



NORTHWEST ATLANTIC  
FISHERIES ORGANIZATION

# **Meeting Proceedings of the Commission**

1 September 2019–31 August 2020

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September 2020

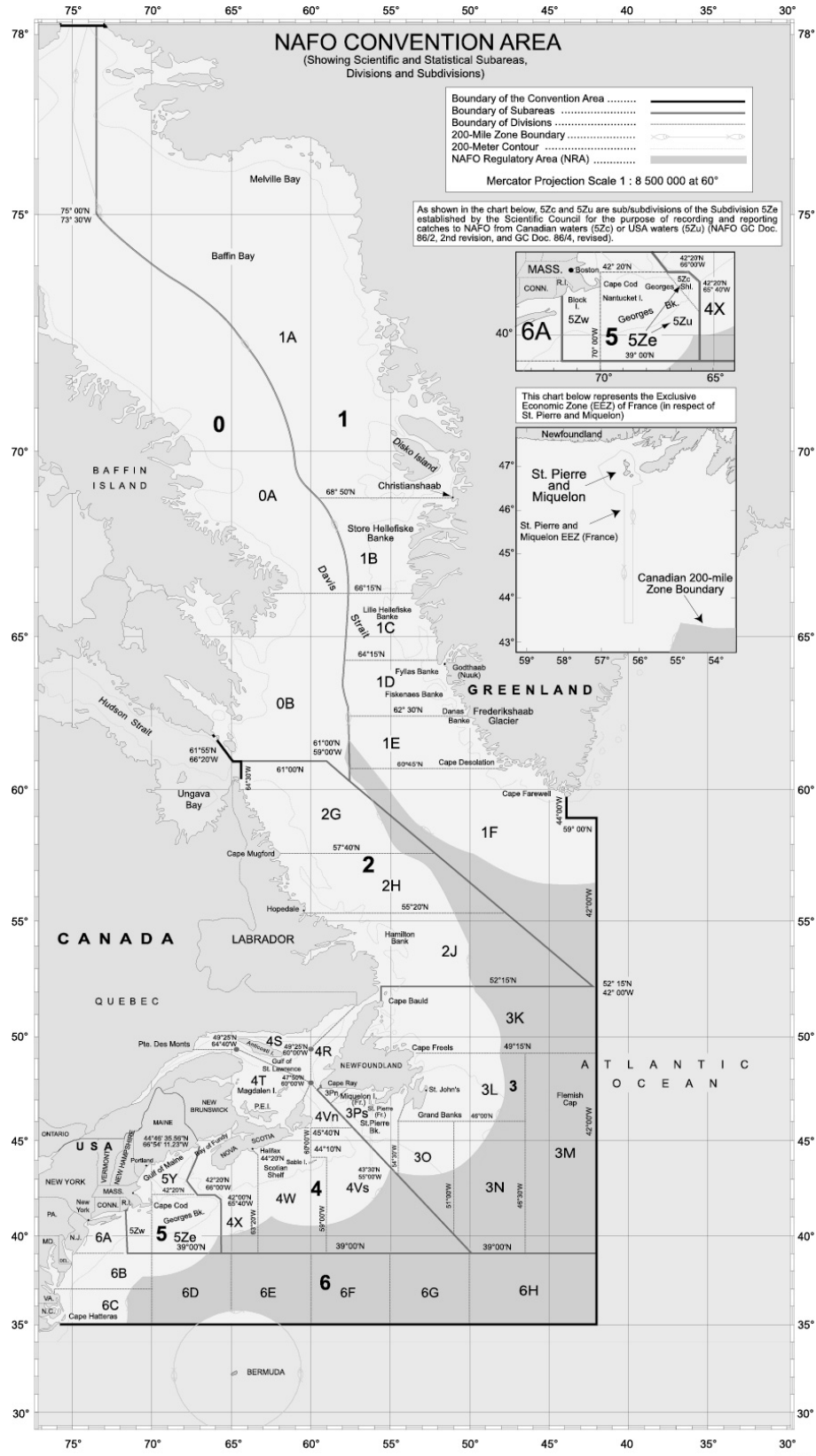


## Foreword

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 2019 to 31 August 2020. This follows a NAFO cycle of meetings starting with an Annual Meeting rather than by calendar year.

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# Structure of the Northwest Atlantic Fisheries Organization (NAFO)

(1 September 2019 to 31 August 2020)

## 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 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> – Deirdre Warner-Kramer (USA) <i>vice-Chair</i> – Robert Fagan (Canada)
	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> – Miquel Caetano (European Union)

## SECRETARIAT

Executive Secretary	Fred Kingston
Deputy Executive Secretary / Senior Finance and Staff Administrator	Stan Goodick
Senior Fisheries Commission Coordinator	Ricardo Federizon
Scientific Council Coordinator	Tom Blasdale
Senior Executive Assistant to the Executive Secretary	Lisa LeFort
Senior Fisheries Information Administrator	Jana Aker
Scientific Information Administrator	Dayna Bell MacCallum
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Office Administrator (interim maternity leave)	Shala Singer (Jan. 2020-present)
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(as of May 2020)





Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission-Scientific Council Working Group on  
Risk-Based Management Strategies (WG-RBMS) Meeting**

21 September 2019  
Bordeaux, France

NAFO  
Dartmouth, Nova Scotia, Canada  
2019

## Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting

21 September 2019  
Bordeaux, France

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## **Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

21 September 2019  
Bordeaux, France

### **1. Opening by the co-Chairs, Carmen Fernández (European Union) and Jacqueline Perry (Canada)**

The meeting was opened at 09:30 hours on Saturday, 21 September 2019. The co-Chairs, Carmen Fernández (European Union) and Jacqueline Perry (Canada), welcomed representatives from Canada, European Union, France (in respect of St. Pierre et Miquelon), Japan, Norway and United States of America (Annex 1).

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

NAFO Secretariat (Tom Blasdale, Scientific Council Coordinator and Ricardo Federizon, Senior Fisheries Management Coordinator) were appointed as co-Rapporteurs.

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

The agenda was adopted with the addition of the following under agenda item 5, “*Other Business*” (Annex 2):

- 5.c – Work items and preparations for the August 2020 meeting.

### **4. 3M cod Management Strategy Evaluation (MSE)**

#### **a. Review objectives for the current meeting**

The co-Chair, Carmen Fernández (European Union), provided a summary of the 3M Cod MSE process in the last year.

A work plan was agreed in September 2018 that aimed to have the MSE process complete by the time of the NAFO Annual Meeting in September 2019. In line with the plan, Scientific Council (SC) had a meeting in January 2019 and this Working Group in April 2019. In addition, a very significant amount of intersessional work has been done by the Technical Team, and their dedication to this work and the quality of their contributions were greatly appreciated by the meeting participants. The initial objective of this meeting, according to the work plan, had been to finalize the 3M cod MSE for presentation the Commission. However, at the WG-RBMS meeting in April, it became clear that this original aim was not achievable (see below).

Significant progress was made during the SC meeting (SCS Doc. 19-04 Rev.) in January 2019 and WG-RBMS meeting (COM-SC Doc. 19-01) of April 2019. A total of 432 MSE scenarios were identified through combinations of different Operating Model (OM) settings (three settings for each of: natural mortality M in historical years, recruitment in future years and biological parameters in future years) and Harvest Control Rule (HCR) settings (model-free slope and model-free target HCR types, with some alternative options for tuning parameters, constraints on interannual TAC change and starting point for application of the HCR). Table 1 provides a summary of the different settings.

**Table 1.** Specifications of the scenarios (with Scenario naming convention in parenthesis). Base-Case OM in bold.

	Variables	Scenarios		
HCR settings	HCR names	Model-Free Slope (MFS)	Model-Free Target (MFT)	
	$\alpha$ (tuning parameter in HCR)	1.0 (A10)	1.5 (A15)	
	Constraint on inter-annual TAC change	None (Cnone)	$\pm 20\%$ (C20)	
	Starting Point*	TAC(2019)=17500 t (SP0)	TAC(2019)-25%=13125 t (SP25)	
OM settings	Natural Mortality (until year 2017)	<b>M vector (MV)</b>	M GADGET (MG)	M Steps (MS)
	Recruitment (2018 onwards)	<b>Bin Ricker (BR)</b>	Hockey Stick (HS)	Low Bin Ricker (LBR)
	Biological parameters (2018 onwards)	<b>Random walk (RW)</b>	3 Years Mean (3Y)	Density Dependent (DD)
	Groups q (age groups for survey catchability)	<b>Flat Shape (F)</b>	Dome Shape (D)	

\* When the management strategy is applied for the first time (i.e. for year 2020 in the MSE simulation), the TAC obtained from the HCR is calculated starting from this value instead of starting from the adopted 2019 TAC.

Due to time constraints it was not possible to run all of these MSE trials prior to the April meeting. For that meeting, a subset based on OMs including MV or MG settings for natural mortality, BR or HS settings for recruitment, and RW or 3Y settings for biological parameters was run.

A main observation emerging from the MSE results presented in April was the very wide range of uncertainty obtained in projections, which was linked to the high variability observed in the past in recruitment and biological parameters. This wide range of uncertainty makes it difficult to find HCRs fulfilling the risk criterion of no more than 10% probability of falling below  $B_{lim}$ . This difficulty is exacerbated by the poor recruitment observed since 2015, with the consequent strong stock declines expected over the next few years. All of the OMs resulted in more than 10% probability of the stock being below  $B_{lim}$  in some future years when the slope or target HCRs were applied. In scenarios where fishing mortality was set at zero (simulating a closed fishery for 2020 and beyond), the probability of being below  $B_{lim}$  did not exceed 10%. However, it was then noted that a scenario where the current low recruitment would continue for a few more years had not yet been tested and that this would likely result in the 10% probability being exceeded.

Because of these observations, the April WG-RBMS meeting raised significant doubts as to the feasibility that the MSE would be able to find HCRs fulfilling management objectives, particularly the risk criterion relative to  $B_{lim}$ . It was concluded that the aim of having the MSE completed by September 2019 would certainly not be achieved and there was significant doubt as to whether it would be possible to complete the process at all. Consequently, it was agreed that the technical team would continue their work on low recruitment and density-dependent OMs for presentation at an additional meeting of WG-RBMS immediately prior to the 2019 Annual meeting, at which point WG-RBMS would make a recommendation on whether to proceed with the MSE and, if the recommendation were to proceed, propose revised timelines for the process.

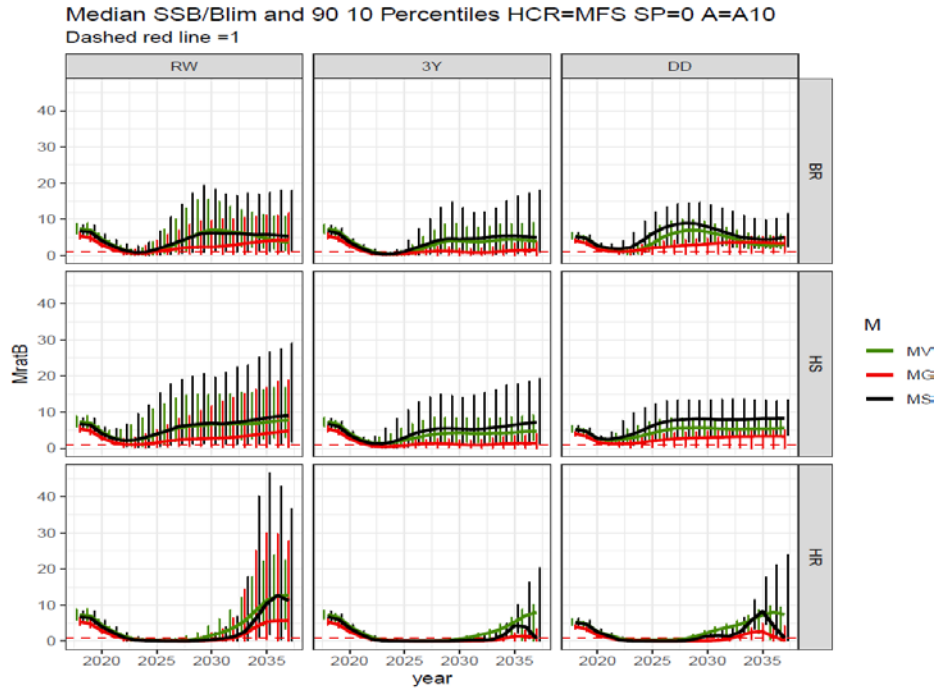
## b. Presentation of new results from the technical team for 3M cod MSE process

For documentation purposes, the report of the technical team, led by F. González-Costas, D. González-Troncoso, C. Fernández and A. Urtizberea, is annexed in this report (Annex 3). New MSE simulations were performed intersessionally for scenarios not available in April, including OMs with settings as follows: MS for natural mortality (historical natural mortality changing over time), HR for future recruitment (Historical Recruitment - the current run of poor recruitment continues for several more years), and DD for future biological parameters (density-dependent).

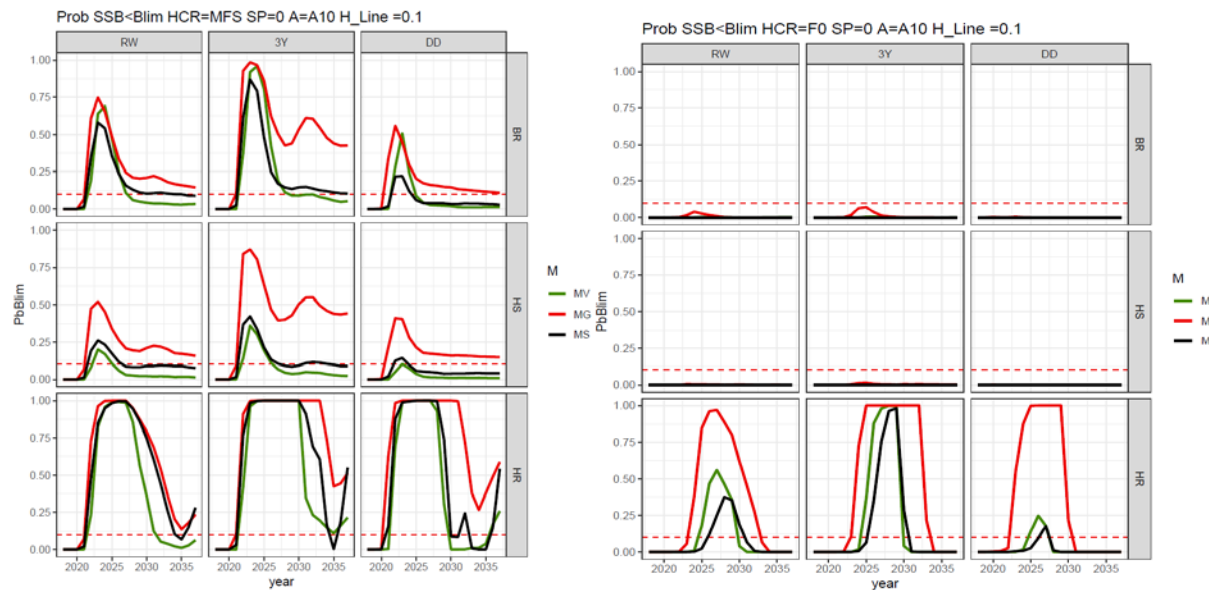
It was initially planned that the low recruitment scenario would consist of ten consecutive years of low recruitment followed by application of the bin-Ricker scenario (labelled as LBR in Table 1). However, it was observed that, at the low biomass levels following the low recruitment period, the Bin-Ricker gave continuing low recruitment, resulting in virtually zero probability of recovery, contrary to what has been observed for the stock in the past. Consequently, it was decided that the low recruitment scenario would consist of ten years of low recruitment followed by a period of medium to high recruitment.

Some main conclusions from the new and previous results were as follows:

- Recruitment and biological parameters have shown very high variability in the historical period with strong trends in the recent past. There are considerable difficulties to simulate recruitment in a realistic way going into the future.
- MSE results from DD scenarios for future biological parameters display lower uncertainty than 3Y and RW scenarios (Figure 1). However, the uncertainty associated with DD scenarios may be underestimated. On the other hand, the great uncertainty in projected outcomes under RW scenarios may be in part due to their difficulty in adequately capturing the behaviour observed in biological parameters in the past.
- MSE results of most of MS scenarios for natural mortality show much greater variability than for MG and MV scenarios. To reduce this great variability, scenarios with weight-related natural mortality could be considered in the future. The DD scenarios presently developed for biological parameters did not include density-dependence in future natural mortality.
- In the low recruitment scenario, there is a high probability of falling below  $B_{lim}$ , even with  $F=0$  (Figure 2). The low recruitment OM developed (labelled HR) assumes a fairly long period of low recruitment in the future. This may be pessimistic; however, a similar period of continuous low recruitment has been observed in the past.
- The results show that none of the HCRs tested so far meets the accepted risk levels for SSB below  $B_{lim}$  and  $F$  above  $F_{lim}$ . These HCRs need a reformulation and a much deeper study, both in their formulation and the values of the parameters. Any alternative HCRs proposed in the future should allow the closure and opening of the fishery depending on the state of the resource (biomass levels, recruitments).



**Figure 1.** SSB/B<sub>lim</sub> in future years under a slope-type HCR. Rows and columns correspond to scenarios for future recruitment and biological parameters, respectively. The different colours within each panel correspond to scenarios for historical natural mortality. For each scenario, the figures display median, 10th and 90th of the projected distribution of SSB/B<sub>lim</sub>. The dashed horizontal line corresponds to SSB/B<sub>lim</sub> = 1 (i.e. SSB=B<sub>lim</sub>).



**Figure 2.** P(SSB < B<sub>lim</sub>) in future years under a slope-type HCR (left panel) or F=0 (right panel). Rows and columns correspond to scenarios for future recruitment and biological parameters, respectively. The different colours within each panel correspond to scenarios for historical natural mortality. The dashed horizontal line corresponds to 0.1 (i.e. 10% probability of SSB < B<sub>lim</sub>).

**c. Discussion of next steps, including whether to proceed with or to halt the current 3M Cod MSE (If the decision is to proceed, a revision of the timeline should be provided)**

WG-RBMS concluded that work in WG-RBMS on the 3M cod MSE should be suspended for the time being. This conclusion was reached based on the strong variability observed in the stock dynamics and biological parameters in the past, that create substantial difficulties for developing realistic future simulations and successful development of an HCR. This situation, coupled with the low recruitment observed in recent years that will likely result in a strong decline of the stock biomass even without a fishery, implies that developing an HCR is not considered feasible at this stage. Reopening this issue in WG-RBMS should occur when SC determines that conditions are such that there is a reasonable probability of success.

WG-RBMS highlights the enormous amount of hard work that has gone into this process, particularly from the technical team, whose efforts and good quality of their work were gratefully acknowledged. The MSE process has included additional meetings of SC with external invited experts and a very significant amount of intersessional work. As a consequence, even though this work has not resulted in immediate success, a lot of knowledge and expertise has been gained, which will be an asset to any future MSE process.

Concerning future MSE processes, WG-RBMS noted that significant challenges were encountered in meeting the timetable set for the MSE processes for both 3M Cod and 2+3KLMNO Greenland halibut. This resulted in insufficient time for adequate review and documentation of the results. WG-RBMS recommends that timeframes set for future MSE processes should be realistic, taking full account of the very large amount of work required. Sufficient time and human capacity should be allowed for the development of the technical work, review, communication with relevant actors and reporting of results.

**d. Presentation of the single overall “guiding and summary” document for the 3M cod MSE process, including the main results and conclusions from the WG-RBMS meetings**

The purpose of this document is to provide a single reference document where all of the main decisions are recorded with appropriate references so that someone not familiar with the MSE can follow the decision-making process. The development of this document began at the April 2019 meeting; however, due to time constraints, the draft was not further developed. The SC Coordinator will prepare a draft document incorporating the existing summaries of the January and April meetings, and a summary of the present meeting (to be provided by the co-chairs once the report is finalized), which will be circulated to the Working Group by end of October for review.

**e. Archiving the code data sets and results**

Archiving of code, data and results was discussed during the April meeting where it was decided that the Secretariat would investigate options. The SC Coordinator reported that there had been no progress towards storing and making code available through GitHub; however, the present meeting concluded that this is not what is what is required. Instead it was agreed that the data will be archived on the NAFO system with requests for access directed through the Secretariat. The technical team will prepare the files and the Secretariat will archive them on the NAFO server.

**5. Other Business**

**a. Brief discussion on the Greenland halibut MSE process, as noted at the SC meeting in June 2019.**

The SC Chair reported on difficulties encountered during the determination of exceptional circumstances (EC) for Greenland halibut in the June SC meeting. The EC criteria require comparison of the annual survey data with projections produced under the MSE. A problem was detected with the confidence intervals of projections produced under the SSM operating model, but it was not possible to determine the cause or extent of the issue within the timeframe of the June meeting. It will be necessary to look at the code for the SSM model to determine what the problem is: this could be simply an output or plotting problem, or may be something deeper in the OM. It is expected that this investigation will be done before the next June SC meeting.

As a result of the detected issue, it was not possible to do the comparison for the SSM model during the June meeting and, therefore, the EC assessment was based only on the SCAA model. SC advice has commented on the lack of complete documentation in the Greenland halibut MSE process as a result of the accelerated timelines followed in that MSE process. The complexity of the work implies that there is a substantial risk that mistakes will occur in any MSE process and it is necessary to build sufficient review time into the process so that any errors can be captured.

SC will advise WG-RBMS at its August 2020 meeting of the results of the investigation and of any implications for the Greenland halibut MSE implementation, should they be identified.

**b. 3LN redfish Conservation Plan and Harvest Control Rule; planning for review/evaluation of the plan, which expires in 2020 (See Annex I.H of NAFO CEM)**

The current 3LN redfish Conservation Plan and Harvest Control Rule provides direction on the TAC up to and including 2020. Annex I.H of the CEM requires to perform a “full review/evaluation” of the management strategy. WG-RBMS noted that this does not necessarily imply that the rule should be replaced. It was noted that the current rule was intended to maintain the biomass in the “safe zone”, as defined by the NAFO PA Framework and that it had been tested by SC in 2014 against six operating models. It is however uncertain whether the current TAC of 18 100 tonnes is sustainable in the long term.

After discussing the matter, WG-RBMS concluded the following:

WG-RBMS recommends to the Commission that SC be asked in 2020 to do an update assessment and five-year projections (2021 to 2025) to evaluate the impact of annual removals at 18 100 tonnes against the following performance statistics (from NCEM annex I.H):

- (a) Very low (< 10%) probability of biomass declining below  $B_{lim}$ .
- (b) Low (< 30%) probability of fishing mortality  $>F_{msy}$
- (c) Less than 50% probability of declining below 80%  $B_{msy}$  on or before 2026

If this level of catch does not result in fulfilling these performance statistics, SC should advise the level of catch that would.

WG-RBMS will consider the SC response at its August 2020 meeting and discuss next steps for review/evaluation of the management strategy.

**c. Work items and preparations for the August 2020 meeting.**

Since it was decided to suspend the 3M cod MSE work, the focus of the WG-RBMS agenda for 2020 shifted to the NAFO Precautionary Approach Framework review.

It was noted that the PA review has been a standing agenda item of the WG for several years (see Annex 3 of FC-SC Doc. 16-01), and the Commission have classified this item as a priority. The NAFO external performance review has also highlighted the importance of this work. However, there is no development on this review. Problems that hindered the development, as noted in the previous meeting reports of this Working Group and of the Commission, include:

- original experts moved on and are no longer available,
- heavy workload due to the competing priority with MSE work.

It was decided that there will be a WebEx meeting of WG-RBMS in the early part of 2020 to scope what has to be prepared in regards to the PA framework review, which will be a main agenda item in the August meeting. The co-Chairs will prepare the draft agenda for this Web-Ex meeting. Work items will include (but not be

limited to): compilation of work undertaken to date; approaches taken in other RMFOs/CPs; consideration of the use of  $F_{msy}$  as a target vs limit; application in data-limited stocks; definition and application of risk.

## 6. Recommendations

The WG-RBMS recommends that:

- **On the 3M cod MSE:**

WG-RBMS concludes that work in WG-RBMS on the 3M cod MSE should be suspended for the time being. This conclusion was reached based on the strong variability observed in the stock dynamics and biological parameters in the past, that create substantial difficulties for developing realistic future simulations and successful development of an HCR. This situation, coupled with the low recruitment observed in recent years that will likely result in a strong decline of the stock biomass even without a fishery, implies that developing an HCR is not considered feasible at this stage. Reopening this issue in WG-RBMS should occur when SC determines that conditions are such that there is a reasonable probability of success.

- **On future MSE processes:**

Noting that significant challenges were encountered in meeting the timetables set for the MSE process for both 3M cod and 2+3KLMNO Greenland halibut, and that this resulted in insufficient time being available for adequate review and documentation of the results, WG-RBMS recommends that timeframes set for future MSE processes should be realistic, taking full account of the very large amount of work required. Sufficient time and human capacity should be allowed for the development of the technical work, review, communication with relevant actors and reporting of results.

- **On 3LN redfish:**

WG-RBMS recommends to the Commission that SC be asked in 2020 to do an update assessment and five-year projections (2021 to 2025) to evaluate the impact of annual removals at 18 100 tonnes against the following performance statistics (from NCEM annex I.H):

- (a) Very low (< 10%) probability of biomass declining below  $B_{lim}$ .
- (b) Low (< 30%) probability of fishing mortality  $> F_{msy}$
- (c) Less than 50% probability of declining below 80%  $B_{msy}$  on or before 2026

If this level of catch does not result in fulfilling these performance statistics, SC should advise the level of catch that would.

## 7. Date and Time of Next Meeting

The next meeting will be held in August 2020.

## 8. Adoption of Report

The report was adopted via correspondence. The recommendations from this meeting were compiled into COM-SC WP 19-08 for presentation at the upcoming 41<sup>st</sup> Annual Meeting of NAFO.

## 9. Adjournment

The meeting adjourned at 18:00 hours on 21 September 2019.

Report of WG-RBMS, 21 September 2019

Gratitude was expressed to the WG-RBMS members for their effective cooperation at the meeting, and to the NAFO Secretariat for its excellent support.





## Annex 1. List of Participants

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## Annex 2. Agenda

1. Opening by the co-Chairs, Carmen Fernández (European Union) and Jacqueline Perry (Canada)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. 3M cod Management Strategy Evaluation (MSE)
  - a. Review objectives for the current meeting
  - b. Presentation of new results from the 3M cod MSE technical team
  - c. Discussion of next steps, including whether to proceed with or to halt the current 3M cod MSE (If the decision is to proceed, a revision of the timeline should be provided)
  - d. Presentation of a draft "*guiding and summary*" document
  - e. Archiving of code date sets and results
5. Other Business
  - a. Brief discussion on the Greenland halibut MSE process, as noted at the SC meeting in June 2019
  - b. 3LN redfish Conservation Plan and Harvest Control Rule: planning for review/evaluation of the plan, which expires in 2020 (see Annex I.H of NAFO CEM)
  - c. Preparations for the August 2020 meeting
6. Recommendations
7. Date and Time of Next Meeting
8. Adoption of Report
9. Adjournment

### **Annex 3. 3M cod MSE results (Presented by Technical Team)** [COM-SC RBMS-WP 19-04]

Technical Team:

F. González-Costas, D. González-Troncoso, C. Fernández and A. Urtizberea

#### **Introduction**

The SC meeting of January 2019 (NAFO, 2019 a) agreed the different Operating Models (OMs) and initial Harvest Control Rules (HCR) to be tested in the 3M cod Management Strategies Evaluation (MSE). Table 1 contains the variables, both HCR and OMs, which will be included in the MSE trials. In this meeting a calendar was approved to present a total of 89 scenarios that came out of the relationship between OMs and HCRs (Table 2). The calendar was modified at the WG-RBMS meeting in April 2019 (NAFO, 2019 b).

According to that calendar, the technical team has been developing and presenting the results of the different OMs and HCRs. In the April 2019 WG-RBMS meeting the OMs and results of the scenarios were presented, except those related to M steps, low recruitment and density-dependent parameter estimation. The M steps scenarios were defined and formulated by González-Troncoso and Avila de Melo (2019) in the SC January 2019. In June 2019 NAFO SC meeting the results of the scenarios related with the low recruitment were defined and presented (González-Costas *et al.*, 2019).

In this document we summarize the formulation of the low recruitment scenarios that were presented at the SC of June 2019 and explain the formulation of the new scenarios with the density-dependent estimation of the biological parameters. Subsequently, a summary of the results of the 88 scenarios (Table 2) agreed by the SC of January 2019 to perform the MSE of 3M cod are presented.

Point out that the SC of January 2019 approved one extra scenario based on the dome shape catchability as “robustness trial” of the Base Case scenario with the slope HCR. The technical team has not had time to develop and present the results of this scenario at this meeting.

#### **Low Recruitment OM**

This OM was discussed and approved in the June 2019 SC meeting. Low recruitments were defined as those below the 2005-2006 levels, which allowed the recovery of the stock in the past. Taking into account this definition, Figure 1 shows that for the assessment approved in 2018 (Base Case), the longest period of low recruitment goes from 1993 to 2004 (i.e. 12 consecutive years). The three most recent recruitments (2015-2017) are also low.

It was decided to implement the low recruitment scenarios in the following way. Bearing in mind that we have already observed 3 years of low recruitment (2015-2017), that we want to simulate a continuous period of low recruitment of about 10/11-years duration and that the projection period is from 2018 to 2037, it was decided that, for each OM and iteration, the annual recruitment values observed in the period 1998-2017 will be taken directly and applied to the projected period (2018-2037). This results in a continuous period of 10 years of low recruitment (2015-2024), followed by a period of medium and high recruitment to recover SSB as was observed in the past. These low recruitment scenarios in the results are named as HR (Historic Recruitment).

#### **Density-dependent OM**

This OM tries to estimate the biological parameters taking into account the density-dependent effect to be tested within the 3M cod MSE. The stock and catch weights-at-age of this OM are estimated by the method proposed by Brunel (2019). The model used is the classical von Bertalanffy equation, modified so that growth is reduced when stock size increases. The correlation between growth and temperature was also analyzed. This empirical model was able to reproduce the trends in the observed historical weight-at-age data (Figure 2). Most of the changes in growth operate on individuals during the first 2 years of their lives, and less variability occurs

during the growth of the subsequent years. Growth during the first year (length at age 1) was inversely related to the size of the cohort. Growth during second year (but also later ages, although less significantly) correlated best with total stock biomass.

This framework was proposed by the SC in January 2019 to simulate future weights at age for 3M cod in which changes in growth are driven by changes in stock size, thereby reproducing a density-dependent growth mechanism. It was agreed that this will be further developed as a potential additional OM variant. The OM to be designed would use this model to estimate the mean weights at age in the future catches and stock, but it would be necessary to decide how the values at age of the other necessary parameters such as maturity, M, etc are obtained. It was noted that both maturity and M are likely to be density-dependent. These density-dependent scenarios in the results are named as DD.

### Maturity

Figure 3 shows for the period 1988-2017 how the maturity varies with the weights and their correlation by age. It can be observed that for ages 1-2 maturity almost does not change with weight and is very close to zero. For ages 3-5 there is a clear positive relationship of maturity with weights, while for ages 6-7 that relationship is almost not appreciated and practically maturity is 1.

Figure 4 shows the relationship of the maturity with respect to the weights and the fit (line) to a logistic function. Biologically it makes more sense that maturity varies with logistic function of weight. It can be observed that the maturity for individuals with weights less than 0.4 kg is practically zero and for heavier than 2.5 kg it is 1. What is proposed is to estimate the maturity by iteration and year of the projection depending on the mean weights at age estimated with the density-dependent growth model; once the weight is known, maturity can be estimated by the following method:

$$\left\{ \begin{array}{ll} mat_{i,y}^a = 0 & \text{if } weight - at - age_{i,y}^a < 0.4 \\ mat_{i,y}^a = \frac{1}{1 + e^{(-\alpha_i - weight - at - age_{i,y}^a * \beta_i)}} & \text{if } 0.4 \leq weight - at - age_{i,y}^a \leq 2.5 \\ mat_{i,y}^a = 1 & \text{if } weight - at - age_{i,y}^a > 2.5 \end{array} \right.$$

for all the ages (a=1-8) and years in the future (y=2018-2037). As the maturity in the assessment of the 3M cod has uncertainty via a Bayesian model, 1000 different logistic fits, one by iteration (i=1-1000), were adjusted. In Figure 5 the fit of the median maturity versus the weights is shown.

### Natural Mortality (M)

During the discussion of the density-dependent OM during the SC of June 2019, the need to implement natural mortality in this OM was discussed. Possible ways to implement density-dependent M were discussed but none in particular was approved. Due to the lack of time it has not been possible to implement the estimate of M in a density-dependent manner. The results presented for the scenarios of the density-dependent OM (DD) are estimated assuming that the M by age in the projection years (2018-2037) is equal to the average M at age of the last three years (2015-2017).

### Fishery Selectivity / Partial Recruitment

For the fishery PR pattern, it was agreed by the NAFO SC January 2019 meeting to use the average of the last 3 years (independently for each iteration of the MSE) for all the OMs that are developed, since it is considered that the recent fleets composition as well as the fishing gears is the most realistic for the projection period.

## Results

The results of some of the Table 2 scenarios were already presented in previous WG-RBMS working groups and SC meetings according to the work plan approved. In this document we present a summary of the results of the all Table 2 scenarios (except scenario 89).

Two different HCRs have been tested: one based on the trend (MFS) and one based on a goal (MFT). Apart from these two HCRs, all the scenarios have been run with  $F = 0$ .

### Model-Free Slope (MFS) HCR:

$$TAC_{y+1} = TAC_y [1 + \lambda_y \cdot slope_y], \text{ where}$$

$slope_y$  is the slope of a regression line fit to the four previous total biomass indices (indices in log-scale), and:

$$\lambda_y = \begin{cases} \min(\alpha, RR_y), & \text{if } slope_y \geq 0 \\ 2 - \min(\alpha, RR_y), & \text{if } slope_y < 0 \end{cases}, \text{ with } \alpha \in [1, 1.5] \text{ used as a tuning parameter.}$$

### Model-Free Target (MFT) HCR:

$$TAC_{y+1} = TAC_y [1 + \lambda_y \cdot (J_y - 1)], \text{ where}$$

$J_y$  is the ratio of recent (three-year) average of total biomass indices to a "target" biomass level, as follows:

$$J_y = \frac{1}{3} \cdot (I_{y-1} + I_{y-2} + I_{y-3}) / I_{target}, \text{ with } I_{target} = \left(\frac{1}{10}\right) \cdot \sum_{i=2008}^{2017} I_i, \text{ and}$$

$$\lambda_y = \begin{cases} \min(\alpha, RR_y), & \text{if } J_y \geq 1 \\ 2 - \min(\alpha, RR_y), & \text{if } J_y < 1 \end{cases}, \text{ with } \alpha \in [1, 1.5] \text{ used as a tuning parameter.}$$

First the results of the different OMs applying the "standard" settings of the HCRs are presented. The standard settings are:

HCR setting	Value	Results Name
HCR $\alpha$ parameter	1.0	A10
Constraint on inter-annual TAC change	None	Cnone
Starting Point	TAC(2019)=17500 t	SP0

### **SSB for the scenarios under different HCRs: fishing mortality=0 (F0), model free slope (MFS), model free target (MFT).**

Figure 6 presents the trajectory of the median SSB by year for the different scenarios applying different HCRs (F0, MFS and MFT). It can be observed that the scenarios under the three different HCRs have very similar SSB trend for each recruitment OM, except the MFT with HS which is different from the tendency of the HS under the other HCRs. These trajectories of the SSB are determined by the type of recruitment used in the projections. All scenarios show a decline in SSB in the short medium term (2020-2025).

Figure 7 shows the SSB/ $B_{lim}$  median and percentiles (10,90) by year (2018-2037) for the different OMs under the three different standard HCRs. The scenarios with 3Y and RW have a fairly similar level of uncertainty in the different groups. RW is a bit higher; especially the RW-HR combination gives a very large uncertainty. The scenarios with less uncertainty are the DD ones; it is possible that this uncertainty is underestimated because no noise has been included in maturity and M. To note that in all groups the scenarios with the greatest variability are the scenarios with MS.

Figure 8 illustrates the probability of SSB being less than  $B_{lim}$  by year (2018-2037) for the different OMs under the three different standard HCRs. It is noteworthy that for the scenarios without catches ( $F = 0$ ), this probability is very low (<10%) in all years for scenarios with BR and HS recruitment. However, it is quite high (> 30%) in all low recruitment (HR) scenarios in the 2025-2030 period, being higher in cases with M Gadget (MG). For scenarios with catches (MFS and MFT), all scenarios have a probability of SSB being less than  $B_{lim}$  greater than 10% in the 2020-2025 period. That period is wider in the scenarios with HR. In the scenarios with MFS and HS or BR, from 2025 the probability is less than 10% for cases with MV and MS. Almost all the cases with MG have a probability greater than 10%.

### **Fishing mortality (F) for the scenarios under the model free trend (MFS) and model free target (MFT) HCR.**

Figure 9 shows the median F for the scenarios under the HCRs MFS and MFT. All scenarios with both HCRs and recruitment BR or HS have a similar trend, with small F increments in the period 2020-2025 that later fall to low levels that remain more or less constant until the end of the projection period. The scenarios with both HCRs and MV-HR have similar trends. But the rest of the scenarios with HR recruitment have a different trend. In these cases, the F increases to maximums in the period 2020-2030. For the HR scenarios and MG or MS under MFS, the F falling and rising again to high levels in the 2030-2037 period, while in MFT scenarios the F only decreases in the 2030-2037 period.

Figure 10 presents the median F (horizontal lines) and the percentiles 10 and 90 (vertical lines) for the period 2018-2037. All scenarios under the MFT and those of MFS with HR have great uncertainty and the 90th percentile in almost all cases is around the maximum F allowed in many years of the projection. In the cases of MFS with BR or HS this uncertainty is quite minor except the scenarios with MG.

Figure 11 plots the probability of F being above  $F_{lim}$  by year. The red line marks the 0.3 probability. This is the proposed limit for management objective 2 established in the WG-RBMS of August 2018. All scenarios exceed this limit several years in the 2020-2025 period. In all scenarios with HR, the period where this limit is exceeded is much longer. While in the scenarios with recruitment BR and HS, after 2025 until the end of the period the risk is less than the limit for almost all cases.

### **Catch for the scenarios under the model free trend (MFS) and model free target (MFT) HCR.**

Figure 12 shows the median catches (horizontal lines) and the percentiles 10 and 90 (vertical lines) for the period 2018-2037 under the HCRs MFS and MFT. All scenarios under the MFT show a similar trend in the median catches by year. Between 2020-2025 the catches decrease from their current level to minimum levels, being constant since then at those levels. In the MFS, catches also fall in the first period but subsequently they recover to levels similar to the current ones in the case of the HR, a little lower in the case of HS and quite lower in the case of BR. The catches uncertainty in the MFS scenarios are quite wide in cases with HR recruitment, a little lower in HS cases and rather less in cases with BR.

### **HCR parameters**

In order to start the study of the different parameters of the HCRs, different HCRs with different parameters values have been applied to the OM Base Case. The results of these tests have been compared with the values obtained in the Base Case under the HCRs with the standard parameters values. The Base Case has the following configuration: random walk parameters (RW), M age vector constant over time (MV), Bin Ricker recruitment (BR). The standard HCR has the following configuration:  $\alpha$  parameter equal to 1.0 (A10), there is not limit for TAC variation between years (Cnone) and the starting point to estimate the first TAC is the 2019 TAC = 17500 (SP0). The studies of different values of the HCRs parameters should be continued once the final set of OMs has been selected to perform the MSE of the 3M cod.

Results of the Base Case under the HCRs with standard settings and the Base Case applying different HCRs settings:

HCR setting	Standard value	New value
HCR $\alpha$ parameter	1.0 (A10)	1.5 (A15)
Constraint on inter-annual TAC change	None (Cnone)	20% (C20)
Starting Point	TAC(2019)=17500 t (SP0)	75%TAC(2019)= 13125 t (SP25)

### **$\alpha$ parameter.**

Figure 13 presents the median and percentiles (10,90) of the SSB/ $B_{lim}$  ratio, F, catches and the probability of SSB being below  $B_{lim}$  by year (2018-2037) for the Base Case scenario under the HCRs with different  $\alpha$  parameter values. Changing the  $\alpha$  parameter from 1.0 to 1.5 causes different results depending on HCR. In the case of the MFS, this change increases catches with similar low F values by slightly decreasing the SSB. This small decrease in SSB increases the risk of SSB being below  $B_{lim}$ , especially after 2025. While in the MFT, the  $\alpha$  parameter change causes the SSB crash what is reflected in an increase of the risk of SSB below  $B_{lim}$  (> 60%).

### **Constraint on inter-annual TAC change.**

Figure 14 shows the median and percentiles (10,90) of the SSB/ $B_{lim}$  ratio, F, catches and the probability of SSB being below  $B_{lim}$  by year (2018-2037) for the Base Case scenario under the HCRs with different inter-annual TAC change constraints. In the short term, the trajectories of biomass, catches and risks are very similar for the scenarios with and without constraint under the two HCRs. In the medium to long term, the scenarios with constraint show higher catches, higher F and lower levels of biomass. This causes in the medium - long term a considerable increase in the risk of SSB below  $B_{lim}$  in scenarios with HCRs with constraint compared with the scenarios without constrain.

### **Starting Point 25% reduction.**

Figure 15 illustrates the median and percentiles (10, 90) of the SSB/ $B_{lim}$  ratio, F, catches and the probability of SSB being below  $B_{lim}$  by year (2018-2037) for the Base Case scenario under the HCRs with different starting point values. It was tested a starting point value of the 75% of the 2019 TAC (=13125 t). The application of the starting point reduction seems to have not much effect on the scenarios analyzed under the two HCRs. Of all the parameters analyzed, this seems to be the one that has the least impact on the analyzed results. In the short term, the starting point reduction has very small impact. In the medium-term the impact is quite small, with slightly higher biomass and catches and lower risk of SSB below  $B_{lim}$  in cases with a lower starting point.

### **Candidate Performance Statistic (PS).**

The WG-RBMS of April 2019 established the Management Objectives as well as a draft of the possible PSs to be used to measure their achievement. Figures 16 through 20 show the results for PS1, PS2, PS3, PS4 and PS6.

### **Some Conclusions and Ideas**

The results of all the fishing scenarios analyzed show in the very short term a high probability that the SSB will be lower than  $B_{lim}$ . This probability is very high even in scenarios without fishing ( $F = 0$ ) with Low Recruitment (HR). This would imply the need to close the fishery in the very short term.



### **Biological Parameters OMs.**

It was noted that in this stock biological parameters (weight and maturity at age) and recruitment have shown very high variability in the historical period. Projecting into the future without any obvious way of predicting how these variables will evolve in future years implies a very wide spectrum of possibilities for these variables in the future, which in turn results in very wide probability distributions and a high probability of failing the performance criteria.

The results of the scenarios where the biological parameters are estimated following density-dependent effects (DD) probably captures better the correlation of the different biological parameters. This OM has a much lower uncertainty than the average of the last three years (3Y) and the random walk (RW) cases. This uncertainty could be underestimated in the DD cases as it is at this moment. This OM could be improved in the future implementing a method to estimate natural mortality taking into account density-dependent effects and including errors in the logistic fit to estimate the maturity and/or considering the age in the logistic model.

Some of the scenarios with RW present great uncertainty in the estimates of the different variables. This may be due to the difficulty of capturing the variability observed in this OM. This OM takes into account the correlation between the biological parameters in the same year but ignores the correlation between them and abundance, which causes large variations in the final estimates. The need for an OM of this type should be studied, given that DD OM seems to capture better the observed variability.

The cases with 3Y OM can be considered as the most precautionary in this aspect since the values of the biological parameters of the last three years are the minimum observed in the historical series.

### **Recruitment OMs.**

In the WG-RBMS April 2019 meeting, it was noted that, in the cases with BR recruitment, simulating future recruitment residuals by sampling historical recruitment residuals within SSB bins implied biased residuals within the SSB bins. Some possible alternatives to improve this OM could be incorporating time autocorrelation in the future recruitment simulation.

It is likely that the way in which the OM of low recruitment (HR) has been implemented is quite pessimistic by assuming a fairly long period of low recruitment in the future. It is also true that periods of that duration with low recruitments have been observed in the past. Other ways to implement this low recruitment scenarios could be studied, such as dividing the past into low and high productivity “regimes” and sampling from those two “regimes” separately.

The WG-RBMS April 2019 meeting agreed that further consideration of recruitment simulation was relevant and that alternative methods of generating recruitment values should be considered in future MSE work.

### **Natural Mortality OMs.**

Three M options were approved to be tested in the 3M cod MSE: M estimated by the age-variable and time-constant model (MV), M obtained from an evaluation with GADGET taking into account the cannibalism (MG) and M estimated by the step model that allows variability in ages and time (MS).

The results of most of the scenarios with MS show a much greater variability than that present in the MG and MV scenarios. One of the scenarios that could be implemented in the future to improve this great variability could be weight-related natural mortality.

### **HCRs and parameters.**

The results show that none of the HCRs tested so far meets the accepted risk levels for SSB below  $B_{lim}$  and F above  $F_{lim}$ . These HCRs need a reformulation and a much deeper study, both in their formulation and the values

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of the parameters. The new HCRs should allow the closure and opening of the fishery depending on the state of the resource (biomass levels, recruitments). The development of HCRs of this type is quite complicated and will take a lot of effort and time.

It would also be necessary to study how to vary the acceptable risk levels depending on the risk existing in cases with  $F = 0$ .

The results presented show that with the current formulation the MFS HCR gives better catch yields than the MFT HCR with lower risks that SSB below  $B_{lim}$  and that  $F$  above  $F_{lim}$ . This may be because some of the parameter values ( $B_{target}$ ) used in the HCR target are not the most appropriate. A deeper study of these parameters would be necessary.

Due to the different difficulties encountered in the MSE process, there has been little time to investigate different values of the HCR parameters. Different Base Case scenarios have been run playing with different parameters values of the HCRs: with an alpha HCR parameter up to 1.5, with a maximum interannual TAC variation of 20% and with a starting point to estimate the first TAC of 25% less than approved. Within all the changes in the parameter values, the one that seems to have the least impact on the final results is a 25% reduction of the starting point. The increase in  $\alpha$  and catch constraint parameters have a very limited effect in the short term (2018-2023). In the medium to long term, these changes produce an increase in catches, also increasing risks that the SSB below  $B_{lim}$  and that the  $F$  above  $F_{lim}$ .

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**Table 1.** Specifications of the scenarios. In bold, the base case OM.

