 213 02 70 00 – Email: [ralpoim@ipma.pt](mailto:ralpoim@ipma.pt)

Beijoco, Catarina. Ministry of the Sea, Directorate General for Natural Resources, Safety and Maritime Services (DGRM), Avenida Brasília, 1449-030 Lisbon, Portugal  
Email: [cbeijoco@dgrm.mm.gov.pt](mailto:cbeijoco@dgrm.mm.gov.pt)

Błażkiewicz, Bernard. NAFO Desk Officer, European Commission, Law of the Sea and Regional Fisheries Organisations, DG-MARE B2, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel:+32-2-299.80.47 – Email: [Bernard.BLAZKIEWICZ@ec.europa.eu](mailto:Bernard.BLAZKIEWICZ@ec.europa.eu)

de Frutos Romo, Gema. Ministry of Agriculture, Fisheries and Food, Paseo Infanta Isabel, 1, 28014 Madrid  
Email: [gdefrutos@mapa.es](mailto:gdefrutos@mapa.es)

González-Troncoso, Diana. Instituto Español de Oceanografía (IEO), Aptdo 1552, E-36280 Vigo, Spain  
Tel: +34 986 49 21 11 – Email: [diana.gonzalez@ieo.es](mailto:diana.gonzalez@ieo.es)

Granell, Ignacio. International Relations Officer, Regional Fisheries Management Organizations, European Commission, Rue Joseph II, 99, B-1049, Brussels, Belgium  
Tel: +32 2 296 74 06 – Email: [ignacio.granell@ec.europa.eu](mailto:ignacio.granell@ec.europa.eu)

Mancebo, C. Margarita. Head of International Fisheries Relations, Ministry of Agriculture, Food and Environment, C/Velazquez, 144, 28006 Madrid, Spain  
Tel: +34 91 3476129 – Email: [cmancebo@mapa.es](mailto:cmancebo@mapa.es)

Merino-Buisac, Adolfo. Policy Officer, Scientific advice supporting the Common Fisheries Policy, European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE), Unit C.3 – Scientific advice and data collection, J99 03/003, B-1049 Brussels/Belgium  
Tel: +32 2 29 590 46 – Email: [adolfo.merino-buisac@ec.europa.eu](mailto:adolfo.merino-buisac@ec.europa.eu)

Teixeira, Isabel. Head of External Resources Division, Ministry of the Sea, Directorate General for Natural Resources, Safety and Maritime Services (DGRM), Avenida Brasília, 1449-030 Lisbon, Portugal  
Tel: +351 21 303 5825 – Email: [iteixeira@dgrm.mm.gov.pt](mailto:iteixeira@dgrm.mm.gov.pt)

Report of WG-RBMS,  
24–26 August 2021

Tuvi, Aare. Counsellor, Fishery Resources Department, Republic of Estonia, Ministry of the Environment, Narva  
mnt 7A, 15172, Tallinn, Estonia  
Tel: + 372 6260 712 – Email: [aare.tuvi@envir.ee](mailto:aare.tuvi@envir.ee)

Ulloa Alonso, Edelmiro. Secretario Técnico Para Asaciones, Fishing Ship-owners' Cooperative of Vigo (ARVI),  
Puerto Pesquero de Vigo, Apartado 1078, 36200 Vigo, Spain  
Tel: +34 986 43 38 44 – Email: [edelmiro@arvi.org](mailto:edelmiro@arvi.org)

### **JAPAN**

Butterworth, Doug S. Emeritus Professor, Department of Mathematics and Applied Mathematics, University of  
Cape Town, Rondebosch 7701 South Africa  
Tel: +27 21 650 2343 – Email: [doug.butterworth@uct.ac.za](mailto:doug.butterworth@uct.ac.za)

Hosokawa, Natsuki. Technical Official, International Affairs Division, Fisheries Agency, Government of Japan, 1-  
2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3-3502-8111 – Email: [nastuki.hosokawa730@maff.go.jp](mailto:nastuki.hosokawa730@maff.go.jp)

Iino, Kenro. Advisor to the Minister of Agriculture, Forestry and Fisheries on International Affairs (Fisheries)  
Government of Japan, 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Tel: +81 3 3502 8460 – Email: [keniino@hotmail.com](mailto:keniino@hotmail.com)

Morita, Hiroyuki. Assistant Director, International Affairs Division, Fisheries Agency, Government of Japan, 1-2-1  
Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo, Japan  
Email: [hiroyuki\\_morita970@maff.go.jp](mailto:hiroyuki_morita970@maff.go.jp)

Nomura, Ichiro. Special Advisor of Ministry Agriculture, Forestry and Fisheries 1 -2-1 Kasumigaseki, Chiyoda-ku,  
Tokyo, Japan  
Email: [inomura75@gmail.com](mailto:inomura75@gmail.com)