	Variables	Scenarios		
HCR settings	HCR names	Model-Free Slope (MFS)	Model-Free Target (MFT)	
	alpha	1.0 (A10)	1.5 (A15)	
	Constraint on inter-annual TAC change	None (Cnone)	±20% (C20)	
	Starting Point*	TAC(2019)=17500 t (SP0)	TAC(2019)-25%=13125 t (SP25)	
OM settings	Natural Mortality (until year 2017)	<b>M vector (MV)</b>	M GADGET (MG)	M Steps (MS)
	Recruitment (2018 onwards)	<b>Bin Ricker (BR)</b>	Hockey Stick (HS)	Low Bin Ricker (LBR)
	Biological parameters (2018 onwards)	<b>Random walk (RW)</b>	3 Years Mean (3Y)	Denso Dependent (DD)
	Groups q	<b>Flat Shape (F)</b>	Dome Shape (D)	

\* When the management strategy is applied for the first time (i.e. for year 2020 in the MSE simulation), the TAC obtained from the HCR is calculated starting from this value instead of starting from the TAC in the previous year.

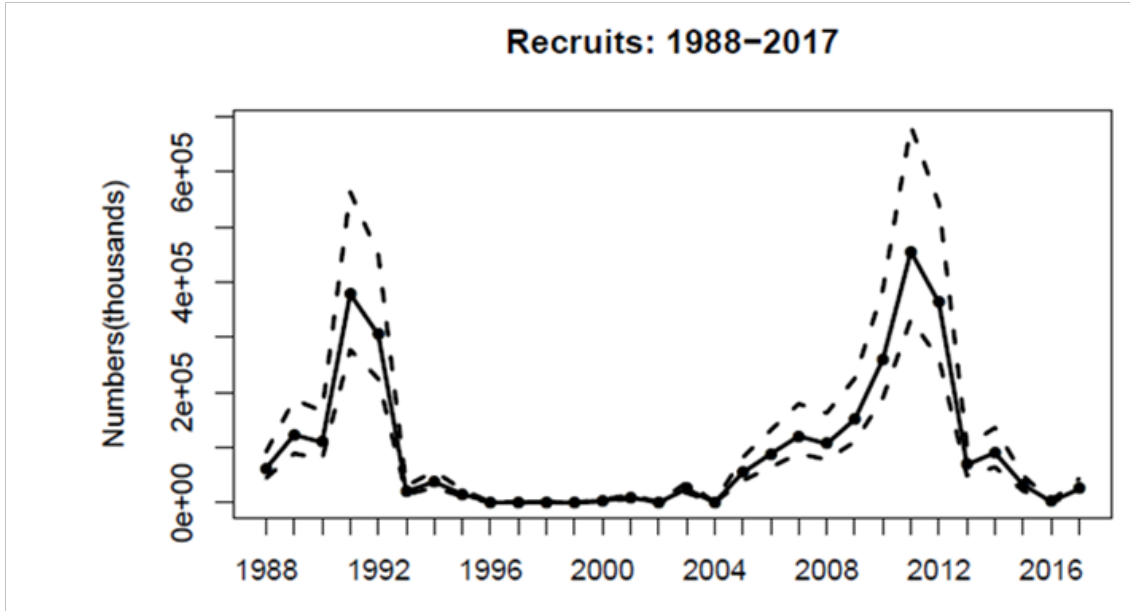
**Table 2.** List of the approved scenarios with their specifications.

	HCR			alfa		Constraint		Starting Point		M			Q		R			BP		Presented	
	MFS	MFT	F0	A10	A15	Cnone	C20	SP0	SP25	MV	MG	MS	QF	QD	BR	HS	HR	RW	3Y		DD
1. MFS_A10_Cnone_SP0_MV_QF_BR_RW	X			X		X		X		X			X		X			X			WG-RBMS APRIL
2. MFS_A10_Cnone_SP0_MV_QF_BR_3Y	X			X		X		X		X			X		X				X		WG-RBMS APRIL
3. MFS_A10_Cnone_SP0_MV_QF_BR_DD	X			X		X		X		X			X		X					X	
4. MFS_A10_Cnone_SP0_MV_QF_HS_RW	X			X		X		X		X			X			X		X			WG-RBMS APRIL
5. MFS_A10_Cnone_SP0_MV_QF_HS_3Y	X			X		X		X		X			X			X			X		WG-RBMS APRIL
6. MFS_A10_Cnone_SP0_MV_QF_HS_DD	X			X		X		X		X			X			X				X	
7. MFS_A10_Cnone_SP0_MV_QF_HR_RW	X			X		X		X		X			X			X	X				SC JUNE
8. MFS_A10_Cnone_SP0_MV_QF_HR_3Y	X			X		X		X		X			X			X		X			SC JUNE
9. MFS_A10_Cnone_SP0_MV_QF_HR_DD	X			X		X		X		X			X			X				X	
10. MFS_A10_Cnone_SP0_MG_QF_BR_RW	X			X		X		X			X				X			X			WG-RBMS APRIL
11. MFS_A10_Cnone_SP0_MG_QF_BR_3Y	X			X		X		X			X				X				X		WG-RBMS APRIL
12. MFS_A10_Cnone_SP0_MG_QF_BR_DD	X			X		X		X			X				X					X	
13. MFS_A10_Cnone_SP0_MG_QF_HS_RW	X			X		X		X			X				X			X			WG-RBMS APRIL
14. MFS_A10_Cnone_SP0_MG_QF_HS_3Y	X			X		X		X			X				X				X		WG-RBMS APRIL
15. MFS_A10_Cnone_SP0_MG_QF_HS_DD	X			X		X		X			X				X					X	
16. MFS_A10_Cnone_SP0_MG_QF_HR_RW	X			X		X		X			X					X	X				SC JUNE
17. MFS_A10_Cnone_SP0_MG_QF_HR_3Y	X			X		X		X			X					X		X			SC JUNE
18. MFS_A10_Cnone_SP0_MG_QF_HR_DD	X			X		X		X			X					X				X	
19. MFS_A10_Cnone_SP0_MS_QF_BR_RW	X			X		X		X			X	X			X			X			
20. MFS_A10_Cnone_SP0_MS_QF_BR_3Y	X			X		X		X			X	X			X				X		
21. MFS_A10_Cnone_SP0_MS_QF_BR_DD	X			X		X		X			X	X			X					X	
22. MFS_A10_Cnone_SP0_MS_QF_HS_RW	X			X		X		X			X	X			X			X			
23. MFS_A10_Cnone_SP0_MS_QF_HS_3Y	X			X		X		X			X	X			X				X		
24. MFS_A10_Cnone_SP0_MS_QF_HS_DD	X			X		X		X			X	X			X					X	
25. MFS_A10_Cnone_SP0_MS_QF_HR_RW	X			X		X		X			X	X				X	X				
26. MFS_A10_Cnone_SP0_MS_QF_HR_3Y	X			X		X		X			X	X				X			X		
27. MFS_A10_Cnone_SP0_MS_QF_HR_DD	X			X		X		X			X	X				X				X	
28. MFT_A10_Cnone_SP0_MV_QF_BR_RW		X		X		X		X		X			X		X			X			WG-RBMS APRIL
29. MFT_A10_Cnone_SP0_MV_QF_BR_3Y		X		X		X		X		X			X		X				X		WG-RBMS APRIL

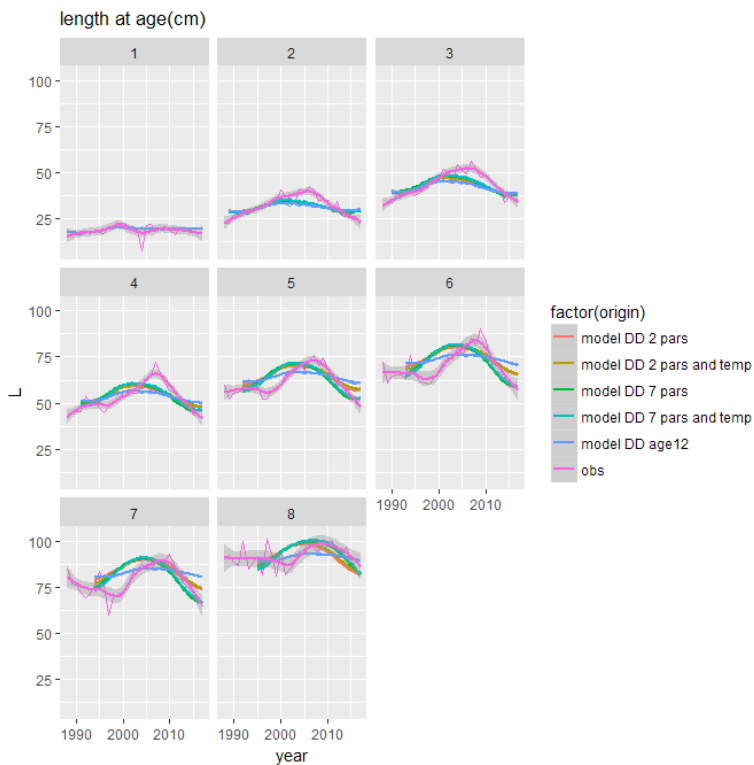
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31. MFT_A10_Cnone_SP0_MV_QF_HS_RW		X		X		X		X			X			X		X			WG-RBMS APRIL
32. MFT_A10_Cnone_SP0_MV_QF_HS_3Y		X		X		X		X			X			X			X		WG-RBMS APRIL
33. MFT_A10_Cnone_SP0_MV_QF_HS_DD		X		X		X		X			X			X				X	
34. MFT_A10_Cnone_SP0_MV_QF_HR_RW		X		X		X		X			X			X		X			SC JUNE
35. MFT_A10_Cnone_SP0_MV_QF_HR_3Y		X		X		X		X			X			X			X		SC JUNE
36. MFT_A10_Cnone_SP0_MV_QF_HR_DD		X		X		X		X			X			X				X	
37. MFT_A10_Cnone_SP0_MG_QF_BR_RW		X		X		X			X		X			X			X		WG-RBMS APRIL
38. MFT_A10_Cnone_SP0_MG_QF_BR_3Y		X		X		X			X		X			X				X	WG-RBMS APRIL
39. MFT_A10_Cnone_SP0_MG_QF_BR_DD		X		X		X			X		X			X				X	
40. MFT_A10_Cnone_SP0_MG_QF_HS_RW		X		X		X			X		X			X		X			WG-RBMS APRIL
41. MFT_A10_Cnone_SP0_MG_QF_HS_3Y		X		X		X			X		X			X			X		WG-RBMS APRIL
42. MFT_A10_Cnone_SP0_MG_QF_HS_DD		X		X		X			X		X			X				X	
43. MFT_A10_Cnone_SP0_MG_QF_HR_RW		X		X		X			X		X			X		X			SC JUNE
44. MFT_A10_Cnone_SP0_MG_QF_HR_3Y		X		X		X			X		X			X			X		SC JUNE
45. MFT_A10_Cnone_SP0_MG_QF_HR_DD		X		X		X			X		X			X				X	
46. MFT_A10_Cnone_SP0_MS_QF_BR_RW		X		X		X				X	X			X			X		
47. MFT_A10_Cnone_SP0_MS_QF_BR_3Y		X		X		X				X	X			X				X	
48. MFT_A10_Cnone_SP0_MS_QF_BR_DD		X		X		X				X	X			X				X	
49. MFT_A10_Cnone_SP0_MS_QF_HS_RW		X		X		X				X	X			X			X		
50. MFT_A10_Cnone_SP0_MS_QF_HS_3Y		X		X		X				X	X			X				X	
51. MFT_A10_Cnone_SP0_MS_QF_HS_DD		X		X		X				X	X			X				X	
52. MFT_A10_Cnone_SP0_MS_QF_HR_RW		X		X		X				X	X				X	X			
53. MFT_A10_Cnone_SP0_MS_QF_HR_3Y		X		X		X				X	X				X		X		
54. MFT_A10_Cnone_SP0_MS_QF_HR_DD		X		X		X				X	X				X			X	
55. F0_A10_Cnone_SP0_MV_QF_QF_BR_RW			X	X		X		X			X		X			X			WG-RBMS APRIL
56. F0_A10_Cnone_SP0_MV_QF_QF_BR_3Y			X	X		X		X			X		X				X		WG-RBMS APRIL
57. F0_A10_Cnone_SP0_MV_QF_QF_BR_DD			X	X		X		X			X		X					X	
58. F0_A10_Cnone_SP0_MV_QF_QF_HS_RW			X	X		X		X			X			X		X			WG-RBMS APRIL
59. F0_A10_Cnone_SP0_MV_QF_QF_HS_3Y			X	X		X		X			X			X			X		WG-RBMS APRIL
60. F0_A10_Cnone_SP0_MV_QF_QF_HS_DD			X	X		X		X			X			X				X	
61. F0_A10_Cnone_SP0_MV_QF_QF_HR_RW			X	X		X		X			X			X		X			SC JUNE
62. F0_A10_Cnone_SP0_MV_QF_QF_HR_3Y			X	X		X		X			X			X		X			SC JUNE

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63. F0_A10_Cnone_SP0_MV_QF_QF_HR_DD			X	X		X		X		X				X			X	
64. F0_A10_Cnone_SP0_MG_QF_QF_BR_RW			X	X		X		X		X		X			X			WG-RBMS APRIL
65. F0_A10_Cnone_SP0_MG_QF_QF_BR_3Y			X	X		X		X		X		X				X		WG-RBMS APRIL
66. F0_A10_Cnone_SP0_MG_QF_QF_BR_DD			X	X		X		X		X		X					X	
67. F0_A10_Cnone_SP0_MG_QF_QF_HS_RW			X	X		X		X		X			X		X			WG-RBMS APRIL
68. F0_A10_Cnone_SP0_MG_QF_QF_HS_3Y			X	X		X		X		X			X			X		WG-RBMS APRIL
69. F0_A10_Cnone_SP0_MG_QF_QF_HS_DD			X	X		X		X		X			X				X	
70. F0_A10_Cnone_SP0_MG_QF_QF_HR_RW			X	X		X		X		X				X	X			SC JUNE
71. F0_A10_Cnone_SP0_MG_QF_QF_HR_3Y			X	X		X		X		X				X		X		SC JUNE
72. F0_A10_Cnone_SP0_MG_QF_QF_HR_DD			X	X		X		X		X				X			X	
73. F0_A10_Cnone_SP0_MS_QF_QF_BR_RW			X	X		X		X		X	X		X			X		
74. F0_A10_Cnone_SP0_MS_QF_QF_BR_3Y			X	X		X		X		X	X		X				X	
75. F0_A10_Cnone_SP0_MS_QF_QF_BR_DD			X	X		X		X		X	X		X					X
76. F0_A10_Cnone_SP0_MS_QF_QF_HS_RW			X	X		X		X		X	X			X		X		
77. F0_A10_Cnone_SP0_MS_QF_QF_HS_3Y			X	X		X		X		X	X			X			X	
78. F0_A10_Cnone_SP0_MS_QF_QF_HS_DD			X	X		X		X		X	X			X				X
79. F0_A10_Cnone_SP0_MS_QF_QF_HR_RW			X	X		X		X		X	X				X	X		
80. F0_A10_Cnone_SP0_MS_QF_QF_HR_3Y			X	X		X		X		X	X				X		X	
81. F0_A10_Cnone_SP0_MS_QF_QF_HR_DD			X			X		X		X	X				X			X
82. MFS_A15_Cnone_SP0_MV_QF_BR_RW	X				X	X		X		X		X				X		WG-RBMS APRIL
83. MFS_A10_C20_SP0_MV_QF_BR_RW	X			X			X	X		X		X		X		X		WG-RBMS APRIL
84. MFS_A10_Cnone_SP25_MV_QF_BR_RW	X			X		X		X	X		X		X			X		WG-RBMS APRIL
85. MFT_A15_Cnone_SP0_MV_QF_BR_RW		X			X	X		X		X		X			X			WG-RBMS APRIL
86. MFT_A10_C20_SP0_MV_QF_BR_RW		X		X			X	X		X		X			X			WG-RBMS APRIL
87. MFT_A10_Cnone_SP25_MV_QF_BR_RW		X		X		X		X	X		X		X			X		WG-RBMS APRIL
88. F0_A10_Cnone_SP25_MV_QF_QF_BR_RW			X	X		X		X	X		X		X			X		WG-RBMS APRIL
89. MFS_A10_Cnone_SP0_MV_QD_BR_RW	X			X		X		X		X			X	X		X		



**Figure 1.** Results of the recruitment at age 1 in the 3M cod assessment approved in 2018 (Base Case OM). The black line is the median and the dash lines are the 5 and 95 % percentiles.



**Figure 2.** Historical performance of the density-dependent growth model: observed (obs) vs. predicted (3 different models) weight-at-age. The final SC approved model was DD 7 pars.

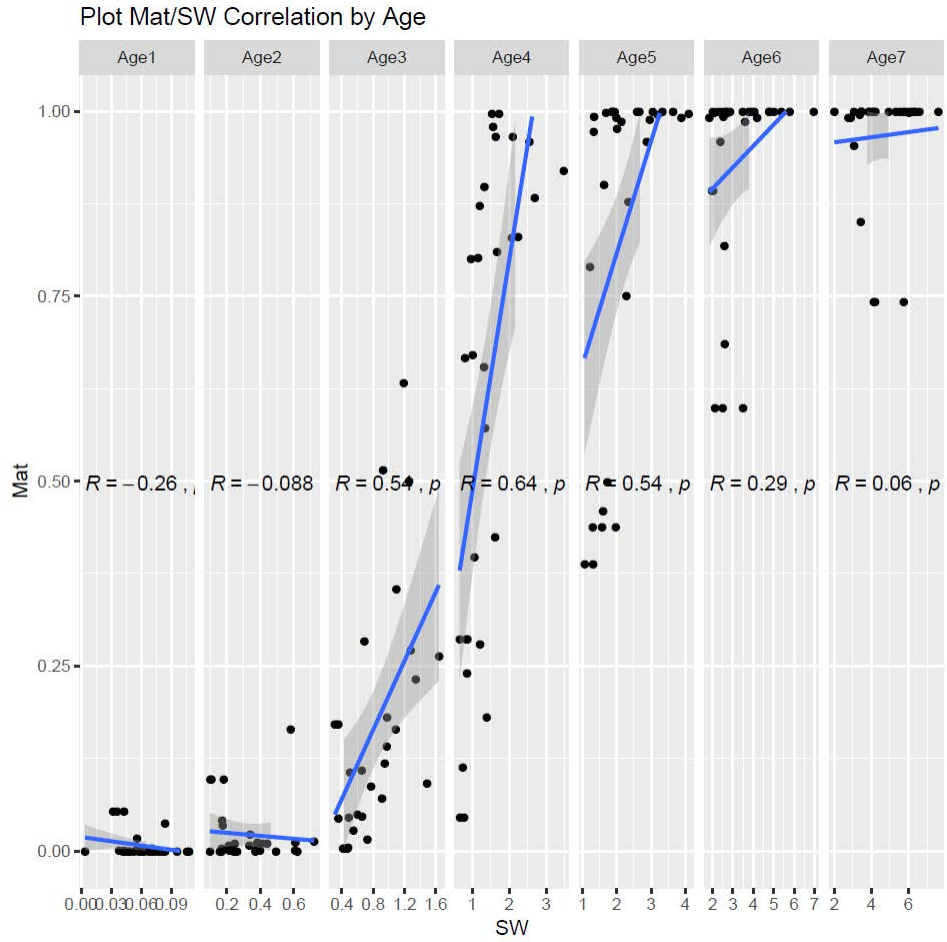
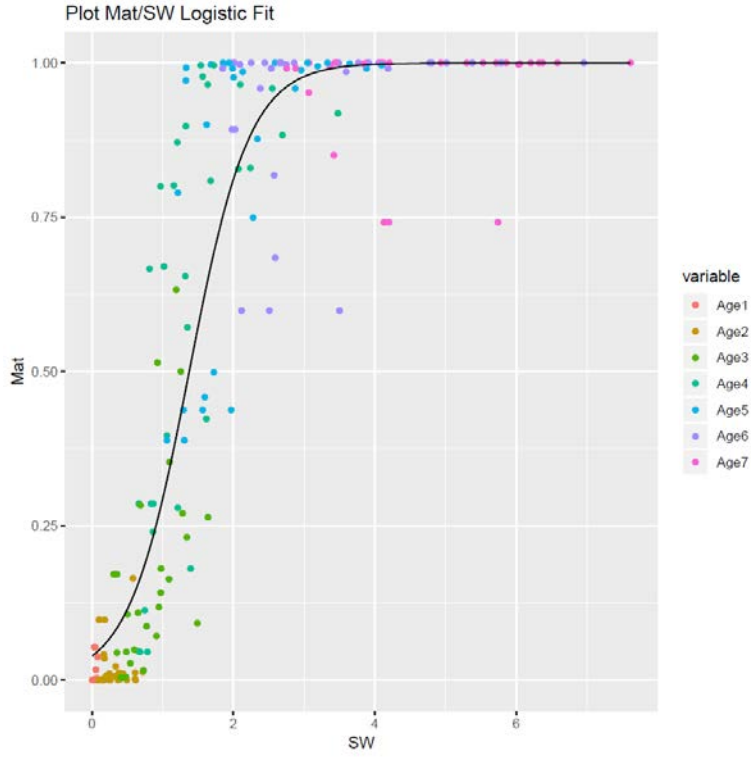


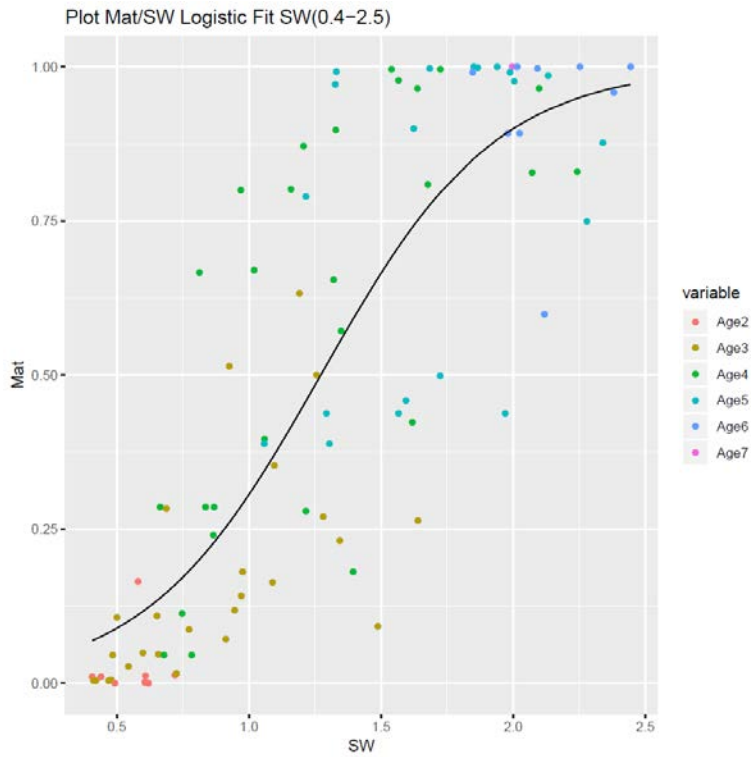
Figure 3. 3M cod median maturity/weight correlation by age (1988-2017).



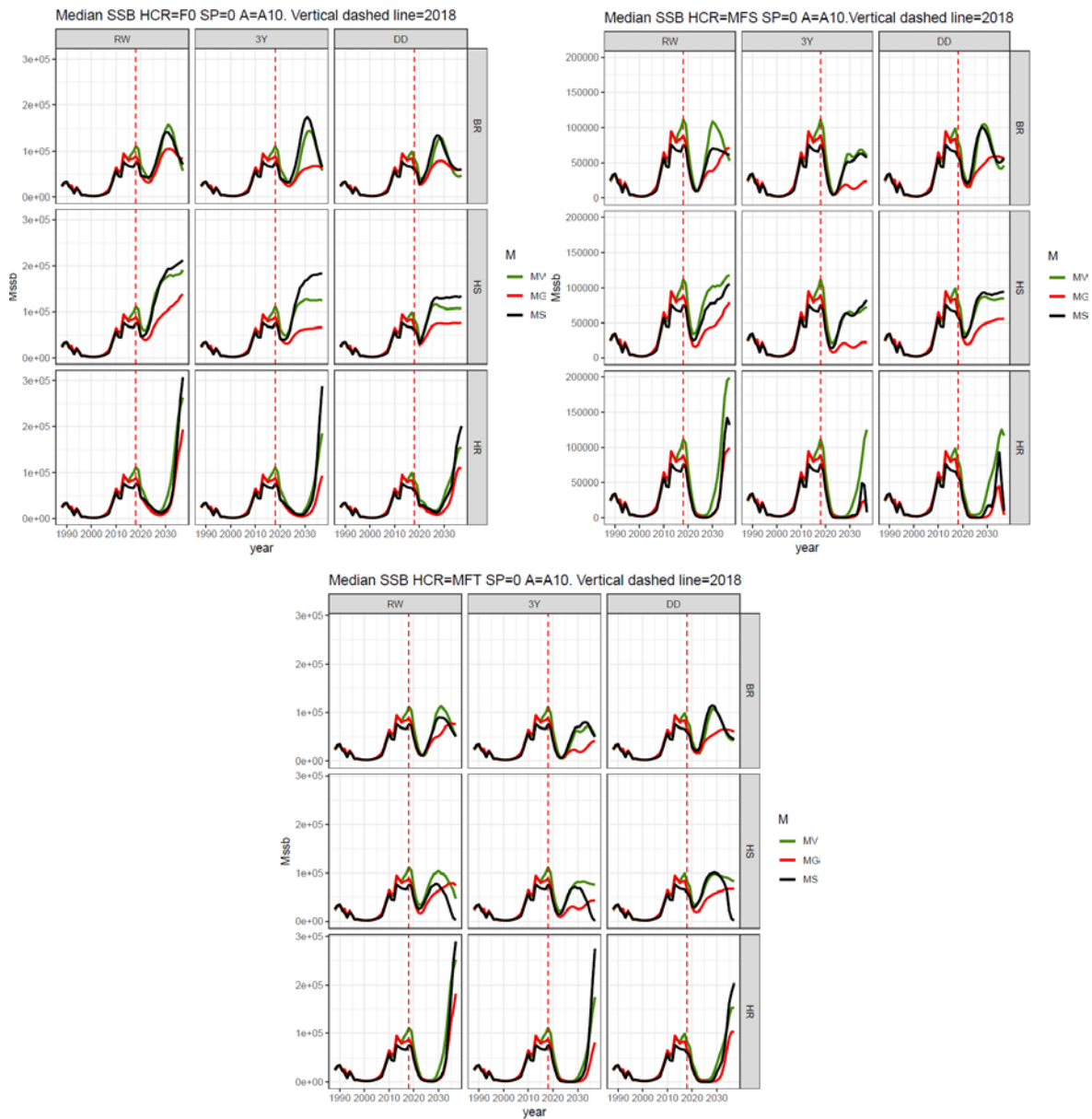




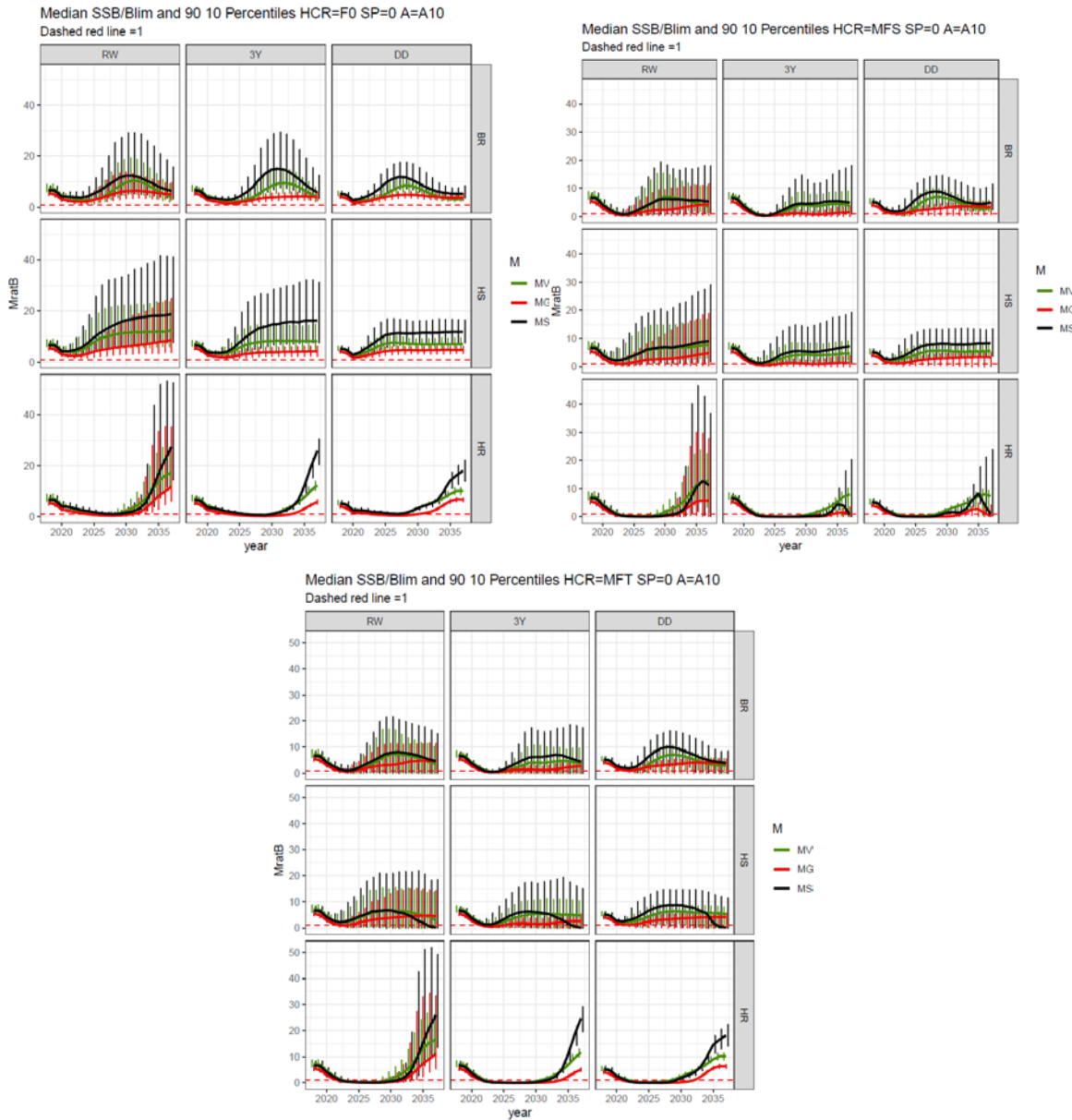
**Figure 4.** 3M cod median maturity at weight by age and the median maturity/weight fit (line) to a logistic function.



**Figure 5.** 3M cod median maturity at weight for the range (0.4-2.5 kg) by age and median maturity/weight fit (line) to a logistic function.

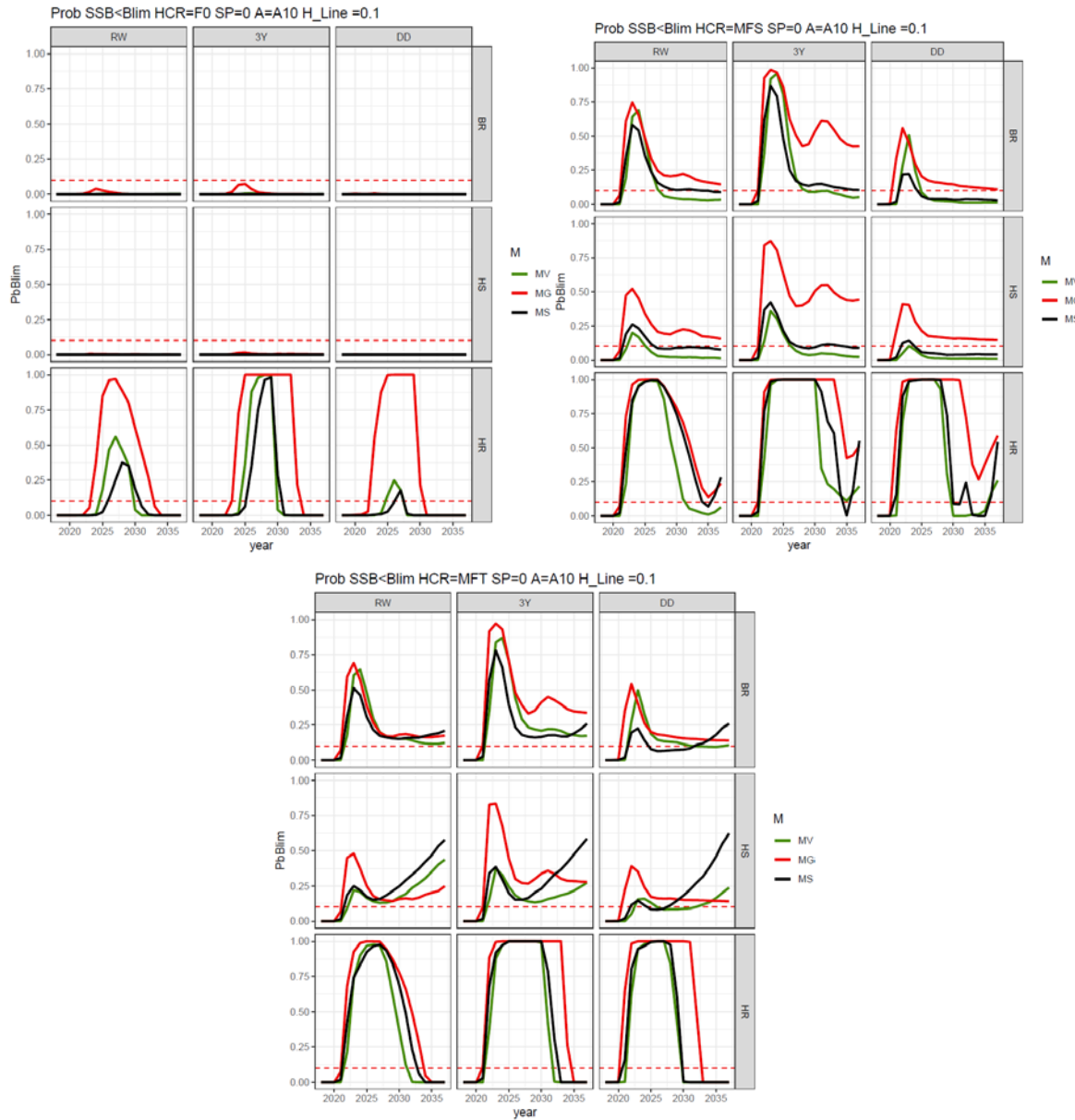


**Figure 6.** 3M cod median SSB by year (1988-2037) for the different OMs under the three different standard HCRs. Each panel of graphics presents the results for one HCR (F=0 up left, MFS up right and MFT down). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD). The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).

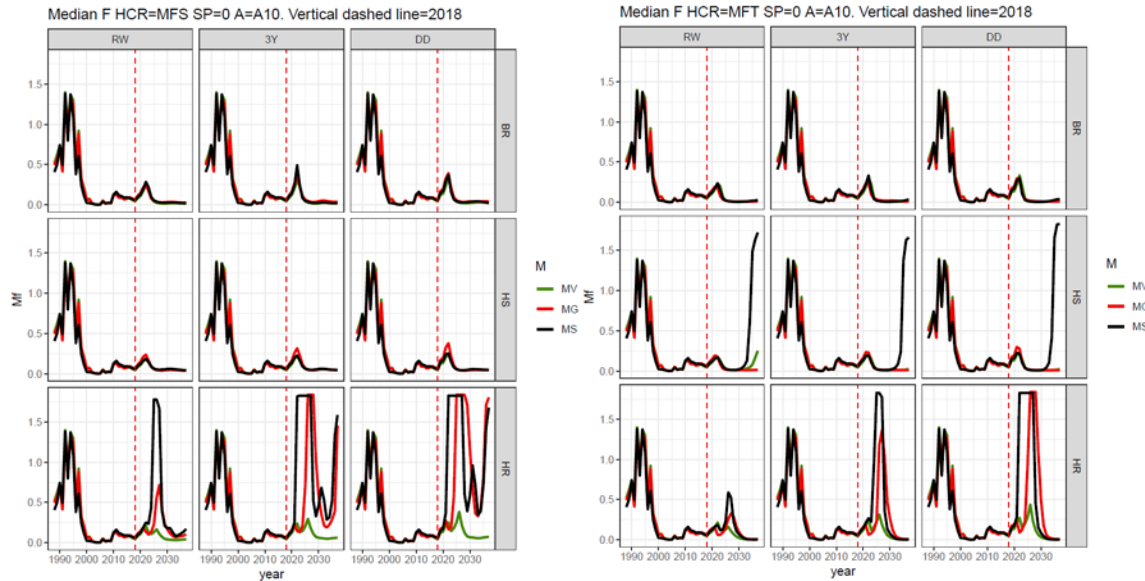


**Figure 7.**

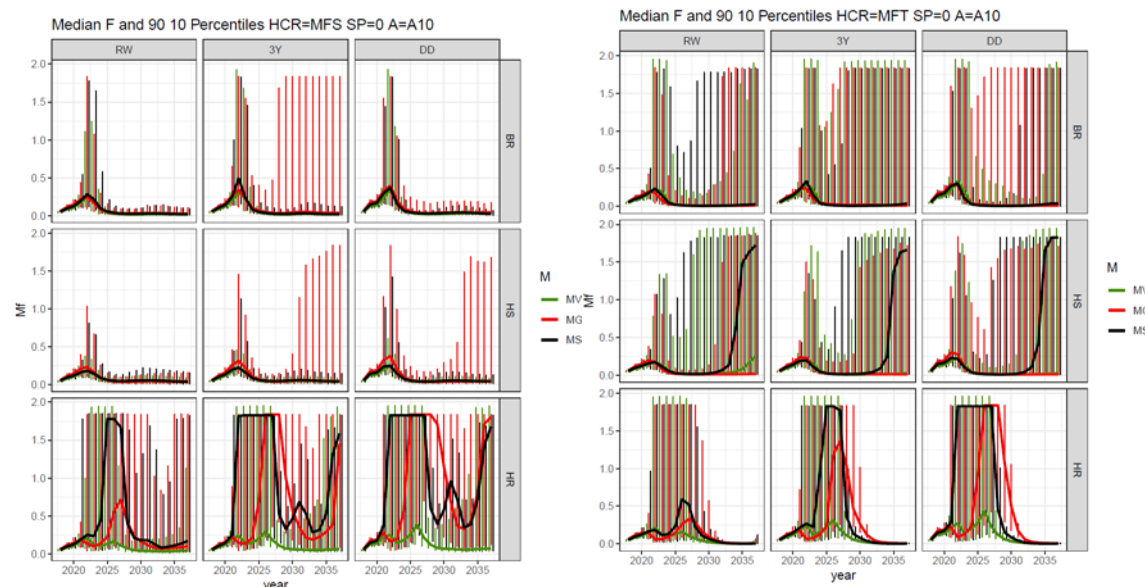
3M cod median SSB/ $B_{lim}$  and percentiles (10,90) ratio by year (2018-2037) for the different OMs under the three different standard HCRs. Each panel of graphics presents the results for one HCR (F=0 up left, MFS up right and MFT down). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD. The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).



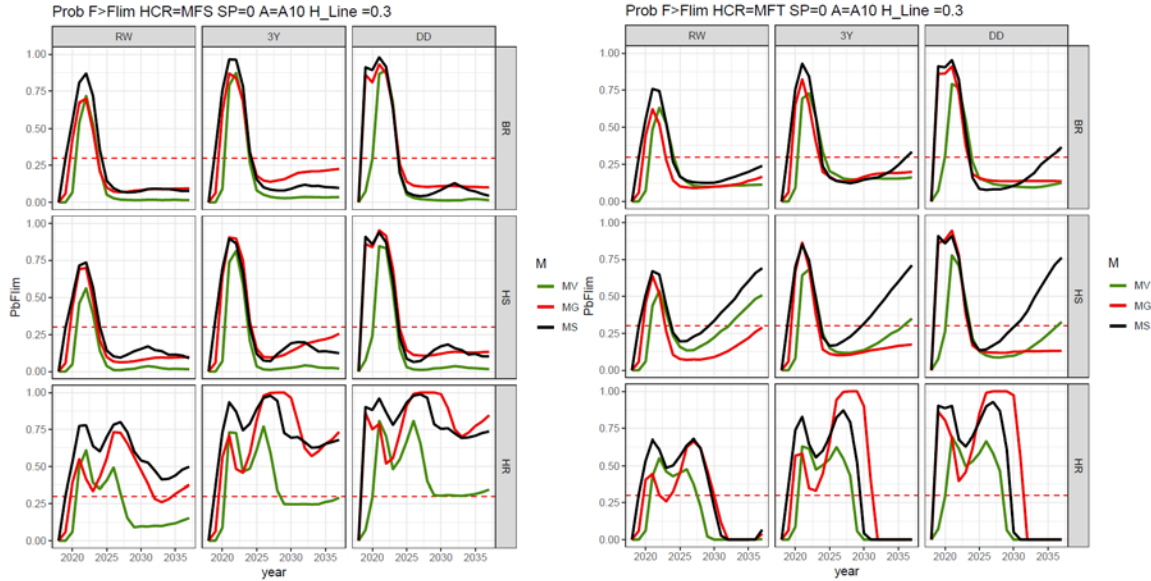
**Figure 8.** 3M cod probability  $SSB < B_{lim}$  by year (2018-2037) for the different OMs under the three different standard HCRs. Each panel of graphics presents the results for one HCR (F=0 up left, MFS up right and MFT down). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD. The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).



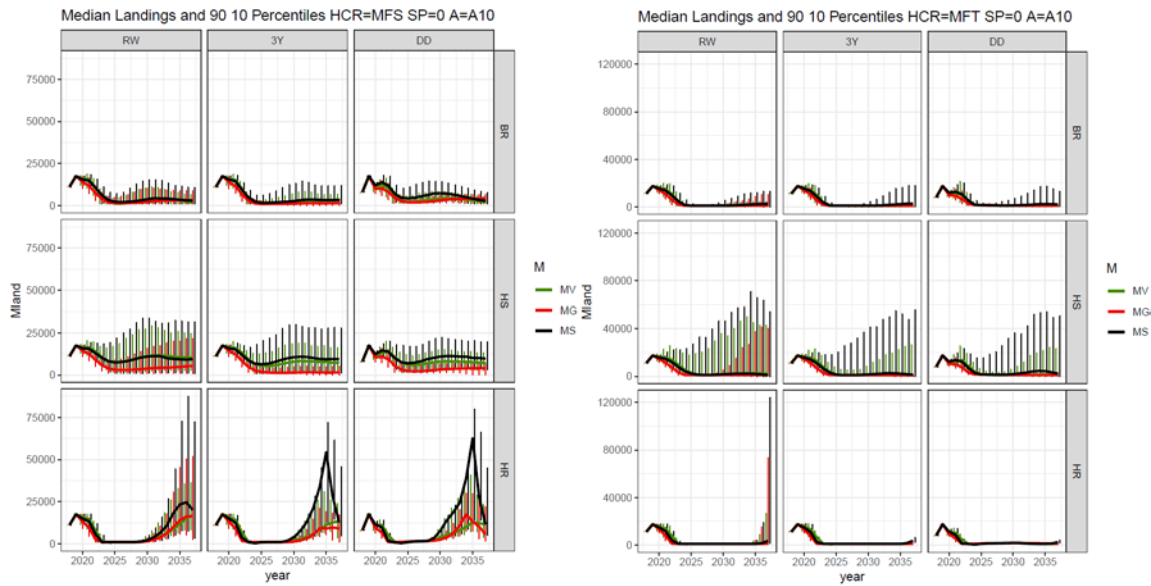
**Figure 9.** 3M cod median F by year (1988-2037) for the different OMs under the two different standard HCRs. Each panel of graphics presents the results for one HCR (MFS left and MFT right). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD. The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).



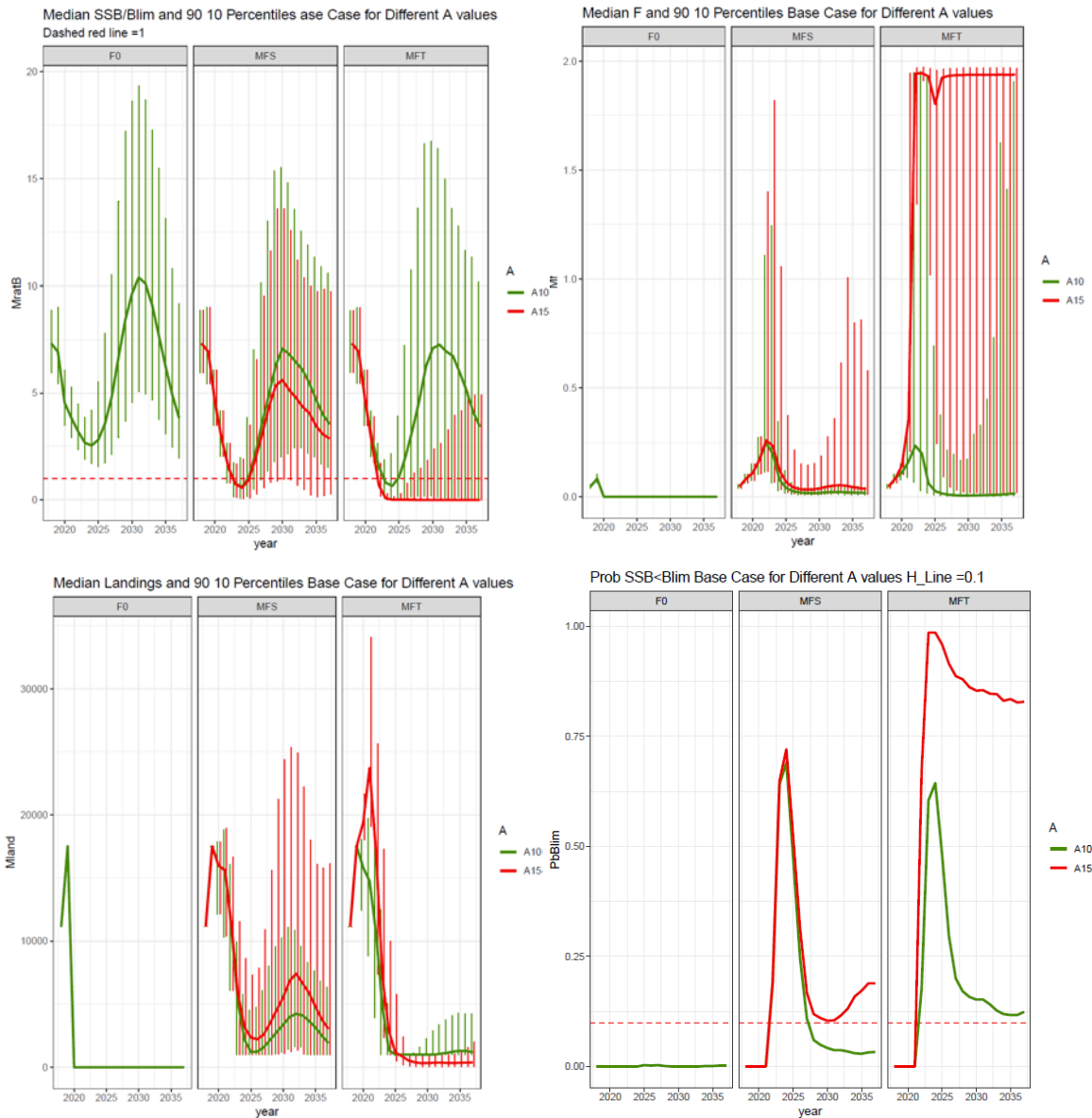
**Figure 10.** 3M cod median F and percentiles (10,90) by year (2018-2037) for the different OMs under the two different standard HCRs. Each panel of graphics presents the results for one HCR (MFS left and MFT right). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD. The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).



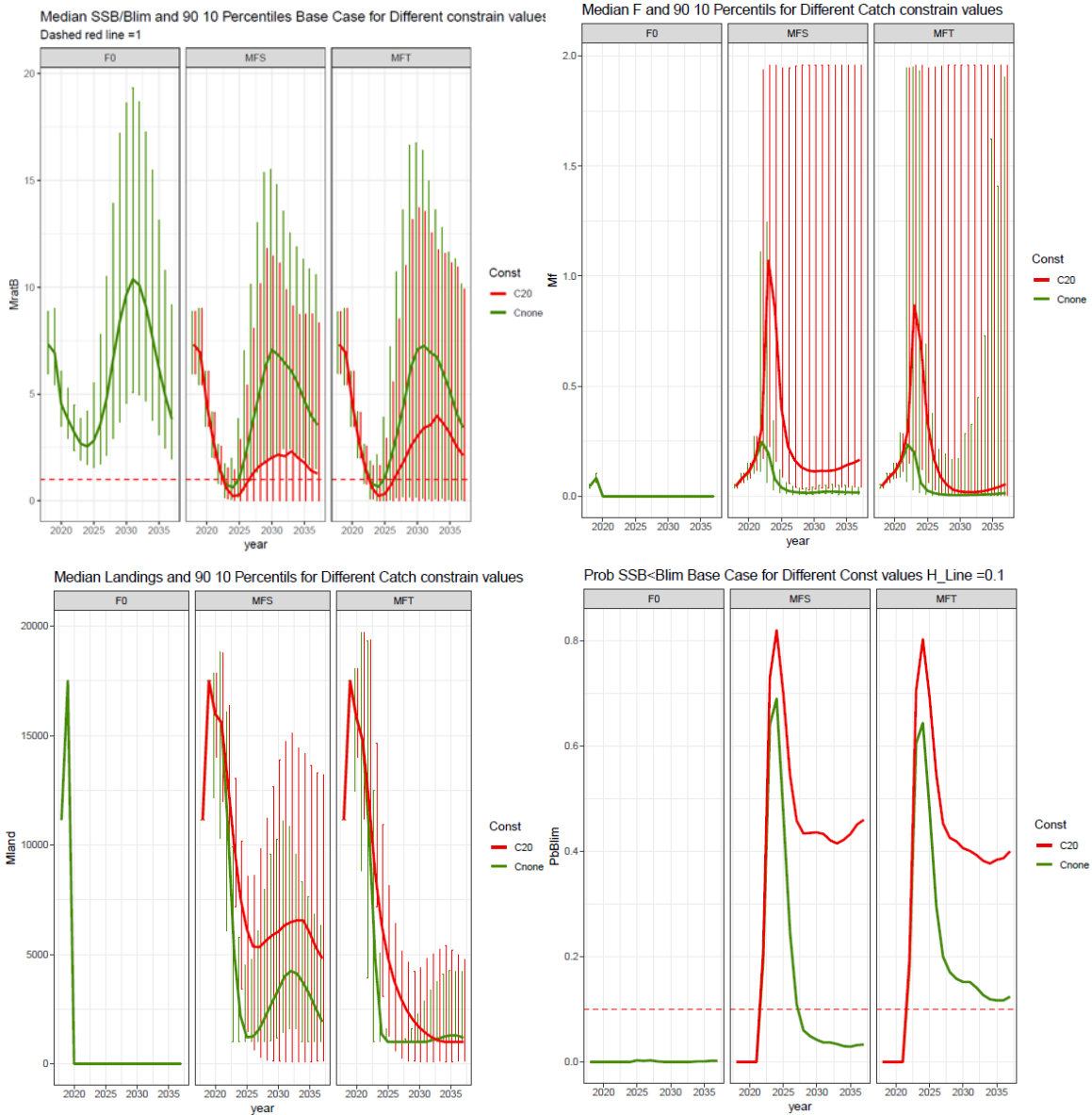
**Figure 11.** 3M cod probability  $F > F_{lim}$  by year (2018-2037) for the different OMs under the two different standard HCRs. Each panel of graphics presents the results for one HCR (MFS left and MFT right). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD. The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).



**Figure 12.** 3M cod median catches and percentiles (10,90) by year (2018-2037) for the different OMs under the two different standard HCRs. Each panel of graphics presents the results for one HCR (MFS left and MFT right). Within each panel of graphs, the columns present the different OMs for the biological parameters (random walk = RW), mean of the last 3 years = 3Y and density-dependent = DD. The rows show the results of the different recruitment OMs (Bin Ricker = BR, segmented regression = HS and low recruitment = HR). The colors represent the different OMs of natural mortality (age vector constant over time = MV, estimated mortality by GADGET = MG and estimated mortality by steps = MS).

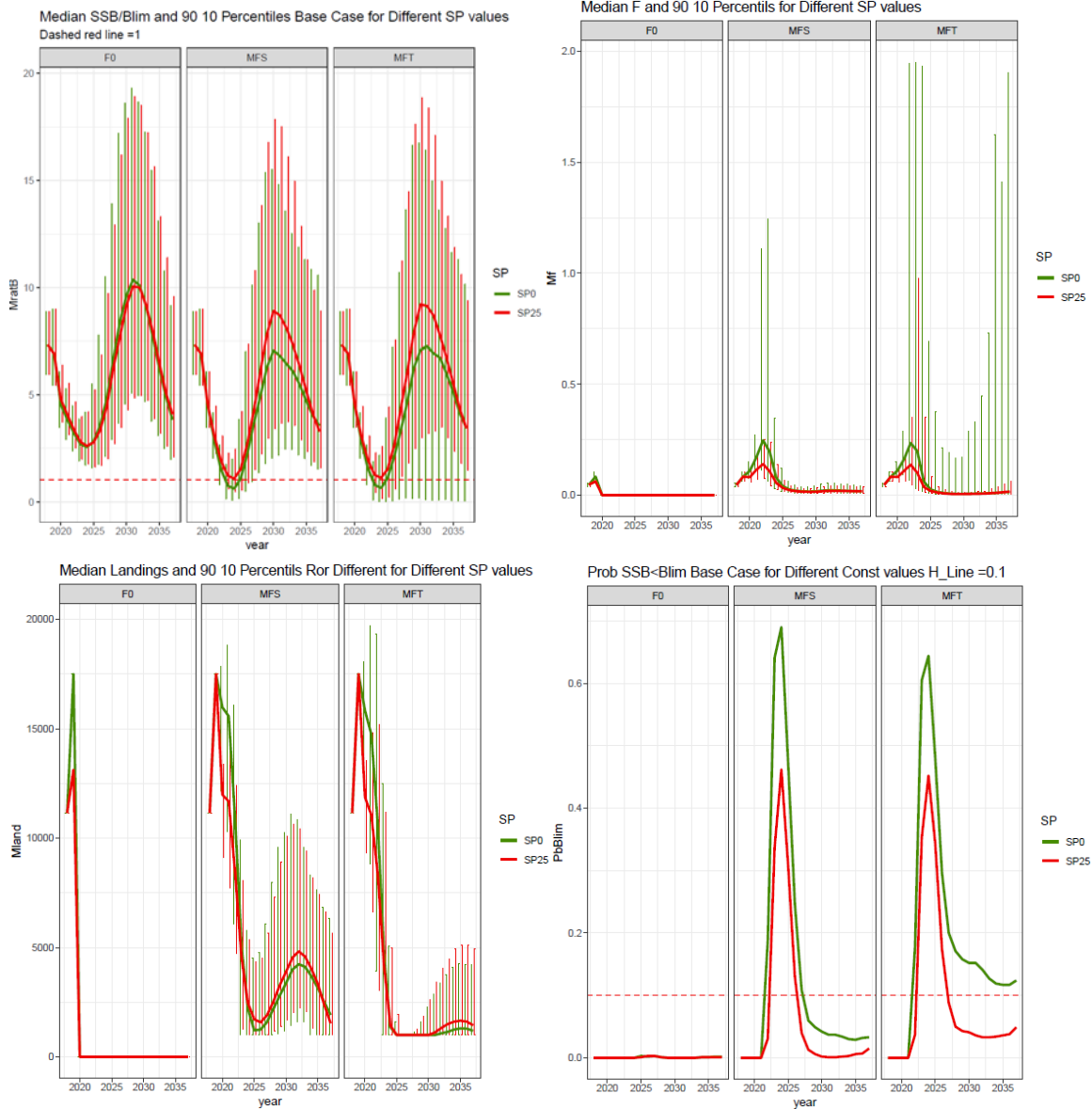


**Figure 13.** 3M cod median and percentiles (10,90) SSB/ $B_{lim}$  ratio (upper left), F (upper right), catches (bottom left) and probability of SSB <  $B_{lim}$  (bottom right) by year (2018-2037) for the Base Case OM under the three standard HCRs and under the HCR changing the A standard value 1.0 (A10 green ) for 1.5 (A15 red). Within each graph, the columns present the different HCRs results (F=0, slope HCR=MFS and target HCR=MFT). The Base Case has the following configuration: random walk parameters (RW), M age vector constant over time (MV), Bin Ricker recruitment (BR). The standard HCR has the following configuration:  $\alpha$  parameter equal to 1.0 (A10), there is not limited for TAC variation between years (Cnone) and the starting point to estimate the first TAC is 2019 TAC =17500 (SP0).

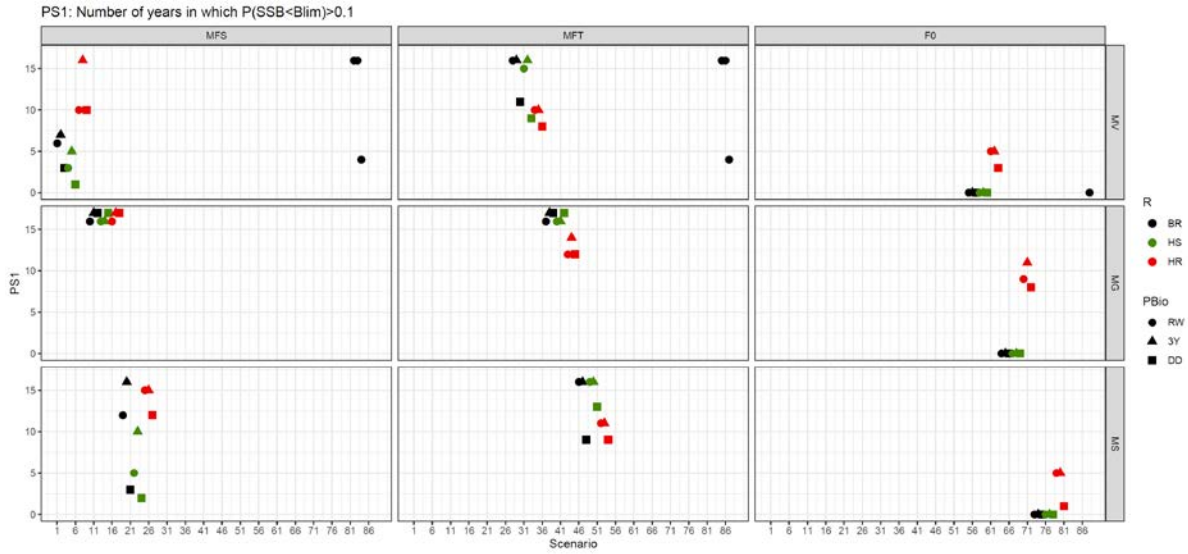


**Figure 14.** 3M cod median and percentiles (10,90) SSB/ $B_{lim}$  ratio (upper left), F (upper right), catches (bottom left) and probability of SSB <  $B_{lim}$  (bottom right) by year (2018-2037) for the Base Case OM under the three standard HCRs and under the HCR changing the TAC constrain standard value (not constraint=**Cnone** green) to a constraint of maximum of 20% TAC change between years (C20) (red). Within each graph, the columns present the different HCRs results (F=0, slope HCR=MFS and target HCR=MFT). The Base Case has the following configuration: random walk parameters (RW), M age vector constant over time (MV), Bin Ricker recruitment (BR). The standard HCR has the following configuration:  $\alpha$  parameter equal to 1.0 (A10), there is not limited for TAC variation between years (Cnone) and the starting point to estimate the first TAC is the 2019 TAC=17500 (SP0).

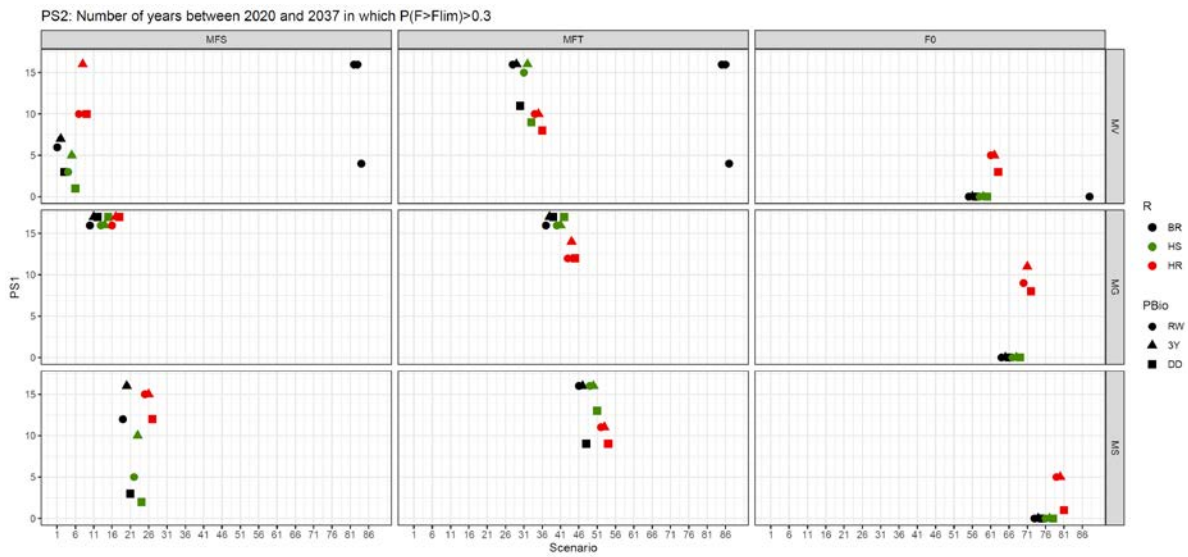




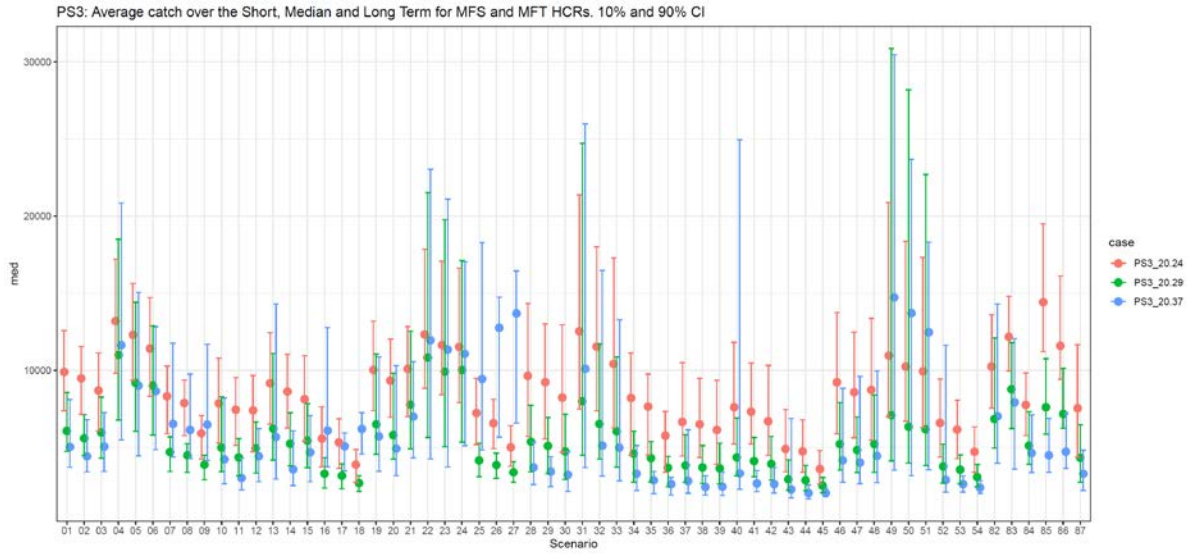
**Figure 15.** 3M cod median and percentiles (10,90) SSB/ $B_{lim}$  ratio (upper left), F (upper right), catches (bottom left) and probability of SSB< $B_{lim}$  (bottom right) by year (2018-2037) for the Base Case OM under the three standard HCRs and under the HCR changing the starting point to estimate the first TAC standard value (17500 t) in green to a 25% reduction (13125 t) in red. Within each graph, the columns present the different HCRs results (F=0, slope HCR=MFS and target HCR=MFT). The Base Case has the following configuration: random walk parameters (RW), M age vector constant over time (MV), Bin Ricker recruitment (BR). The standard HCR has the following configuration:  $\alpha$  parameter equal to 1.0 (A10), there is not limited for TAC variation between years (Cnone) and the starting point to estimate the first TAC is the 2019 TAC=17500 (SP0).



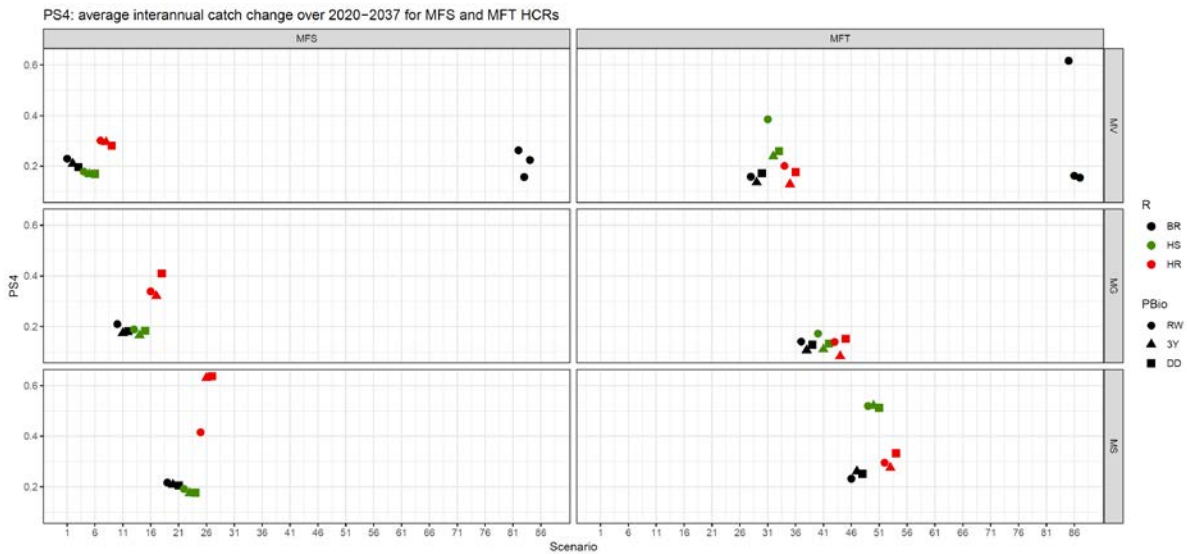
**Figure 16.** Candidate PS1. Number of years in which  $P(SSB < B_{lim}) > 0.1$  by scenario (Table 2).



**Figure 17.** Candidate PS2. Number of years in which  $P(F > F_{lim}) > 0.3$  by scenario (Table 2).



**Figure 18.** Candidate PS3. Average catch over the short (5 years), medium (10 years) and long term (20 years) by scenario, except the scenarios with HCR=F0 (scenarios 55-81 and 88, Table 2). Vertical lines are the percentiles (10,90).



**Figure 19.** Candidate PS4. Average interannual catch change over 2020-2037 by scenario, except the scenarios with HCR=F0 (scenarios 55-81 and 88, Table 2).

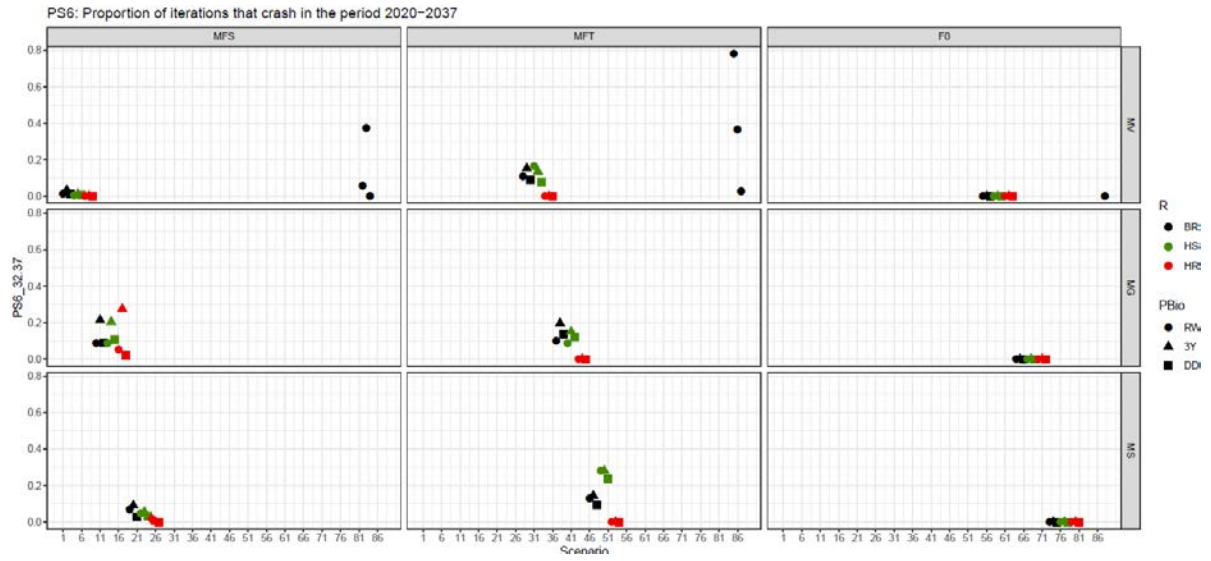


Figure 20. Candidate PS6. Proportion of crash iterations in the period 2020-2037 by scenario (Table2).

Northwest Atlantic Fisheries Organization



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

41<sup>st</sup> Annual Meeting of NAFO  
23-27 September 2019  
Bordeaux, France

NAFO  
Dartmouth, Nova Scotia, Canada  
2019

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

41<sup>st</sup> Annual Meeting of NAFO, 23-27 September 2019  
Bordeaux, France

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

41<sup>st</sup> Annual Meeting of NAFO, 23-27 September 2019  
 Bordeaux, France

**I. Opening Procedure**

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

The 41<sup>st</sup> Annual Meeting of NAFO was opened on Monday, 23 September 2019 at 09:30 hrs at the Hôtel Pullman Bordeaux Lac in Bordeaux, France, with delegates present from 12 NAFO Contracting Parties (Annex 3). The NAFO President and Chair of the Commission, Stéphane Artano (France, in respect of St. Pierre et Miquelon), welcomed delegates to the meeting.

Mr. Frederic Guedar Delahaye, the Director General for Fisheries and Aquaculture of France, was invited to introduce Mr. Didier Guillaume, Minister of Agriculture and Food, Government of France, to welcome Contracting Parties as the host of the 41<sup>st</sup> NAFO Annual Meeting (Annex 4). Following the Minister's address, the Commission Chair made his opening statement (Annex 5).

Consistent with past practice, Contracting Parties agreed to submit their opening statements in writing for inclusion in the report. Opening statements from Canada, Denmark (in respect of the Faroe Islands and Greenland), European Union, Japan, Russian Federation and the United States of America (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 previously circulated was revised with the following additions:

- Witch flounder in Division 3L as agenda item 21.h,
- Redfish in Division 3LN as agenda item 21.i, and
- Splendid alfonsino in Subarea 6 as agenda item 22.a.

The adopted agenda is presented in Annex 2.

The summary of decisions and actions taken by the NAFO 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:

- Food and Agricultural Organization of the United Nations (FAO);
- International Council for the Exploration of the Sea (ICES);
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) represented by the Delegation of the European Union;

- North East Atlantic Fisheries Commission (NEAFC) represented by the Delegation of Denmark (in respect of Faroe Islands and Greenland);
- South East Atlantic Fisheries Organisation (SEAFO) represented by the Delegation of the European Union; and
- South Pacific Regional Fisheries Management Organisation (SPRFMO) represented by the Delegation of Denmark (in respect of Faroe Islands and Greenland).

Non-governmental organizations (NGOs) accredited with NAFO Observer Status that attended the 41<sup>st</sup> Annual Meeting were:

- The Deep Sea Conservation Coalition;
- Ecology Action Centre (EAC) (Opening Statement – Annex 12); and
- Oceans North (Opening Statement – Annex 13).

## 5. Publicity

In accordance with established practice, Contracting Parties 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

The membership of the Commission has not changed since the 2018 Annual Meeting and is currently comprised of twelve (12) 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 and the United States of America (USA).

### 7. Administrative Report

The Administrative Report and Financial Statements (COM Doc. 19-06) was referred to STACFAD for its review.

### 8. NAFO Headquarters Agreement

The Executive Secretary reported that the NAFO Headquarters Agreement, as referred to under Article V.3 of the NAFO Convention, was signed by the Government of Canada on 05 June 2019 and the NAFO President on 13 June 2019. The signed Agreement was circulated to Contracting Parties in NAFO/19-162 on 18 June 2019.

Canada reported that, under its procedures for the ratification of international agreements, the signed Headquarters Agreement must be tabled in the Canadian House of Commons in accordance with parliamentary procedure. Once completed, it is expected that the agreement will be ratified by the Government of Canada and enter-into-force in the spring of 2020.

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

The Executive Secretary introduced COM Working Paper 19-02 that listed, as of 30 August 2019, 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).

### 10. Guidance to STACFAD necessary for them to complete their work

The issue of the implementation of the 2018 Performance Review Recommendations (to be discussed under agenda item 15) was already included in the STACFAD's provisional agenda. The Chair of STACFAD, Deirdre Warner-Kramer (USA), was invited to prepare a report before the closing session.

### 11. Guidance to STACTIC necessary for them to complete their work

The Chair of STACTIC, Judy Dwyer (Canada), presented the results of the STACTIC May 2019 intersessional meeting, which was held in Lisbon, Portugal (COM Doc. 19-04). The Chair reported on the status of proposals for changes to the NAFO Conservation and Enforcement Measures (CEM). The Chair advised that STACTIC continues deliberations on its work related to, among others, compliance review, bycatch thresholds and move-away provision, serious repeat offenders, transparency, and the enhancement to the NAFO Monitoring, Control and Surveillance (MCS) website.

The Commission commended STACTIC for its hard work and encouraged STACTIC to continue working on the pending issues.

The Commission **accepted** the report. The formal adoption of the recommendations contained therein was done under agenda item 28.

In addition, the Commission informed STACTIC about the adoption of the proposal pertaining to the implementation of the FAO Port State Measures Agreement (FAO-PSMA) (see agenda item 29).

## III. Coordination of External Affairs

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

The Executive Secretary referred to sections 11 and 12 of the Administrative Report (COM Doc. 19-06) and highlighted some of the external meetings that members of the Secretariat participated in since the last Annual Meeting, including:

- Fourth Steering Committee Meeting, ABNJ Deep Seas Project, La Réunion, France, 23–25 January 2018;
- Workshop and Fourth Joint Meeting of the Sargasso Sea Commission and Hamilton Declaration Signatories, St. George's, Bermuda, 13–14 March 2019;
- 1<sup>st</sup> Preparatory Meeting of the Western Central Atlantic Fishery Commission (WECAFC) Reorientation, Bridgetown, Barbados, 25–26 March 2019;
- FAO Deep Sea Fisheries Rights Based Management Workshop, FAO Headquarters, Rome, Italy, 10–12 April 2019;
- Fourteenth round of Informal Consultations on "*Performance reviews of regional fisheries management organizations and arrangements*", UN Headquarters, New York, New York, United States of America, 02–03 May 2019;
- Global Deep-Sea Symposium – ABNJ Deep Seas Project, FAO Headquarters, Rome, Italy, 07–09 May 2019; and
- Third session of the BBNJ Intergovernmental Conference, UN Headquarters, New York, New York, United States of America, 19 to 30 August 2019

### 13. International Relations

#### a. Relations with other International Organizations

The Executive Secretary introduced COM WP 19-03, which outlined contacts the NAFO Secretariat has had with other international organizations since the last Annual Meeting. In addition to already-established links with the United Nations - Food and Agricultural Organization (FAO) and the United Nations Division for Ocean Affairs and the Law of the Sea (UN-DOALOS), the Executive Secretary reported that the Secretariat has used meetings organized by the FAO under the Areas Beyond National Jurisdiction (ABNJ) Deep Seas Project to further dialogue with other relevant organizations that are partners to the project, including other RFMOs. The project has also recently supported exchanges amongst deep sea RFMOs, including sending the Science Manager of the NPFC to observe the June 2019 meeting of the NAFO Scientific Council and sending NAFO's Fisheries Information Administrator to assist the SIOFA Secretariat and to train rapporteurs at SIOFA's Compliance Committee Meeting and Sixth Meeting of the Parties (27 June–05 July 2019).

Concerning relations with the International Seabed Authority (ISA), the Executive Secretary said that the ISA had recently proposed suggestions for further exploring cooperation through *"an informal dialogue and exchange of non-confidential information on matters of mutually beneficial interest to promote a better understanding of each organization's activities"*. This proposal was discussed at the recent joint COM-SC Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) and the Working Group's recommendation on this proposal will be presented under agenda item 17.c.

Finally, the Executive Secretary reported that he had attended the fourteenth round of Informal Consultations concerning the United Nations Fish Stocks Agreement (UNFSA) organized by UN-DOALOS, focusing on the topic of *"Performance reviews of regional fisheries management organizations and arrangements"*, at the UN Headquarters in New York, and gave a presentation on NAFO's 2018 performance review process. The Executive Secretary also gave presentations on NAFO at a meeting organized by the Sargasso Sea Commission, entitled *"Next steps for stewardship of the Sargasso Sea"* and at a meeting organized by the Western Central Atlantic Fishery Commission (WECAFC) at its first preparatory meeting concerning the possible transformation of WECAFC into a RFMO.

The Executive Secretary also introduced COM WP 19-04 (Revised) concerning the ongoing Intergovernmental Conference under the auspices of the United Nations to elaborate the text of an international legally binding instrument under the United Nations Convention on the Law of Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, the so-called BBNJ negotiations. He reported that he attended the first four days of the third negotiating session (19–30 August 2019) and participated as a panelist in a side event organized by the FAO. The fourth (and final) session is expected to take place from 23 March to 03 April 2020 at the UN Headquarters in New York. The Executive Secretary noted the importance of these negotiations, the results of which could significantly affect high seas fisheries and the role of RFMOs, particularly in the areas of governance, area-based management tools and environmental impact assessments. He encouraged Contracting Parties to participate actively in these negotiations to ensure their interests are adequately considered.

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

At the last Annual Meeting (September 2018), it was agreed that the following NAFO Contracting Parties would represent NAFO at meetings of the following organizations during 2018/2019:

- 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).

Report of the NAFO Commission, 23-27 September 2019

- 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 19-05 to COM WP 19-14). The same Contracting Parties agreed to represent NAFO at the same meetings for 2020.

Concerning the NPFC, the European Union expressed disappointment that its application to accede to the NPFC has not yet been accepted.

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

William Emerson (FAO) presented an update on the recent activities under this project (COM WP 19-15 and COM WP 19-28), which is in its final year. He recalled that NAFO was one of the many partners to this project. NAFO's support to the project was mainly an estimated in-kind contribution of US\$2.1 million over the period of 2014-2019. The Executive Secretary added that this in-kind contribution was mainly staff time for activities and meeting expenses for work on deep-sea fisheries, particularly related to NAFO's work on the development of its ecosystem approach framework to fisheries management, as well as administrative expenses for NAFO's current core activities and operations that are of direct relevance to deep sea fisheries. Almost all the costs that have been incurred to date have been part of the regular work of NAFO.

The FAO also informed that it is preparing to apply for funding to continue the project for another 5 years (2021–2026) and NAFO would again be asked to be a partner in this next phase of the project. The Executive Secretary added that, if this is the case, he expected that NAFO could again support this new project with an in-kind contribution, similar to that which it has provided to the current project.

## **14. Oil and Gas Activities in the NAFO Regulatory Area**

The Executive Secretary presented COM WP 19-16 on oil and gas activities in the NAFO Regulatory Area (NRA) and activities under the proposed information exchange arrangement, including an update on the use of the NAFO CEM provision that was adopted at the 2016 Annual Meeting to allow, under certain circumstances, the provision of a five-year monthly snapshot of fishing activity in the NRA on the basis of Vessel Monitoring System (VMS) data. The Secretariat also provided this five-year monthly snapshot of fishing activity in the NRA to Canada to share with the Canadian Environmental Assessment Agency (CEAA) to be used in the CEAA's assessment of offshore oil and gas drilling east of Newfoundland and Labrador. The Executive Secretary reported that, since the last Annual Meeting, Canada has sent five notifications to the NAFO Secretariat about petroleum-related activities on Canada's Continental Shelf in the NRA for onward transmission to Contracting Parties.

The European Union expressed serious concern about the impact in the NRA of the activities of the oil and gas industry, in particular increasing exploratory activity (*i.e.* seismic testing) and oil spills. Concerning seismic testing the impacts include temporary displacements of fishing activity. Concerning oil spills, although there have been no oil spills in the NRA, the impact of oil spills outside the NRA may be having negative effects on fish eggs, larvae and juveniles. The European Union was encouraged that the Scientific Council is starting to address this issue and called on Contracting Parties to facilitate its work. Canada said it was committed to continuing the information exchange arrangement, which is working well. It intends to share relevant research with the Scientific Council and encourages all Contracting Parties to do the same. Canada mentioned that it has been conducting a range of research projects on the effects of oil and gas on the marine environment, as well as on additional mitigation measures for VMEs. There is also approx. \$55 million recently committed to research initiatives on minimizing the impact of oil spills. Canada added that, concerning the oil spill earlier this year, it had provided information on it to Contracting Parties. Further, this incident was currently under investigation by the Canadian regulatory authority and a copy of its report would be provided to Contracting Parties when available.

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

##### 15. Implementation of 2018 Performance Review Panel recommendations

The Vice-Chair of the Commission, Temur Tairov (Russian Federation) presented the Report of the Commission Working Group to Address the Recommendations of the 2018 Performance Review Panel (COM Doc. 19-03) along with its recommendations (COM WP 19-22). The recommendations comprised an Action Plan that, for each of the Performance Review Recommendations, designated a proposed action, priority and lead NAFO body or bodies to address this action; and a process for reporting on the progress to address each proposed action at subsequent Annual Meetings.

The recommendations of this Working Group were **adopted** (Annex 14).

##### 16. 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), Brian Healey (Canada), presented this year's scientific advice. The presentation included a report on the catch and survey data used in the stock assessment, environmental and ecosystem trends (COM-SC WP 19-04 Rev.). The scientific advice on fish stocks and other topics was formulated mainly during the SC meeting in June 2019 (SCS Doc. 19-20), except for Northern shrimp in Division 3M and Divisions 3LNO, which was formulated on 10 September 2019 during the NAFO/ICES *Pandalus* Assessment Group (NIPAG) meeting (SCS Doc. 19-21) and for Squid in Subareas 3+4, which was formulated during this meeting (SCS Doc. 19-22). The advice represents the response of SC to the request from the Commission (COM Doc. 18-20). 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 17.b and 17.c). Outlined below (according to request item numbers) are excerpts or summaries from the meeting documents mentioned above which contain the full and detailed response:

###### 1. Assessment of Fish Stocks

- **Cod in Division 3M**

Substantial declines in stock size are occurring and expected to continue in the near future under any option. Yields during 2020 of either 8 531 tonnes ( $\frac{3}{4} F_{lim}$ ) or 5 619 tonnes (F2016-2018) result in a very low probability of SSB being below  $B_{lim}$  in 2021 and a low probability of F exceeding  $F_{lim}$ . However, under both F scenarios, the probability of SSB being below  $B_{lim}$  in 2022 is high ( $\geq 20\%$ ).

- **Shrimp in Division 3M**

There is sufficient evidence to allow a small amount of directed fishing on this stock. Considering the uncertainty about future recruitments and the response of the resource to resumed exploitation, SC advised that the catch in 2020 should not exceed the 2009 level (5 448 tonnes).

- **Redfish in Division 3M**

Catches should not exceed the  $F_{0.1}$  level given the recent very low productivity of the stock. This corresponds to a Total Allowable Catch (TAC) of 4 320 tonnes in 2020 and 4 624 tonnes in 2021.

- **White hake in Divisions 3NOPS**

Given the absence of strong recruitment, SC recommended catches of white hake in Divs. 3NO should not increase for 2020 and 2021. Average annual catches over 2014 to 2018 were 406 tonnes.

- **Shrimp in Divisions 3LNO**  
No directed fishery in 2020 and 2021 as the stock is below  $B_{lim}$  with no indication of short-term recovery.
  - **Squid in Subareas 3+4**  
TAC of no more than 34 000 tonnes per year for 2020, 2021, and 2022.
  - **Redfish in Division 3O**  
Catches have averaged about 12 000 tonnes since the 1960s and over the long term, catches at this level appear to have been sustainable. SC was unable to advise on an appropriate TAC for 2020, 2021 and 2022.
  - **Interim Monitoring Review**  
No change to stock status or previously issued advice on the following stocks: 3M American plaice, 3NO Cod, 3LN Redfish, 3LNO American plaice, 3LNO Yellowtail flounder, 3NO Capelin, and 3LNOPs Thorny skate.
  - **Splendid Alfonsinos**  
The substantial decline in CPUE and catches on the Kükenthal peak in the past year indicates that the stock may be depleted. SC advised the fishery be closed until biomass increases to exploitable levels (formulated by SC at its own accord).
2. ***Witch flounder in Divisions 3NO***  
All scenarios evaluated for 2020 and 2021 with fishing mortality greater than zero resulted in a more than 10% probability of the stock being below  $B_{lim}$  in 2020 and 2021.  
  
No directed fishing in 2020 and 2021.
  3. ***Greenland halibut in 2+3KLMNO***  
The TAC for 2020 derived from the HCR is 16 926 t. The TAC increase is not greater than 10% and so the constraint is not applied. SC noted that exceptional circumstances are not occurring.
  4. ***3M Cod Management Strategy Evaluation (MSE)***  
SC reviewed the progress of the 3M cod MSE work to date. SC emphasized that future work should take the time required to develop the technical basis and to allow sufficient review time.
  5. ***Impact of scientific surveys on Vulnerable Marine Ecosystems in closed areas***  
SC noted that work planned to complete this task did not occur as a result of other work commitments. SC reiterated its ongoing recommendation that, until this issue is fully resolved, scientific bottom trawl surveys in existing closed areas be avoided if possible. The Commission may wish to consider possible options for non-destructive regular monitoring within closed areas.
  6. ***Bycatch and Discards Action Plan***  
SC reiterated the advice given in 2018 that work on items will continue over the next two years.
  7. ***Golden redfish in Division 3M***  
The separation of the three species is difficult and therefore it was impossible to implement catch reporting. It is not considered appropriate to give advice for golden redfish separately. SC will



continue to monitor the golden redfish stock status and provide advice as part of the beaked redfish advice.

8. ***Implementation of Ecosystem Approach Road Map***

SC recommended the Commission develop, through the joint COM-SC Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), options by which ecosystem considerations can be operationally integrated into fisheries management advice and management measures through consideration of the risk of damage or deterioration of the ecosystem based on the principles of Total Catch Indices.

9. ***Reassessment of bottom fishing activities in 2021***

SC made further progress in assessing the overlap of NAFO fisheries with VME. SC has made progress in developing approaches which assess the functional significance of VMEs and the estimation of recovery rates of VME indicator species.

10. ***Revisions to VME indicator species***

The nomenclature of some species has been revised, and several large sponges have now been described at the species level. SC recommended that Annex 1.E, Part VI, [of the NAFO CEM] list of VME indicator species be replaced with the list provided [see agenda item 17.c].

11. ***Reassessment of VME closures***

SC has agreed to a workplan to review the VME fishery closures to be concluded by 2020.

12. ***Review of the Precautionary Approach Framework***

SC will be unable to complete this complex review in the short or medium term. To complete this work, participation of the Commission will be required *e.g.* to specify risk tolerances, potential addition of buffers, etc.

13. ***Maps and coordinates of Kükenthal Peak in Division 6G, part of the Corner Rise Seamount***

Maps were provided of the location of Kükenthal Peak and a polygon encompassing the 1800-m contour and recent fishing effort (see Figures xii.1- xii.4 in SCS Doc 19-20). SC has provided updated advice for the Splendid Alfonsino fishery on Kükenthal Peak (see section VII.3 of SCS Doc. 19-20).

14. ***Bycatch and discards of Greenland sharks***

SC identified data availability and uncertainty issues that could limit the ability to respond to this request. SC also identified a problem where Greenland shark discards have been recently reported as landings in the STATLANT database. SC recommended that the Commission develop a mechanism for reporting discards from all fisheries within the NAFO Convention Area, and that these data be made available to SC.

15. ***Impact of activities other than fishing in the NAFO Convention Area***

SC reiterated its prior advice (SCS Doc. 15-12 and SCS Doc. 16-14) that there are a number of activities occurring in the NRA which have the potential to impact fisheries resources and the ecosystem, and that multi-sectoral governance issues are the main impediment to comprehensively addressing them. SC noted that, as an example, there is significant spatial overlap between oil and gas exploration and production activities, fisheries and VME in the Flemish Pass area. SC noted that, without a significant commitment from Contracting Parties to a) establish regular reporting of activities other than fishing with sufficient detail to allow for adequate analysis and assessment of impacts on fisheries resources and the ecosystems that support them, b) increase SC capacity to address these issues, and c) engage

in comprehensive multi-sectoral cooperation, these types of requests can only be rudimentarily addressed at best.

**16. Initial steps towards SC workplan for next 3-5 years**

SC agreed with the need for identification of priorities and required resources and noted this should be an iterative discussion between the Commission and SC and should reflect the non-NAFO workload of SC members. SC intends to develop a 5-year plan that allows for a high-level view of activities, with more detailed annual plans for each year in which resource gaps and priorities will be addressed. While this plan will be reviewed and updated twice a year, SC emphasized the importance of stability in the work plan, *i.e.* that new requests should be clearly justified as they will have impact on delivering existing work plan items.

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

The Commission noted the SC Reports and 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 Redfish in Division 3O, Redfish in Division 3M, non-sponge and non-corals VMEs, human activities other than fishing, Cod in Division 3M, and Splendid alfonsino. In addition to these written questions, the SC chair was asked to review the results and basis for advice for Witch Flounder in Divs. 3NO.

The Commission questions and SC responses were compiled (Annex 15).

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

No new issues were discussed under this agenda item.

**17. Meeting Reports of the Joint Commission–Scientific Council Working Groups**

**a. Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2019**

The Executive Secretary presented the report (COM-SC WP 19-03) of 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:

- 24 February to 6 March 2020;
- 27 April to 8 May 2020; and
- 10 to 21 August 2020.

Contracting Parties are not obliged to schedule meetings during these periods, but these dates may help in future planning of intersessional meetings. In this regard, the Tentative Schedule for 2019/2020 NAFO Meetings (COM-SC WP 19-06 Revised), could also serve as a guide in determining dates of intersessional meetings.

Recommendations to this effect were forwarded to the Commission and Scientific Council (COM-SC WP 19-07).

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

**b. Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), April and September 2019**

The co-Chairs of WG-RBMS, Jacqueline Perry (Canada) and Carmen Fernandez (European Union), presented the April meeting report (COM-SC Doc. 19-01) and the results of the September 2019 meeting,

Key discussion items include, among others:

- the decision to suspend the 3M Cod MSE work,
- a reflection on the timelines surrounding future MSE processes that should be realistic, taking into account of the very large amount of work required, and
- the need for an updated assessment and five-year projections for 3LN Redfish.

Recommendations to this effect were forwarded to the Commission and Scientific Council (COM-SC WP 19-08).

The co-Chairs also indicated that the Precautionary Approach (PA) Framework review, which was identified by the Commission as a priority task the previous year, will be the priority agenda item at the August 2020 meeting.

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

**c. Joint Commission–Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), July 2019**

WG-EAFFM co-Chair, Elizabethann Mencher (USA), presented the July 2019 report (COM-SC Doc. 19-03) and the recommendations (COM-SC WP 19-09).

Key discussion items include, among others:

- impact of scientific surveys in VME closed areas,
- participation of relevant experts in relation to the 2020 re-assessment of VME closures and the 2021 re-assessments of the impacts of NAFO bottom fishing,
- update of the VME species list in Annex I.E of the NAFO CEM,
- sample Ecosystem Summary Sheet for Division 3LNO, and
- possible development of ecosystem level objectives.

Recommendations to this effect were forwarded to the Commission and Scientific Council (COM-SC WP 19-09).

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

**d. Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 2019**

The co-Chairs of CESAG, Katherine Sosebee (USA) and Temur Tairov (Russian Federation), provided an overview of the meeting report (COM-SC Doc. 19-04) and the recommendations (COM-SC WP 19-10).

Key outcomes include, among others:

- acceptance of the *Catch Estimates Methodology Study*, and
- consideration of potential refinements to the Catch Estimation Strategy.

Recommendations to this effect were forwarded to the Commission and Scientific Council (COM-SC WP 19-10).

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

**18. Formulation of Request to the Scientific Council for Scientific Advice on the Management in 2021 and Beyond of Certain Stocks in Subareas 2,3, and 4 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 Steve Hwang (Canada), Martha Krohn (Canada) and Cristina Ribeiro (European Union).

Report of the NAFO Commission, 23-27 September 2019

The Commission request to SC, developed and presented by the committee, was **adopted** (see Annex 20).

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

### 19. Recommendations of the Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), April and September 2019 (if more discussion is required)

There was no further discussion on the WG-RBMS report and recommendations as they were addressed under agenda item 17.b.