Taki, Kenji. Scientist, National Research Institute of Far Seas Fisheries, Agency, 5-7-1, Orido, Shimizu-Ward,  
Shizuoka-City, Shizuoka, Japan  
Email: [takistan@fra.affrc.go.jp](mailto:takistan@fra.affrc.go.jp)

### **NORWAY**

Hvingel, Carsten. Head of Research Group, Institute of Marine Research, P.O. Box 1870 Nordnes, 5817 Bergen,  
Norway  
Tel: +47 95980565 – Email: [carsten.hvingel@hi.no](mailto:carsten.hvingel@hi.no)

### **UNITED KINGDOM**

Earl, Timothy. Centre for Environment, Fisheries, and Aquaculture Science (CEFAS) – Lowestoft Laboratory,  
Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [timothy.earl@cefasc.co.uk](mailto:timothy.earl@cefasc.co.uk)

Readdy, Lisa. Centre for Environment, Fisheries, and Aquaculture Science (CEFAS) – Lowestoft Laboratory,  
Pakefield Road, Lowestoft, Suffolk NR33 0HT  
Email: [lisa.readdy@cefasc.co.uk](mailto:lisa.readdy@cefasc.co.uk)

Round, Jake. Department for Environment, Food & Rural Affairs (DEFRA), Seacole Building, 2 Marsham Street  
London, United Kingdom W1P 4DF  
Tel: +078 603 47 486 – Email: [jake.Round@defra.gov.uk](mailto:jake.Round@defra.gov.uk)

Ryan, Jack. Department for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London, SW1P  
3JR  
Email: [Jack.Ryan@defra.gov.uk](mailto:Jack.Ryan@defra.gov.uk)



**UNITED STATES OF AMERICA**

Kelly, Moira. Senior Fishery Program Specialist, Regional Recreational Fisheries Coordinator, Greater Atlantic Regional Fisheries Office, National Marine Fisheries Service, 55 Great Republic Drive, Gloucester, MA 01930 USA

Tel: +1 978-281-9218 – Email: [moira.kelly@noaa.gov](mailto:moira.kelly@noaa.gov)

Mencher, Elizabethann. Senior Policy Advisor, Office of International Affairs and Seafood Inspection, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, (NOAA), 1315 East-West Hwy., Silver Spring, MD 20910, USA

Tel: +1 301 427 8362 – Email: [Elizabethann.Mencher@noaa.gov](mailto:Elizabethann.Mencher@noaa.gov)

Sosebee, Katherine. Science Advisor, Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA) USA

Tel: +1 508 495 2372 – Email: [katherine.sesebee@noaa.gov](mailto:katherine.sesebee@noaa.gov)

Warner-Kramer. Deirdre. Acting Deputy Director, Office of Marine Conservation (OES/OMC), U.S. Department of State, Washington, DC 20520

Tel +1 202 647 2883 – Email: [warner-kramerm@fan.gov](mailto:warner-kramerm@fan.gov)

**RUSSIAN FEDERATION**

Tairov, Temur. Representative of the Federal Agency for Fisheries of the Russian Federation in Canada, 47 Windstone Close, Bedford, Nova Scotia, B4A 4L4

Tel: +1 902 405 0655 – Email: [temurtairov@mail.ru](mailto:temurtairov@mail.ru)

**NAFO SECRETARIAT**

Summit Place, 1601 Lower Water Street, Suite 401, Halifax, Nova Scotia, Canada – Tel: +1 902 468-5590

Kingston, Fred. Executive Secretary.

Email: [fkingston@nafo.int](mailto:fkingston@nafo.int)

Blasdale, Tom. Scientific Council Coordinator.

Email: [tblasdale@nafo.int](mailto:tblasdale@nafo.int)

Federizon, Ricardo. Senior Fisheries Management Coordinator.

Email: [rfederizon@nafo.int](mailto:rfederizon@nafo.int)

LeFort, Lisa. Senior Executive Assistant to the Executive Secretary.

Email: [llefors@nafo.int](mailto:llefors@nafo.int)

McAllister, Fiona. Scientific Information Administrator (Interim).

Email: [fmcallister@nafo.int](mailto:fmcallister@nafo.int)



## **Annex 2. Agenda**

1. Opening by co-Chairs, Fernando Gonzáles-Costas (European Union) and Ray Walsh (Canada)
2. Appointment of Rapporteurs
3. Adoption of Agenda
4. Greenland halibut Management Strategy Evaluation
5. Review/Evaluation of Risk-Based management Strategy for 3LN Redfish (Annex I.H of the NAFO CEM)
6. Progress on the Precautionary Approach Framework revision
7. Discussion on the SC short-term tasks pertaining to Risk-Based Management Strategies
8. Implementation of 2018 Performance Review Panel recommendations
  - a. Input regarding data classification and access rights of the NAFO websites
9. Other Matters
10. Recommendations
11. Adoption of Report
12. Adjournment