### 20. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2020

The Quota Table and the Effort Allocation Scheme for the Shrimp Fishery in NAFO Division 3M for 2020, presented in Annex 21, incorporate the TAC and effort allocation scheme decisions, as well as the update of the footnotes.

#### a. Cod in Division 3M

The Commission **agreed** on a TAC of 8 531 tonnes for 2020 which is a scenario corresponding to  $3/4F_{lim}$ .

The agreed TAC represents a compromise between the two scenarios that were initially proposed: TAC of 5 619 tonnes corresponding to  $F_{2016-18}$ ; and TAC of 10 876 tonnes at  $F_{lim}$ .

In reaching the TAC decision, the Commission also agreed to items to promote improving the basis for long-term management of this stock (Annex 22).

#### b. Redfish in Division 3M

The Commission **agreed** on the TAC corresponding to the  $F_{max}$  scenario, *i.e.* 8 590 tonnes in year 2020 and 8 448 tonnes in year 2021.

The Russian Federation noted the following: An “*Olympic*” system of fishery management has been applied to this stock for several years now and given the TAC advice from SC, that indicates resource decline, some interested Contracting Parties with quotas would have limited access to the stock due to limited time. The Commission should therefore reflect on the effectiveness of the current system.

#### c. Pelagic *Sebastes mentella* (oceanic redfish) in the NAFO Convention Area

The Commission **agreed** to rollover the TAC, which was 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. Shrimp in Division 3M

In consideration of the scientific advice that *there is sufficient evidence to allow a small amount of directed fishing on this stock*, the Commission **agreed** to re-open the fishery, which has been under a moratorium since 2011.

This stock has been traditionally managed through an effort allocation scheme (number of fishing days and maximum number of fishing vessels allocated to Contracting Parties). It was noted that the current footnote to Annex I.B stated the fishery shall be re-opened in accordance with the effort allocation key in place for this fishery at the time of closure. There was discussion of possible alternate management regimes to better align the capacity under an effort management regime with the level of total removals recommended by the SC including the possible conversion to a TAC and quota system.

The Commission **agreed** on a reduction of fishing effort (days) to 25% of the 2009 levels. A footnote was inserted in Annex I.B of the NAFO CEM to include transfer of allocated fishing days among Contracting Parties for 2020. (see Annex 21).

It was recognized that the agreed measures are interim only for 2020. The Commission committed to undertaking intersessional work and holding a meeting in late-Spring 2020 to discuss the possibility of a new fishing regime and other management options. The interim measures and the commitment are contained in COM WP 19-37 Rev. 5 which was **adopted** (Annex 23).

Canada requested that the following statement be included in the meeting record:

*Canada appreciates the effort made by the European Union and others to reach a consensus on 3M Shrimp. We recognize that when the fishery closed in 2011, a decision was taken to re-open the fishery in accordance with the effort allocation key in place at the time of closure. For over 25 years, Canada has maintained that an effort-based regime is not sustainable, and that a TAC and quota-based regime should be implemented.*

*This can be very complicated or very simple. This week we proposed a simple conversion from the 2010 vessel days to a proportionate percentage of the TAC. Unfortunately, Contracting Parties could not agree.*

*This approach would have ensured a conservation-based fishery, and an equitable one where all Contracting Parties could have benefitted from the opening of this fishery.*

*The number of fishing days is still too high given the recommendation of the Scientific Council. There is no real measure to avoid the overrun of the 2009 catch levels. The adopted management measure is a weak one and we are hopeful we can reach a better solution for 2021.*

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

## **21. Management and Technical Measures for Fish Stocks Straddling National Jurisdictions, 2020**

### **a. Redfish in Division 30**

The Commission **agreed** to rollover the TAC of 20 000 tonnes applicable to 2020, 2021 and 2022.

### **b. Yellowtail flounder in Divisions 3LNO**

The Commission **agreed** to rollover the TAC of 17 000 tonnes applicable to 2020 and 2021.

Footnote 12 (as reflected in the 2019 NAFO CEM) was **deleted**.

The United States noted its concerns that the 3LNO yellowtail flounder TAC was still being set well below the SC advice, though it would not block consensus on the rollover. Recognizing the concerns that had been raised about the level of bycatch of moratoria species in this fishery, the United States called on the Scientific Council and Commission to work over the next two years to identify additional ways to mitigate this bycatch concern to allow the yellowtail flounder TAC to be set more consistent with the scientific advice.

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

The Commission **agreed** to rollover the TAC of 1 175 tonnes, applicable to 2020 and 2021.

Several Contracting Parties noted the critical importance of the PA Framework Review planned the 2020 WG-RBMS meeting for future decisions related to the management of this stock.

**d. White hake in Divisions 3NO**

The Commission **agreed** to rollover the TAC of 1 000 tonnes, applicable to 2020 and 2021.

**e. Greenland halibut in Subarea 2 and Divisions 3KLMNO**

As calculated by SC and consistent with the MSE and HCR, it was agreed to set the TAC at 16 926 tonnes in 2+3KLMNO, 12 542 tonnes of which is allocated to the fishery in 3LMNO.

**f. Squid (*Illex*) in Subareas 3 and 4**

The Commission **agreed** to rollover the TAC of 34 000 tonnes applicable to 2020, 2021 and 2022.

**g. Shrimp in Divisions 3LNO**

It was **agreed** to maintain the moratorium applicable to 2020 and 2021.

**h. Witch flounder in Division 3L**

It was **agreed** to maintain the moratorium applicable to 2020, 2021 and 2022.

**i. Redfish in Divisions 3LN**

As there was no change to stock status or previously issued advice for 3LN Redfish, the Commission **agreed** to a TAC of 18 100 tonnes for 2020 as reflected in Annex I.H of the NAFO CEM.

**22. Other matters pertaining to Conservation of Fish Stocks**

**a. Splendid Alfonsino in Sub-area 6**

In accordance with the scientific advice, the Commission **decided** to ban the fishing of this stock in the NAFO Regulatory Area.

The Commission also **agreed** to include this stock in the Quota Table (See Annex 21).

A request was made for SC to review submitted protocols for a survey methodology to inform the assessment of this stock (See Annex 20).

**VI. Ecosystem Considerations**

**23. Recommendations of the Joint Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), July 2019 (if more discussion is required)**

There was no further matter discussed under this agenda item.

## 24. Other matters pertaining to Ecosystem Considerations

Following on the WG-EAFFM meeting report (see agenda item 17.c), a proposal outlining the Terms of Reference of a WG-EAFFM workshop to be held intersessionally was tabled (COM-SC WP 19-05). The purpose of the workshop is to identify ecosystem-level objectives that could help progress implementation of the ecosystem approach to fisheries management.

Attendees of the workshop would comprise fishery managers and scientists from Contracting Parties representing both the WG-EAFFM and WG-RBMS. The participation of WG-RBMS would be included because of its planned review of the Precautionary Approach Framework in 2020 and the potential synergies between these two processes. Experts in the field will also be invited to attend.

The proposed Terms of Reference were not finalized at this meeting pending consultation with the co-Chair of the WG-EAFFM. The Secretariat was instructed by the Commission to consult and coordinate with the co-Chairs of the WGs involved and, once agreement was reached on the proposed Terms of Reference amongst the co-Chairs, Contracting Parties would then be requested to considering approving them.

## VII. Conservation and Enforcement Measures

### 25. Recommendations of the Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 2019 (if more discussion is required)

There were no further matters discussed under this agenda item.

### 26. Meeting Report and Recommendations of the *Ad hoc* Working Group on Bycatches, Discards, and Selectivity (WG-BDS), July 2019

The Chairs of WG-BDS, Temur Tairov (Russian Federation), presented the meeting report (COM Doc. 19-05) and the recommendations (COM WP 19-17).

Key discussion items include, among others:

- the bycatch and discards analysis performed by the Secretariat and guidance on format and presentation of subsequent analysis and specific lines of further inquiry, and
- continuing coordination with the Chairs of SC and STACTIC on matters related to the implementation of the Action Plan.

The recommendations of the WG-BDS were **adopted** (Annex 24)

### 27. Follow-up procedure regarding Haul-by-Haul submissions

At the 40<sup>th</sup> Annual Meeting in September 2018 in Tallinn, Estonia, the Commission adopted a follow-up procedure regarding haul-by-haul submissions (COM Doc. 18-27). According to the procedure, the Secretariat would send a letter to any Contracting Party that has not complied with the haul-by-haul reporting requirement and request a response by that Contracting Party on actions taken to resolve the issue.

The Secretariat reported on its follow-up efforts and the response of the relevant Contracting Parties with regards to the submission of the 2018 reports (COM WP 19-21). These resulted in the Secretariat receiving reports from 102 fishing trips out of the 105 identified trips, 97% of all expected reports. One Contracting Party is investigating the 3 missing trip reports.

The Commission noted the Secretariat's report and decided that the task of evaluating the compliance to this reporting requirement be transferred to STACTIC in subsequent years.

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

The STACTIC Chair presented the STACTIC Meeting Report (see Part II), and highlighted the following amendments to the NAFO CEM that were forwarded to the Commission for adoption:

- STACTIC WP 19-06 Rev. “Changes in NAFO CEM from the Editorial Drafting Group” (Annex 25),
- STACTIC WP 19-07 “Addition of footnote to Annex I.C of the NAFO CEM” (Annex 26),
- STACTIC WP 19-11 Rev. “Editorial changes in the NAFO CEM from the Editorial Drafting Group” (Annex 27),
- STACTIC WP 19-20 Amendments of NAFO CEM Annexes II.F and II.G (Annex 28),
- STACTIC WP 19-21 “Reference to “the smallest geographical area” in Article NAFO CEM 28.2a and 28.3.b” (Annex 29),
- STACTIC WP 19-22 Rev. 2 “NAFO CEM Article 28 – Monthly Catch report (Article 28.8a)” (Annex 30),
- STACTIC WP 19-25 Rev. “Adjustments to Multiple flap-type topside chafers in NAFO CEM Annex III.B.2” (Annex 31),
- STACTIC WP 19-27 Rev. 4 “Production Logbook and Stowage Plan Updated at the Request of Inspectors (NAFO CEM Article 28)” (Annex 32),
- STACTIC WP 30 Rev. 2 “Amendment of MZZ in NAFO CEM Article 28.8.g” (Annex 33)
- STACTIC WP 19-31 “Revisions to Inspection Form (NAFO CEM Articles 36 and 37, Annex IV.B)” (Annex 34),
- STACTIC WP 19-44 “Amendment of NAFO CEM Annex II.J” (Annex 35)
- STACTIC WP 19-45 Rev. “Potential edits to the 2019 NAFO CEM flagged by the NAFO Secretariat for review” (Annex 36)
- STACTIC WP-49 Rev. “Template for NAFO CEM Annex II.M – Observer Report” (Annex 37),
- STACTIC 19-50 “Observer tasks related to sharks” (Annex 38),
- STACTIC WP 19-52 Rev. “Time of closure of RED 3M Fishery” (Annex 39),
- STACTIC WP 19-53 Rev. “MSC website – Amendments to Ensure Open Access of all Information to all CPS, and to Define Procedure for Posting of Information via the NAFO Secretariat” (Annex 40),
- STACTIC WP 19-54 Rev. “Procedure for defining the process to grant access to the MCS Website to individuals within Contracting Parties” (Annex 41),
- STACTIC WP 19-56 “Distribution of Notification of Infringements (NAFO CEM Article 37.5)” (Annex 42),
- STACTIC WP 19-57 Rev. “Content Adjustments to Add the RJ field to COX report (NAFO CEM Annex II.F.6)” (Annex 43),
- STACTIC WP 19-58 Rev. “Adjustments to the OBR Report in NAFO CEM Annex II.D.c and II.G” (Annex 44).

The Commission accepted the report and **adopted** all the recommendations from the 2019 intersessional meeting (COM Doc. 19-04) and this meeting.

In addition, the Commission **accepted** the STACTIC WP 19-43 (Revised) “Annual Fisheries and Compliance Review 2019” (Annex 45).

The STACTIC Chair brought forward the issue of the different interpretations of the phrases “...engaged in the Greenland halibut fishery...” and “...inspect each landing of Greenland halibut in its ports...” in Article 10 of the NAFO CEM. No consensus was reached in STACTIC as to whether the Article applies to vessels landing Greenland halibut which was caught only as bycatch.

STACTIC was asked to continue deliberations on this issue at its subsequent meetings.



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

Three proposals were tabled under this agenda item:

- **Proposal regarding providing Information on the Implementation of the FAO Port State Measures Agreement**

In this proposal, which was sponsored by Norway, STACTIC shall establish a small *ad hoc* working group to prepare a draft response to the questionnaire in relation to a forthcoming FAO survey on the NAFO's implementation of the PSMA. The Secretariat shall gather the information for the *ad hoc* working group.

The proposal was **adopted** (Annex 46).

- **Measures to Minimize or Eliminate Discards**

In this proposal (COM WP 19-26), which was jointly sponsored by Denmark (in respect of the Faroe Islands and Greenland), Iceland and Norway, flag State Contracting Parties, which have a domestic ban on discards, would be exempted from the NAFO CEM provisions which prohibit against retention of catches.

The proposal did not attain consensus. One Contracting Party indicated that this issue was better suited deliberation in the WG-BDS.

The proponents indicated that this would be a significant element in the minimization of bycatch. As this is now considered to be a policy decision, the proponents intend to table this proposal in the Commission at the next Annual Meeting.

- **Measure to Improve Data Collection of Bycatch of Sea Turtles, Sea Birds and Marine Mammals**

In this proposal (COM WP 19-32 Rev.), which was sponsored by USA, observers-at-sea would have to perform an additional duty under Article 30.14(a) of recording fishing gear interactions with marine mammals, sea turtles, and seabirds.

The proposal did not attain consensus. It was decided to defer this item to the next Annual Meeting.

## VIII. Finance

### 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 contained recommendations for the adoption of the budget for 2020, the Auditor's Report for 2018, the establishment of a performance review fund, addressing certain 2018 Performance Review Panel recommendations, as well as an update on the relocation of the offices of the Secretariat.

### 31. Adoption of the 2020 Budget and STACFAD recommendations

It was agreed that the report and all the recommendations of STACFAD be adopted by the Commission.

**STACFAD recommends that:**

- **The 2018 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 2020, 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 \$60,000 for future recruitment and relocation costs of internationally recruited staff.
- Rule 4.5 of the NAFO Financial Regulations be amended to allow for the establishment of a performance review fund within the accumulated surplus account, as follows:

The Standing Committee on Finance and Administration and the Commission shall review the amount available in the accumulated surplus account during each annual meeting. Insofar as possible, the Commission shall anticipate unforeseen expenditures during the succeeding three years and shall attempt to maintain the accumulated surplus account at a level sufficient to 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 for use in an emergency in accordance with Rule 4.4.

In addition, the Organization shall also maintain a recruitment and relocation fund to pay recruitment and relocation costs for incoming and outgoing internationally recruited staff. The recruitment and relocation fund balance shall be kept at a maximum of \$100,000.

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.

- A Performance Review Fund be established and be set at \$15,000 to pay for costs associated with having an external performance review.
- In relation to the *Ad Hoc Virtual NAFO Website Re-Design Working Group*:

The Working Group convene in 2020 to address Recommendation 26 of the 2018 NAFO Performance Review Panel and present its recommendations to the Commission at the 2020 Annual Meeting.

Prior to the first meeting of the Ad Hoc Virtual Working Group, the NAFO Secretariat to prepare a discussion document including key issues and operational concerns regarding posting of Working Papers to the NAFO public website, as well as practices and procedures from other RFMOs.

To ensure the efficient work of the Virtual Working Group, each Contracting Party identify at least one representative to participate in this work.

- Promotion of the Database Developer/Programmer-Analyst, Office Administrator and Scientific Information Administrator positions to the next salary level and also the promotion of the Fisheries Information Administrator to the Senior Fisheries Information Administrator.
- The internship period be maintained for six (6) months during 2020.
- The Secretariat, in consultation with the Chairs of the NAFO bodies and Working Groups, prepare a draft annual operational plan for review by STACFAD at the 2020 Annual Meeting.
- The Secretariat initiate a process to design a new visual identity for NAFO that reflects the role and responsibilities of the Organization, for presentation to STACFAD at the 2020 Annual Meeting.
- The budget for 2020 of \$2,369,000 (Annex 3) be adopted.
- That the Budget Estimate, Preliminary Budget Forecast, and Preliminary Calculation of Billing for Contracting Parties no longer be considered restricted documents and be posted on the NAFO SharePoint with other Commission Working Papers.

- **The Commission appoint the three Staff Committee nominees for September 2019–September 2020: Ignacio Granell (European Union), Brian Healey (Canada) and Deirdre Warner-Kramer (USA).**
- **The 2022 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 19–23 September 2022.**

## **IX. Closing Procedure**

### **32. Other Business**

There were no further matters discussed under this agenda item.

### **33. Election of Chair and Vice Chair**

Stephane Artano (France, in respect of St. Pierre et Miquelon) and Temur Tairov (Russian Federation) were re-elected Chair and vice-Chair respectively for another 2-year term. Ukraine expressed its concern over Mr. Tairov's re-election.

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

The 42<sup>nd</sup> Annual Meeting will be held in Halifax, Nova Scotia, Canada from 21 to 25 September 2020.

### **35. 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 47) was circulated and posted to the NAFO website at the conclusion of the meeting on Friday, 27 September.

### **36. Adjournment**

The meeting adjourned 13:15 hrs on Friday, 27 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 41<sup>st</sup> Annual Meeting of NAFO**

ANNEX #	NAFO WORKING PAPER #	DOCUMENT TITLE	NAFO DOCUMENT #
14	COM WP 19-22	Recommendations of the NAFO Commission Working Group to Address the Recommendations of the 2018 Performance Review Panel (WG-PR), 2019	COM Doc. 19-32
16	COM-SC WP 19-07	Recommendations of NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2019	COM-SC Doc. 19-06
17	COM-SC WP 19-08	Recommendations of NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS), April and September 2019	COM-SC Doc. 19-07
18	COM-SC WP 19-09	Recommendations of NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), July 2019	COM-SC Doc. 19-08
19	COM-SC WP 19-10	Recommendations of NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 2019	COM-SC Doc. 19-09
20	COM WP 19-39 (Rev. 4)	The Commission's Request for Scientific Advice on Management in 2021 and Beyond of Certain Stocks in Subareas 2, 3 and 4 and Other Matters	COM Doc. 19-29
21		Quota Table and the Effort Allocation Scheme for the Shrimp Fishery in NAFO Division 3M for 2020	
22	COM WP 19-42	Improving the basis for the long-term management of 3M Cod	COM Doc. 19-30
23	COM WP 19-37 (Rev. 5)	Interim measure for Shrimp 3M for 2020	COM Doc. 19-27
24	COM WP 19-17	Recommendations of the NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS), 2019	COM Doc. 19-31
25	STACTIC WP 19-06 (Rev.)	Changes in NAFO CEM from the Editorial Drafting Group	COM Doc. 19-07
26	STACTIC WP 19-07	Addition of footnote to Annex I.C of the NAFO CEM	COM Doc. 19-08
27	STACTIC WP 19-11 (Rev.)	Editorial changes in the NAFO CEM from the Editorial Drafting Group	COM Doc. 19-09
28	STACTIC WP 19-20	Amendments of NAFO CEM Annexes II.F and II.G	COM Doc. 19-10
29	STACTIC WP 19-21	Reference to "the smallest geographical area" in NAFO CEM Article 28.2a and 28.3.b	COM Doc. 19-11
30	STACTIC WP 19-22 (Rev. 2)	NAFO CEM Article 28 – Monthly Catch report (Article 28.8a)	COM Doc. 19-12
31	STACTIC WP 19-25 (Rev.)	Adjustments to Multiple flap-type topside chafers in NAFO CEM Annex III.B.2	COM Doc. 19-13
32	STACTIC WP 19-27 (Rev. 4)	Production Logbook and Stowage Plan Updated at the Request of Inspectors (NAFO CEM Article 28)	COM Doc. 19-14
33	STACTIC WP 19-30 (Rev. 2)	Amendment of MZZ in NAFO CEM Article 28.6.g	COM Doc. 19-15
34	STACTIC WP 19-31	Revisions to Inspection Form (NAFO CEM Articles 36 and 37, Annex IV.B)	COM Doc. 19-16
35	STACTIC WP 19-44	Amendment of NAFO CEM Annex II.J	COM Doc. 19-17
36	STACTIC WP 19-45 (Rev.)	Edits to the 2019 NAFO CEM flagged by the NAFO Secretariat for review	COM Doc. 19-18

37	STACTIC WP 19-49 (Rev.)	Revised Template for NAFO CEM Annex II.M - Observer Report	COM Doc. 19-19
38	STACTIC WP 19-50	Observer tasks related to sharks	COM Doc. 19-20
39	STACTIC WP 19-52 (Rev.)	Time of closure of RED 3M Fishery	COM Doc. 19-21
40	STACTIC WP 19-53 (Rev.)	MSC website - Amendments to Ensure Open Access of all Information to all CPS, and to Define Procedure for Posting of Information via the NAFO Secretariat	COM Doc. 19-22
41	STACTIC WP 19-54 (Rev.)	Procedure for defining the process to grant access to the MCS Website to individuals within Contracting Parties	COM Doc. 19-23
42	STACTIC WP 19-56	Distribution of Notification of Infringements (NAFO CEM Article 37.5)	COM Doc. 19-24
43	STACTIC WP 19-57 (Rev.)	Content Adjustments to Add the RJ field to COX report (NAFO CEM Annex II.F.6)	COM Doc. 19-25
44	STACTIC WP 19-58 (Rev.)	Adjustments to the OBR Report in NAFO CEM Annex II.D.c and II.G	COM Doc. 19-26
45	STACTIC WP 19- 43 (Rev.)	Annual Fisheries and Compliance Review 2019	COM Doc. 19-28
46	COM WP 19-23	Providing Information on the Implementation of the FAO Port State Measures Agreement	COM Doc. 19-33
	STACFAD WP 19-01 to STACFAD WP 19-07	STACFAD Recommendations including the 2020 Budget	See agenda item 31 (above)

## Annex 2. Agenda

### I. Opening Procedure

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

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

6. Review of Membership of the Commission
7. Administrative Report
8. NAFO Headquarters Agreement
9. Review of the list of experts to serve as panelists under the NAFO Dispute Settlement provisions
10. Guidance to STACFAD necessary for them to complete their work
11. Guidance to STACTIC necessary for them to complete their work

### III. Coordination of External Affairs

12. Report of Executive Secretary on External Meetings
13. International Relations
  - a. Relations with other International Organizations
  - b. NAFO Members as Observers to External Meetings
  - c. Areas Beyond National Jurisdiction (ABNJ) Deep-Seas Project
14. Oil and Gas Activities in the NAFO Regulatory Area

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

15. Implementation of 2018 Performance Review Panel recommendations
16. 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
  - b. Feedback to the Scientific Council regarding the advice and its work during this meeting
  - c. Other issues as determined by the Chairs of the Commission and Scientific Council
17. Meeting Reports of the Joint Commission–Scientific Council Working Groups
  - a. Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2019
  - b. Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), April and September 2019
  - c. Joint Commission–Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), July 2019
  - d. Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 2019
18. Formulation of Request to the Scientific Council for Scientific Advice on the Management in 2021 and Beyond of Certain Stocks in Subareas 2,3, and 4 and Other Matters

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

19. Recommendations of the Joint Commission–Scientific Council Working Group on Risk-based Management Strategies (WG-RBMS), April and September 2019 (if more discussion is required)
20. Management and Technical Measures for Fish Stocks in the Regulatory Area, 2019
  - a. Cod in Division 3M
  - b. Redfish in Division 3M
  - c. Pelagic *Sebastes mentella* (oceanic redfish) in the NAFO Convention Area

- d. Shrimp in Division 3M
- 21. Management and Technical Measures for Fish Stocks Straddling National Jurisdictions, 2019
  - a. Redfish in Division 3O
  - b. Yellowtail flounder in Divisions 3LNO
  - c. Witch flounder in Divisions 3NO
  - d. White hake in Divisions 3NO
  - e. Greenland halibut in Subarea 2 and Divisions 3KLMNO
  - f. Squid (*Illex*) in Subareas 3 and 4
  - g. Shrimp in Divisions 3LNO
  - h. Witch flounder in Division 3L
  - i. Redfish in Divisions 3LN
- 22. Other matters pertaining to Conservation of Fish Stocks
  - a. Splendid Alfonsino

#### VI. Ecosystem Considerations

- 23. Recommendations of the Joint Commission–Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), July 2019 (if more discussion is required)
- 24. Other matters pertaining to Ecosystem Considerations

#### VII. Conservation and Enforcement Measures

- 25. Recommendations of the Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 2019 (if more discussion is required)
- 26. Meeting Report and Recommendations of the Ad hoc Working Group on Bycatches, Discards, and Selectivity (WG-BDS), July 2019
- 27. Follow-up procedure regarding Haul-by-Haul submissions
- 28. Report of STACTIC from this Annual Meeting and Recommendations
- 29. Other matters pertaining to Conservation and Enforcement Measures

#### VIII. Finance

- 30. Report of STACFAD from this Annual Meeting
- 31. Adoption of the 2020 Budget and STACFAD recommendations

#### IX. Closing Procedure

- 32. Other Business
- 33. Election of Chair and Vice Chair
- 34. Time and Place of Next Annual Meeting
- 35. Press Release
- 36. Adjournment

### Annex 3. Participant List

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Report of the NAFO Commission, 23-27 September 2019

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

Represented by Katrine Kærgaard, Delegation of Denmark (in respect of Faroe Islands and Greenland) (see above)

**South East Atlantic Fisheries Organisation (SEAFO)**

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

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**Annex 4. Opening Statement by  
Mr. Didier Guillaume, Minister of Agriculture and Food, Government of France**

Monsieur le Président de l'Organisation des pêches de l'Atlantique Nord-Ouest, monsieur le secrétaire exécutif de l'OPANO, mesdames et messieurs les élus, mesdames et messieurs les représentants des Etats-parties à l'OPANO, mesdames et messieurs.

Je tiens à vous faire part, au nom du Gouvernement français, de ma fierté de recevoir pour la première fois en France la réunion plénière de l'OPANO, les 12 délégations des Etats-parties à l'Opano et près de 200 participants ;

C'est une grande joie de pouvoir vous accueillir dans cette magnifique ville de Bordeaux dont les liens sont si forts avec les Outre-mer français. Je remercie les autorités locales qui nous ont aidé à organiser cette session à Bordeaux.

La France siégeant à l'OPANO au titre de Saint-Pierre et Miquelon, je forme le souhait que Saint-Pierre et Miquelon puisse accueillir dans le futur des réunions de groupes de travail de l'OPANO.

Je suis convaincu que la coopération multilatérale dans les pêches de l'Atlantique du Nord-Ouest est le meilleur moyen pour conserver et exploiter de façon optimale les ressources halieutiques.

L'OPANO a été et reste pionnière dans de nombreux domaines comme la préservation des milieux marins.

L'OPANO a su prendre des mesures très fortes allant jusqu'à un moratoire sur les stocks de cabillaud qui s'étaient effondrés au début des années 90. Ces mesures commencent à avoir un effet : il a été possible de rouvrir certaines pêcheries telles que celle de la morue en zone 3M.

La pêche du cabillaud a toujours été étroitement liée à l'histoire de l'archipel de Saint-Pierre et Miquelon, et bien avant la création de l'OPANO, l'archipel avait déjà développé avec son voisin le Canada, des mesures de gestion communes des stocks partagés.

Je tiens à saluer à cette occasion la bonne coopération bilatérale avec le Canada pour la gestion de nos zones économiques exclusives.

Parmi les nombreuses autres décisions mises en œuvre par l'OPANO, je citerais l'encadrement de la pêche profonde ou les mesures de conservation des requins qui traduisent la mise en œuvre progressive de l'approche écosystémique des pêches.

Enfin, je salue l'investissement de l'actuel président de la commission de l'OPANO, mon ami le sénateur Stéphane ARTANO, qui a su œuvrer, depuis 3 ans maintenant, grâce à sa parfaite connaissance des enjeux des pêcheries sur la zone géographique de l'OPANO, pour une tenue des débats constructive et efficace et sous la présidence duquel aura été possible l'amendement à la Convention de 1978, qui permet dorénavant la prise en compte dans les décisions prises par l'organisation de l'objectif de durabilité des pêcheries, et l'approche écosystémique des pêches.

Aussi je vous souhaite à tous des réunions fructueuses, je sais que vos travaux seront intenses, et je serai attentif aux décisions importantes qui seront prises concernant les stocks de morue et de sébaste.

J'espère enfin que vous garderez un très bon souvenir de votre séjour en France et en Nouvelle-Aquitaine.

## Annex 5. Opening Statement by the NAFO President

Chers Directeurs, distingués collègues,

Chers amis,

Je suis très heureux et honoré de vous accueillir à la 41<sup>ème</sup> réunion annuelle de l'Organisation des pêches de l'Atlantique du Nord-Ouest. C'est la première fois que la France accueille la réunion annuelle de l'OPANO et je souhaite exprimer mes plus chaleureux remerciements au Gouvernement français pour sa superbe organisation. Nous sommes dans la belle et historique ville de Bordeaux - classée au patrimoine mondial de l'UNESCO - et j'espère que vous aurez tous l'occasion de profiter de tout ce que la ville a à offrir et je sais que nos hôtes français ne feront que vous encourager faire cela !

Néanmoins, nous avons également beaucoup de travail à faire cette semaine. Cette réunion est le point d'orgue d'une année encore très chargée depuis notre dernière rencontre à Tallinn. L'examen des propositions concernant la manière de donner suite aux recommandations de la revue de la performance de l'année dernière est d'une importance capitale. Quoi que nous décidions sur cette question, sera sans aucun doute l'axe des travaux de l'OPANO au cours des prochaines années.

Les autres sujets que nous devons traiter concernent notamment les aspects suivants:

- Comment allons-nous progresser sur la stratégie de gestion de l'évaluation de la morue en 3M?
- Examen du rapport et des recommandations de la récente étude méthodologique sur les estimations des captures;
- l'examen des progrès accomplis dans le plan d'action pour la gestion et la minimisation des captures accessoires et des rejets; et
- la poursuite des progrès dans l'élaboration du cadre d'approche écosystémique de l'OPANO pour la gestion des pêches, y compris l'élaboration de la feuille de route de l'OPANO pour cette approche écosystémique.

En ce qui concerne le cadre de l'approche écosystémique de l'OPANO, je tiens à souligner en particulier que l'examen de la revue de la performance de l'année dernière a été particulièrement positif, affirmant, je cite, que les travaux à ce jour ont été « novateurs » en « *démontrant comment une approche écosystémique peut-être mise en pratique dans le contexte de la gestion internationale des pêches sur une base scientifique significative.* »

Dans ce domaine et dans d'autres, je pense sincèrement que l'OPANO peut être fière de ses réalisations jusqu'à présent.

Nous avons démontré ce qu'une organisation régionale de gestion des pêches peut faire pour promouvoir la conservation et l'utilisation durable des ressources relevant de sa compétence.

Cela a été reflété dans le rapport généralement positif du comité d'évaluation des performances de l'année dernière et intervient à un moment où la performance des ORGP fait l'objet d'un contrôle croissant de la part de la communauté internationale.

Je pense aussi que les réalisations de l'OPANO se font progressivement remarquer au niveau international.

Cependant, il reste encore beaucoup à faire pour que nous puissions faire passer le message, non seulement à la communauté internationale, mais également à nos propres gouvernements respectifs. Ce point est fondamental, car les États sont en train de négocier avec les Nations Unies un traité international de protection de la biodiversité en haute mer, dont les résultats pourraient avoir de profondes répercussions sur nos travaux futurs.

Voilà dans les grandes lignes notre au travail cette semaine.

Je tiens à remercier les Parties contractantes pour leurs contributions positives tout au long de l'année, qui se poursuivront certainement cette semaine. Je tiens également à remercier le Secrétariat pour son soutien tout au long de l'année.

Enfin, je tiens à remercier une nouvelle fois la France pour l'organisation de cette réunion, qui doit effectivement nous placer dans un état d'esprit positif pour les défis de la semaine à venir.

Je vous souhaite, je nous souhaite d'être particulièrement efficaces cette semaine et déclare officiellement ouverte la 41<sup>e</sup> session annuelle de l'OPANO!

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

Canada is pleased to participate in the 41<sup>st</sup> NAFO Annual Meeting and extends its sincerest thanks to France and the people of Bordeaux for hosting. We look forward to exploring this historic port city and enjoying French hospitality in the days ahead.

We would also like to applaud the efforts of the NAFO Secretariat to organize this year's meeting. As ever, the Secretariat's attention to detail and expertise in support of the Commission, the Scientific Council and other NAFO bodies is greatly appreciated by all Contracting Parties.

In recent years, Contracting Parties have cooperated to advance many important initiatives and we have no doubt this will continue during the course of what will most assuredly be a busy, but productive week.

The recently completed second NAFO Performance Review detailed some of these recent gains and Canada is pleased with both the content and the tone of the report. An Action Plan has since been developed and work to address many of the Performance Review's recommendations is already underway. Canada welcomes the opportunity to participate in these efforts and has every confidence that, like in 2011, the recommendations will be addressed in a timely fashion.

NAFO's Scientific Council likewise deserves recognition for its efforts in 2019. Its work informs nearly everything NAFO does, including perhaps most importantly, decisions in support of the sustainable management of fish stocks in the Regulatory Area. NAFO's forward agenda suggests Scientific Council's workload will remain heavy for the foreseeable future and we again urge Contracting Parties to contribute to both the Council's expertise and capacity.

In addition to the Performance Review, NAFO Working Groups continue to make important strides. By way of example, the Working Group on Bycatches, Discards and Selectivity further advanced its Action Plan and is on target to meet both its identified deliverables and timelines. Beyond providing timely catch estimates to the Scientific Council in support of stock assessments, the Catch Estimation Strategy Advisory Group continues to explore means to refine and enhance its methodology. Finally, the Working Group on Ecosystem Approach Framework to Fisheries Management made important advancements toward the reassessment of VME closures, and the impacts of NAFO bottom fishing in 2020 and 2021 respectively.

Each of these initiatives contributes to the achievement of NAFO's overall objectives and serve to both promote and protect our shared ocean resources. Further implementation of the ecosystem approach to fisheries, as well as a review of the Precautionary Approach Framework are likewise key to achieving these ends.

In the years ahead it will be ever more important that NAFO Contracting Parties work together to ensure that the northwest Atlantic Ocean remains healthy and productive for future generations. Canada looks forward to contributing to these efforts this week in Bordeaux and beyond.

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

Mr. Chair, Distinguished Delegates, Observers, Ladies and Gentlemen,

The Faroe Islands and Greenland (DFG) would like to begin by thanking our French hosts for the opportunity to meet in this beautiful location of Bordeaux. Our delegation would also like to convey our appreciation and warm thanks to the Secretariat for their usual efficient preparations for the Annual Meeting.

We are pleased with the constructive follow-up of the recommendations from the Performance Review, and we will continue to work constructively with our NAFO partners to implement them. The importance of an independent Review of this kind for the credibility and transparency of our regional fisheries cooperation cannot be overstated.

One of the key issues this year for our delegation is the conservation and management of the cod stock in 3M. As you know, the Faroe Islands has the largest share of this stock of any single country. As such, we wish to see a long-term sustainable yield that can ensure our industry a secure and stable framework for their activities. Fluctuations in TACs from year to year need to be minimized, and we need to develop a management framework that can move us beyond this present ad hoc approach to setting TACs for 3M cod.

We are encouraged to see positive developments in the 3M shrimp stock and look forward to engaging with other delegations to act on the advice of the Scientific Council.

Our delegation is further looking forward to continuing the constructive discussions on how to minimize or eliminate discards and bycatches and improve selectivity.

Working groups take important tasks on their shoulders. However, it is increasingly a challenge to find time to participate in the many working groups, especially for Contracting Parties with limited human resources. We would like to discuss with others how we can find more time- and cost-efficient ways of addressing intersessional work in the coming year.

Mr. Chair, the Faroe Islands and Greenland are looking forward to a productive week in these lovely surroundings. We are looking forward to working constructively with all other delegations to contribute to a successful outcome of this 41<sup>st</sup> Annual Meeting of NAFO.

Thank you.



## **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 thank the Government of France for hosting the 41<sup>st</sup> Annual Meeting of NAFO in the wonderful city of Bordeaux, with its rich history and situated in a region famous for its wine and a long tradition in wine production.

Secondly, I would like to note 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 overall biomass show significant declines in several areas and the situation for a number of important stock remain 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 that depend on their exploitation.

The EU has carefully studied the advice emanating from the Scientific Council and will continue supporting sustainable approaches for the long-term management of key stocks, such as cod and redfish in the Flemish Cap, which is of particular importance to the EU.

We also note with satisfaction the improving situation of Northern shrimp in division 3M, which have experienced an increase of its biomass for the past five years. After heavy sacrifices and the establishment of a moratorium in 2010 to ensure the rebuilding of the stock, the Scientific Council advised for the first time a reopening of the fishery. The timely advice will allow the Commission to discuss new management measures for this stock.

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 the context of the 2020 re-assessment of VME closure, I reiterate the EU continuous support for a coherent policy protecting VMEs based on the latest and best science available and welcome the progress being made in assessing all the six FAO criteria.

I also wish the Commission to build on the second performance review adopted last year by adopting a meaningful Action Plan that will maintain the performance of this organisation at its highest level and better position it to meet its long-term objectives.

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

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

Mr. Chairman, Distinguished Delegates, Observers, Ladies and Gentlemen,

On behalf of the Japanese Delegation, I would like to express my deepest gratitude to the Government of France for hosting the 41<sup>st</sup> Annual Meeting of NAFO in this beautiful city, Bordeaux. We also thank the NAFO Secretariat staff for the excellent preparation and arrangements, and wish all the best to our Chair, Mr. Artano.

As the Japanese Delegation expressed in the past meetings, NAFO has played an important role for fisheries management. NAFO, as the historic and leading RFMO, should develop conservation and management measures for sustainable use of fishery resources and the measures should be based on scientific advice. We should bear in mind that the NAFO Conservation and Enforcement Measures (CEM) would be taken into account by other RFMOs.

Mr. Chairman, on this occasion, I would like to address two regulatory measures of our interest and explain our thought for this year's NAFO Annual Meeting, namely establishments of Total Allowable Catch for Cod (3M) and Redfish (3M) in the next couple of years.

Regarding 3M Cod, the WG-RBMS recommended to the Commission to suspend its work for the MSE process of the species due to very large uncertainty in its stock-dynamics. It is disappointing but we do hope we would be able to start to work again soon for the eventual completion of MSE.

Stock status of 3M Redfish was also assessed by the SC this year. The SC advises that the catches should be drastically decreased from the current catch level because the current recruitment is very low and the spawning stock biomass is projected to decline in near future. It is very important for this Commission to take actions needed for the drastic reduction of the Total Allowable Catch (TAC). Japan believes that the Commission should show its strong commitment for the conservation of the valuable stock, while taking into account the socio-economic impact on the fishery. Although the negotiation would be tough, Japan will collaborate with all CPCs for the fruitful discussion on this issue.

With respect to the ecosystem approach, we consider the integration of ecosystem consideration into fisheries management advice makes sense, but key question is whether our current knowledge and understandings are sufficient to be able to achieve this objective. Therefore, we should take more cautious approach in dealing with this undertaking. Much more important thing is for managers to have full knowledge and understandings on the benefit of the ecosystem approach.

Mr. Chairman, the Japanese Delegation is ready to work closely and cooperatively with other delegations to find good solutions and sincerely hopes that this Annual meeting will be successfully and fruitfully concluded.

Thank you.

## **Annex 10. Opening Statement by the Delegation of the Russian Federation**

Distinguished Delegates, Observers, Ladies and Gentlemen,

On behalf of the Russian Federation and the Russian delegation I would like to thank the Government of France for inviting us to the beautiful city of Bordeaux. The Russian delegation is very appreciative of both our hosts' efforts to organize this meeting and their wonderful expressions of hospitality. I would also like to thank the NAFO Secretariat for all their preparatory work they have done to set up this meeting.

As you know, NAFO had its second independent performance review in 2018. The review assessed NAFO's performance during the period 2011-2017, with special attention to the follow-up to the recommendations stemming from the 1st Performance Assessment Report. While the Report of the NAFO Performance Review Panel 2018 highlighted significant improvements NAFO had made over the period of six years as well as opportunities for ongoing improvement, the Panel identified external significant challenges and recommended areas that require further actions. Earlier this year, the NAFO Commission Working Group to Address the Recommendations of the 2018 Performance Review Panel met in Dartmouth to prioritize these recommendations and to develop an action plan. We would like to express our pleasure regarding the progress made by this Working Group and to express our thanks to all Contracting Parties involved in the development of the action plan. We were pleased to participate in these efforts. Proposed actions for 36 recommendations were developed and ongoing work by NAFO following the 2018 Annual Meeting as well as a suggested designation of the particular NAFO Standing Committee and/or Working Group were identified. The majority of recommendations in the Draft Plan of Actions are of high priority and need to be implemented within 1-2 years. That would require a lot of resources. There is a need to prioritize the tasks that stand before us and rationalize the efforts dedicated to them. In particular, we would like to turn the attention towards the PA Framework review and the discussion of acceptable risk for regulating the fish stocks. We hope that the Draft Action Plan will find endorsement this week.

As far as the stock management is concerned, some advice for a number of stocks this year suggests a severe reduction in TAC or even a closure of fisheries. We would advocate flexibility in making any decisions because it is easy to closure a fishery but it is very difficult to reopen it.

Finally, we have a full agenda ahead of us and we are looking forward to working constructively with all Contracting Parties to bring the issues on our agenda to successful conclusion.

Thank you!

## **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 in beautiful Bordeaux and we would like to thank the Government of France for generously hosting the 41st NAFO Annual Meeting. We would also like to recognize and thank the NAFO Secretariat for the dedication and hard work to ensure that our annual meetings are organized, efficient, and successful year after year.

As the U.S. Government Commissioner to NAFO -- and the Regional Administrator of the Greater Atlantic Regional Fisheries Office at NOAA Fisheries -- I would like to express my delegation's appreciation in being here and our hope for a productive meeting. I am pleased to be joined by two other federally-appointed representatives to NAFO -- the other two Commissioners are Dr. Michael Sissenwine, who represents the New England Fishery Management Council, and Mr. Eric Reid, who represents the New England Fishing Industry.

At this 41st meeting of NAFO, the United States will continue to strongly advocate for consistency between the management decisions of the Commission and the advice of the Scientific Council, and that these decisions be made in a collaborative and transparent fashion. In support of these principles, NAFO members need to ensure that we are providing the necessary and appropriate scientific expertise and resources. We have an important opportunity at this Annual Meeting for the Commission and the Scientific Council to jointly strategize on NAFO work priorities. The Commission has consistently asked for additional, and more varied, advice from the Scientific Council, and we NAFO Members must ensure that the SC has the resources necessary to produce the high quality output necessary to achieve our goals as an Organization.

We will also continue to advocate for transparency – both in deliberations by NAFO bodies and the decisions that result from those deliberations. The United States will provide a proposal relating to the transparency of STACTIC working papers. The United States recognizes the commitment of NAFO to open discussion and information-sharing, and we look forward to furthering that principle this year.

Relative to NAFO stocks, while we welcome the positive developments reported by the Scientific Council regarding the Division 3M shrimp stock, we urge precaution moving forward – both regarding the re-opening of this fishery and the use of the previous time/effort-based management regime. Additionally, if the 3M shrimp fishery (or any fishery for that matter) is re-opened, while taking into account previous agreements reflected in the Quota Table, NAFO must engage in a transparent and open dialogue regarding how any fishing opportunities are to be allocated among all NAFO Parties and how the fishery will be managed. Again, we are hopeful for a productive dialogue on how to move forward given the apparent signs of recovery in this stock.

In addition to specific stock management considerations, we look forward to further work on the implementation of the recommendations of the recent performance review. We were pleased with the intersessional work undertaken by the Performance Review Working Group this year, and we look forward to continuing this dialogue. Several working groups have made significant progress over the past year, including STACTIC, Scientific Council, WG-EAFFM, WG-RBMS, and WG-BDS, and we look forward to hearing and building upon these results of that work this week.

I thank you for your attention and, again, I am looking forward to a productive and enjoyable week here in beautiful Bordeaux.

## Annex 12. Opening Statement by the Ecology Action Centre



The Ecology Action Centre (EAC) thanks the Government of France for hosting this 41<sup>st</sup> Annual Meeting of NAFO in the captivating city of Bordeaux. We appreciate the opportunity to participate in the deliberations and share our perspectives.

### Ecosystem Management Framework

NAFO has made impressive progress on its commitment to apply an ecosystem approach to fisheries management (EAF) in order to safeguard the marine environment and minimize the risk of long-term impacts of fishing activities. The efforts of the Working Group on Ecosystem Science and Assessment (WGESA) and the Scientific Council (SC) to build a Roadmap towards EAF and develop pilot EAF exercises as well as tools like the Ecosystem Summary Sheets (ESS) and ecosystem-based indices are ground-breaking.

Moving this important work forward is especially urgent in the NAFO Convention Area with ecosystem indices showing a less functional ecosystem than in the past and trends of declining productivity.

**We urge the Commission to agree to concrete work on setting ecosystem level objectives and identifying how NAFO will further incorporate ecosystem indices into management decision.**

**Parties should also support the continued development of the Roadmap by committing resources and scientific expertise to this crucial process.**

### Impacts of other activities in the NAFO Convention Area

NAFO's ecosystem approach will be further strengthened by incorporating information on impacts of activities in the Convention Area such as oil and gas exploration and development, deep sea mining, and pollution. While these are outside the mandate of the Convention they will have severe impacts on the fish and habitats that NAFO manages.

**Recognizing the lack of expertise and time in the Scientific Council to incorporate analysis of these activities, we urge the Commission and Parties to support and fund the participation of external experts whose collaboration can move this forward.**

We also note that the Impact Assessment Agency of Canada is currently undertaking a Regional Environmental Assessment (REA) process: Offshore Oil and Gas Exploratory Drilling East of Newfoundland and Labrador. The area being assessed overlaps with the NAFO Convention Area and has implications for all future individual project proposals in the area. We urge the Commission to ensure NAFO is involved in the process, that NAFO provides information to the Committee overseeing the REA and that the Impact Assessment Agency of Canada is in dialogue with the NAFO secretariat.

### Science Council capacity support

The workload and complexity of the analysis requested of the Scientific Council continues to outstrip their resources and time available. This undermines the ability of NAFO to ensure comprehensive and credible management in the Convention Area.

**Parties should make every effort to provide funding, resources, and expertise to support the Scientific Council and working groups.**

**We also urge the Commission to give thorough consideration to all requests passed to the SC in order avoid work that does not fall under the workplan priorities.**

### **Greenland shark**

We are pleased to see initial work this past year identifying time and area hotspots for Greenland shark bycatch and discards. Continued efforts to minimize impact on this highly vulnerable species in the NAFO convention area and by Flag States is crucial.

**We urge the Commission to clarify the requirement and mechanism for Parties to report discards of Greenland shark.**

We also look to the Commission for continued support to the Secretariat's effort to digitize past observer data and for Parties to continue to work with NAFO to further refine data reporting for Greenland shark bycatch, discards, and landings.

### **Observers in the Standing Committee on International Control (STACTIC)**

We appreciate the strides NAFO has made in recent years on transparency and openness to observer participation. We also recognize the important space STACTIC offers for international dialogue on IUU fishing and best practice for enforcement.

STACTIC presides over a considerable number of discussions that should be held in an **open, transparent manner** including topics such as bycatch and discard reporting, best practices on data collection and monitoring systems, observer safety, and compliance with the CEM. These and other such topics would also benefit from the expertise of non-governmental participants and observers. In order to ensure STACTIC remains effective for compliance of Parties and vessels, we understand that there may be select topics that would benefit from remaining in closed sessions for enforcement and government officials only.

**We recommend the Commission publish a detailed agenda in advance of all STACTIC meetings that lists all topics to be covered and clearly indicates which topics will be in closed sessions.** Observers and Parties should have time to respond to the agenda in advance of the meeting. Closed topics should be kept to an absolute minimum to ensure the highest level of transparency possible, while maintaining the effectiveness of the NAFO compliance process.

### Annex 13. Opening Statement by Oceans North and Deep Sea Conservation Coalition



**deepsea**  
conservationcoalition

Chair, Heads of Delegation, Delegates and fellow Observers, we are pleased to be making this opening statement on behalf of Oceans North and the Deep Sea Conservation Coalition, in the beautiful city of Bordeaux.

As this is Oceans North's first attendance as an observer to NAFO, we want to thank you for the continued transparency and for welcoming observer organizations. We work in the Arctic and Atlantic Oceans, with the goal of achieving healthy ocean ecosystems and vibrant coastal communities with a focus on Indigenous fisheries and conservation initiatives.

The Deep Sea Conservation Coalition and its 75+ member organizations continue to work towards the protection of vulnerable marine ecosystems and the sustainable management of deep sea fisheries. We have seen significant progress in NAFO's efforts towards these ends over the past decade and look forward to a continuation of that progress at this year's meeting.

We are calling on NAFO this year close all remaining seamounts in the NAFO Regulatory Area to bottom fishing activity. NAFO was the first RFMO to adopt conservation measures for seamounts in 2006, but in 2019, the job is not yet complete. If this was agreed, NAFO would be the first RFMO to close all seamounts setting an important precedent for high seas fisheries management.

While we are well aware of the good work of the Scientific Council and the WS-ESA on the 2020 review of the VME closures and the 2021 impact assessment, we hope that the scheduled UNGA bottom fishing review in May of 2020 provides some incentive for NAFO to adopt new VME measures this year.

As many of you know, this week States will meet at the United Nations General Assembly to address the critical issue of addressing climate change. The IPCC report on Oceans and the Cryosphere will be released on September 25<sup>th</sup>. In the past NAFO has failed to fully address climate change in its fisheries advice and related management decisions. This year, it is imperative that NAFO makes progress on incorporating climate change and considers climate vulnerability of NAFO regulated species into its decision making as well as makes progress on the ecosystem roadmap.

Additionally, we have provided our top recommendations for all in an easy to follow one-pager that we hope will be a guide to NAFO's success by the end of this week.

Additional measures for VMEs:

- NAFO Contracting Parties should formally agree research vessel trawls in all VME closed areas as has been advised by Scientific Council.
- NAFO should adopt FAO observer codes for VME species at this meeting, thus rendering the encounter protocol as a potentially effective mechanism to further protect known VME area. We also urge Contracting Parties to provide adequate resources to scientists for the VME work scheduled for 2020 and 2021.

For Fisheries Management:

- Follow precautionary science advice from the Scientific Council when setting catch levels for all NAFO regulated stocks, including 3M shrimp.



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- Close the unregulated fishery for Splendid Alfonsino in Division 6G.
- Take concrete steps toward implementing the ecosystem roadmap in fisheries management decisions.
- Continue to implement the Action Plan in Management and Minimization of Bycatch and Discards and adopt in full the recommendations of the WG-BDS as per NAFO Com 19/05.
- Urge Contracting Parties to submit timely and complete haul-by-haul data in line with NAFO Resolution 18/27.
- Improve reporting on Greenland shark discards and increase efforts to minimize incidental catches and mortality of Greenland sharks, in line with NAFO 18/17.

With regards to activities within the NAFO area, but outside of NAFO's fisheries jurisdiction and noting the ongoing negotiations of a new treaty under UNCLOS to protect biodiversity on the high seas, we strongly urge NAFO to continue its collaboration and cooperation with other sectoral bodies and begin to identify mechanisms where biodiversity protection is achieved across these sectoral management organizations. In particular, we urge:

- Contracting Parties engage where possible in the Regional Assessment of exploratory oil and gas drilling on the Grand Banks / Flemish Cap area to ensure that the intent of a transboundary impact assessment is fulfilled.

We look forward to this week's discussions and deliberations and urge Contracting Parties continue to make progress, notably on the recommendations above.

Thank you,

Susanna Fuller and Katie Schleit - Oceans North  
Matt Gianni - Deep Sea Conservation Coalition



## **Annex 14. Recommendations of the NAFO Commission Working Group to Address the Recommendations of the 2018 Performance Review Panel (WG-PR), 2019**

(COM WP 19-22 **now** COM Doc. 19-32)

The NAFO Commission Working Group to Address the Recommendations of the 2018 Performance Review Panel (WG-PR) Meeting met 03 April 2019 (COM Doc. 19-03) and agreed on the following recommendations to forward to the NAFO Commission.

**The WG-PR recommends that:**

- **The Draft Action Plan for the Implementation of the Recommendations from the 2018 Report of the NAFO Performance Review Panel (COM PR-WP 19-01 Revised) be adopted by the Commission at the 2019 Annual Meeting.**
- **The NAFO Secretariat, in cooperation with the Chairs and co-Chairs of the NAFO Constituent Bodies and Working Groups, report on the progress of proposed actions identified in the Action Plan (COM PR-WP 19-01 Revised) at subsequent NAFO Annual Meetings beginning in 2020.**

**Action Plan for the Implementation of the Recommendations from the  
2018 Report of the NAFO Performance Review Panel**

COM PR-WP 19-01 (Revised)

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
<b>III. Conservation and Management</b>								
	In relation to the Ecosystem Approach Framework to Fisheries Management, the NAFO Performance Review Panel:							
<b>1.</b> <b>III.2.a.1</b>	<ul style="list-style-type: none"> <li>Recommends the Commission, within a defined timeline, sets objectives and determines acceptable risks as outlined in the Ecosystem Approach Framework Roadmap to ensure its implementation. [pg. 16]</li> </ul>	X (COM/ WG-EAFFM)	X (WG-EAFFM)			LT	<p>The below recommendations from the Aug 2018 meeting of WG-EAFFM were adopted by COM and SC at the Sept. 2018 Annual Meeting, (<a href="#">COM-SC Doc. 18-06</a>):</p> <ul style="list-style-type: none"> <li>In relation to implementation of the EAF Roadmap, WG-EAFFM continues to make progress on the EAF Roadmap, acknowledging the general concepts of Ecosystem Production Potential (EPP) as a useful step towards implementation of EAFFM.</li> </ul>	<ul style="list-style-type: none"> <li>WG-EAFFM will continue to make progress on the EAF Roadmap and consider its potential utility in informing management decisions by the COM.</li> <li>WG-EAFFM will reconsider the terminology used in the Ecosystem Summary Sheets in order to provide clarity and avoid potential confusion with standard terminology in fisheries management.</li> <li>SC will continue to refine its work under the EAF Roadmap, including testing the reliability of the ecosystem production</li> </ul>

1 Short-term (ST) is designated as 1-2 years, medium-term (MT) as 2-3 years, and long-term (LT) as more than 3 years; with ST in general being considered high priority items.

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
							<ul style="list-style-type: none"> <li>• The SC continue to refine its work under the ecosystem approach road map, including testing the reliability of the ecosystem production potential model and other related models, and to report on these results to the WG-EAFFM to further develop how it may apply to management decisions.</li> <li>• WG-EAFFM work to reconsider the terminology used in the Ecosystem Summary Sheets in order to avoid potential confusion with standard terminology in fisheries management, as well as considering their potential ability to inform management decisions.</li> <li>• The WG-EAFFM met in October 2018. The WG discussed the terminology in the ESS and next steps in the process, which would include the exploration of how the ESS and its information can be useful and, as appropriate, how to integrate the information into decision making processes, i.e. identification of where the ambiguity lies and potential to inform management decisions in the framework of the ESS</li> </ul>	<ul style="list-style-type: none"> <li>• potential model and other related models, and report on these results to the WG-EAFFM to further develop how it may apply to management decisions</li> <li>• Note also the Proposed Action for Recommendation 2.</li> </ul>

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NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
							(COM-SC EAFFM-WP 18-10).	
	In relation to the Precautionary Approach Framework, the NAFO Performance Review Panel:							
<b>2.</b> <b>III.2.b.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO assigns a high priority, including a timeline, to the review of its Precautionary Approach Framework and urges NAFO to act with precaution while awaiting the completion of this review, in particular through a commitment to follow scientific advice. [pg. 17]</li> </ul>	X (WG-RBMS)	X (WG-RBMS)			ST	The COM's request for SC advice on management in 2020 and beyond of certain stocks in Subareas 2, 3, and 4 and other matters ( <u>COM Doc. 18-20</u> ), requests SC to continue progression on the review of the NAFO PA Framework. It also requests SC to develop a 3-5 year work-plan to identify resources necessary to address issues/gaps in current scientific resources. This work-plan will consider the priority of the review of the PAF.	<ul style="list-style-type: none"> <li>COM and SC will review the steps to be undertaken in completing the review of the Precautionary Approach (PA) Framework and develop a timeline for its completion.</li> <li>CPs asked to provide resources to facilitate the SC review of the PA Framework.</li> </ul>
<b>3.</b> <b>III.2.b.2</b>	<ul style="list-style-type: none"> <li>Recommends that NAFO includes 'data-poor' stocks in the Precautionary Approach Framework. [pg. 17]</li> </ul>	X (WG-RBMS)	X (WG-RBMS)			MT/ST	WG-RBMS, at its April 2015 meeting ( <u>FC-SC Doc. 15-02</u> ) recommended that SC gives a high priority to development of reference points for all stocks which lack them. This recommendation was adopted by FC and SC at the Sept. 2015 Annual Meeting ( <u>FC-SC Doc. 15-04</u> )	<ul style="list-style-type: none"> <li>SC will continue to give high-priority to the development of reference points for all stocks which lack them (MT).</li> <li>WG-RBMS will consider the inclusion of data-poor stocks in its review of the PA Framework (ST).</li> </ul>
	In relation to data collection and sharing, the NAFO Performance Review Panel:							



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
4. III.3.1	<ul style="list-style-type: none"> <li>Recommends NAFO implements the applicable outcomes of the catch estimates methodology study once completed, continue the work of CESAG and utilize Scientific observer data. [pg. 20]</li> </ul>	X (CESAG)	X (CESAG)		X	ST	<p>CESAG will meet in late February 2019 to review and discuss the draft final report from MRAG Americas on the Catch Estimates Methodology Study.</p>	<ul style="list-style-type: none"> <li>CESAG will continue to provide oversight in the implementation of the catch estimation strategy and provide recommendations to the COM on ongoing refinement.</li> <li>CESAG will consider the findings of the catch estimates methodology study and assess its applicability to the work of CESAG and other NAFO sub-bodies.</li> </ul>
5. III.3.2	<ul style="list-style-type: none"> <li>Recommends NAFO agrees on a means to respond to instances of non-compliance by a Contracting Party with its reporting requirements, including logbook data. [pg. 20]</li> </ul>	X (STACTIC)				ST	<p>A formal follow-up procedure regarding haul-by-haul submissions was adopted at the Sept. 2018 Annual Meeting (<a href="#">COM Doc. 18-27</a>).</p>	<ul style="list-style-type: none"> <li>SEC, working with STACTIC, will identify the key reporting requirements and develop a report on applicable submission rates, with a view to examining submissions by CPs and identifying instances of non-compliance.</li> <li>SEC will implement the formal follow-up procedure adopted by the COM in Sept. 2018 with respect to late submissions or non-submissions of haul-by-haul data by CPs.</li> </ul>
6. III.3.3	<ul style="list-style-type: none"> <li>Recommends NAFO implements measures to ensure that fisheries research data, including fisheries survey data used by the Scientific Council, is complete and available for peer review in accordance with established scientific</li> </ul>		X			ST		<ul style="list-style-type: none"> <li>SC will endeavor as part of its working procedures to have all of its scientific assessment input data held by the SEC.</li> </ul>

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NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
	publication standards. [pg. 20]							
7. III.3.4	<ul style="list-style-type: none"> <li>Recommends NAFO assesses whether the discard data collected on the basis of daily electronic catch reporting is sufficient in order to support a future discards policy. [pg. 20]</li> </ul>	X (WG-BDS/ STACTIC)				MT	<p>The report of the May 2018 meeting of the WG-BDS (<a href="#">COM Doc. 18-04</a>) includes agreement that the SEC will prepare a work-plan for the bycatch and discard analyses of the available data.</p> <p>The chair of WG-BDS presented the WG-BDS/SEC work-plan to COM at the Sept. 2018 Annual Meeting (COM BDS-WP 18-02) and indicated that a coordinated work plan is being developed with the STACTIC Chair.</p>	<ul style="list-style-type: none"> <li>As per the Action Plan in the Management and Minimization of Bycatch and Discards (<a href="#">COM Doc. 17-26</a>), SEC and WG-BDS will complete task 1.3, which pertains to data completeness and identification of gaps, by Sept. 2019.</li> <li>To support task 1.3, the SEC will continue its analysis of the available bycatch and discard data, including haul by haul data (beginning from 2016), and identify trends, patterns, anomalies, and data gaps. The SEC will provide regular updates to the WG-BDS in the form of progress reports and seek clarification and direction from the WG-BDS as warranted.</li> <li>WG-BDS will provide guidance and direction to the SEC in completing its work-plan, as required, and review/consider the work-plan results once completed, including appropriate actions to refer to STACTIC.</li> </ul>
	In relation to the consistency of conservation and management decisions with scientific advice, the NAFO Performance Review Panel:							



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
8. III.4.a.1	<ul style="list-style-type: none"> <li>Recommends the Commission, as a matter of high priority, follows the Scientific Council advice and implements its multi-annual management strategies and plans in a consistent manner. [pg. 22]</li> </ul>	X				ST		<ul style="list-style-type: none"> <li>COM will continue to take decisions that are consistent with SC advice and implement its multi-annual management strategies and plans in a consistent manner.</li> <li>Note also the Proposed Action for Recommendation 10.</li> </ul>
9. III.4.a.2	<ul style="list-style-type: none"> <li>Recommends NAFO adopts and implements a multi-annual schedule/planning for the delivery of advice, applicable over a cycle of at least five (5) years, including timelines for the various tasks required. Requests for advice outside the agreed planning should only be accepted in exceptional circumstances. [pg. 22]</li> </ul>	X	X			ST	The COM's request for SC advice on management in 2020 and beyond of certain stocks in Subareas 2, 3, and 4 and other matters, requests SC to develop a 3-5 year work-plan to identify resources necessary to address issues/gaps in current scientific resources ( <a href="#">COM Doc. 18-20</a> ).	<ul style="list-style-type: none"> <li>As per <a href="#">COM Doc. 18-20</a>, SC will take the first steps to develop a 3-5 year work-plan, which reflects requests arising from the 2018 Annual Meeting, other multi-year stock assessments and other scientific inquiries already planned for the near future. The work plan should identify the resources necessary to successfully address these issues, gaps in current resources to meet those needs, and proposed prioritization by the SC of upcoming work based on those gaps.</li> <li>COM will continue to implement its multi-annual schedule/planning for the request and delivery of advice and consider adjustments to the schedule if warranted.</li> </ul>

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NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
<b>10.</b> <b>III.4.a.3</b>	<ul style="list-style-type: none"> <li>Recommends NAFO publishes annually a comparison between decisions adopted and the relevant scientific advice. [pg. 22]</li> </ul>			X		ST		<ul style="list-style-type: none"> <li>SEC will publish a table on the NAFO website and/or in the NAFO Annual Report that compares the decisions adopted by the COM and the relevant scientific advice.</li> <li>Note also the Proposed Action for Recommendation 8.</li> </ul>
	In relation to the adoption of consistent/compatible management measures, the NAFO Performance Review Panel:							
<b>11.</b> <b>III.4.b.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO develops mechanisms for the application of Article VI.11 of the Convention. [pg. 23]</li> </ul>	X				LT		<ul style="list-style-type: none"> <li>Coastal States to communicate to NAFO on management measures important to ensuring the long-term conservation and sustainable use of the fishery resources in the Regulatory Area, as determined by the coastal State to facilitate the application of Article VI.11 of the Convention.</li> </ul>
	In relation to the allocation of fishing opportunities, the NAFO Performance Review Panel:							



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
12. III.4.c.1	<ul style="list-style-type: none"> <li>Recommends NAFO revisits the allocation of new fishing opportunities, should a change in circumstances justify it. [pg. 24]</li> </ul>	X				LT		<ul style="list-style-type: none"> <li>CPs will continue to facilitate fishing opportunities using existing mechanisms within NAFO, such as chartering arrangements and quota transfers.</li> <li>COM will consider the allocation of new fishing opportunities should NAFO establish TACs in the future for stocks not currently under its regulation (i.e. those stocks not currently included in Annexes I.A and I.B of the NAFO Conservation and Enforcement Measures).</li> </ul>
	In relation to previously unregulated and exploratory fisheries, the NAFO Performance Review Panel:							
13. III.4.d.1	<ul style="list-style-type: none"> <li>Recommends NAFO establishes conservation and management measures for Splendid Alfonsino in Subarea 6, at the earliest opportunity. [pg. 24]</li> </ul>	X	X			ST	At the Sept. 2018 Annual Meeting, no consensus was reached by the COM on a new management measure for Splendid Alfonsino in SA 6. In consideration of the scientific advice pertaining to this stock, a request was made to SC to provide the map and coordinates of the Kükenthal Peak in Division 6G, a part of the Corner Rise seamount chain, where alfonsino fishing occurs.	<ul style="list-style-type: none"> <li>SC will continue to provide scientific advice with respect to Splendid Alfonsino upon request by the COM.</li> <li>COM notes the Proposed Action of Recommendation 8 and will continue to consider appropriate conservation and management measures for Splendid Alfonsino in Subarea 6.</li> </ul>
	In relation to the conservation of marine biodiversity and the minimization of harmful fishing							

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NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
	impacts on marine ecosystems, the NAFO Performance Review Panel:							
<b>14.</b> <b>III.4.e.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO assesses means of minimizing or eliminating harmful impacts of fishing surveys on Vulnerable Marine Ecosystems within closed areas. [pg. 26]</li> </ul>	X (WG-EAFFM)	X (WG-EAFFM)			ST	<p>The following recommendation by WG-EAFFM was adopted by the COM in Sept. 2018 (<a href="#">COM Doc.18-16</a>):</p> <ul style="list-style-type: none"> <li>In relation to the evaluation of impact of scientific trawl surveys on VMEs in closed areas, Contracting Parties consider possible options for non-destructive regular monitoring within closed areas, bearing in mind cost implications and the utility of data collected for provision of advice.</li> </ul>	<ul style="list-style-type: none"> <li>SC will 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.</li> <li>As per <a href="#">COM Doc. 18-16</a>, CPs will consider possible options for non-destructive regular monitoring within closed areas, bearing in mind cost implications and the utility of data collected for provision of advice.</li> </ul>
<b>15.</b> <b>III.4.e.2</b>	<ul style="list-style-type: none"> <li>Recommends NAFO establishes codes for Vulnerable Marine Ecosystem indicator species to facilitate reporting of encounters. [pg. 26]</li> </ul>	X (WG-EAFFM/ STACTIC)	X (WG-EAFFM)	X		ST/MT	<p>The following recommendations were adopted by COM and SC in Sept. 2018 (<a href="#">COM-SC Doc.18-06</a>):</p> <ul style="list-style-type: none"> <li>In relation to FAO three letter codes for VME indicator species, the existing taxa list in Annex I.E. Part VI of the NCEM be updated with the FAO ASFIS codes as listed in Annex 4 of this report.</li> <li>The Scientific Council review the proposed revisions to Annex I.E. Part VI as reflected in COM-SC EAFFM-WP 18-01, and to</li> </ul>	<p>As per <a href="#">COM-SC Doc. 18-06</a>:</p> <ul style="list-style-type: none"> <li>In relation to FAO three letter codes for VME indicator species, the existing taxa list in Annex I.E. Part VI of the NCEM will be updated with the FAO ASFIS codes as listed in <a href="#">COM-SC Doc. 18-03</a> (ST).</li> <li>SC will review the proposed revisions to Annex I.E. Part VI as reflected in COM-SC EAFFM-WP 18-01 and compare the consistency of the list of taxa in that Annex to the VME species guide with a view to</li> </ul>



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
							<p>compare the consistency of the list of taxa in that Annex to the VME species guide with a view to recommend updates, as necessary.</p> <ul style="list-style-type: none"> <li>The Secretariat to work with the FAO to develop new ASFIS codes, as necessary, for those taxa listed in Annex 1.E Part VI.</li> </ul>	<p>recommend updates, as necessary (ST).</p> <ul style="list-style-type: none"> <li>SEC will work with FAO to develop new ASFIS codes, as necessary, for those taxa listed in Annex 1.E Part VI (MT).</li> </ul>
<b>16.</b> <b>III.4.e.3</b>	<ul style="list-style-type: none"> <li>Recommends NAFO reviews data available from observers reports and other possible sources that would help identify why encounters with Vulnerable Marine Ecosystems have not been reported to date. [pg. 26]</li> </ul>	X (STACTIC)				ST		<ul style="list-style-type: none"> <li>STACTIC will further examine and assess fishing activities of vessels in and around VMEs and whether these activities are accurately reported.</li> <li>Proposed actions for PRP recommendation #15 could potentially facilitate the catch reporting of VME indicator species.</li> </ul>
	In relation to minimizing pollution, waste, discards, lost and abandoned gear and impacts on non-target species, the NAFO Performance Review Panel:							
<b>17.</b> <b>III.4.f.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO ensures the implementation of the Action Plan on discards by the stipulated target date in 2021 and establishes measures in the shorter-term to minimize or eradicate high-grading practices. [pg. 27]</li> </ul>	X (WG-BDS/ STACTIC)	X	X		ST/MT	<p>The following WG-BDS recommendations were adopted by COM in Sept. 2018 (<a href="#">COM Doc. 18-22</a>):</p> <ul style="list-style-type: none"> <li>The Commission and Scientific Council, and their subsidiary bodies, as well as the Secretariat, move forward with full implementation of the</li> </ul>	<p>As per <a href="#">COM Doc. 18-22</a>:</p> <ul style="list-style-type: none"> <li>COM and SC, and their subsidiary bodies, as well as the SEC, will move forward with the full implementation of the Action Plan (<a href="#">COM Doc. 17-26</a>) (MT).</li> <li>CPs are encouraged to explore with respective industry representatives the reasons</li> </ul>

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
							<p>Action Plan in the Management and Minimization of Bycatch and Discards (<u>COM Doc. 17-26</u>).</p> <ul style="list-style-type: none"> <li>Contracting Parties be encouraged to explore with their respective industry representatives the reasons for discards and bycatch and report back to the Working Group at its next meeting. To the extent possible, this information should seek to identify specific times, areas, fisheries and/or other factors.</li> <li>STACTIC review existing NAFO observer and haul-by-haul reporting requirements to consider enhancements that would provide specific information related to the rationale for discards.</li> </ul>	<p>for discards and bycatch and report back to the WG-BDS at its next meeting. To the extent possible, this information should seek to identify specific times, areas, fisheries and/or other factors (ST).</p> <ul style="list-style-type: none"> <li>STACTIC will review existing NAFO observer and haul-by-haul reporting requirements to consider enhancements that would provide specific information related to the rationale for discards. (ST)</li> </ul>
18. III.4.f.2	<ul style="list-style-type: none"> <li>Urges NAFO gives effect to Article III of the amended Convention in respect of minimizing other harmful impacts such as pollution and waste originating from fishing vessels, catch of species not subject to a directed fishery and impacts on associated or dependent species, in particular endangered</li> </ul>	X (STACTIC/ WG-BDS)				ST/MT	<ul style="list-style-type: none"> <li>STACTIC will continue discussions and deliberations on its work regarding garbage disposal onboard fishing vessels (ST).</li> <li>COM, STACTIC, and WG-BDS will consider the feasibility of measures to minimize bycatch and discards as part of the Action Plan in the Management and</li> </ul>	

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
	species. [pg. 27]							Minimization of Bycatch and Discards (COM Doc. 17-26) (MT).
	In relation to reporting requirements, the NAFO Performance Review Panel:							
<b>19.</b> <b>III.6.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO develop a user-friendly data manual. [pg. 29]</li> </ul>	X (STACTIC)		X		ST		<ul style="list-style-type: none"> <li>SEC, working work with STACTIC, will compile an inventory of data reporting requirements.</li> </ul>
<b>IV. Compliance and Enforcement</b>								
	In relation to flag State duties, the NAFO Performance Review Panel:							
<b>20.</b> <b>IV.1.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO calls on all Contracting Parties to carry out self-assessments of flag State performance in accordance with the criteria set out in the FAO Voluntary Guidelines for Flag State Performance. Reports of the self-assessments should be submitted to STACTIC in order for it to present a summary report to the Commission. [pg. 30]</li> </ul>	X (STACTIC)			X	ST		<ul style="list-style-type: none"> <li>STACTIC will review criteria set out in FAO Voluntary Guidelines for Flag State Performance and provide input on this matter to COM.</li> </ul>
<b>21.</b> <b>IV.1.2</b>	<ul style="list-style-type: none"> <li>Recommends NAFO amends the NAFO Conservation and Enforcement Measures in order to clarify, rectify and harmonize references to the duties of the Contracting Parties as flag States. [pg. 31]</li> </ul>	X (STACTIC)				ST		<ul style="list-style-type: none"> <li>STACTIC will discuss how the NAFO Conservation and Enforcement Measures could be amended to clarify, rectify, and harmonize references to the duties of the CPs as Flag States.</li> </ul>

## Report of the NAFO Commission, 23-27 September 2019

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
	In relation to Monitoring Control and Surveillance, the NAFO Performance Review Panel:							
<b>22.</b> <b>IV.3.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO evaluates and adopts appropriate measures to deter repeat serious non-compliance. [pg. 32]</li> </ul>	X (STACTIC)				ST		<ul style="list-style-type: none"> <li>STACTIC will continue discussions and deliberations regarding measures to deter repeat non-compliance of serious infringements that could be considered for adoption by the COM.</li> </ul>
<b>23.</b> <b>IV.3.2</b>	<ul style="list-style-type: none"> <li>Recommends NAFO urges Contracting Parties to become parties to the International Labour Organization (ILO) Work in Fishing Convention No. 188. [pg. 32]</li> </ul>	X			X	ST		<ul style="list-style-type: none"> <li>NAFO will encourage CPs to become parties to the International Labour Organization (ILO) Work in Fishing Convention No. 188.</li> </ul>
	In relation to follow-up on infringements, the NAFO Performance Review Panel:							
<b>24.</b> <b>IV.3.3</b>	<ul style="list-style-type: none"> <li>Recommends NAFO urges Contracting Parties to increase their efforts in ensuring timely follow-up to infringements. [pg. 33]</li> </ul>	X (STACTIC)			X	ST		<ul style="list-style-type: none"> <li>COM will encourage CPs to ensure a timely and effective follow-up on infringements, and to report regularly on action taken as foreseen by Article 37 of NCEM.</li> <li>In cases where action is pending, CPs will provide regular and substantive update reports to the extent possible.</li> <li>STACTIC will continue to report on Dispositions of Apparent Infringements reported by Contracting</li> </ul>



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
								Parties in its Annual Compliance Review.
<b>V. Governance</b>								
	In relation to transparency, the NAFO Performance Review Panel:							
<b>25.</b> <b>V.3.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO reorganizes its website library based on the topics covered. [pg. 36]</li> </ul>			X		ST		<ul style="list-style-type: none"> <li>SEC will continue its work to reorganize the NAFO website library based on the topics covered.</li> </ul>
<b>26.</b> <b>V.3.2</b>	<ul style="list-style-type: none"> <li>Recommends NAFO makes all working documents publicly available, unless otherwise requested by a Contracting Party or subject to confidentiality rules. [pg. 36]</li> </ul>	X	X	X		ST	As noted in correspondence NAFO/19-036, the NAFO public website will now include GC documents and STACFAD working papers, with the exception of documents dealing with matters deemed confidential.	<ul style="list-style-type: none"> <li>SEC will make COM documents and STACFAD working papers publicly available on the NAFO website, with the exception of documents dealing with matters deemed confidential.</li> </ul>
<b>VI. Science</b>								
	In relation to science, the NAFO Performance Review Panel:							
<b>27.</b> <b>VI.2.1</b>	<ul style="list-style-type: none"> <li>Recommends NAFO decides the level of acceptable risk regarding the outcomes of conservation and management measures, following a dialogue between Commission and SC, to provide the latter with guidance in its advisory work. [pg. 44]</li> </ul>	X (WG-RBMS)	X (WG-RBMS)			ST	The COM's request for SC advice on management in 2020 and beyond of certain stocks in Subareas 2, 3, and 4 and other matters, requests that in keeping with the NAFO PA Framework, the advice should be provided as a range of management options and a risk analysis for each option (rather	<ul style="list-style-type: none"> <li>In keeping with NAFO's PA Framework, SC should (where possible) provide advice as a range of management options and a risk analysis for each option, allowing managers to decide on appropriate risk levels on a case-by-case basis.</li> <li>COM will continue to provide SC guidance and clarity</li> </ul>

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
							than a single TAC recommendation) and the actual risk level should be decided upon by managers ( <a href="#">COM-Doc 18-20</a> ).	regarding the range of risk levels to be evaluated with respect to the outcomes of conservation and management measures.
<b>28.</b> <b>VI.2.2</b>	<ul style="list-style-type: none"> <li>Recommends NAFO develops and publishes an advisory decision-making framework to ensure advice is linked explicitly to policy objectives, is consistent and its basis is transparent. [pg. 44]</li> </ul>	X	X			ST		<ul style="list-style-type: none"> <li>COM will continue to include the SC advice on fish stocks and the record of COM decisions in the Annual Meeting reports, and additionally include the associated rationale for the decisions.</li> </ul>
<b>29.</b> <b>VI.2.3</b>	<ul style="list-style-type: none"> <li>Recommends NAFO, as a matter of high priority, develops a plan and implements steps to match the scientific resources to the workload. [pg. 44]</li> </ul>	X	X		X	ST	The COM's request for SC advice on management in 2020 and beyond of certain stocks in Subareas 2, 3, and 4 and other matters, requests SC to develop a 3-5 year work-plan to identify resources necessary to address issues/gaps in current scientific resources ( <a href="#">COM Doc 18-20</a> ).	<ul style="list-style-type: none"> <li>As per <a href="#">COM Doc. 18-20</a>, SC will take the first steps to develop a 3-5 year work-plan, which reflects requests arising from the 2018 Annual Meeting, other multi-year stock assessments and other scientific inquiries already planned for the near future. The work plan should identify the resources necessary to successfully address these issues, gaps in current resources to meet those needs, and proposed prioritization by the SC of upcoming work based on those gaps.</li> <li>COM will review the SC's work-plan once completed and use as a basis for informing the establishment of work priorities, reflective of</li> </ul>



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
								the resources available to complete the work.
30. VI.2.4	<ul style="list-style-type: none"> <li>Recommends NAFO implements a peer review process for the science underlying the SC advice and applies it consistently to all SC science used in advice. [pg. 44]</li> </ul>		X			ST		<ul style="list-style-type: none"> <li>SC will continue to enhance the external peer-review of the methods and basis of SC advice to ensure consistency with best scientific practices.</li> </ul>
31. VI.2.5	<ul style="list-style-type: none"> <li>Recommends the Secretariat conducts a survey of usage and identify further improvements to the public outreach documents relating to the state of NAFO stocks and NAFO science available on the NAFO website. [pg. 44]</li> </ul>			X		ST		<ul style="list-style-type: none"> <li>SEC will conduct a survey of usage and identify further improvements to the public outreach documents relating to the state of NAFO stocks and NAFO science available on the NAFO website.</li> </ul>
<b>VII. International Cooperation</b>								
	In relation to cooperation with other international organizations, the NAFO Performance Review Panel:							
32. VII.2.1	<ul style="list-style-type: none"> <li>Recommends NAFO strengthens and enhances cooperation with RFMOs and other relevant international organizations. [pg. 46]</li> </ul>	X	X	X		MT/ST		<ul style="list-style-type: none"> <li>COM should consider appropriate mechanisms to strengthen and enhance cooperation with RFMOs and other relevant international organizations (MT).</li> <li>NAFO will maintain existing relationships and cooperation with RFMOs (ST).</li> <li>SEC will maintain existing dialogue with RFMOs and</li> </ul>

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NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
								other relevant international organizations (ST).
33. VI.2.2	<ul style="list-style-type: none"> <li>Recommends NAFO assesses how it can contribute its expertise to international developments, in particular the completion of the Aichi Targets and the Intergovernmental Conference on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. [pg. 46]</li> </ul>	X	X	X	X	ST/MT		<ul style="list-style-type: none"> <li>SEC will continue to participate in relevant forums where feasible and contribute NAFO's expertise to international developments and will report to the COM on such participation (ST).</li> <li>CPs are encouraged to participate in relevant forums to share their expertise with respect to international developments (MT).</li> </ul>
	In relation to special requirements of developing countries, the NAFO Performance Review Panel:							
34. VI.3.1	<ul style="list-style-type: none"> <li>Recommends NAFO participates in capacity building initiatives for developing countries. [pg. 46]</li> </ul>	X		X		ST		<ul style="list-style-type: none"> <li>NAFO will continue to take part in capacity building initiatives inter alia, the sharing of NAFO knowledge and experience in fisheries management, science and governance.</li> </ul>
<b>VIII. Finance and Administration</b>								
	In relation to finance and administration, the NAFO Performance Review Panel:							
35. VII.1	<ul style="list-style-type: none"> <li>Recommends NAFO develops an annual operational plan for the NAFO Secretariat outlining key objectives and</li> </ul>	X (STACFAD)		X		ST		<ul style="list-style-type: none"> <li>SEC will develop a draft operational plan to be presented/discussed in STACFAD. The draft</li> </ul>



NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIORITY <sup>1</sup>	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
	specifying resources required to meet these objectives. [pg. 48]							operational plan should be shared with CPs and STACFAD in advance of the Annual Meeting.
<b>36.</b> <b>VII.2</b>	<ul style="list-style-type: none"> <li>Recommends NAFO initiates a process to design a new visual identity for NAFO that reflects the role and responsibilities of the Organization. [pg. 48]</li> </ul>	X (STACFAD)		X		ST		<ul style="list-style-type: none"> <li>COM will request SEC to present options for a process to design a new visual identity for NAFO, including associated costs, and present these options to the COM/STACFAD for consideration.</li> </ul>

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In addition, considering that the cumulative impact of various human activities beyond the mandate of NAFO on the marine environment is mentioned by the 2018 Performance Review Panel among the significant external challenges for the long-term conservation and sustainable use of the fisheries resources, the **Commission recommends** that:

NUMBER/ CHAPTER REF.	RECOMMENDATION	LEAD NAFO BODY				PRIOR ITY	CURRENT STATUS	PROPOSED ACTION
		COM	SC	SEC	CPs			
	<ul style="list-style-type: none"> <li>Contracting Parties be encouraged to share any relevant research they have completed with the Scientific Council;</li> <li>Scientific Council monitor and provide regular updates on relevant research related to the potential impact of activities other than fishing in the Convention Area, such as oil exploration, shipping and recreational activities, and how they may impact the stocks and fisheries as well as biodiversity in the Regulatory Area.</li> </ul>	X (WG-EAFFM)	X (WG-EAFFM)		X	ST	<ul style="list-style-type: none"> <li>Contracting Parties encouraged to share relevant research they have completed with the Scientific Council.</li> <li>SC will monitor and provide regular updates on relevant research related to the potential impact of activities other than fishing in the Convention Area, such as oil exploration, shipping and recreational activities, and how they may impact the stocks and fisheries as well as biodiversity in the Regulatory Area.</li> </ul>	

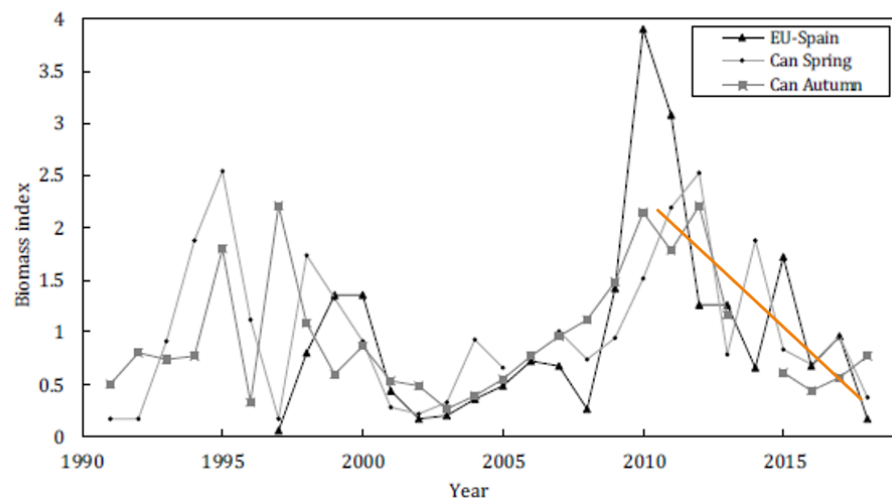
## Annex 15. Compilation of SC Response to Feedback Questions Regarding its Scientific Advice

[COM WP 19-38]

**From Norway**  
[COM WP 19-24]

### Regarding Redfish in 30

We take note of the SC statement that the average catch level of 12 000 tonnes appear to have been sustainable, but that the SC at the same time is unable to advise on a TAC for the stock for 2020-2022. We would further refer to the STACFIS section on page 188 in the SC report (SCS 19-20) where the three stock biomass index series for redfish in Div. 30 are put together in a single figure (Figure 15.4). Even though there are large year-to-year variations in the indices, there seems to be an overall declining trend since 2010 illustrated by orange line imposed on the graph below:



One might infer that the stock has declined by a factor of about 5 (from a value of around 2 to around 0.4 – reading from the graph). Does the SC consider that this decline should be a reason for concern, e.g. indicate that the recent catch levels maybe are not sustainable?

**Scientific Council  
responded:**  
[COM WP 19-33]

SC is unable to determine whether the apparent decline (noting the large uncertainty in the survey results) is due to fishing mortality, natural mortality or emigration. SC reiterates its advice that there is insufficient information on which to base predictions of annual yield potential for this resource. To mitigate against further declines the commission may consider implementing measures that do not allow catches to increase.

### Recommendation for 2020-22

There is insufficient information on which to base predictions of annual yield potential for this resource. Stock dynamics and recruitment patterns are also poorly understood. Catches have averaged about 12 000 t since the 1960s and over the long term, catches at this level appear to have been sustainable. Scientific Council is unable to advise on an appropriate TAC for 2020, 2021 and 2022.

**From the European Union  
[COM WP 19-25]**

**1. Redfish 3M**

What would be the probability of having in 2022 a biomass (SSB) level higher than the average level during the period 2002 - 2006 (14,062 t), which was estimated to produce the highest recruitments (age 4) in the time series (1989 - 2018) in the  $F_{max}$  scenario, which was one of the models provided.

**2. Non-Sponge and Non-corals VMEs**

The EU would like to ask the Scientific Council on the decision of including two additional taxa, bryozoans and sea squirts, in the reassessment of the VME closed areas at this time. The bryozoan and sea squirts in question occupy relatively shallow water habitats (~50m) on top of the Grand Bank. The FAO guidelines, that define VMEs, were primarily developed to protect deep sea sensitive species and habitats from the deleterious effects of bottom fishing activities in the high seas. As such, classifying relatively shallow water bryozoan and seasquirt assemblages as VME, or VME indicator species, implies they have the same environmental and biological characteristics as deep-sea VME, which is potentially confusing. Given the important differences known to exist between deep-sea and shallow-sea (shelf-based) ecosystem dynamics, it is important the assessment approaches and terms applied are not conflated between the two systems, including the habitats and species which they support.

**3. Humans Activities other than fishing**

In July 2019 the EU was informed about an oil spill incident that happened in the Canadian EEZ, which also affected international waters. This information also included an environmental response carried out by the competent Canadian authorities. However, following this initial information, to our knowledge Canada did not provide further update concerning the extent of the oil spill, the mitigation measures put in place and the impact in the ecosystem.

The EU would like to ask the SC about any additional information the SC might have received and whether could provide an assessment about the impact on the ecosystem and notably on the fish stocks.

**Scientific Council responded:  
[COM WP 19-34]**

**1. Redfish 3M**

There is a high probability (>90%) that, by the start of 2022, SSB should be at or above 40 713 tonnes, a level 2.9x higher than the average 2002-2006 SSB level of 14 063 tonnes associated with the highest recruitments so far recorded. However one should take into account that there is no evidence of a stock recruitment relationship for this stock (over a similar range of SSB there was much poorer recruitment in 1993 and 1994). Concern should be raised regarding the continuous decline of the exploitable stock 2014 onwards combined with a very low level of recruitment at age 4 observed since then.

**2. Non-Sponge and Non-corals VMEs**

The decision to include non-coral and non-sponge VMEs was made in 2012 (SCS-Doc. 12-19, Pages 36-38) and has been incorporated into the VME identification guides as well as the list of VME indicators adopted by the Fisheries Commission for inclusion in the NCEM (FC-Doc, 12-31). The VME indicators on the list were all screened against the FAO guidelines. Scientific Council has already been asked to review the list. Following acceptance by NAFO, Scientific Council was asked to develop encounter protocols for bryozoans and ascidians. These taxa were included in work plans presented by the SC in 2018. Also, the FAO and ABNJ make no distinction of VMEs based on depth. There is no precedent in any RFMO of excluding indicators because they occur in shallower water. Note that all of the VME indicators have been identified in shallow areas (e.g. this also applies to Lophelia reefs which live in Oslo fjord).

Because many of the species are widespread SC has developed methods to identify significant concentrations. Those methods have been applied to the species groups in question and Scientific

Council has located some key areas of high densities. The work continues and will be assessed using the same criteria that were used to determine the location of significant areas of coral and sponge VME, and whether they are at risk. It is essential if NAFO is to provide a thorough assessment of the risk to VMEs that are appropriate to meet UNGA resolutions (61/105, 64/72, 66/68).

NAFO may wish to consider indicator lists from other RFMOs and/or NAFO Coastal States, to ensure that NAFO's list of VME indicators is comprehensive.

If there are new objective, scientifically sound data available that bryozoans and ascidians are not VME indicators, SC will review that evidence at a future meeting.

### 3. Humans Activities other than fishing

The SC has not received official documentation about this environmental accident. The available information about oil spills is supplied by the website of the C-NLOPB informing about the occurrence of accidental oil discharges, but do not contain scientific information on impacts on the water quality, biota or in the ecosystems. The dimension of the spill is not documented and their spread in the marine environment unknown. Furthermore, there is no information on mitigation measures and/or remediation actions taken after the spill.

SC reiterates its response to Commission request #15.

Denmark (in respect of the Faroe Islands and Greenland) has the following questions regarding 3M cod for clarification by the Scientific Council, to the extent possible, during the Annual Meeting.

**From Denmark (in respect of the Faroe Islands and Greenland)**  
[COM WP 19-30]

- How is recruitment linked to the size of the stock? Is there a clear relationship between the size of the Spawning Stock Biomass and the level of recruitment?
- The advice last year indicated that  $\frac{3}{4}$ Flim would provide a yield of 12.359 tonnes for 2020. The advice this year suggests a yield of 8.531 in 2020 if  $\frac{3}{4}$ Flim is applied. What has changed since 2018 to result in such a different figure?
- Two technical measures apply to cod in the RA: 130 mm minimum mesh size and 41 cm minimum length. To what extent has the Scientific Council considered other measures that could help conserve the SSB of 3M cod, such as area and time-based measures and the use of sorting grids in trawls.

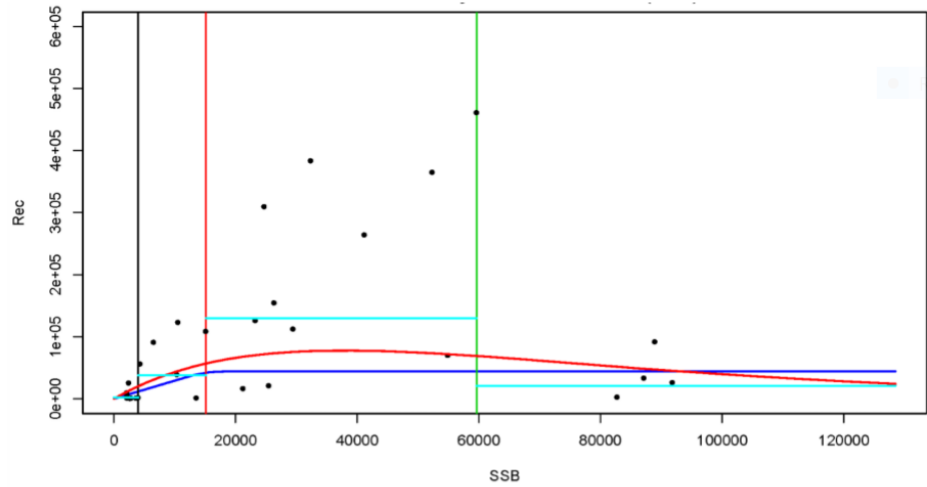
**Scientific Council responded:**  
[COM WP 19-35]

- *How is recruitment linked to the size of the stock? Is there a clear relationship between the size of the Spawning Stock Biomass and the level of recruitment?*

#### SC responded:

There is no clear relationship between the size of the spawning stock and recruitment. During the 3M cod MSE process, a number of possible stock recruit relationships were considered, including a segmented regression with a break point at  $B_{lim}$ , a Ricker curve either fitted to the entire time series or excluding years with very low recruitment values, and geometric means of recruitment within a number of separate SSB bins (with break points at fixed values of SSB, specified quantiles, or corresponding to

SSB in specific years). For all the fitted relationships, the fits were poor with particularly large positive residuals in the mid-range of SSB:



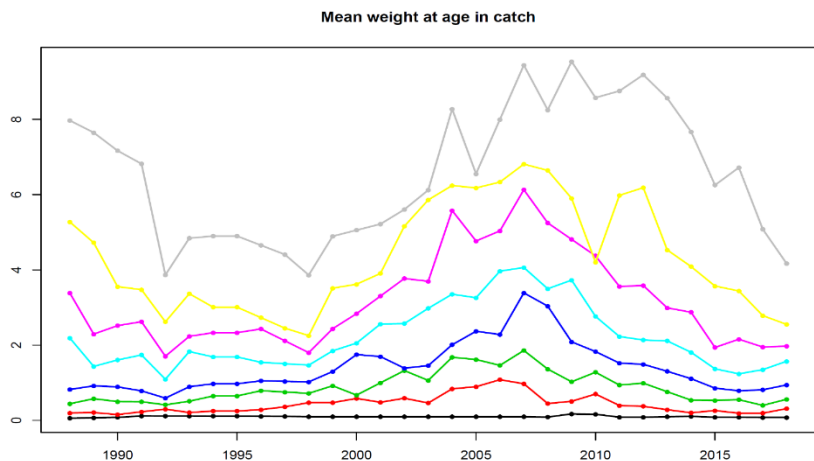
**Figure 5.** Historical SSB/recruit pairs (posterior medians) for the base case OM, with the SSB divided into bins with cut-offs at SSB<sub>1997</sub> (black line), SSB<sub>2007</sub> (red) and SSB<sub>2010</sub> (green). A segmented regression with a break point at SSB<sub>2007</sub> and a Ricker curve fitted to years with SSB > SSB<sub>1997</sub> are shown by the dark blue and red fitted lines respectively. The sky blue lines represent the geometric mean of historical recruitment within each SSB bin.

Source: NAFO, 2019. NAFO Scientific Council Flemish Cap (NAFO Div. 3M) Cod Stock Management Strategy Evaluation (MSE). NAFO SCS Doc. 19/04, Serial No N6911.

- *The advice last year indicated that ¾Flim would provide a yield of 12.359 tonnes for 2020. The advice this year suggests a yield of 8.531 in 2020 if ¾Flim is applied. What has changed since 2018 to result in such a different figure?*

**SC responded:**

The rapid change of the biological parameters of the 3M cod makes very difficult to predict the future state of the stock. During recent years the mean weight at age, both in stock and in catch, have been declining, as we can see in the next Figure:





During the 2018 SC meeting, to get the projected catch for the beginning of 2020, the 2017 mean weight-at-age was taken, whereas during the 2019 SC meeting the 2018 mean weight-at-age was used. So, for example, for the 8+ age, that in the last year was the most abundant in the stock, for the 2018 projection a weight of 5.1 kg was used, while for the 2019 projection that weight was 4.2 kg. This means that even with the same numbers-at-age, the biomass from one year to the other has highly decreased, and so the possible yield, even with the same level of F.

Other factors affect the projected yield from one year for the next, including estimated selectivity.

Furthermore, in the 2018 assessment updated ageing data were not available and therefore 2017 results were applied. In the 2019 assessment these data were available and resulted in changes to the age composition of the projected yield in 2020.

- *Two technical measures apply to cod in the RA: 130 mm minimum mesh size and 41 cm minimum length. To what extent has the Scientific Council considered other measures that could help conserve the SSB of 3M cod, such as area and time-based measures and the use of sorting grids in trawls.*

In 2015 the Commission requested the SC to analyze and provide advice on management measures that could improve selectivity in the Div. 3M cod and Div. 3M redfish fisheries in the Flemish Cap in order to reduce possible by catches and discards.

The Scientific Council responded: The implementation of sorting-grids in the Div. 3M cod fishery gear will reduce catch of small and immature individuals of cod. These devices would to a large extent prevent catches of individuals less than MLS (41 cm) and have the advantage also of reducing redfish by-catches and thereby reduce discards. It is estimated that by introducing sorting grids, the actual Fmsy value and the equilibrium yield (catches) would increase but it should have a small impact in the equilibrium SSB. To quantify these improvements more precisely, selectivity experiments with the modified gears needs to be performed in the Flemish Cap area.

The SC also noted that other measures to avoid excessive catch of juveniles could be considered, e.g. the closure of the areas at less than 400 meters depth where these fish are more abundant. The effect in the exploitation pattern of this technical measure should be similar to the implementation of the 135 mm codend with sorting grids. However, this measure could increase the by-catch of redfish as this species is more abundant in depths more than 400 meters. Another problem of implementing these closures would be the effort concentration in small areas.

*Source: NAFO, 2015. Report of the Scientific Council Meeting. NAFO SCS Doc. 15/12, Serial No N6469.*

**From European  
Union  
[COM WP 19-31]**

**Regarding Alfonsinos**

- Scientific advice recommends closing this fishery, based on a sharp decline on catches and CPUE in recent years. Although we understand the sensitivity of these indicators, we would like to understand the process based on which scientific advice is produced in a context of limited data, such in this case, and also, if in previous experiences other fisheries were also closed using CPUE as the only indicator.
- According to SC report, the EU also supports some sort of scientific data collection to be carried out concerning the stock of Alfonsinos, through trawl acoustic surveys, or any other relevant scientific mechanism that SC may consider appropriate, in order to make a future

assessment of the stock. In this regard, the EU requests from the SC what type of scientific information would be required in order to carry out such assessment of this stock.

**Scientific Council  
responded:  
[COM WP 19-36]**

- *Scientific advice recommends closing this fishery, based on a sharp decline on catches and CPUE in recent years. Although we understand the sensitivity of these indicators, we would like to understand the process based on which scientific advice is produced in a context of limited data, such in this case, and also, if in previous experiences other fisheries were also closed using CPUE as the only indicator.*

**SC responded:**

No analytical or survey-based assessment were possible. The only data available at present are the catch and effort time series. Despite the difficulties of interpreting the CPUE as an indicator of stock status and knowing that this species is easily overexploited and can only sustain low rates of exploitation, the sharp decline in CPUE to the lowest observed (92 % lower than in 2017) and catches in the last year indicate an apparent overfishing situation and that the stock may be depleted.

The alfonsino 6G stock is the only stock managed by NAFO that has only catch and effort data and no fisheries independent data. SC is aware of at least one alfonsino fishery elsewhere that has been closed using CPUE information (FAO, 2016, Wiff *et al*, 2012).

- *According to SC report, the EU also supports some sort of scientific data collection to be carried out concerning the stock of Alfonsinos, through trawl acoustic surveys, or any other relevant scientific mechanism that SC may consider appropriate, in order to make a future assessment of the stock. In this regard, the EU requests from the SC what type of scientific information would be required in order to carry out such assessment of this stock.*

**SC responded:**

There are fishery independent methods that could be explored for alfonsino, eg. acoustic or longline surveys. Protocols for survey methods should be reviewed by SC.

FAO, 2016. *Global Review of Alfonsino (Beryx Spp.), Their Fisheries, Biology and Management*. Food and Agriculture Organization of The United Nations. Rome, 2016.

Wiff, Rodrigo & Quiroz, Juan Carlos & Flores, Andrés & Gálvez, Patricio. (2012). An overview of the alfonsino (*Beryx splendens*) fishery in Chile. FAO circular de pesca.

### **Annex 16. Recommendations of the NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG), 2019**

[COM-SC WP 19-07 **now** COM-SC Doc. 19-06]

The NAFO Working Group on Improving Efficiency of NAFO Working Group Process (E-WG) met via WebEx on 05 February 2019 (COM-SC WP 19-03).

The Working Group on Improving Efficiency of NAFO Working Group Process, via e-mail correspondence, agreed on the following recommendations for consideration and adoption at the 41<sup>st</sup> Annual Meeting of NAFO, 23–27 September 2019.

**The E-WG recommends that:**

- **For the 2019-2020 NAFO year, the following two-week periods, be considered for NAFO intersessional meetings:**
  - **24 February – 06 March 2020;**
  - **27 April – 08 May 2020; and**
  - **10 August – 21 August 2020.**
- **The Working Group on Improving Efficiency of NAFO Working Group Process continue under the same Terms of Reference.**

## **Annex 17. Recommendations of the NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS), April and September 2019**

[COM-SC WP 19-08 now COM-SC Doc. 19-07]

The NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) met on:

10-12 April 2019 (COM-SC Doc. 19-01); and

**There were no recommendations from this meeting.**

21 September (COM-SC Doc. 19-05).

**On the 3M Cod MSE,**

- **WG-RBMS concludes that work in WG-RBMS on the 3M cod MSE should be suspended for the time being.**

This conclusion was reached based on the strong variability observed in the stock dynamics and biological parameters in the past, that create substantial difficulties for developing realistic future simulations and successful development of an HCR. This situation, coupled with the low recruitment observed in recent years that will likely result in a strong decline of the stock biomass even without a fishery, implies that developing an HCR is not considered feasible at this stage. Reopening this issue in WG-RBMS should occur when SC determines that conditions are such that there is a reasonable probability of success.

**On future MSE processes,**

- **Noting that significant challenges were encountered in meeting the timetables set for the MSE process for both 3M cod and 2+3LMNO Greenland halibut, and that this resulted in insufficient time being available for adequate review and documentation of the results, WG-RBMS recommends that timeframes set for future MSE processes should be realistic, taking full account of the very large amount of work required. Sufficient time and human capacity should be allowed for the development of the technical work, review, communication with relevant actors and reporting of results.**

**On 3LN Redfish,**

- **WG-RBMS recommends to the Commission that Scientific Council be asked in 2020 to do an update assessment and five-year projections (2021 to 2025) to evaluate the impact of annual removals at 18 100 tonnes against the following performance statistics (from NCEM annex I.H):**

**(a) Very low (< 10%) probability of biomass declining below  $B_{lim}$ .**

**(b) Low (< 30%) probability of fishing mortality  $>F_{msy}$**

**(c) Less than 50% probability of declining below 80%  $B_{msy}$  on or before 2026**

**if this level of catch does not result in fulfilling these performance statistics, SC should advise the level of catch that would.**

## **Annex 18. Recommendations of the NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), July 2019**

[COM-SC WP 19-09 **now** COM-SC Doc. 19-08]

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

### **The WG-EAFFM recommends that:**

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

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

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

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3-ALPHA CODE
	<i>Asconema foliatum</i>	Rossellidae	ZBA
	<i>Aphrocallistes beatrix</i>	Aphrocallistidae	
	<i>Asbestopluma</i> ( <i>Asbestopluma</i> ) <i>ruetzleri</i>	Cladorhizidae	ZAB ( <i>Asbestopluma</i> )
	<i>Axinella</i> sp.	Axinellidae	
	<i>Chondrocladia grandis</i>	Cladorhizidae	ZHD ( <i>Chondrocladia</i> )
	<i>Cladorhiza abyssicola</i>	Cladorhizidae	ZCH ( <i>Cladorhiza</i> )
	<i>Cladorhiza kenchingtonae</i>	Cladorhizidae	ZCH ( <i>Cladorhiza</i> )
	<i>Craniella</i> spp.	Tetillidae	ZCS ( <i>Craniella</i> spp.)
	<i>Dictyaulus romani</i>	Euplectellidae	ZDY ( <i>Dictyaulus</i> )
	<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	
Large-Sized Sponges (PFR - Porifera)	<i>Geodia phlegraei</i>	Geodiidae	
	<i>Haliclona</i> sp.	Chalinidae	ZHL
	<i>Iophon piceum</i>	Acarinidae	WJP
	<i>Isodictya palmata</i>	Isodictyidae	
	<i>Lissodendoryx</i> ( <i>Lissodendoryx</i> ) <i>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 ( <i>Stelletta</i> )
	<i>Stelletta tuberosa</i>	Ancorinidae	WSX ( <i>Stelletta</i> )
	<i>Stryphnus fortis</i>	Ancorinidae	WPH
	<i>Thenea muricata</i>	Pachastrellidae	ZTH ( <i>Thenea</i> )
	<i>Thenea valdiviae</i>	Pachastrellidae	ZTH ( <i>Thenea</i> )
	<i>Weberella bursa</i>	Polymastiidae	

Stony Corals (CSS - Scleractinia)	<i>Enallopsammia rostrata*</i>	Dendrophylliidae	FEY
	<i>Lophelia pertusa*</i>	Caryophylliidae	LWS
	<i>Madrepora oculata*</i>	Oculinidae	MVI
	<i>Solenosmilia variabilis*</i>	Caryophylliidae	RZT
Small Gorgonians (GGW)	<i>Acanella arbuscula</i>	Isididae	KQL (Acanella)
	<i>Anthothela grandiflora</i>	Anthothelidae	WAG
	<i>Chrysogorgia</i> sp.	Chrysogorgiidae	FHX
	<i>Metallogorgia melanotrichos*</i>	Chrysogorgiidae	
	<i>Narella laxa</i>	Primnoidae	
	<i>Radicipes gracilis</i>	Chrysogorgiidae	CZN
	<i>Swiftia</i> sp.	Plexauridae	
Large Gorgonians (GGW)	<i>Acanthogorgia armata</i>	Acanthogorgiidae	AZC
	<i>Calyptrophora</i> sp.*	Primnoidae	
	<i>Corallium bathyrubrum</i>	Coralliidae	COR (Corallium)
	<i>Corallium bayeri</i>	Coralliidae	COR (Corallium)
	<i>Iridogorgia</i> sp.*	Chrysogorgiidae	
	<i>Keratoisis</i> cf. <i>siemensii</i>	Isididae	
	<i>Keratoisis grayi</i>	Isididae	
	<i>Lepidisis</i> sp.*	Isididae	QFX (Lepidisis)
	<i>Paragorgia arborea</i>	Paragorgiidae	BFU
	<i>Paragorgia johnsoni</i>	Paragorgiidae	BFV
	<i>Paramuricea grandis</i>	Plexauridae	PZL (Paramuricea)
	<i>Paramuricea placomus</i>	Plexauridae	PZL (Paramuricea)
	<i>Paramuricea</i> spp.	Plexauridae	PZL (Paramuricea)
	<i>Parastenella atlantica</i>	Primnoidae	
	<i>Placogorgia</i> sp.	Plexauridae	
<i>Placogorgia terceira</i>	Plexauridae		
<i>Primnoa resedaeformis</i>	Primnoidae	QOE	
<i>Thouarella (Euthouarella) grasshoffi*</i>	Primnoidae		
Sea Pens (NTW – Pennatulacea)	<i>Anthoptilum grandiflorum</i>	Anthoptilidae	AJG (Anthoptilum)
	<i>Distichoptilum gracile</i>	Protoptilidae	WDG
	<i>Funiculina quadrangularis</i>	Funiculinidae	FQJ
	<i>Halipterus</i> cf. <i>christii</i>	Halipteridae	ZHX (Halipterus)
	<i>Halipterus finmarchica</i>	Halipteridae	HFM
	<i>Halipterus</i> sp.	Halipteridae	ZHX (Halipterus)
	<i>Kophobelemnion stelliferum</i>	Kophobelemnidae	KVF

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	<i>Pennatula aculeata</i>	Pennatulidae	QAC
	<i>Pennatula grandis</i>	Pennatulidae	
	<i>Pennatula</i> sp.	Pennatulidae	
	<i>Protoptilum carpenteri</i>	Protoptilidae	
	<i>Umbellula lindahli</i>	Umbellulidae	
	<i>Virgularia mirabilis</i>	Virgulariidae	
Tube-Dwelling Anemones	<i>Pachycerianthus borealis</i>	Cerianthidae	WQB
Erect Bryozoans (BZN – Bryozoa)	<i>Eucratea loricata</i>	Eucrateidae	WEL
Sea Lilies (CWD – Crinoidea)	<i>Conocrinus lofotensis</i>	Bourgueticrinidae	WCF
	<i>Gephyrocrinus grimaldii</i>	Hyocrinidae	
	<i>Trichometra cubensis</i>	Antedonidae	
Sea Squirts (SSX – 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 19. Recommendations of the NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG), 2019**

[COM-SC WP 19-10 **now** COM-SC Doc. 19-09]

The NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG) met via WebEx on the dates below and agreed on the following recommendations to forward to the NAFO Commission and Scientific Council:

30 April 2019 (COM-SC Doc. 19-02)

**The CESAG recommends that:**

1. **The Secretariat forward the CESAG feedback and direction as contained in COM-SC CESAG-WP 19-07 to MRAG Americas, Inc. following the 03 May deadline for comments.**
2. **The Secretariat forward the 2018 catch estimates as contained in COM-SC CESAG-WP 19-03 (Revised) to the Scientific Council.**
3. **the Secretariat continue deriving information as contained in COM-SC CESAG-WP 19-03 to COM-SC CESAG-WP 19-06 for the subsequent years.**
4. **CESAG re-iterates its 2017 Recommendation 5: that the Commission request that STACTIC 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 and agreed that the data analyses completed in COM-SC CESAG-WPs 19-04, 19-05 and 19-06 be forwarded to STACTIC for information.**

23 July 2019 (COM-SC Doc. 19-04)

**The CESAG recommends that:**

5. **The *Catch Estimates Methodology Study* report prepared by MRAG Americas, Inc. be accepted and made available as a public document.**
6. **The NAFO Secretariat, in coordination with the CESAG co-Chair, will consider the potential refinements to the Catch Estimation Strategy in response to the recommendation from the Scientific Council.**

## Annex 20. The Commission's Request for Scientific Advice on Management in 2021 and Beyond of Certain Stocks in Subareas 2, 3 and 4 and Other Matters

[COM WP 19-39 Rev. 4 **now** COM Doc. 19-29]

Following a request from the Scientific Council, the Commission agreed that items 1, 2, 7, 8 and 11 should be the priority for the June 2020 Scientific Council meeting.

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 (rather than a single TAC recommendation) and the actual risk level should be decided upon by managers.

Yearly basis	Two-year basis	Three-year basis
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 Greenland halibut in Div. 2+3KLMNO Cod in Div. 3NO Splendid alfonsino in SA 6

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

In 2020, advice should be provided for 2021 for Cod in 3M and Northern shrimp in 3M. With respect to Northern shrimp in 3M, SC is requested to provide its advice to the Commission prior to the 2020 Annual Meeting.

In 2020, advice should be provided for 2021 and 2022 for: Thorny Skate in 3LNO,

In 2020, advice should be provided for 2021, 2022 and 2023 for: American Plaice in 3M,

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 conduct an update assessment of Greenland halibut in Subarea 2+Div 3KLMNO and 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 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 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 NCEM with high survivability rates.

5. The Commission requests the Scientific Council to continue to refine its work under the Ecosystem Approach and report on these results to both the WGEAFFM and WGRBMS.
6. In relation to the assessment of NAFO bottom fisheries in 2021, the Scientific Council should:
  - Assess the overlap of NAFO fisheries with VME to evaluate fishery specific impacts in addition to the cumulative impacts;
  - 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 (Article 18 of the FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas) including the three FAO functional SAI criteria which could not be evaluated in the current assessment (recovery potential, ecosystem function alteration, and impact relative to habitat use duration of VME indicator species).
  - Continue to work on non-sponge and coral VMEs (for example bryozoan and sea squirts) to prepare for the next assessment.
7. The Commission requests Scientific Council to conduct a re-assessment of VME closures by 2020, including area #14.
8. The Commission requests the Scientific Council to continue progression on the review of the NAFO PA Framework.
9. The Commission requests Scientific Council continue to work with WG- BDS and the Secretariat to identify areas and times where bycatch and discards of Greenland sharks have a higher rate of occurrence. This work will support WG-BDS in developing appropriate management recommendations, including safe handling practices for live release of Greenland sharks, for consideration by the Commission at its 2021 Annual Meeting.
10. The Commission requests Scientific Council to continue to develop a 3-5 year work plan, which reflects requests arising from the 2019 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 Scientific Council do an update assessment for 3LN redfish and five year projections (2021 to 2025) to evaluate the impact of annual removals at 18 100 tonnes against the performance statistics from NCEM Annex I.H: If this level of catch does not result in fulfilling these performance statistics, SC should advise the level of catch that would.
12. The Commission request that the Scientific Council present the Ecosystem Summary Sheet for 3LNO for presentation to the Commission at the 2020 Annual Meeting.
13. The Commission request 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.
14. The COM request that the results of the stock assessment 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.

15. The Commission to ask the Scientific Council to advise on the possible sustainable management methods for northern shrimp in Div. 3M, including quota, fishing effort, periods, reporting or other technical measures. This advice should be provided before the intersessional work by the end of this year.
16. The Commission requests 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 (for example via EU ATLAS project), and where possible to consider these results in the on-going modular approach concerning the development of Ecosystem Summary Sheets.
17. The Commission requests the Scientific Council to provide advice on gear, including sorting grids, area and time-based measures that can be used to protect and improve the productivity of the 3M Cod stock.
18. 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.

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

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

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:  $2/3 F_{msy}$ ,  $3/4 F_{msy}$ ,  $85\% F_{msy}$ ,  $75\% F_{2019}$ ,  $F_{2019}$ ,  $125\% F_{2019}$ ,
- For stocks under a moratorium to direct fishing:  $F_{2019}$ ,  $F = 0$ .

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(F>F <sub>lim</sub> )			P(B<B <sub>lim</sub> )			P(F>F <sub>msy</sub> )			P(B<B <sub>msy</sub> )			P(B2022 > B2018)			
F in 2019 and following years*	Yield 2020 (50%)	Yield 2021 (50%)	Yield 2022 (50%)	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022				
																		$2/3 F_{msy}$	t
$3/4 F_{msy}$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
$85\% F_{msy}$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
$F_{msy}$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
$0.75 X F_{2018}$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
$F_{2018}$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
$1.25 X F_{2018}$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
$F=0$	t	t	t	%	%	%	%	%	%	%	%	%	%	%	%	%	%		



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:  $F_{0.1}$ ,  $F_{max}$ ,  $2/3 F_{max}$ ,  $3/4 F_{max}$ ,  $85\% F_{max}$ ,  $75\% F_{2019}$ ,  $F_{2019}$ ,  $125\% F_{2019}$ ,
- For stocks under a moratorium to direct fishing:  $F_{2019}$ ,  $F = 0$ .

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(F>F <sub>lim</sub> )			P(B<B <sub>lim</sub> )			P(F>F <sub>0.1</sub> )			P(F>F <sub>max</sub> )			P(B <sub>2022</sub> > B <sub>2018</sub> )		
F in 2019 and following years*	Yield 2020	Yield 2021	Yield 2022	2020 2021 2022			2020 2021 2022			2020 2021 2022			2020 2021 2022					
				%	%	%	%	%	%	%	%	%	%	%	%			
F <sub>0.1</sub>	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. Quota Table and the Effort Allocation Scheme for the 3M Shrimp Fishery 3M for 2020**

CATCH LIMITATIONS – Article 5. Total allowable catches (TACs) and quotas (metric tons in live weight) for 2020 of particular stocks in Subareas 1-4 of the NAFO Convention Area.

Species	Cod				Redfish					American plaice		Yellowtail
Stock Specification	COD 3L	COD 3M		COD 3NO	RED 3LN		RED 3M	RED 3O	REB 1F_2_3K (i.e. Sub-Area 2 and Divs. 1F+3K)	PLA 3LNO	PLA 3M	YEL 3LNO
% of TAC			% of 3M Cod TAC			% of 3LN Redfish TAC						
Contracting Party												
Canada		68	0.80	0	7 710	42.60	500	6 000	0 <sup>1</sup>	0	0	16 575
Cuba		316	3.70	-	1 774	9.80	1 750		0 <sup>1</sup>	-	-	-
Denmark (Faroe Islands and Greenland)		1 907	22.35	-	-		69 <sup>10</sup>		0	-	-	-
European Union		4 865 <sup>5</sup>	57.03	0 <sup>4</sup>	3 300 <sup>4</sup>	18.23	7 813 <sup>4</sup>	7 000	0 0 <sup>7</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		789	9.25	-	-		-		0	-	-	-
Russian Federation		552	6.47	0	5 207	28.77	9 137	6 500	0	-	0	-
Ukraine								150	0 <sup>1</sup>			
United States of America		-		-	-		69 <sup>10</sup>		0 <sup>1</sup>	-	-	-
Others		34	0.40	0	109	0.60	124	100	-	0	0	85
<b>TOTAL ALLOWABLE CATCH</b>	*	8 531	100.0 <sup>13</sup>	*	18 100	100.0 <sup>14</sup>	8 590	20 000 <sup>11</sup>	0 <sup>3,9</sup>	* <sup>8</sup>	*	17 000 <sup>8</sup>



Species	Witch			White hake	Capelin	Skates	Greenland halibut	Squid ( <i>Illex</i> )	Shrimp		Alfonsino
	Stock Specification	WIT 3L	WIT 3NO	HKW 3NO	CAP 3NO	SKA 3LNO	GHL 3LMNO	SQI 3_4 (i.e. Sub-areas 3+4)	PRA 3L	PRA 3NO	ALF 6 (i.e. Sub-area 6)
% of TAC			% of 3NO Witch TAC								
Contracting Party											
Canada		705	60.00	294	0	1 167	1 881	N.S. <sup>2</sup>	0		
Cuba		-			0		-	510	0		
Denmark (Faroe Islands and Greenland)		-			-		216	-	0		
European Union		156 <sup>4</sup>	13.27	588	0 <sup>5</sup>	4 408	7 353 <sup>6</sup>	N.S. <sup>2</sup> 611 <sup>5</sup>	0 <sup>6</sup>		
France (St. Pierre et Miquelon)		-			-		206	453	0		
Iceland		-			-		-	-	0		
Japan		-			0		1 286	510	0		
Korea		-			-		-	453	0		
Norway		-			0		-	-	0		
Russian Federation		302	25.73	59	0	1 167	1 600	749	0		
Ukraine							-		0		
United States of America		-			-		-	453	0		
Others		12	1.00	59	-	258		794	0		
<b>TOTAL ALLOWABLE CATCH</b>	<sup>*11</sup>	1 175 <sup>8</sup>	100.00 <sup>15</sup>	1 000 <sup>8</sup>	<sup>*8</sup>	7 000 <sup>12</sup>	12 542	34 000 <sup>11</sup>	0 <sup>8</sup>	*	*

\* Ban on fishing in force.



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- <sup>1</sup> Quota to be shared by vessels from Canada, Cuba, France (St. Pierre et Miquelon), Japan, Korea, Ukraine and USA.
- <sup>2</sup> 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).
- <sup>3</sup> Should NEAFC modify its level of TAC, these figures shall be adjusted accordingly by NAFO through a mail vote.
- <sup>4</sup> 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 03/7), as applied by NAFO since 2005 following their accession to the European Union.
- <sup>5</sup> 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 03/7), and to Poland, as applied by NAFO since 2005 following their accession to the European Union.
- <sup>6</sup> Including allocations to Estonia, Latvia, Lithuania and Poland, as applied by NAFO since 2005 following their accession to the EU.
- <sup>7</sup> Allocation of 17.85% to Lithuania and 2.15% to Latvia following their accession to the European Union.
- <sup>8</sup> Applicable to 2020 and 2021.
- <sup>9</sup> 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.
- <sup>10</sup> 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.
- <sup>11</sup> Applicable to 2020, 2021, and 2022.
- <sup>12</sup> Should catches exceed 5 000 tonnes, additional measures would be adopted to further restrain catches in 2020.

**Historical statements**

- <sup>13</sup> The allocation key of this stock is based on the 1998 Quota Table. In 1999, a moratorium on cod in Division 3M was declared.
- <sup>14</sup> The allocation key of this stock is based on the 1997 Quota Table. In 1998, a moratorium on redfish in Division 3LN was declared.
- <sup>15</sup> 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, 2020**

CONTRACTING PARTY	NUMBER OF FISHING DAYS <sup>1</sup>
<b>Canada</b>	114
<b>Cuba</b>	25 <sup>3</sup>
<b>Denmark</b>	
– Faroe Islands	402
– Greenland	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>

- <sup>1</sup> 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.
- <sup>2</sup> 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.
- <sup>3</sup> 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 2020 to France, in respect of St Pierre et Miquelon; Norway will transfer 25 fishing days of its fishing days allocation for 2020 to Ukraine; and the Russian Federation will transfer 25 fishing days of its fishing days allocation for 2020 to Cuba. The above transfers are without prejudice to the effort allocation key and are only for the year 2020 only. The 2020 catches under this interim regime will not create any catch history.

**Annex 22. Improving the basis for the long-term management of 3M Cod**[COM WP 19-42 **now** COM Doc. 19-30]

- 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.
- 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 the stock.
- The Commission requests the Scientific Council to provide advice on gear, including sorting grids, area and time-based measures that can be used to protect and improve the productivity of the stock.
- The Commission requests STACTIC to consider the feasibility of introducing a requirement for the use of sorting grids in trawl fishery for 3M cod.

### Annex 23. Interim Measure for Shrimp 3M for 2020

[COM WP 19-37 Rev. 5 **now** COM Doc. 19-27]

Recalling NAFO CEM Annex I.B “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 closure.”

This year, the Scientific Council affirms that there is sufficient evidence allowing directed fishing, as there has been continuous increase of biomass over 5 years and the stock has very low probability of being below  $b_{lim}$ .

Therefore, the fishery should be re-opened in accordance with the effort allocation key of 2009; Annex I.B shall apply.

However, as the biomass is just recovering, the EU recommends, as an interim measure for 2020, the reduction of fishing effort to 25% of 2009 levels.

	<b>Fishing days in 2009</b>	<b>1/4 of fishing days in 2009</b>
Canada	456	114
Cuba	100	25
Denmark		
Faroe Islands	1606	402
Greenland	515	129
European Union	3293 <sup>1</sup>	823 <sup>1</sup>
France (in respect of St Pierre et Miquelon)	100	25
Iceland	n/a	n/a
Japan	100	25
Korea	100	25
Norway	1985	496
Russia	2100	525
Ukraine	100	25
USA	100	25
<b>Total</b>	<b>10 555</b>	<b><u>2 640</u></b>

If that interim measure is accepted, application of CEM Article 9.2 should be suspended for next year. The relevant footnote should be inserted into the CEM.

**The footnote shall be inserted into the Annex I.B CEM table with the following text:**

**“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 2020 to France, in respect of St Pierre et Miquelon; Norway will transfer 25 fishing days of its fishing days allocation for 2020 to Ukraine; and the Russian Federation will transfer 25 fishing days of its fishing days allocation for 2020 to Cuba. The above**

<sup>1</sup> 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.

**transfers are without prejudice to the effort allocation key, and are only for the year 2020 only. The 2020 catches under this interim regime will not create any catch history."**

As this is an interim solution only for 2020, the European Union proposes that the Commission adopts at this meeting a mandate for the intersessional work that shall discuss a new fishing regime of Shrimp 3M stock, taking a broader view into other management options than fishing effort, such as quotas, periods, technical measures, reporting. The mandate would be to present the outcome of this inter-sessional work at the 2020 Annual Meeting. The Contracting Parties will need to submit their proposals at least one month before the intersessional meeting that will take place during late Spring 2020.

In order to facilitate the intersession works on possible fisheries management options for Shrimp 3M, the EU would like the Commission to ask the Scientific Council to advise on the possible sustainable management methods for this stock, including where possible quota, fishing effort, periods, reporting or other technical measures. The advice should be available before the end of 2019.

In addition, the Commission should propose that, if in 2020 based on available data total catch exceeds the level of maximum catch recommended by the Scientific Council (5,448 t), then the Commission shall at the 2020 Annual Meeting review the relevant management measures in place for Shrimp 3M, in order to develop additional appropriate measures, to ensure that total catches do not exceed the scientific advice.

The Commission also asks the Secretariat to make available on their website weekly information on used fishing days and catch uptake.

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

[COM WP 19-17 **now** COM Doc. 19-31]

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 in July 2019 (COM Doc. 19-05) and agreed on the following recommendations to forward to the NAFO Commission.

**To support the continued full implementation of the Action Plan (COM Doc. 17-26), the WG-BDS recommends that:**

- 1. That the Secretariat continue its analysis of bycatch and discard information to include all NAFO Annex I.A and Annex 1.B species as well as 3M Witch flounder and 3M Thorny skate.**
- 2. The Commission include in its request for advice at the 2019 Annual meeting, the tasks identified under Section 2.2, particularly on the identification of discard species/stocks listed in Annex I.A and Annex I.B of the NCEM with high survivability rates.**
- 3. The Chair of the WG-BDS continue to coordinate with the Chairs of SC and STACTIC on matters related to the implementation of the Action Plan.**

## Annex 25. Changes in NAFO CEM from the Editorial Drafting Group

[STACTIC WP 19-06 Revised **now** COM Doc. 19-07]

The Editorial Drafting Group (EDG) met from 05-07 March 2019 (STACTIC EDG-WP 19-03) and agreed to forward the changes to the NAFO CEM below to STACTIC for approval. These changes were originally presented in STACTIC EDG-WP 19-02 (Revised).

CEM	ISSUE	SUGGESTION
5.3.d	Correct the CEM reference to clarify the time of closure of the "Others" quota	Replace the CEM reference 15(d) by 15(d) <i>ii</i>
5.7.b	Correct a typing error: change "on" by "for"	Change "allocated on that stock" to "allocated <i>for</i> that stock"
5.15.f	Correct the CEM reference on CP failing to close their RED 3M fishery on time	Replace the CEM reference 15(d) by <del>15</del> (d)
6.3.d	Correct a typing error: delete "to"	Delete the redundant "to" in ..."quota opened <del>to</del> for that stock" ...
	Change moratoria to moratorium since is it referring to a single moratorium	d. where a ban on fishing applies (moratoria <del>m</del> ),
	The sentence is mixing two different concepts "moratoria" and "Others". Proposal to separate these two concepts into two bullets.	Current text: d. where a ban on fishing applies (moratoria), or when the "Others" quota opened to for that stock has been fully utilized: 1250 kg or 5%, whichever is the greater;  Replace with: d. where a ban on fishing applies (moratoria <del>m</del> ): <b>1250 kg or 5%, whichever is the greater;</b> e. when the "Others" quota opened <del>to</del> for that stock has been fully utilized: 1250 kg or 5%, whichever is the greater;  Renumber remaining points accordingly.
12.1.b	Consistency with wording of duties of CPs	Redraft the sentence as follows: b. for all observed hauls that contain Greenland shark, <b>require its observers to</b> <del>observer shall</del> record the number...
13.2.a	Clarify if all species of shrimp are concerned, or only "PRA"	Redraft the sentence as follows: a. 40 mm for shrimps, <b>and including</b> prawns (PRA);
28.3.d	Need to give sense to the words "labels each entry"	Redraft the sentence as follows: " <b>labels records</b> each entry in accordance with Art 27"
25.8.j	Put the estimation of freezing capacity mandatory	Redraft the sentence as follows: j. estimation of freezing capacity or, <b>if possible</b> , certification of refrigeration system will be provided <del>if possible</del> .
37.1.g	Align the relationship with the observer to the new observer programme (coverage derogation)	Redraft the sentence as follows: " <del>where practicable</del> , notify <b>the any observer(s) on board</b> of the infringement."
37.2.a.i.1	Correct the CEM reference to clarify what must appear in the written notification	Replace the point 15 reference to <b>14.2</b> , that qualifies the infringements
38.1.e	Correct the CEM reference to address the closed areas	Replace the CEM reference 11 by <b>17</b>
38.1.k	Correct the CEM reference to address the reporting of sharks	Replace the CEM reference 10.6 to <b>12.1(a)</b>



**Annex 26. Addition of footnote to Annex I.C of the NAFO CEM**[STACTIC WP 19-07 **now** COM Doc. 19-08]

The Editorial Drafting Group (EDG) met from 05-07 March 2019 (STACTIC EDG-WP 19-03) and requested that:

*a footnote be added to Annex I.C noting that if a species code is not available in Annex I.C, then the FAO ASFIS list of species codes should be used. The NAFO Secretariat will draft the footnote for presentation at the STACTIC Intersessional meeting.*

Below is the proposal to include a footnote reference to the FAO ASFIS species list to Annex I.C of the NAFO CEM.

**Annex I.C<sup>1</sup>**  
**List of Species**

Common English Name	Scientific Name	3-Alpha Code
<b>Groundfish</b>		
Atlantic Cod	<i>Gadus morhua</i>	COD
Haddock	<i>Melanogrammus aeglefinus</i>	HAD
...	...	...
...	...	...
Marine invertebrates (NS)	<i>Invertebrata</i>	INV

<sup>1</sup> [If a species is caught that is not found in this list \(Annex I.C\), then the FAO ASFIS list of species codes should be used. The ASFIS list is found at: http://www.fao.org/fishery/collection/asfis/en](http://www.fao.org/fishery/collection/asfis/en)

**Annex 27. Editorial changes in the NAFO CEM from the Editorial Drafting Group**[STACTIC WP 19-11 Revised **now** COM Doc. 19-09]

The Editorial Drafting Group (EDG) met from 05-07 March 2019 and discussed the changes in the table reflected in the EDG meeting Report (STACTIC EDG-WP 19-03). STACTIC reviewed the changes and agreed on the following revisions.

CEM	Issue	Suggestion	EDG Discussion
10.5.d.i	Change the first occurrence of "notification"	Replace the first "notification" by "confirmation": "it receives no <del>notification</del> <b>confirmation</b> within 72 hours"	On reviewing this change, EDG raised concerns about the notification process under Article 10 and noted that this process requires further review by STACTIC.

**Annex 28. Amendments of NAFO CEM Annexes II.F and II.G**[STACTIC WP 19-20 **now** COM Doc. 19-10]*Proposal presented in JAGDM as JAGDM-2019-01-09 Rev. 1.*

During the 2015 STACTIC Intersessional meeting, the issue of ambiguous definitions in Annexes II.C to II.G was referred to JAGDM for clarification and advice with a view to amending the pertinent tables in the Annexes with clear definitions and tangible examples of the correct reporting formats.

Initial reviews in 2015 concentrated on the data field codes SQ, DA, TI, RN, RD, and RT, and it was noted at that time that there remained a need to further identify and modify elements as well as develop examples. In an effort to continue the review process, JAGDM proposes the following further clarification of the DA and TI fields within Annexes II.F and II.G.

Currently within NAFO, there is still confusion as to the appropriate date and time to include in the DA and TI fields of Cancel reports – some reports erroneously include the DA and TI fields from the report that is to be cancelled, while others correctly provide the date and time of the CAN report’s transmission. The following changes are proposed to clarify the DA and TI which should appear in the Cancel report and to include the same amendment in other reports to maintain consistency throughout the tables.

**Annex II.F****2) “Catch on ENTRY” report**

<b>Data Element</b>	<b>Field Code</b>	<b>Mandatory/Optional</b>	<b>Requirements for the field</b>
Start record	SR	M	System detail; indicates start of record
From	FR	M	Message detail; Address of the transmitting party (ISO- 3)
Address	AD	M	Message detail; destination, “XNW” for NAFO
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, “COE” as Catch on Entry report
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Master Name	MA	M	Name of the master of vessel
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Latitude	LA	M	Activity detail; Latitude at time of transmission
Longitude	LO	M	Activity detail; Longitude at time of transmission

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Relevant Area	RA	M	NAFO Division into which the vessel is about to enter
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel
On Board	OB	M	Activity detail; Total quantity by species on board rounded to the nearest 100 kg, upon entry in the RA. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //OB/speciesspaceweightspacspeciesweightspacspeciesweight//
Observer on board	OO	M	Activity detail; "Yes" or "No"
End of record	ER	M	System detail; indicates end of the record

**3) "Catch" report**

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, "CAT" as Daily Catch report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Contracting Party Internal Reference Number	IR	O	Vessel registration detail; unique Contracting Party vessel number as ISO-3 flag State code followed by number
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Relevant Area	RA	M	Activity detail; NAFO Division
Latitude	LA	M <sup>1</sup>	Activity detail; Latitude at time of transmission from the vessel
Longitude	LO	M <sup>1</sup>	Activity detail; Longitude at time of transmission from the vessel

Catch species live weight	CA	M	Activity detail; Catch retained onboard by species and by Division since last CAT report in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes)+live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //CA/ species space weight space species space weight space species space weight space species space weight space species space weight space //
Discarding species live weight	RJ	M	Activity detail; Catch discarded by species and by Division since last CAT report, in kg rounded to the nearest 100 kg. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //RJ/ species space weight space species space weight space species space weight space //
Chartering Flag	CH	M <sup>2</sup>	Flag of Chartering Contracting Party to which the catch must be allocated
Days Fished	DF	M <sup>3</sup>	Activity detail; number of fishing days in the Regulatory Area since last CAT report, as appropriate
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Optional if the vessel is subject to satellite tracking in accordance with Article 29.1.

<sup>2</sup> Mandatory if fishing activity under chartering agreement.

<sup>3</sup> By default, the normal reporting period should be 1 day.

#### 4) "Catch on crossing Boundary" 3L report (for PRA)

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, "COB" for Cross Boundary Catch report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)

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Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Contracting Party Internal Reference Number	IR	O	Vessel registration detail; unique Contracting Party vessel number as ISO-3 flag State code followed by number
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Relevant Area	RA	M	Activity detail; NAFO Division entering from
Latitude	LA	M <sup>1</sup>	Activity detail; Latitude at time of transmission from the vessel
Longitude	LO	M <sup>1</sup>	Activity detail; Longitude at time of transmission from the vessel
Catch  species live weight	CA	M	Activity detail; Catch retained onboard by species and by Division since last CAT report in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes)+live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //CA/speciesspaceweightspacspecies spaceweightspace speciesspace weightspace//
Area of entry	AE	M	Activity detail; NAFO Division entering into
Catch  species live weight	OB	M	Activity detail; Total quantity by species on board rounded to the nearest 100 kg, upon crossing the 3L border. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //OB/speciesspaceweightspacspecies spaceweight//
Days Fished	DF	M	Activity detail; number of fishing days in the Regulatory Area
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Optional if the vessel is subject to satellite tracking in accordance with Article 29.1.

## 5) "TRANSHIPMENT" report

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Address	AD	M	Message detail; destination, "XNW" for NAFO
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, "TRA" as Transhipment report
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Name of Master	MA	O	Name of master of vessel
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Quantity on-loaded or off-loaded species live weight	KG	M	Quantity by species in the Regulatory Area on-loaded or off-loaded in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes)+live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //KG/speciesspaceweight spacespeciesspaceweight spacespeciesspaceweightspace//
Transhipped To	TT	M <sup>1</sup>	Vessel registration detail; International radio call sign of the receiving vessel
Transhipped From	TF	M <sup>1</sup>	Vessel registration detail; International radio call sign of the donor vessel
Latitude	LA	M <sup>2</sup>	Activity detail; estimated latitude where the master intends to do the transhipment
Longitude	LO	M <sup>2</sup>	Activity detail; estimated longitude where the master intends to do the transhipment
Predicted Date	PD	M <sup>2</sup>	Activity detail; estimated date UTC when the master intends to do the transhipment (YYYYMMDD)
Predicted Time	PT	M <sup>2</sup>	Activity detail; estimated time UTC when the master intends to do the transhipment (HHMM)
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Whichever one is appropriate

<sup>2</sup> Optional for reports sent by the receiving vessel after the transhipment.

## 6) "Catch on EXIT" report

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; "COX" as Catch on Exit report
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Master Name	MA	O	Name of master of vessel
ExternalRegistration Number	XR	O	Vessel registration detail; the side number of the vessel
Latitude	LA	O <sup>1</sup>	Activity detail; Latitude at time of transmission from the vessel
Longitude	LO	O <sup>1</sup>	Activity detail; Longitude at time of transmission from the vessel
Relevant Area	RA	M	NAFO area from which the vessel is about to exit
Catch species live weight	CA	M	Activity detail; Catch retained onboard by species and by Division since last CAT report in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes)+live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //CA/speciesspaceweightspacspecies spaceweightspace species spaceweightspace//
Catch species live weight	OB	M	Activity detail; Total quantity by species on board rounded to the nearest 100 kg, upon exit from the RA. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //OB/speciesspaceweightspacspecies spaceweightspacspecies spaceweight//
Days Fished	DF	O	Activity detail; number of fishing days in the Regulatory Area
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Optional if the vessel is subject to satellite tracking in accordance with Article 29.1.



## 7) "PORT OF LANDING" report

Data Element	Field Code	Mandatory / Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Address	AD	M	Message detail; destination, "XNW" for NAFO
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, "POR"
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Name of Master	MA	O	Name of master of vessel
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Latitude	LA	M <sup>1</sup>	Activity detail; Latitude at time of transmission
Longitude	LO	M <sup>1</sup>	Activity detail; Longitude at time of transmission
Coastal State	CS	M	Activity detail; Coastal State of Port of Landing
Name of Port	PO	M	Activity detail; name of Port for landing
Predicted Date	PD	M	Activity detail; estimated date UTC when the master intends to be in port (YYYYMMDD)
Predicted Time	PT	M	Activity detail; estimated time UTC when the master intends to be in port (HHMM)
Quantity to be landed species live weight	KG	M	Activity detail; Quantity by species in kilograms rounded to the nearest 100 kilograms, to be landed in a port. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes)+live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //KG/ speciespaceweightspacspeciespace weightspacspeciespaceweightspace//
Quantity on board species live weight	OB	M	Activity detail; Total quantity by species on board rounded to the nearest 100 kg, in advance of landing of the transhipped quantities. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //OB/ speciespaceweightspacspecies spaceweightspace speciesspaceweight//
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Optional if a vessel is subject to satellite tracking.

**8) "CANCEL" report**

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Address	AD	M	Message detail; destination, "XNW" for NAFO
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, "CAN <sup>1</sup> " as Cancel report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Cancelled report	CR	M	Message detail; the record number of the report to be cancelled
Year of the report cancelled	YR	M	Message detail; year of the report to be cancelled
Date	DA	M	Message detail; UTC date of transmission <a href="#">of this report</a> from the vessel <sup>2</sup>
Time	TI	M	Message detail; UTC time of transmission <a href="#">of this report</a> from the vessel <sup>2</sup>
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Cancel report should not be used to cancel other Cancel report.

<sup>2</sup> If the report is not sent from a vessel the time will be from the FMC and be the same as RD, RT.

## Annex II.G

## Observer Report

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO
Sequence Number	SQ	M	Message detail; message serial number in current year
Type of Message	TM	M	Message detail; message type, "OBR" as Observer report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Fishing Gear	GE	M	Activity detail; FAO code for fishing gear
Directed Species <sup>6</sup>	DS	M	Activity detail; FAO species code
Mesh Size	ME	M	Activity detail; average mesh size in millimetres
Relevant Area	RA	M	Activity detail; NAFO Division
Daily Catches  species live weight	CA	M M	Activity detail; catch retained on board by species and by Division since last OBR report in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //CA/speciesspaceweight spacespeciesspaceweightspacspeies spaceweight//
Discarding  species live weight	RJ	M <sup>1</sup>	Activity detail; Catch discarded by species and by Division since last OBR report, in kg rounded to the nearest 100 kg. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g.//RJ/ speciesspaceweightspacspecies spaceweightspacspeciesspaceweight//
Undersize  species live weight	US	M <sup>1</sup>	Activity detail; Undersize catch by species and by Division since last OBR report, in kg rounded to the nearest 100 kg. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g.//US/ speciesspaceweightspacspecies spaceweightspacspeciesspaceweight//
Logbook	LB	M	Activity detail; "Yes" or "No" <sup>2</sup>
Production	PR	M	Activity detail; code for the production. See Annex II.K
Hails	HA	M	Activity detail; observers verification if the reports made by the captain are correct, "Yes" or "No" <sup>3</sup>
Apparent Infringements	AF	M	Activity detail; "Yes" or "No" <sup>4</sup>
Observer Name	ON	M	Message detail; name of the observer signing the report

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Date	DA	M	Message detail; date of transmission <a href="#">of this report</a>
Free Text	MS	O <sup>5</sup>	Activity detail; for further comments by the observer
Time	TI	M	Message detail; time of transmission <a href="#">of this report</a>
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Only to be transmitted if relevant.

<sup>2</sup> "Yes" if the observer approves the Logbook entries by the captain.

<sup>3</sup> "Yes" if the observer approves the Hails transmitted by the captain.

<sup>4</sup> "Yes" if an infringement is observed.

<sup>5</sup> Mandatory if "LB" = "No", or "HA" = "No", or "AF" = "Yes".

<sup>6</sup> Directed species is the species which represents the greatest catch for that day.

## **Annex 29. Reference to “the smallest geographical area” in NAFO CEM Article 28.2a and 28.3.b**

[STACTIC WP 19-21 now COM Doc. 19-11]

### **Background**

Where referring to the record of catches in the fishing and production logbooks, Article 28.2.a and 28.3.b refer to "the smallest geographical area for which a quota has been allocated". This wording is not congruent with the general terminology within the CEM, where a sub-area is defined as a Division.

To restore editorial congruousness within the CEM, it is proposed to replace the wording "*the smallest geographical area for which a quota has been allocated*" by "Division".

Editorial change to Article 28.3(b) is also proposed for clarity.

Such amendments align with the language of Article 6.4, Article 27.1(d), Article 28.6 (c) and common practice in the NAFO fisheries.

### **Proposed Amendment**

#### **1. Fishing logbook**

Introduce the following change in Article 28.2.a:

- (a) accurately records catch of each tow/set ~~related to the smallest geographical area for which a quota has been allocated~~ by Division;

#### **2. Production Logbook**

Introduce the following change in Article 28.3.b:

- (b) ~~relates records~~ the production of each species and product type to ~~the smallest geographical area for which a quota has been allocated~~ by Division;

**Annex 30. NAFO CEM Article 28 – Monthly Catch report (Article 28.8a)**[STACTIC WP 19-22 Rev. 2 **now** COM Doc. 19-12]**Preamble**

The CEM Article 28.8.a requests each Contracting Party to transmit on a monthly basis its provisional monthly catches by species and stock area to the Executive Secretary.

To avoid administrative burden, Contracting Parties that transmit their catches by species and area on a daily basis to the NAFO Secretariat through the CAT messages referred to in CEM Article 28.6.c should be exempted from the production of monthly aggregation of the same data. This monthly aggregation can be done by the NAFO Secretariat by adding the correspondent daily CAT messages.

It is therefore proposed to add a sentence in CEM Article 28.8.a accordingly.

**Proposed amendment**

The following sentence is added to CEM Article 28.8 paragraph a, sub-paragraph a:

**Catch and Fishing Effort Reporting by Contracting Parties**

8. Each Contracting Party shall:

- (a) unless the derogation under paragraph 8.b applies, report its provisional monthly catches by species and stock area, and its provisional monthly fishing days for the 3M shrimp fishery, whether or not it has quota or effort allocations for the relevant stocks. It shall transmit these reports to the Executive Secretary within 30 days of the end of the calendar month in which the catch was taken. **The Contracting Parties that are transmitting CAT messages in accordance with Article 28.6.c are exempted from this monthly declaration**
- (b) By way of derogation, paragraph 8.a does not apply if all catches have been reported in accordance with paragraph 6.e.
- (c) Ensure that logbook information is submitted in either Extensible Markup Language (XML) or in a Microsoft Excel file format, to the Executive Secretary containing at a minimum the information outlined in Annex II.N within 60 days following the completion of each fishing trip.

**Duties of the Executive Secretary**

9. The Executive Secretary:

- (d) no later than 10 days after the end of each calendar month, collates the information received via CAT reports submitted in accordance with paragraph 6(c) of this Article and provisional monthly catch reports submitted in accordance with paragraph 8(a) and circulates it together with aggregate catch statistics by stock area to all Contracting Parties;

## Annex 31. Adjustments to Multiple flap-type topside chafers in NAFO CEM Annex III.B.2

[STACTIC WP 19-25 Revised now COM Doc. 19-13]

### Background

At the 2018 CAN/EU NAFO Inspectors' Workshop, inspectors discussed the use of gear attachments, particularly the use of multiple flap-type topside chafers, which are currently permitted in the NAFO CEMs, as defined in Annex III.B.2. The discussion was largely centered around concerns that the current chafer system obstructs mesh in the codend. Inspectors have observed that obstruction is caused by the currently permitted overlapping configuration of flaps along with an increase in the size and weight of twine being used. As a result, the chafer creates multiple layers of netting overlapping the codend meshes which prevent escapement of small fish.

It was agreed that Canada would develop a proposal for consideration. The following amendments to Annex III.B of the NAFO CEMs are proposed to adjust the definition of a multiple flap-type topside chafer. These changes will decrease the obstruction of codend mesh while satisfying the primary purpose of chafers, protecting the net during operations.

### Proposed Amendments

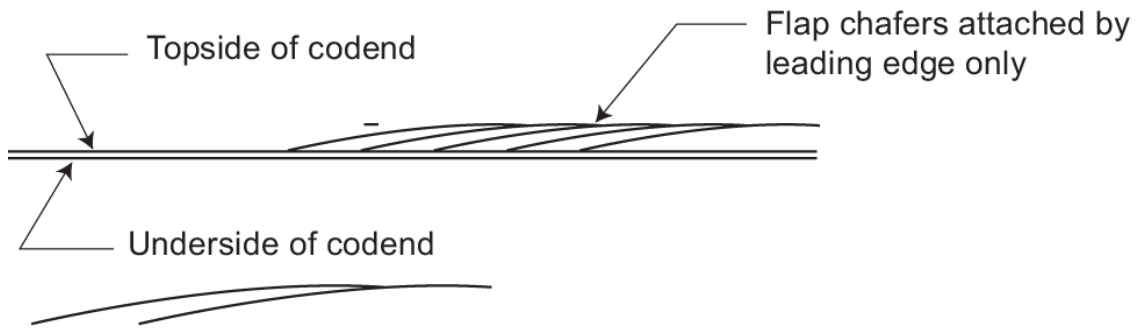
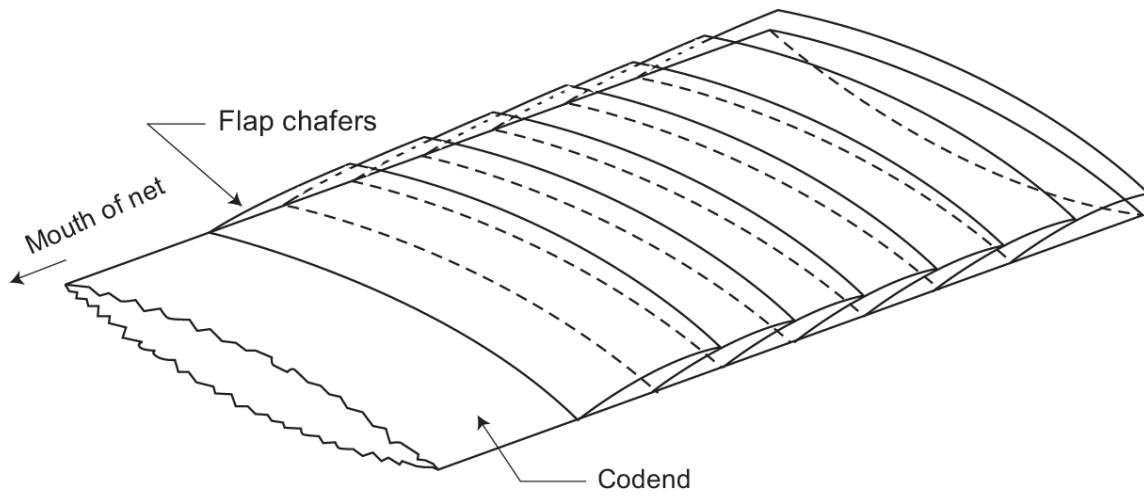
#### Annex III.B

#### 2. Multiple flap-type topside chafer

The multiple flap-type topside chafer is defined as pieces of netting having in all their parts meshes the size of which, ~~whether the pieces of netting are wet or dry,~~ is not less than that of the codend, provided that:

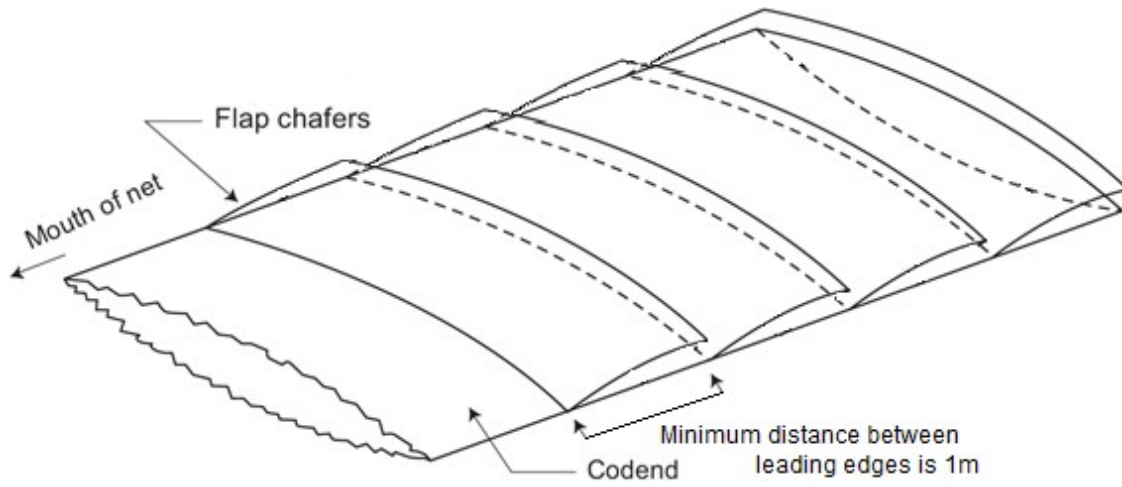
- (i) each piece of netting
  - (a) is fastened a minimum of one meter apart by its ~~forward~~ leading edge ~~only~~ across the codend at right angles to its long axis;
  - ~~(b) does not overlap the leading edge of the next piece of netting (see illustration following this provision);~~
  - (c) is of a width of at least the width of the codend (such width being measured at right angles to the long axis of the codend at the point of attachment); and
  - ~~(d) is not more than ten meshes long; and~~
  - ~~(e) is constructed of a positively buoyant single twine material;~~ and
- (ii) the aggregate length of all the pieces of netting so attached does not exceed two-thirds of the length of the codend.

**Current Images (TO BE REMOVED)**





**New Images (TO BE INSERTED):**



## **Annex 32. Production Logbook and Stowage Plan Updated at the Request of Inspectors (NAFO CEM Article 28)**

[STACTIC WP 19-27 Rev. 4 **now** COM Doc. 19-14]

### **Background**

At the 2018 CAN/EU NAFO Inspector's workshop, inspectors discussed the reporting timelines currently in the NCEM for production logbook and stowage plans as per Article 28 - Monitoring of Catch.

The inspectors shared their experiences in acquiring information from vessel masters, particularly the availability of information on catch/production/stowage for the day of inspection. Canadian inspectors noted that some masters have refused to provide their completed catch information for the day of the inspection, citing the current measure only require catch information to be provided for the preceding day from 00:01 to 24:00 UTC. It was noted that EU regulations as well as Article 6.4 of the NCEM already support these requirements at present. EU inspectors stated they usually receive the information for the catch on the day of inspection verbally from masters. All Inspectors agreed that receiving the information verbally is not the preferred way forward as the information gathered may not be permitted to be used by all CP's in support of an infringement.

As a result, Canada is introducing the following proposal to STACTIC for consideration.

### **Proposed Amendments**

#### **Article 28 – Monitoring of Catch**

##### ***Recording of Catch and Stowage***

1. For the purposes of monitoring catch, each fishing vessel shall utilize a fishing logbook, a production logbook and a stowage plan as defined below, to record fishing activities in the Regulatory Area:

##### ***Fishing Logbook***

2. Each fishing vessel shall maintain a fishing logbook consistent with Annex II.A that:
  - (a) accurately records catch of each tow/set related to the smallest geographical area for which a quota has been allocated;
  - (b) indicates the disposition of the catch of each tow/set, including the amount (in kg, live weight) of each stock that is retained on board, discarded, offloaded, or transshipped during the current fishing trip; and
  - (c) is retained on board for at least 12 months.

##### ***Production Logbook***

3. Each fishing vessel shall:
  - (a) maintain a production logbook that:
    - (i) accurately records the daily cumulative production for each species and product type in kg for the preceding day from 00:01 UTC until 24:00 UTC;
    - (ii) relates the production of each species and product type to the smallest geographical area for which a quota has been allocated;
    - (iii) lists the conversion factors used to convert production weight of each product type into live weight when recorded in the fishing logbook;

- (iv) labels each entry in accordance with Article 27; and
- (v) is retained on board for at least 12 months;
- (b) and, when production has occurred on the day of an inspection, make the information related to any catch processed for that day available to an inspector upon request.

### ***Stowage of Catch***

- 4. Each vessel shall, with due regard for safety and navigational responsibilities of the master, stow all catch taken in the NAFO Regulatory Area separately from all catch taken outside the NAFO Regulatory Area, and ensure that such separation is clearly demarcated using plastic, plywood or netting.
- 5. Each fishing vessel shall:
  - (a) maintain a stowage plan that:
    - (i) clearly shows:
      - 1. the location and quantity, expressed as product weight in kg, of each species within each fish hold;
      - 2. the location in each hold of shrimp taken in Division 3L and in Division 3M that includes the quantity of shrimp in kg, by Division;
      - 3. the top view of product within each fish hold;
    - (ii) is updated daily for the preceding day from 00:01 to 24:00 UTC; and
    - (iii) is retained on board for each day fished until the vessel has been unloaded completely;
  - (b) and, when stowage has occurred on the day of an inspection, make the information related to any catch stowed for that day available to an inspector upon request.

**Annex 33. Amendment of MZZ in NAFO CEM Article 28.6.g**[STACTIC WP 19-30 Rev. 2 **now** COM Doc. 19-15]**Background**

At the 2018 CAN/EU NAFO inspector's workshop, Canadian inspectors presented examples that illustrated how the MZZ species code was being misused, observations of inspectors indicate that catch amounts have been far exceeding the maxima of 100kg per species. After some discussion, inspectors came to the consensus that all reporting should be to the species level and recommended that the MZZ code be removed as an option for multi-species catch reporting.

As a result, Canada and the EU have drafted a joint proposal to realign the use of the MZZ code so that it is only used in accordance with Article 28.6.c where there is Nil catch retained and Nil discards.

**Proposed Amendments****Article 28 – Monitoring of Catch****Catch Reporting**

6. Every fishing vessel shall transmit electronically to its FMC the following reports in accordance with the format and the content prescribed for each type of report in Annex II.D and Annex II.F:
  - (g) ~~catch of species listed in Annex I.C for which the total live weight on board is less than 100 kg, may be reported using the 3-alpha code MZZ (marine species not specified), except in the case of sharks. All sharks~~ shall be reported at the species level under their corresponding 3-alpha code presented in Annex I.C or if not contained in Annex I.C the FAO ASFIS List of Species for Fishery Statistics. ~~When species specific reporting is not possible, shark species shall be recorded as either large sharks (SHX) or dogfishes (DGX), as appropriate and in accordance with the 3-alpha codes presented in Annex I.C.~~ The estimated weight of sharks caught per haul or set shall also be recorded.

## Annex 34. Revisions to Inspection Form (NAFO CEM Articles 36 and 37, Annex IV.B)

[STACTIC WP 19-31 now COM Doc. 19-16]

### Background

At the 2018 CAN/EU NAFO inspectors' workshop, inspectors conducted a review of the Inspection form which was introduced in January 2018. During this review, a number of suggestions were put forward to make improvements and facilitate inspectors' use of the forms.

As a result, Canada and the EU have drafted the following proposal to amend the form and to adjust references to the form within the Articles 36 and 37 of the NAFO CEMs such that they no longer reference section numbers of the form, and can instead function as a consistent reference from version to version.

### Proposed Amendments

#### Article 36 – Inspection Report and Follow-up

2. For the purpose of the inspection report:
  - (a) a fishing trip is considered current where the inspected vessel has on board catch harvested in the Regulatory Area during the trip;
  - (b) when comparing entries in the production logbook with entries in the fishing logbook the inspectors shall convert production weight into live weight guided by conversion factors used by the master;
  - (c) the inspectors shall:
    - (i) summarize from logbook records the vessel's catch in the Regulatory Area by species and by Division for the current fishing trip;
    - (ii) record summaries ~~in section 12 of the inspection report~~, as well as differences between the recorded catch and their estimates of the catch onboard in [the appropriate sections of the inspection report-14.1](#);
    - (iii) upon completion of the inspection, sign the inspection report and present the inspection report to the master for signature and comment, and to any witness who may wish to submit a statement;
    - (iv) immediately notify their competent authority and transmit to it the information and images within 24 hours, or at the earliest opportunity; and
    - (v) provide a copy of the report to the master, duly noting in the appropriate section of the inspection report any refusal by the master to acknowledge receipt.

**Article 37 – Procedures Relating to Infringements*****Duties of the Inspecting Contracting Party***

2. The inspecting Contracting Party shall:
- (a) within 24 hours,
    - (i) transmit to the competent authority of the flag State Contracting Party written notification of the infringement reported by its inspectors. The written notification shall:
      - (1) include the information entered in [point 15 the Infringements section](#) of the inspection report, cite the relevant measures and describe in detail the basis for issuing the notice of infringement, and the evidence in support of the notice; and
      - (2) where possible, be accompanied by images of any gear, catch or other evidence related to the infringement referred to in paragraph 1.);
    - (ii) transmit a copy of the written notification to the Executive Secretary.
  - (b) within 10 days of the inspection vessel's return to port, post the at-sea inspection report to the NAFO MCS Website in PDF format.



**REPORT OF INSPECTION**  
THE NORTHWEST ATLANTIC FISHERIES ORGANIZATION

(Inspector: Please use CAPITAL BLOCK LETTERS in BLACK PEN)

**1. INSPECTION VESSEL**

1.1 NAME		1.2 REGISTRATION	
1.3 International Radio Call Sign (IRCS)		1.4 Port of registry	

**2. INSPECTORS (Note if Trainee)**

NAME	CONTRACTING PARTY

**3. INFORMATION ON VESSEL INSPECTED**

Contracting Party and Port of Registry			
Vessel name		Radio Call Sign	
External number		IMO Number	
Master's Name			
Master's Address (only for infringement)			
Owner's name and address			
Inspection Vessel Time/Position	UTC	Lat	Long
Inspected Vessel Time/Position	UTC	Lat	Long
			<a href="#">Division</a>

**4. DATE OF LAST SEA INSPECTION**

DATE	
------	--

**5. DATE AND TIME OF CURRENT INSPECTION**

DATE		TIME OF ARRIVAL ON BOARD		UTC
------	--	--------------------------	--	-----

**6. VERIFICATION**

Vessel Documentation	Checked Y/N		
Certified Drawings or description of fish room and freezers kept on board	Checked Y/N	Date of Certification	
Daily Stowage Plan <a href="#">conforms to Article 28.5</a>	Checked Y/N		

**7. RECORDING OF FISHING EFFORT AND CATCHES**

Fishing Logbook	Checked Y/N	Electronic / Paper
Production Logbook	Checked Y/N	Electronic / Paper
Are recordings made in accordance with Article 28 & Annex IIA	Checked Y/N	
If not, indicate the inaccurate or missing recording(s)		

**8. OBSERVER INFORMATION**

Is there a notified Observer present on the vessel	Y/N
Observer's name	
Observer Contracting Party	







**11. RESULT OF INSPECTION OF FISH**

**11.1 Catches Observed IN THE LAST TOW (if appropriate)**

Duration of the tow		Depth of tow	
Total tonnes	All species taken		Percentage of each

**11.2 Catches ON BOARD**

Inspectors Estimate (tonnes)	
Inspectors comments on how estimate was calculated:	

Labelling Correct?	Yes / No
--------------------	----------

**12. RESULT OF INSPECTION OF FISH ON BOARD**

**12.1 Difference from Logbooks**

Comment in the case of a difference between the inspector's estimates of the catches on board and the related summaries of catches from the logbooks, note this difference with the percentage

**12.2 Infringements**

CEM REFERENCE	NATURE OF INFRINGEMENTS
Comments:	



I acknowledge being informed about the alleged infringements and, if applicable, the placement of seals to secure evidence

DATE:

SIGNATURE of MASTER

**13. COMMENTS AND OBSERVATIONS (additional pages can be added as necessary)**

Documents inspected following an infringement

---

Comments, statements and/or observations by Inspector(s)

---

Statement of Master's witness(es)

---

Statements of Second Inspector or Witness

**14. SIGNATURE OF INSPECTOR IN CHARGE**

**15. NAME AND SIGNATURE OF SECOND INSPECTOR OR WITNESS**

**16. NAME AND SIGNATURE OF MASTER'S WITNESS(ES)**

**17. DATES AND TIMES OF INSPECTION CONCLUSION AND OF DEPARTURE**

INSPECTION CONCLUSION			
DATE		TIME	UTC

DEPARTURE			
DATE		TIME	UTC
POSITION	Lat	Long	

**18. ACKNOWLEDGEMENT AND RECEIPT OF REPORT BY THE MASTER (additional pages can be added as necessary)**

Comments by the Master of vessel

---

I, the undersigned, Master of the vessel....., hereby confirm that a copy of this report has been delivered to me on this date. My signature does not constitute acceptance of any part of the contents of the report.

DATE SIGNATURE



### Annex 35. Amendment of NAFO CEM Annex II.J

[STACTIC WP 19-44 **now** COM Doc. 19-17]

At the 2019 STACTIC Intersessional meeting the Chair of JAGDM presented STACTIC WP 19-19, a proposal originally presented in JAGDM to help clarify the number of characters in the Fishing Gear (GE) data element in Annex II.D of the NAFO CEM by changing the type from Char\*3 to Char\*5.

It was noted that the codes in footnote 1 of Annex II.J were no longer relevant so STACTIC agreed that the working paper be revised to delete footnote 1 in Annex II.J of the NAFO CEM. This working paper reflects the change as agreed to at the 2019 STACTIC Intersessional meeting.

#### Proposed Amendments

#### Annex II.J Gear Codes

Gear Categories	Standard Abbreviation Code
...	
<b>TRAWLS</b>	
Bottom trawls	
Beam trawls	TBB
Otter trawls <sup>+</sup>	OTB
Pair trawls	PTB
Nephrops trawls	TBN
Shrimp trawls	TBS
Bottom trawls (not specified)	TB
...	

<sup>+</sup> ~~Fisheries agencies may indicate side and stern bottom and side and stern midwater trawls, as OTB-1 and OTB-2, and OTM-1 and OTM-2, respectively.~~

Renumber remaining footnotes accordingly.

Report of the NAFO Commission, 23-27 September 2019

### **Annex 36. Edits to the 2019 NAFO CEM flagged by the NAFO Secretariat for review**

[STACTIC WP 19-45 Revised **now** COM Doc. 19-18]

Below are potential edits flagged by the NAFO Secretariat in STACTIC WP 19-45 that may require review by STACTIC or the Editorial Drafting Group (EDG).

STACTIC agreed that Article 30.20 be deleted from the NAFO CEM.

#### **Article 30.20**

*20. Any Contracting Party may elect to delay the application of Article 30 until 01 January 2020 but shall follow the provisions of Article 30 outlined in the 2018 NAFO CEM (COM Doc. 18-01). Those Contracting Parties electing to delay shall notify the Executive Secretary no later than 31 December 2018, and the Executive Secretary shall post this information to the MCS Website.*

STACTIC agreed that Annex II.H of the NAFO CEM be deleted and the remaining Annexes be renumbered accordingly.

#### **Annex II.H**

##### **Weekly Reports**

Data to be compiled by Executive Secretary and Forwarded to Inspection Parties

##### **Catch and Catch Rate Report (Weekly)**

<b>Vessel Type</b>	<b>Division</b>	<b>Species</b>	<b>Total Catch</b>	<b>Total Effort</b>	<b>Catch Rate</b>
With observer— masters					
With observer— observer					
Without observer					

**Bycatch Report (Weekly)**

<b>Vessel Type</b>	<b>Division</b>	<b>Species</b>	<b>Total Catch</b>	<b>Total Overall Catch</b>	<b>Bycatch %</b>
With observer – masters					
With observer – observer					
Without observer					

**Discards Report (Weekly)**

<b>Vessel Type</b>	<b>Division</b>	<b>Species</b>	<b>Total catch</b>	<b>Total Discards</b>	<b>Discard %</b>
With observer – masters					
With observer – observer					
Without observer					

**Annex 37. Revised Template for NAFO CEM Annex II.M – Observer Report**[STACTIC WP 19-49 Revised **now** COM Doc. 19-19]**Annex II. M Standardized Observer Report Template****Part 1. A - Fishing Vessel – Fishing Trip and Observer Information**

<b>Fishing Vessel information</b>	
Vessel Name	
Vessel Radio Call Sign	
Flag State	
External Registration number	
Vessel IMO number	
Vessel Length (m)	
Vessel Gross Tonnage	
Engine Power (indicate HP or KW)	
Vessel Type	
Total Frozen Hold Capacity (m <sup>3</sup> )	
Fish Meal Hold Capacity (m <sup>3</sup> )	
Other Hold Capacity (m <sup>3</sup> )	

<b>Trip information</b>	
Fishing Master's Name	
Trip Number	
Number of Crew	
Directed Species	
Date of Entry into NRA (ENT)	
Date of Exit from NRA (EXI)	
NAFO Division/s visited	
Other Area/s visited	
Transshipment	
Port of Landing	

<b>Observer information</b>	
Observer's Name	
Observation Date Started	
Observation Date Ended	
Date of Report	

<b>Comments</b>

**Part 1.B - Fishing Gear Information**

Trawl Gear																				
Gear	Gear Type	Gear Make	Mesh Size (mm)														Attach ments	Grate Spacing	Straps (Describe)	Comments
			Wings			Body			Lengthening Piece			Codend			Measured by observer/ inspector/ /master	Date measured				
			High	Low	Average	High	Low	Average	High	Low	Average	High	Low	Average						
1																				
2																				
3																				

Longline											
Gear	Gear Type	Total Length	Hooks			Hook size	Buoys	anchors	Main line material	Bait line material	Comments
			Number	Average spacing (m)	Hook type		Marked yes/no	Number			
1											
2											
3											
...											



**Part 2. Catch and Effort Information by tow/set**

Tow /Set	Gear type	STARTS*						FINISH*						Duration**	Species (FAO 3-alpha Species Code***)	Directed Species (yes or no)	Product Form	Observers Estimates		
		NAFO Division	Latitude (decimal)	Longitude (decimal)	Depth (m)	Time (UTC) (HHMM)	Date (YYYYM MDD)	NAFO Division	Latitude (decimal)	Longitude (decimal)	Depth (m)	Time (UTC) (HHMM)	Date (YYYYM MDD)					Observer Conversion Factor Used	Retained (kg live weight)	Discarded (kg live weight)
1																				
2																				
3																				
...																				

\* In the case of trawl fisheries, start is the time at the end of setting, finish is the time at the start of gear retrieval. In any other case, start is the time at the start of gear setting, finish is the end of gear retrieval.

\*\* Decimal hours. In the case of trawl fisheries, the time from the end of setting to the start of gear retrieval. In any other case, the time from the start of gear setting to the end of retrieval.

\*\*\* Including VMEs indicators

Vessel Fishing Logbook			Vessel Production Logbook	Discrepancy Identified? (yes/no)	Discrepancy Details	Comments
Vessel Conversion Factor Used	Retained (kg live weight)	Discarded (kg live weight)	Retained (kg)			





### Part 3. Compliance Information

Enter observation on:

Observations	Details
Any instance of obstruction, intimidation, interference with or otherwise prevention of the observer from performing his/her duties.	
Discrepancies between stowage and stowage plan (As Art 30.14.b)	
Functioning of the satellite tracking device (report all interruptions, interference and malfunctions)	
Transshipments (report all)	
Undersized fish catches	
At-Sea Inspections (report dates, times and any other observation)	
Any other observation	





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Sample Weight in kg live weight					
Min Size					
Max Size					
Sex					
Total Number of Samples (n=)					
Meas. Convention (TL, SL, FL, etc.)					
Measure Type					
Unit (mm or cm)					
Comments					

Size between	Number	Number	Number	Number	Number
9.5-10.0					
10.0-10.5					
10.5-11.0					
11.0-11.5					
11.5-12.0					
12.0-12.5					
12.5-13.0					
...					
...					
...					
...					
97.0-97.5					
97.5-98.0					
98.0-98.5					
98.5-99.0					
99.0-99.5					
99.5-100.0					
100.0-100.5					
...					



**Annex 38. Observer tasks related to sharks**

[STACTIC 19-50 **now** COM Doc. 19-20]

**Background**

All observer duties should appear in Article 30.14 of the CEM.

It is proposed to move the observer task related to sharks in Article 12.1 (b) to Article 30.14.

**Proposal**

The provision in Article 12.1 (b) is moved to Article 30.14 as a new sub-paragraph (j), with the following wording:

- (j) for all observed hauls that contain Greenland shark, ~~observers shall~~ record the number, estimated weight and measured length (estimated length if measured length is not possible) per haul or set, the sex, and catch disposition (alive, dead, unknown) of each individual Greenland shark.

**Annex 39. Time of closure of RED 3M Fishery**[STACTIC WP 19-52 Revised **now** COM Doc. 19-21]**Background**

As per Article 5.5 (d) and (e) of the CEM, the Contracting Parties concerned shall close their directed fisheries for RED 3M on the dates determined and communicated by the Executive Secretary in accordance with the provisions of Article 5.15 (e).

The text in Article 5.5 (d) and (e) does not specify at what time of each determined date the vessels must effectively stop their RED 3M fishery, creating confusion on compliance.

It is proposed to modify Article 5.5 (d) and (e) by stating that the effective closure of the RED 3M fishery starts at 24.00 UHT of the day prior to the date determined by the Executive Secretary.

**Proposal**

The text in Article 5 (d) and (e) is modified as follows:

5. Each Contracting Party shall:

...

- (d) close its directed fishery for 3M redfish between **24:00 UTC of the day prior to the date** the accumulated reported catch is estimated to reach 50% of the 3M redfish TAC, as notified in accordance with paragraph 15 (e) of this Article, and 1 July;
- (e) close its directed fishery for 3M redfish **at 24:00 UTC of the day prior to** ~~on the date~~ the accumulated reported catch is estimated to reach 100% of the 3M redfish TAC, as notified in accordance with paragraph 15 (e) of this Article;

## **Annex 40. MSC website – Amendments to Ensure Open Access of all Information to all CPS, and to Define Procedure for Posting of Information via the NAFO Secretariat**

[STACTIC WP 19-53 Revised **now** COM Doc. 19-22]

### **Background**

Through recognition of the role of all Contracting Parties in ensuring control and enforcement of the NAFO rules, whether acting as a flag state, port state or participating in at-sea inspection, STACTIC agreed at its 2018 Intersessional Meeting that the EU would draft a proposal to allow all Contracting Parties equal access to the information held on the MCS Website.

At the 2018 STACTIC Annual meeting, it was agreed that *'the EDG would meet in advance of the 2019 Intersessional Meeting to review the access rights outlined in the NAFO CEM to the MCS Website to at-sea and in port inspectors to ensure that all inspectors have access to all information necessary to facilitate their inspections'*.

Considering the discussions held at the EDG in March 2019, it is proposed to:

1. Ensure that the procedure for posting information to the MCS website is clarified and consistent throughout the CEM. In all cases, Contracting Parties shall send the information to the Executive Secretary, who shall post it immediately to the MCS website. The current references to 'computer readable format' are considered unnecessary and should thus be removed.
2. Ensure that the information stored in the MCS website is made available to all Contracting Parties.
3. Restrict the access to the MCS website to persons who have been nominated by the STACTIC head of delegation of their Contracting Party, and attributed the necessary credentials on an annual basis by the NAFO Secretariat, in accordance with a new procedure proposed in STACTIC WP 19-54.
4. Subject access to the MCS website to the acceptance of confidentiality rules specified in a new disclaimer when entering the website, as proposed in STACTIC WP 19-55.

The table below identifies the editorial modifications necessary in the 2019 NAFO CEM to implement the above points 1 and 2. The nomination procedure in point 3 and the disclaimer in point 4 are subject to separate proposals.

## Proposal

Element	Article	2019 CEM suggested text changes	Comments
CP intention to fish on others quota	5.3.e	For stocks identified in Annex I.A or I.B caught within the Regulatory Area by vessels entitled to fly its flag, each Contracting Party shall ... <del>post to the NAFO MCS Website</del> <u>notify the Executive Secretary</u> of the names of vessels that intend to fish the "Others" quota at least 48 hours in advance of each entry, and after a minimum of 48 hours of absence from the Regulatory Area	
<u>Duties of the ES</u>	5.15.i	The Executive Secretary <del>ensures that to the NAFO MCS Website posts without delay the information notified</del> in accordance with subparagraph 5.3 (e) <u>to the NAFO MCS website is automatically transmitted to Contracting Parties with an inspection presence in the Regulatory Area and ensures that it is made available to all Contracting Parties</u>	Access is extended to all CP's

Element	Article	2019 CEM suggested text changes	Comments
Designated Ports	10.4.c	Each Contracting Party shall <del>post to the NAFO MCS Website, in PDF format, notify the Executive Secretary</del> the name of every port it has so designated. Any subsequent changes to the list shall be <del>posted-notified</del> in replacement of the previous one no less than fifteen days before the change comes into effect	
Port Inspections report	10.4.e	Each Contracting Party shall inspect each landing of Greenland halibut in its ports and prepare an inspection report in the format prescribed in Annex IV.C, which it <del>posts to the NAFO MCS Website, in PDF format, submit to</del> <u>submits to the Executive Secretary</u> within 14 working days from the date on which the inspection was completed	
Duties of the ES	10.7.b	The Executive Secretary ... <del>ensures that posts without delay</del> the list of designated ports <del>posted-notified</del> by the Contracting Party for the purpose of this Article as well as any subsequent changes <del>is automatically to the NAFO MCS website and ensures that it is</del> made available to all Contracting Parties	
	10.7.c	The Executive Secretary ... <del>posts without delay the port inspection reports submitted in accordance with subparagraph 4(e) ensures that any port inspection report posted to the NAFO MCS Website in accordance with subparagraph 4(e) is transmitted to any Contracting Party that requests it and ensures that it is made available to all Contracting parties</del>	

Element	Article	2019 CEM suggested text changes	Comments
Vessel NOT register	25.13.a	Subject to the appropriate confidentiality requirements, the Executive Secretary ... posts the register referred to in paragraph 12, to the NAFO MCS Website and ensures that it is <del>automatically</del> made available to all Contracting Parties	
Duties of the ES	25.13.a	Subject to the appropriate confidentiality requirements, the Executive Secretary ... posts the register referred to in paragraph 12, to the NAFO MCS Website and ensures that it is <del>automatically</del> made available to all Contracting	



Element	Article	2019 CEM suggested text changes	Comments
		Parties	
	26.14	The Executive Secretary circulates without delay to all Contracting Parties and posts to the NAFO MCS Website the information notified in accordance with paragraph 9 and ensures that the catch and bycatch notified in accordance with paragraph 11 is attributed to the chartering Contracting Party	

Element	Article	2019 CEM suggested text changes	Comments
Duties of the ES	28.9.a	The Executive Secretary ... assigns sequential numbers to the reports of each Contracting Party listed in paragraph 6, including any cancellation reports, then posts them to the NAFO MCS Website and ensures that they are <del>automatically transmitted</del> <u>made available in a computer readable format</u> to all Contracting Parties <del>with an inspection presence in the Regulatory Area</del>	Access is extended to all CP's
	28.9.b	The Executive Secretary ... ensures that each port of landing report (POR) posted to the NAFO MCS Website is automatically transmitted to the flag State Contracting Party of the receiving vessel <del>and, in conformity with Annex II.B, to all CPs</del>	

Element	Article	2019 CEM suggested text changes	Comments
Duties of the ES	29.10.b	The Executive Secretary ... posts as soon as possible the VMS position data listed in paragraph 2 (a) to the NAFO MCS Website and ensures that they are <del>automatically</del> <u>made available in a computer readable format</u> to all Contracting Parties <del>with an inspection presence in the Regulatory Area</del>	Access is extended to all CP

Element	Article	2019 CEM suggested text changes	Comments
Infringement on vessels not carrying an observer	30.6.c	By way of derogation ... the flag State Contracting Party <u>shall</u> for vessels not carrying an observer ... physically inspects ... each landing in its ports by the vessel ... If any infringement to the CEM is detected and confirmed, it ( <i>the flag State CP</i> ) shall prepare a report ... (PSC3). The PSC 3 shall be <del>uploaded to the NAFO MCS Website submitted to the Executive Secretary</del> <u>in computer readable format</u> , as soon as possible after the infringement has been confirmed	
List of vessels not carrying an observer	30.6.d	By way of derogation ... the flag State Contracting Party <u>shall</u> for vessels not carrying an observer ... as soon as possible in advance of the fishing trip, <del>posts to the NAFO MCS website, in PDF format</del> <u>notify the Executive Secretary</u> ... the name, IMO number, and International Radio Call sign of the vessel, and the factors that support the decision to grant the derogation to the 100% coverage	
Comparison of relevant data	30.6.e	By way of derogation ... the flag State Contracting Party <u>shall</u> for vessels not carrying an observer ... submits to the Executive Secretary by 1 March each year ... a report containing a comparison of all relevant catch and fishing	

Element	Article	2019 CEM suggested text changes	Comments
		activities showing the difference between the trips where the vessel had an observer on board and those where the observer was withdrawn	
<b>List of observers</b>	30.8.a	Each Contracting Party shall ... each year, before its vessels start fishing in the NAFO RA, <del>post to the MCS Website</del> <u>notify/submit to the Executive Secretary</u> an ongoing list of observers ....	
<b>Offense from or to the observer</b>	30.9.c	Upon the receipt of an OBR from an observer reporting discrepancies ... a Contracting Party shall ... create a report on follow-up actions and <del>post-submit it in a computer readable format</del> to the <del>NAFO MCS website</del> <u>Executive Secretary</u>	
<b>Observer deployment</b>	30.10.a	Each Contracting Party shall <del>provide to submit to</del> <u>notify</u> the Executive Secretary... no later than 24 hours in advance of an observer's deployment onboard a fishing vessel, <del>by posting to the MCS Website</del> , the name of the fishing vessel and International Radio Call Sign, together with the name and ID (if applicable) of the observer concerned	
<b>Daily OBR</b>	30.10.b	Each Contracting Party shall <del>provide to submit to</del> the Executive Secretary... <del>electronically and</del> without delay following its receipt, the daily OBR report referred to in paragraph 14 (e)	
<b>Observer report</b>	30.10.c	Each Contracting Party shall <del>provide to submit to</del> the Executive Secretary... within 30 days following the arrival of the vessel in port, the observer trip report referred to in paragraph 14	
<b>Annual compliance report</b>	30.10.d	Each Contracting Party shall <del>provide to submit to</del> the Executive Secretary... by 1 March each year for the previous calendar year, a report on its compliance with the obligations outlined in this Article.	
<b>Duties of the ES</b>	30.18.a	The Executive Secretary <del>shall post without delay the information received in accordance with subparagraphs 6, 8, 9 and 10 to the NAFO MCS website and ensures it is made make</del> available <u>without delay</u> to all Contracting Parties, <del>via the NAFO MCS website for enforcement purposes only, without delay ... a copy of the observer trip report in the format of Annex II.M; the annual list of observers and observed vessels; the name of fishing vessel together with the name and ID (if applicable) of the observer concerned ... ; any observer report of a discrepancy ... and the daily OBR.</del>	
Element	Article	2019 CEM suggested text changes	Comments
<b>Competent authority</b>	32.1.a	Each Contracting Party shall, no later than 1 December each year, <del>post to the NAFO MCS Website, in PDF format</del> <u>notify the Executive Secretary</u> ... of the contact information of the competent authority which shall act as the contact point for the purpose of immediate notification of infringements in the Regulatory Area, and any subsequent changes to this information, no less than 15 days before the change comes into effect	

<b>Inspectors and Inspection means</b>	32.1.b	Each Contracting Party shall, no later than 1 December each year, <del>post to the NAFO MCS Website</del> <u>notify the Executive Secretary ...</u> of the names of inspectors and inspector trainees and the name, radio call sign and communication contact information of each inspection platform it has assigned to the Scheme. It shall notify changes to the particulars so notified, whenever possible, no less than 60 days in advance	
<b>Duties of the ES</b>	32.3.a	The Executive Secretary ... <del>ensures that posts without delay</del> the information referred to in paragraph 1 <u>to the NAFO MCS website and ensures it is</u> <del>automatically</del> made available to all Contracting Parties	

Element	Article	2019 CEM suggested text changes	Comments
<b>Surveillance Reports</b>	33.2.a	The inspecting Contracting Party shall <u>submit</u> without delay ... <del>post to the Executive Secretary</del> the Surveillance report <del>in PDF format to the NAFO MCS Website</del> for transmission to the flag State Contracting Party of the vessel	
<b>Investigation Report</b>	33.3.b	Each flag State Contracting Party shall ... <del>post submit without delay to the Executive Secretary</del> the investigation report <del>in PDF format to the NAFO MCS Website</del>	
<b>Duties of the ES</b>	33.4.a	The Executive Secretary <u>posts without delay to the NAFO MCS website ensures that</u> ... the Surveillance Reports, including any image recorded, referred to in paragraph 1 <u>and ensures that they</u> are automatically transmitted to the flag State Contracting Party of the vessel concerned ....	
	33.4.b	The Executive Secretary <u>posts without delay to the NAFO MCS website ensures that</u> ... the investigation report referred to in paragraph 3 <u>and ensures that it is</u> <del>automatically</del> transmitted to <u>the</u> Contracting Party that has generated the Surveillance Report	

Element	Article	2019 CEM suggested text changes	Comments
<b>At-sea Inspection Reports</b>	36.3.a	The inspecting Contracting Party shall ... <del>post submit</del> the at-sea inspection report <del>in PDF format to the NAFO MCS Website to the Executive Secretary</del> , if possible within 30 days of the inspection	
<b>Duties of the ES</b>	36.4.a	The Executive Secretary <u>posts without delay ensures that</u> the at-sea inspection reports referred to in paragraph 3 (a) <u>to the NAFO MCS website and ensures they</u> are ... <del>automatically</del> made available to <del>the flag State Contracting Party of the inspected vessel and to the CP participating in the Scheme</del> <u>all Contracting parties</u> ; and	Access is extended to all CPs
	36.4.b	The Executive Secretary <u>posts without delay ensures that</u> the at-sea inspection reports referred to in paragraph 3 (a) <u>to the NAFO MCS website and ensures they</u> are ... <del>transmitted made available to the port State Contracting Party, on demand of that CP, should the flag State Contracting Party be different, and to all Contracting parties</del>	Access is extended to all CPs

Element	Article	2019 CEM suggested text changes	Comments
Reported infringement	37.2.b	The inspecting Contracting Party shall ... within 10 days of the inspection vessel's return to port, <del>post-submit to the Executive Secretary</del> the at-sea inspection report <u>consistent with Annex IV.B to the NAFO MCS Website in PDF format</u>	
Duties of the ES	37.6	<del>Upon a request from a CP receiving a vessel for landing to which an infringement has been issued, the Executive Secretary posts will transmit to that CP without delay a copy of the report of at-sea inspection consistent with Annex IV.B to the NAFO MCS website and ensures it is made available to all Contracting Parties</del>	Access is extended to all CP

Element	Article	2019 CEM suggested text changes	Comments
Measures taken against a vessel	39.4	The flag State Contracting Party and the port State Contracting Party shall immediately notify the Executive Secretary of ... enforcement and progress reports	
Duties of the ES	39.5	The Executive Secretary posts <u>without delay</u> the final outcome report referred to in paragraph 4 (c) <del>onto</del> the NAFO MCS Website and ensures that it is made available to <u>any/all</u> Contracting Parties, <del>on request</del>	

Element	Article	2019 CEM suggested text changes	Comments
Designated ports	43.1	The port State Contracting Party shall <del>post to the NAFO MCS Website, in PDF format</del> <u>notify the Executive Secretary of</u> a list of designated ports ...	
Prior request period	43.2	The port State Contracting Party shall <del>post-submit to</del> <u>notify</u> the prior request period to the <del>NAFO MCS Website, in PDF format</del> <u>Executive Secretary</u> ...	
Competent authority	43.3	The port State Contracting Party shall <del>post to the NAFO MCS Website, in PDF format,</del> <u>submit/notify to the Executive Secretary of</u> the competent authority name and its contact information ...	
PSC 1 and PSC 2 Competent authority	44.3	The flag State Contracting Party shall <del>post on the NAFO MCS website in PDF format</del> <u>submit to</u> <u>notify the Executive Secretary of</u> the contact information of the competent authority, ...	
PSC1 and PSC2 Transmission	43.8	The port State Contracting Party shall ... <del>post-submit to the Executive Secretary</del> (the copy PSC1 and PSC2) <del>to the NAFO MCS website, in PDF format,</del> without delay	
PSC1 and PSC2 Cancellation	43.9	.. the port State Contracting Party shall <del>post without delay submit to the Executive Secretary</del> a copy of the cancelled PSC1 and PSC2 <del>to the NAFO MCS website, for automatic transmission to the flag State Contracting Party.</del>	

<b>PSC 3</b>	43.17	The port State Contracting Party shall without delay <del>post-submit to the Executive Secretary</del> a copy of each port State Control inspection report <del>to the NAFO MCS Website, in PDF format, for automatic transmission to the flag State Contracting Party and to the flag State of any vessel that transhipped catch to the inspected fishing vessel.</del>	
<b>Duties of the ES</b>	46.1.a 46.1.b 46.1.c 46.1.d	The Executive Secretary <del>posts without delay ensures that</del> the following information <del>to the MCS website and ensures it</del> is <del>automatically</del> made available to all Contracting Parties...  (a) the list of designated ports and any changes thereto; ___ (b) the prior request periods established by each port State Contracting Party ; (c) the information about the designated competent authorities in each flag State Contracting Party; (d) copies of all PSC 1 and 2 forms transmitted by port State Contracting Party.	
	46.2	The Executive Secretary <del>posts without delay ensures that</del> the port inspection reports referred to in Article 43.16 (PSC 3 form) <del>to the NAFO MCS website and ensures they</del> are <del>automatically</del> made available to <del>the flag State</del> all Contracting Parties <del>of the inspected vessel; to any other Contracting Party; and to the flag State of any vessel that transhipped catch to the inspected fishing vessel.</del>	

### **Annex 41. Procedure for defining the process to grant access to the MCS Website to individuals within Contracting Parties**

[STACTIC WP 19-54 Revised **now** COM Doc. 19-23]

#### **Background**

Considering the sensitive and confidential nature of the information available on the MCS website, in order to ensure that access is appropriate and managed effectively, the definition of a procedure to grant and obtain access is required for Contracting Parties and the NAFO Secretariat to follow.

The proposed process maintains the current practice that it is the responsibility of the Contracting Parties to identify, using internal national procedures, those individuals within their administrations for whom access to the MCS website is required and appropriate. The Contracting Party should then notify the NAFO Secretariat of those persons who shall then administer that access. To ensure that administration of the access is streamlined, all those who are granted access to the website shall have equal ability to read information.

In accordance with STACTIC WP 19-53, the NAFO Secretariat will be exclusively responsible for uploading all information on the MCS Website.

It is proposed to modify the CEM as follows:

- to insert in Article 1 a definition of the MCS Website
- to create an Annex II.XX detailing the procedure to be followed by the Contracting Parties and the NAFO Secretariat to grant access to individuals

#### **Proposal**

1. To insert in Article a definition of the MCS Website

#### Article 1 – New definition

“MCS Website” means the NAFO Monitoring, Control and Surveillance Website that contains information relevant for at-sea and in-port inspections. The procedure for granting access to this website to individuals within Contracting Parties is outlined in Annex II.XX.

2. To create the following Annex II.XX.

### **Annex II.XX**

#### **Procedure for granting access to individuals within Contracting Parties to the MCS Website**

1. The address for the MCS Website is <https://mcs.nafo.int/>
2. The NAFO Secretariat is responsible for the administration of the NAFO MCS Website, including the uploading of all information to it, and the delivery of the necessary credentials to accede the MCS Website.
3. The purpose of the website is to serve as a tool for sharing information which is often of a confidential and sensitive nature, to facilitate control activities and promote compliance with the NAFO CEM.
4. Within a Contracting Party the individuals to whom access shall be granted to the MCS Website shall be determined as appropriate, bearing the purpose of the website in mind, by the official designated by the Contracting Party on an annual basis.
5. The Contracting Party shall submit a list of those individuals (which includes names, administration for which they work, professional title and email address) to the NAFO Secretariat on an annual basis by the 31<sup>st</sup> December, or as soon as possible if any changes are to be made, to enable access to be granted for the following year.
6. The NAFO Secretariat shall ensure those individuals are granted access to the MCS website, and shall provide login credentials. All those who are granted access shall have equal ability to read information contained in the MCS Website.
7. Individual login credentials will expire automatically on the 31<sup>st</sup> December of the year for which access was granted.

## Annex 42. Distribution of Notification of Infringements (NAFO CEM Article 37.5)

[STACTIC WP 19-56 **now** COM Doc. 19-24]

### Background

At the 2018 NAFO Intersessional meeting in Halifax, Canada was tasked with developing a proposal to amend Article 37.4 to allow the Executive Secretary to more broadly distribute notification of infringements to Contracting Parties, which resulted in the presentation of STACTIC WP 18-35, "Distribution of Notification of Infringements," at the 2018 Annual meeting. Ultimately, STACTIC WP 18-35 Rev. 2 was adopted. The intent of the new measure was "to ensure that any port State Contracting Party receiving a vessel for landing that has been issued an infringement is notified and has an opportunity to receive the written notification related to an infringement in advance of the vessel's arrival in port." In April of 2019, notification of an infringement was distributed beyond the competent authorities of all Contracting Parties. Although this was consistent with the newly adopted text, it was contrary to the intended purpose. As a result, Canada committed at the 2019 Intersessional meeting to prepare the following amendment to the text to bring the content of Article 37 in line with the original intent.

### Proposed Amendments

#### Article 37 - Procedures Relating to Infringements

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

4. The Executive Secretary transmits without delay to the other Contracting Parties participating in the Scheme the written notification of the infringement including a copy of the report of inspection consistent with Annex IV.B.
5. The Executive Secretary transmits [electronic notification that an infringement has been issued to a particular vessel](#) without delay to [the competent authority of each Contracting Party identified under Article 32.1.a.](#) ~~all Contracting Parties electronic notification that an infringement has been issued to a particular vessel.~~
6. Upon a request from a Contracting Party receiving a vessel for landing to which an infringement has been issued, the Executive Secretary will transmit to that Contracting Party without delay a copy of the report of inspection consistent with Annex IV.B.



## Annex 43. Content Adjustments to Add the RJ field to COX report (NAFO CEM Annex II.F.6)

[STACTIC WP 19-57 Revised **now** COM Doc. 19-25]

### Background

At the 2019 Intersessional meeting of STACTIC, Canada presented STACTIC WP 19-34, a discussion paper highlighting that there is currently no requirement to report discards in the Catch on Exit report (COX). However, masters are required to include the vessel's catch since their last daily catch report (CAT). Without the ability to include the discards field (RJ) in the COX, an additional CAT must be submitted the following day.

To provide a more efficient process, Canada, in consultation with the Secretariat, proposes that the RJ field be added to the COX report, and that Article 28.6 be adjusted so that a CAT will not be mandatory for the last day fished in the NRA.

### Proposed Amendments/Format:

#### Article 28

6. Every fishing vessel shall transmit electronically to its FMC the following reports in accordance with the format and the content prescribed for each type of report in Annex II.D and Annex II.F:
  - (a) **Catch** on entry (COE): quantity of catch on board by species upon entry into the Regulatory Area, transmitted at least six (6) hours in advance of the vessel's entry;
  - (b) catch on exit (COX): quantity of catch onboard by species upon exit from the Regulatory Area transmitted at least six (6) hours in advance of the vessel's exit;
  - (c) catch report (CAT): quantity of catch retained and quantity discarded by species for the day preceding the report, by Division, including nil catch returns, sent daily before 12:00 UTC **unless otherwise submitted in a COX report**. Nil catch retained and nil discards of all species shall be reported using the 3 alpha code MZZ (marine species not specified) and quantity as "0" as the following examples demonstrate (//CA/MZZ 0// and //RJ/MZZ 0//);
  - (d) catch on board (COB): for any vessel fishing shrimp in Division 3L, prior to entry or exit from Division 3L, transmitted one hour prior to crossing the boundary of Division 3L;
  - (e) transshipment (TRA):
    - (i) by donor vessel, transmitted at least twenty-four (24) hours in advance of the transshipment; and
    - (ii) by receiving vessel, no later than one (1) hour after the transshipment.
  - (f) port of landing (POR): by a vessel that has received a transshipment at least twenty-four
  - (g) (24) hours in advance of any landing;
  - (h) catch of species listed in Annex I.C for which the total live weight on board is less than 100 kg, may be reported using the 3-alpha code MZZ (marine species not specified), except in the case of sharks. All sharks shall be reported at the species level under their corresponding 3-alpha code presented in Annex I.C or if not contained in Annex I.C the FAO ASFIS List of Species for Fishery Statistics. When species specific reporting is not possible, shark species shall be recorded as either large sharks (SHX) or dogfishes (DGX), as appropriate and in accordance with the 3-

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alpha codes presented in Annex I.C. The estimated weight of sharks caught per haul or set shall also be recorded.

These reports may be cancelled using the format specified in Annex II.F(8). If any of these reports is subject to correction, a new report must be sent without delay after Cancel report within time limits set out in this paragraph.

In case the flag State FMC accepts the cancellation of a report from its vessels it shall communicate it to the Executive Secretary without delay.

## Annex II.F

### 6) "Catch on EXIT" Report

Format specifications when sending reports from FMC to NAFO (XNW) see also Annex II.D.A, II.D.B, II.D.C and II.D.D.1

Data Element	Field Code	Mandatory/Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; "COX" as Catch on Exit report
Sequence Number	SQ	M	Message detail; Unique serial number starting at 1 each year for messages sent from a vessel to final destination (XNW) (See also Annex II.D.C)
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Master Name	MA	O	Name of master of vessel
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Latitude	LA	O1	Activity detail; Latitude at time of transmission from the vessel
Longitude	LO	O1	Activity detail; Longitude at time of transmission from the vessel
Relevant Area	RA	M	NAFO area from which the vessel is about to exit

Catch  species live weight	CA	M	Activity detail; Catch retained onboard by species and by Division since last CAT report in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //CA/speciesspaceweight spacespeciesspaceweightspacespeies spaceweight//
Discarding  species live weight	RJ	M	Activity detail; Catch discarded by species and by Division since last CAT report, in kg rounded to the nearest 100 kg. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g.//RJ/ speciesspaceweightspacespecies spaceweightspacespeciesspaceweight//
Catch  species live weight	OB	M	Activity detail; Total quantity by species on board rounded to the nearest 100 kg, upon exit from the RA. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //OB/speciesspaceweightspacespecies spaceweightspacespecies spaceweight//
Days Fished	DF	O	Activity detail; number of fishing days in the Regulatory Area
Date	DA	M	Message detail; UTC date of transmission from the vessel
Time	TI	M	Message detail; UTC time of transmission from the vessel
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Optional if the vessel is subject to satellite tracking in accordance with Article 29.1.

**Annex 44. Adjustments to the OBR Report in NAFO CEM Annex II.D.c and II.G**[STACTIC WP 19-58 Revised **now** COM Doc. 19-26]**Background**

With the requirement of a daily OBR in 2019, a number of items arose requiring clarification, which were highlighted in STACTIC WP 19-12. The review noted three points requiring clarification: the text in footnote 6 of Annex II.G contradicts the definition in Annex II.D, there is a lack of clarity surrounding what is to be reported in the Undersize field, and the Production field of the report does not link product codes to species or production amounts.

In addition to those items, the Canadian FMC has also detected two issues:

1. that the Gear Type, Mesh Size, Directed Species, and Production fields are mandatory, but cannot be properly completed if the vessel does not conduct any tows/sets or produce on a given day, and
2. that the language surrounding Observers "*approving*" hails and logbooks in footnotes 2 and 3 is outside the scope of Observer duties outlined in Article 30.

To this end, Canada, in consultation with the Secretariat, proposes the amendments below, to address those points requiring clarification, and to ensure that the OBR report is clear, easily completed, and of greater utility. Footnote 6 is removed, and the requirements for the Directed Species field are updated to align with the definition in Annex II.D. A new footnote 6 is added to the Undersize field to clarify that it should be used to report whatever portion of the reported catch was undersized. The Production field is removed, as the NAF format is not designed to process the trios of information (species, product code, and product weight) which would be required for the field to have utility. Footnote 1 is applied to the Gear Type, Mesh Size, Directed Species, and Production fields, making the fields mandatory only if relevant. And the language in footnotes 2 and 3 is adjusted so that the observer is confirming completion of the logbook and transmission of hails in accordance with the NCEMs.

## Proposed Amendments/Format

## Annex II.D

C. Format for electronic exchange of fisheries monitoring information  
(The North Atlantic Format)

Category	Data Element	Field code	Type	Contents	Definitions
Activity Details	Latitude	LA	Char*5	NDDMM (WGS-84)	e.g. //LA/N6235 = 62°35' North
	Longitude	LO	Char*6	E/WDDMM (WGS-84)	e.g. //LO/W02134 = 21°34' West
	Latitude (decimal)	LT	Char*7	+/-DD.ddd	Value negative if latitude is in the southern hemisphere <sup>1</sup> (WGS84)
	Longitude (decimal)	LG	Char*8	+/-DDD.ddd	Value negative if longitude is in the western hemisphere <sup>1</sup> (WGS84)
	Trip Number	TN	Num*3	001-999	Number of the fishing trip in current year
	Catch Species Quantity	CA	Char*3 Num*7	FAO species code 0-9999999	Daily catch by species and by Division, retained on board, in kilograms live weight
	Quantity onboard Species Quantity	OB	Char*3 Num*7	FAO species code 0-9999999	Total quantity by species on board the vessel at the moment of sending the hail message concerned in kilograms live weight
	Discard Species Quantity	RJ	Char*3 Num*7	FAO species code 0 - 9999999	Catch discarded by species and by Division in kilograms live weight
	Undersize Species Quantity	US	Char*3 Num*7	FAO species code 0 - 9999999	Undersize catch by species and by Division in kilograms live weight
	Transferred species Species Quantity	KG	Char*3 Num*7	FAO species code 0-9999999	Information concerning the quantities transferred between vessels by species in kilograms live weight rounded to the nearest 100 Kg. whilst operating in the R.A.
	Relevant Area	RA	Char*6	ICES/NAFO Codes	Code for the relevant fishing area
	Directed Species	DS	Char*3	FAO species codes	Code for the species <u>for which the vessel directed as per Article 5.2 the vessel is targeting</u> . Allow for several species, separated by a space. e.g. //DS/species species species//
	Observer on board	OO	Char*1	Y or N	Presence of a compliance observer on board
Transhipped From	TF	Char*7	IRCS Code	International Radio Call Sign of the donor vessel	

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Transhipped To	TT	Char*7	IRCS Code	International Radio Call Sign of the receiving vessel
Master Name	MA	Char*30		Name of the vessels master
Coastal State	CS	Char*3	ISO-3166 3 Alpha Code	Coastal State of Port of Landing
Predicted Date	PD	Num*8	YYYYMMDD	Estimated date UTC when the master intends to be in port
Predicted Time	PT	Num*4	HHMM	Estimated time UTC when the master intends to be in port
Port Name	PO	Char*20	Name of the actual port of landing	
Speed	SP	Num*3	Knots*10	e.g. //SP/105 = 10.5 knots
Course	CO	Num*3	360° degree scale	e.g. //CO/270 = 270
Chartering Flag Catches	CH	Char*3	ISO-3166	Flag of Chartering Contracting Party
Area of Entry	AE	Char*6	ICES/NAFO Codes	NAFO Division entering into
Days fished	DF	Num*3	1-365	Number of days the vessel spent in the fishing zone during the trip.
Apparent Infringement	AF	Char*1	Y or N	For onboard observer
Mesh Size	ME	Num*3	0 - 999	Average mesh size in millimetres
<del>Production</del>	<del>PR</del>	<del>Char*3</del>	<del>Product Form Codes</del>	<del>Code for the production Annex H.K</del>
Logbook	LB	Char*1	Y or N	For onboard observer to <del>approve-confirm</del> the entries in the vessels logbook
Hails	HA	Char*1	Y or N	For onboard observer to <del>approve-confirm</del> the hails sent from the vessel
Observer Name	ON	Char*30	Text	Name of the onboard observer
Free Text	MS	Char*255	Text	Activity detail; for further comments by observer

## Annex II.G Observer Report

Data Element	Code	Mandatory/ Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, "XNW" for NAFO
Sequence Number	SQ	M	Message detail; message serial number in current year
Type of Message	TM	M	Message detail; message type, "OBR" as Observer report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Fishing Gear	GE	M <sup>1</sup>	Activity detail; FAO code for fishing gear
Directed Species <sup>6</sup>	DS	M <sup>1</sup>	Activity detail; FAO species code <a href="#">for each directed species since the last OBR report</a>
Mesh Size	ME	M <sup>1</sup>	Activity detail; average mesh size in millimetres
Relevant Area	RA	M	Activity detail; NAFO Division
Daily Catches  species live weight	CA	M	Activity detail; catch retained on board by species and by Division since last OBR report in kilograms rounded to the nearest 100 kilograms. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g. //CA/speciesspaceweight spacespeciesspaceweightspacespeies spaceweight//
Discarding  species live weight	RJ	M <sup>1</sup>	Activity detail; Catch discarded by species and by Division since last OBR report, in kg rounded to the nearest 100 kg. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g.//RJ/ speciesspaceweightspacespecies spaceweightspacespeciesspaceweight//
Undersize <sup>6</sup>  species live weight	US	M <sup>1</sup>	Activity detail; Undersize catch by species and by Division since last OBR report, in kg rounded to the nearest 100 kg. Allow for several pairs of fields, consisting of species (FAO 3 alpha codes) + live weight in kilograms (until 9 digits), with each field separated by a space, e.g.//US/ speciesspaceweightspacespecies spaceweightspacespeciesspaceweight//
Logbook	LB	M	Activity detail; "Yes" or "No" <sup>2</sup>
<del>Production</del>	<del>PR</del>	<del>M</del>	<del>Activity detail; code for the production. See Annex II.K</del>

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Hails	HA	M	Activity detail; <del>observers verification if the reports made by the captain are correct,</del> "Yes" or "No" <sup>3</sup>
Apparent Infringements	AF	M	Activity detail; "Yes" or "No" <sup>4</sup>
Observer Name	ON	M	Message detail; name of the observer signing the report
Date	DA	M	Message detail; date of transmission
Free Text	MS	O <sup>5</sup>	Activity detail; for further comments by the observer
Time	TI	M	Message detail; time of transmission
End of record	ER	M	System detail; indicates end of the record

<sup>1</sup> Only to be transmitted if relevant.

<sup>2</sup> "Yes" if the observer ~~approves-confirms~~ the Logbook entries have been made in accordance with the NCEMs~~by the captain.~~

<sup>3</sup> "Yes" if the observer ~~approves-confirms~~ the Hails reports required under Articles 13.11, 13.12, and 28.6 have been transmitted in accordance with the NCEMs~~by the captain.~~

<sup>4</sup> "Yes" if the observer detects a discrepancy with the NCEMs, an infringement is observed.

<sup>5</sup> Mandatory if "LB" = "No", or "HA" = "No", or "AF" = "Yes".

<sup>6</sup> Discarded undersized catch reported in the US field should also be included in the quantities expressed in the Discarding (R) field.~~Directed species is the species which represents the greatest catch for that day.~~

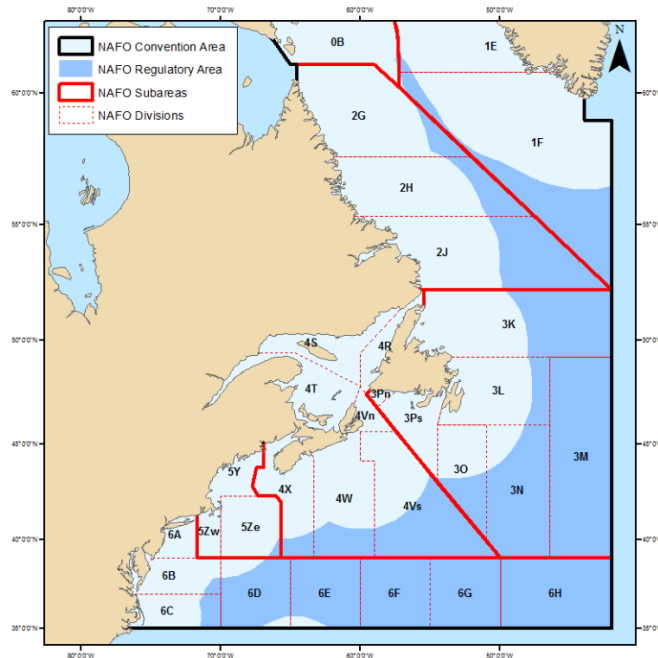


## Annex 45. Annual Fisheries and Compliance Review 2019

[STACTIC WP 19-43 Revised **now** COM Doc. 19-28]

### 1.0 Introduction

The scope of this review covers the fishing activities of NAFO-registered vessels which operated in the NAFO Regulatory Area in 2018<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 2018 information from the following sources: vessel monitoring system (VMS) and hail messages delivered by the vessels (Vessel Transmitted Information – VTI), Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Infringements provided by the Contracting Parties, and Observer Reports sent to the Secretariat.

The report follows the general outline that the Standing Committee on International Control (STACTIC) developed during the 2017 NAFO Annual Meeting (STACTIC WP 17-42 Rev. 2). An additional section incorporated in this report is the chartering arrangements (Article 26).

<sup>1</sup> In this report, only fishing trips which ended in 2018 were considered. According to Article 1.7 of the 2018 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” (NAFO Conservation and Enforcement Measures Article 1.7). All article and annex numbers mentioned in this report have reference to the 2018 NCEM.

## 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. 3LM) and pelagic redfish fisheries (REB - primarily in Div. 1F and 2J). The PRA and the REB fisheries have been under moratoria. In 2018, fisheries in the NAFO Regulatory Area (NRA) was limited to groundfish and pelagic redfish. There were 105 trips by 45 fishing vessels spending a total of 4105 days in the NRA (Table 2.1.1). Additionally, a single vessel (class size 5) spent 10 fishing days, as part of its fishing trip, in Division 6G catching alfonosinos. According to the observer report, the fishing gear used was a mid-water trawl.

Smaller vessels (<500 MT) tend to fish in Divisions 3NO using mainly longlines. The vast majority of the effort comes from larger vessels (> 500 MT) which account for 95% 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, redfish, yellowtail flounder, and thorny skate (see Table 2.3.1).

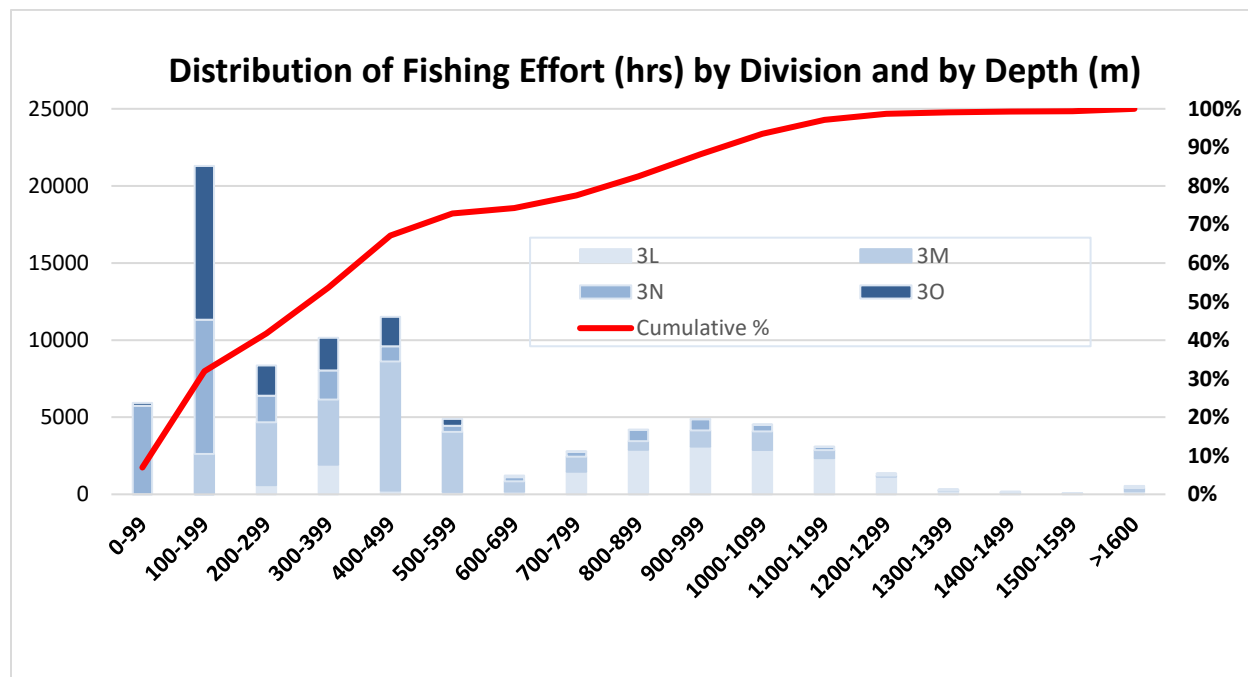
**Table 2.1.1.** *Fishing Effort in the NAFO Regulatory Area in 2018.*

Vessel Class	# of fishing vessels	# of fishing trips	Main Gear	f = Total Fishing Days	Fishing Trip Range (days)	Main Species	Fishing Area
Class 3-4 vessels (less than 500 MT)	5	10	Longline	211	12-49 days	Cod, Yellowtail flounder	Flemish Cap (for cod); Tail of the Grand Banks (for white hake)
Class 5 vessels (500-1000 MT)	11	32	Bottom Trawl	1147	13-68 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Class 6 vessels (1000-2000 MT)	25	58	Bottom Trawl	2572	6-94 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Class 7 vessels (> 2000 MT)	2	5	Bottom Trawl	175	11-53 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
<b>Total</b>	<b>43</b>	<b>105</b>		<b>4105</b>			

### 2.2 Effort Distribution by depth of groundfish vessel

There is a requirement to provide 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. Speeds between 0.5 and 5 knots were assumed to be fishing speeds in this analysis. In Figure 2.2.1, the distribution of fishing effort in hours of groundfish vessels is presented. It shows that about half of all groundfish effort is at depths 400 meters and below (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 2018. Vessels are assumed to be fishing at speed in the range of 0.5-5.0 knots.*

### 2.3 Catch in the NAFO Regulatory Area

In the calendar year 2018, a grand total of 56 773 t of fish (55 475 t retained + 1 298 t rejected) were caught by NAFO-registered vessels authorized to fish in the Regulatory Area (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 2018 (Source: CA field of CAT Reports)

Division	1F	3L	3M	3N	3O	6G	Total
<i>Species subject to catch limitations (as listed in the Quota table)</i>							
COD		67.3	11114.8	203.4	145.3		11530.8
GHL		7276.3	1808.2	840.2	3.4		9928.1
HKW		0.2	5.3	52.6	92.5		150.6
PLA		33.3	212.2	396.4	169.4		811.3
REB	2374.3						2374.3
RED		2895.5	10486.2	3694.9	5994.1		23070.7
SKA		49.8	61.9	1777.6	333.8		2223
SQI			0.1		147		147.1
WIT		41.9	197.1	53.6	141.9		434.5
YEL		0.1		2943.4	50.2		2993.6
<b>Sub-total</b>	<b>2374.3</b>	<b>10364.4</b>	<b>23885.8</b>	<b>9962.1</b>	<b>7077.6</b>	<b>0</b>	<b>53664</b>
<i>Selected species not listed in the Quota table</i>							
ALF						2	2
ANG				0.8	12.1		12.8
CAT		3.9	17.4	25.8	0.3		47.5
HAD			2.6	0.4	4.6		7.6
HAL		56.2	109.5	218.2	172.2		556.1
HKS				0.8	930.2		931
RHG		88.4	33.8	27.9			150.1
RNG		7.2	46	0.6			53.8
<b>Sub-total</b>	<b>0</b>	<b>155.7</b>	<b>209.3</b>	<b>274.5</b>	<b>1119.4</b>	<b>2</b>	<b>1760.9</b>
<i>Sharks</i>							
GSK		10.5					10.5
SHX			0.3				0.3
<i>Other species</i>	0	5.4	9.9	14.9	8.5	0.8	39.6
<b>Sub-total</b>	<b>0</b>	<b>15.9</b>	<b>10.2</b>	<b>14.9</b>	<b>8.5</b>	<b>0.8</b>	<b>50.4</b>
<b>Total</b>	<b>2374.3</b>	<b>10536</b>	<b>24105</b>	<b>10251</b>	<b>8205.5</b>	<b>2.8</b>	<b>55475</b>

**Table 2.3.2** Total reported rejected catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar year 2018 (Source: RJ field of CAT Reports)

Division	3L	3M	3N	3O	Total
<i>Species subject to catch limitations (as listed in the Quota Table)</i>					
CAP			2.1	0.4	2.4
COD		31.4	9.9	0	41.3
GHL		0	0		0
HKW			2.5	3.2	5.7
PLA	0.5	1.3	9.4	1.5	12.7
RED	0.6	2.6	0.5	6.5	10.2
SKA	1.6	2.6	86.6	1.4	92.2
SQI				0.1	0.1
WIT	0.7	1.9	1	3.2	6.9
YEL			10		10
Sub-total	3.4	39.8	122	16.3	181.5
<i>Selected species not listed in the Quota Table</i>					
CAT	15.7	26.6	14.6	8.6	65.5
HAD			0	1	1
HAL		0.1	6.2		6.3
HKS			0.3	16.1	16.4
RHG	158	96.9	23.5	0	278.4
RNG	89.7	75	4	0	168.7
Sub-total	263.4	198.6	48.6	25.7	536.3
<i>Sharks and other elasmobranch</i>					
BSK		1			1
DGS		0	0		0
DGX	3.3	3.7	0.7		7.6
GSK	137.7	76.3	81.1	15.2	310.3
POR			5.1	4.6	9.6
RJD		0			0
RJG			0.1		0.1
RJL			0		0
RJQ	0.1	3.9	4.7		8.7
RJR	0.2	2.7	16.3		19.1
RJS		0.1	0		0.1
SHX		1.6	1.2	1.5	4.3
SMA		0.1	1.3	7.1	8.5
<i>Other Species</i>	30.2	34.9	143.8	2.4	211.4
Sub-total	171.5	124.3	254.3	30.8	580.7
<b>Total</b>	<b>438.4</b>	<b>362.7</b>	<b>424.6</b>	<b>72.8</b>	<b>1298.4</b>

### 3.0 Inspection and Surveillance

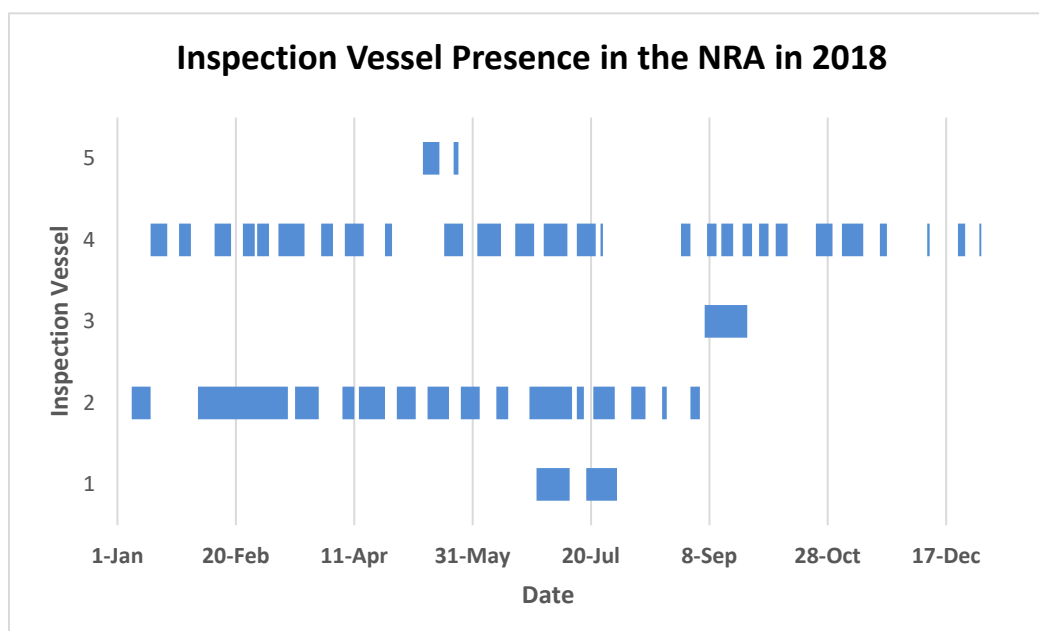
Chapter VI of the NCEM outlines the general provisions and protocol of the at-sea inspection and surveillance in the NRA. Inspectors are appointed by Contracting Parties participating in the at-sea inspection scheme in the NRA and assigned to fishery patrol vessels tasked to carry out NAFO inspection duties at sea. Currently, Canada and the European Union are the Contracting Parties with inspection presence. The United States of America has also partnered with Canada, posting inspectors on Canadian Patrol vessels.

Chapter VII of the NCEM – Port State Control Measure – outlines the procedure and protocol for landings and port inspection.

#### 3.1 Patrol Activity

In 2018, Canada deployed surveillance planes, collectively flying 242 hours with 753 vessel sightings in the NRA. No vessel from non-Contracting Party was spotted.

In addition, five (5) patrol vessels were deployed by the CPs with inspection presence. In all 398 patrol-days were spent in the NRA. The total length of time each patrol vessel exercised its patrol duties in 2018 varied between 11 days and 174 days. However, there were 87 days when no patrol vessel, 173 days when there was one patrol vessel, 105 days when there was more than one patrol vessel present in the NRA. Figure 3.1 shows the time of the year they were present in the NRA.



**Figure 3.1** *Inspection Vessel Presence in the NRA in 2018.*

#### 3.2 At-sea inspections

In all, 100 inspections-at-sea were conducted, out of which three (3) inspections detected Apparent Infringements (AI). Some AIs were considered serious (as per Article 38 definition), one could not be confirmed by the flag State upon further investigation or port inspection. Details of the apparent infringements and their disposition can be found in Sections 4.6-4.8.

### 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 whose 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.

**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.*

	<b>Number of trips</b>	<b>Amount of GHL (tonnes)</b>
Trips which reported GHL catch (GHL at COX >0)	63	10 546
Trips which reported GHL catch AND inspected at port (PSC3)	57	9 495
Percent Coverage	90.5%	90.0%

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.

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

<b>Port State</b>	<b>PSC1 (prior request of flag State for port entry)</b>	<b>PSC3 (port inspection report from port State authority)</b>	<b>% Coverage</b>
Canada	11	11	100.00
DFG (Faroe Is)	5	2	40.0
EU (Spain)	4	4	100.0
Iceland	3	1	33.3

## 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), port State Contracting Parties and at-sea observers 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 signifying the entry to and exit from the NRA. COE-COX

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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 2018 fishing trips had corresponding COE and COX.

In total 4390 CATs were received within the calendar year 2018. This number is expectedly higher than the number of fishing days because some vessels were fishing in more than one Division in a single day.

**Table 4.1.1.1** *Fishing effort and VTI statistics in the NRA, 2018.*

Number of fishing trips identified	105
Fishing Days	4105
Number of Daily Catch Reports (CATs)	4390
Number of Catch on Entry Reports (COEs)	121
Number of Catch on Exit Reports (COXs)	124

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. No quota was exceeded in 2018.

#### **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 2018 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 lumped into SHX. All reported rejections of shark species were identified to species level. Greenland shark constitute the bulk of the total shark catches (see table 4.1.1.2).



**Table 4.1.1.2.** Amount of shark catches (t) as reported in CATs in 2018.

3-Alpha Code	Scientific Name	Common Name	Retained (t)	Rejected (t)	Total (t)	Percentage
BSK	<i>Cetorhinus maximus</i>	Basking shark		1.0	1.0	0.3%
DGS	<i>Squalus acantias</i>	Spiny (=picked) dogfish		0.0	0.0	0.0%
DGX	<i>Squalidae</i>	Dogfishes (NS)		7.6	7.6	2.2%
GSK	<i>Somniosus microcephalus</i>	Boreal (Greenland) shark	10.5	310.3	320.8	91.1%
POR	<i>Lamna nasus</i>	Porbeagle		9.6	9.6	2.7%
SHX	<i>Squaliformes</i>	Large sharks	0.3	4.3	4.6	1.3%
SMA	<i>Isurus oxyrinchus</i>	Shortfin mako shark		8.5	8.5	2.4%
<b>TOTAL</b>			<b>10.8</b>	<b>341.3</b>	<b>352.1</b>	<b>100.0%</b>

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

The submission of fishing logbook data on a haul by haul basis became mandatory in 2015 (Article 28.8.b). The 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. The Secretariat has received logbook data for 102 of 105 trips that were completed in 2018. One CP is investigating the missing three reports.

The Secretariat highlighted that although the information contained in the haul x haul reports were found to be generally reliable, several inaccuracies and impossible values in the coordinates and fishing time have been detected through mapping and cross verification with VMS and depth data.

#### 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 FMC, 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 2018, a total of 112 823 POS reports were received. Occasionally, technical problems were encountered by the fishing vessels or FMC. 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 2018, in total 21 areas in NAFO have been closed to bottom fishing including 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.

No Contracting Party notified its intention to conduct exploratory fisheries (as defined in Article 18) to the Secretariat in 2018.

#### 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 22 vessels were targeting 3M redfish in early 2018. On 15 March 2018, the five-day prior notification of 50%-TAC uptake was circulated, stating that the 50% of the quota was projected to be taken by 20 March 2018, at which time the fishery would be suspended until 30 June. On 20 August 2018, the 96-hour notification was circulated, advising that 100% of the TAC was projected to be reached by 24 August. By the projected closure date, 99.8% of the 10500 t-TAC was fished. No directed fishery on this stock was conducted after the closure.

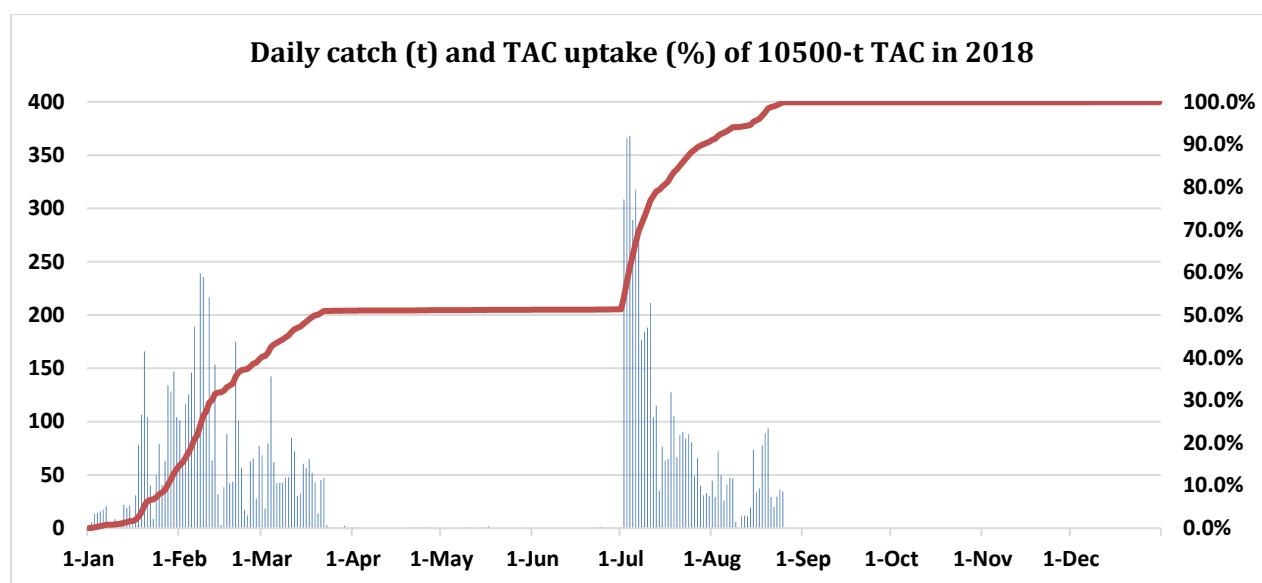


Figure 4.1.1.6 Daily catches of 3M redfish and TAC uptake in 2018. Source: 2018 CATs.

#### 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 made by the vessel are counted against the quota of the chartering CP. In 2018 one (1) arrangement was made with a fishing possibility of 340 tonnes 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. The charter catches amounted to 339 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

Under Article 30.A – Observer Scheme, vessels are always required to have an independent observer on board (i.e. 100% coverage) during every fishing trip.

In evaluating compliance of observer reports submission, only reports from vessels operating under Article 30.A were considered. In 2018, of the 95 fishing trips under Article 30.A, the Secretariat received observer reports from 86 trips, an 91% reporting coverage.

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

In 2018, a total of six (6) 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.

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**Table 4.2** Details of Apparent Infringements (AI) detected by inspectors at-sea and by port authorities in 2018 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 in bold.	Confirmation in port of AI detected at sea (PSC3: Section E.1.B.a).	AI's detected in port (PSC3: Section E.1.B. c.) Serious AIs in bold.	Follow-up action (Article 40) and Status as of June 2019
RUS	3	18-Apr-18	<b>-Art. 28.2.a and b- Fishing logbook.</b> -Art. 28.5.a - Stowage Plan.	Art 28: 2(b)/3(a)/5(a)		Penalty was paid by the ship-owner in accordance with the established procedure. CLOSED
NOR	113	14-May-18	-Art. 25.11 - Capacity Plan			Warning Issued. CLOSED
EU	43	04-Jul-18			-Art.27.1 - [Product labelling]	Case led by Spain. Procedure about to start. PENDING
RUS	40	27-Jul-18			<b>-Art. 38.1.i Mis-recording, contrary to Art. 28.</b>	Russia investigated the incident and concluded that "the activity of the fishing vessel was carried out in strict accordance with the provisions of NAFO Measures". CLOSED
USA	116	18-Sep-18	<b>-Directed fishing for 3M Cod (Art. 38.1)</b> -Fishing logbook missing (Art. 28.2) -Production logbook missing (Art. 28.3) -Capacity Plan (Art. 25.10.a)			STILL UNDER INVESTIGATION
EU	49	03-Dec-18			-Art. 28.3. Production logbook <b>-Art. 28.2 Overrecording of HAL</b> <b>-Art. 28.2 Overrecording of RED</b> <b>-Art. 28.2 Underrecording of COD</b> -Art. 27.1 Product labelling - COD-GUH labelled as COD-OTH	Case led by Spain Procedure started on 11.12.2018. PENDING

### 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 (2014-2018) 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 2019). 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
2014	6	5	1	83%
2015	3	0	3	0%
2016	11	6	5	54%
2017	7	5	2	71%
2018	6	3	3	50%

\* still under investigation, litigation, or appeal.

## 5.0 Trends and Analysis

Five-year trends (2014-2018) 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

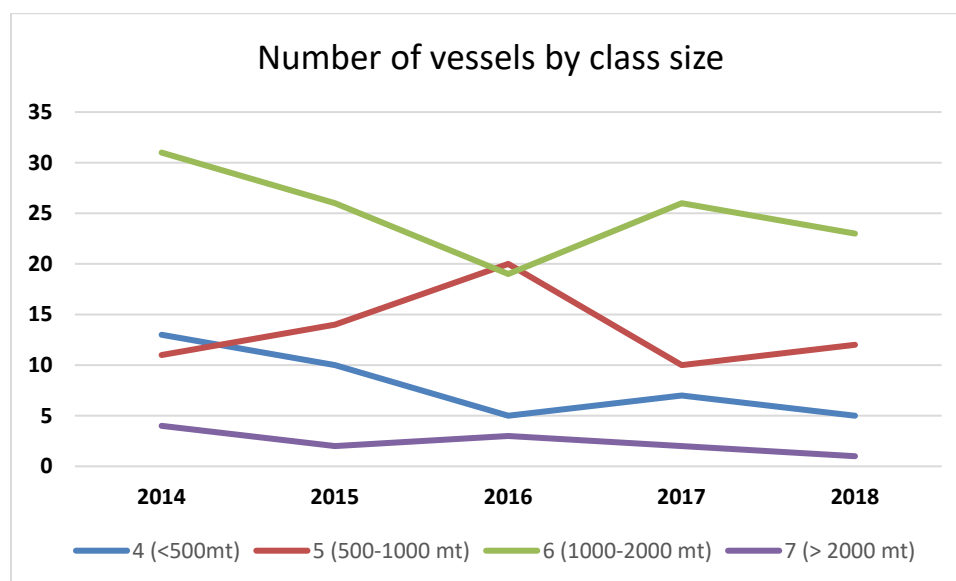
Trends in fishing effort and catches are presented in Table 5.1, Figures 5.1.1, 5.1.2 and 5.1.3.

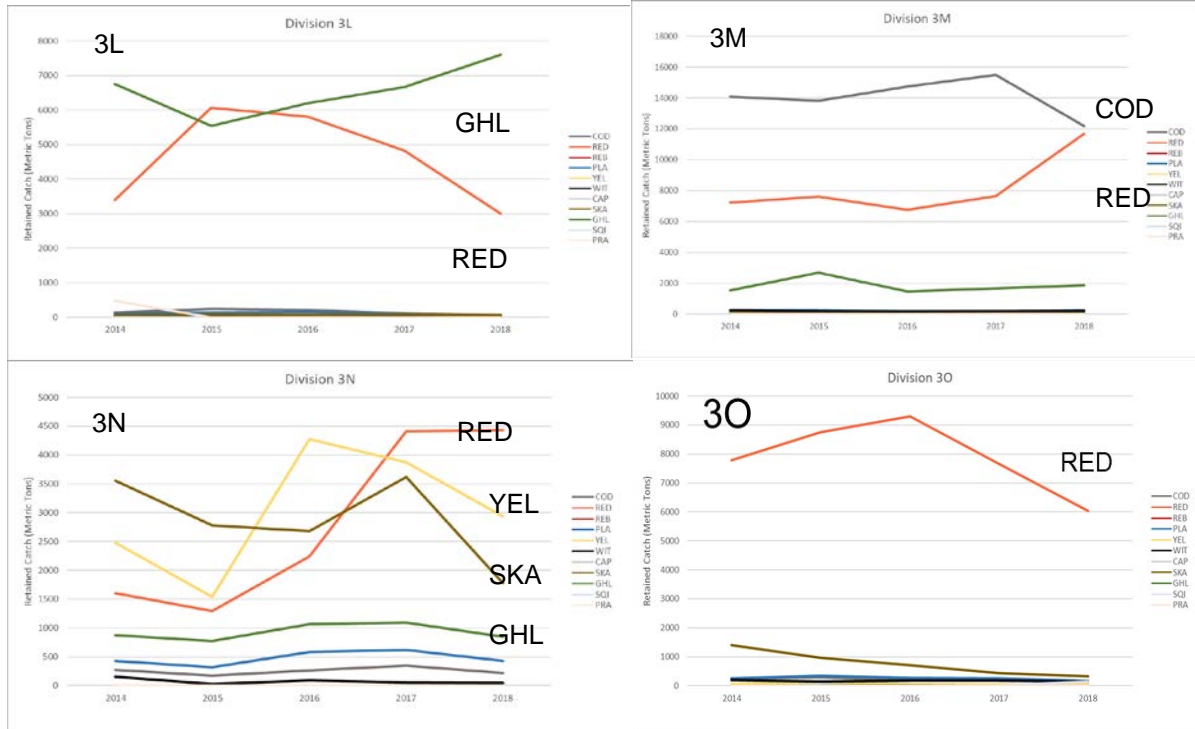
Observations:

- There was a 6% effort increase in 2018 compared to the previous year; however, there was a 20% decrease of fishing effort in the 5-year period.
- Total catch of TAC-managed species remained steady, ranging 52.0K t and 57.8K t.
- Catch per unit effort (CPUE) of TAC-managed species remained steady, ranging 10.8 and 14.6 tonnes/day.
- Considerable amount of both American plaice and cod was caught in Division 3N, while in comparison a lesser count of cod was caught in Division 3O. Both species are under moratoria.
- Reversed catch trends were observed between Greenland halibut and redfish in Division 3L, and between cod and redfish in Division 3M (see Figure 5.1.2).

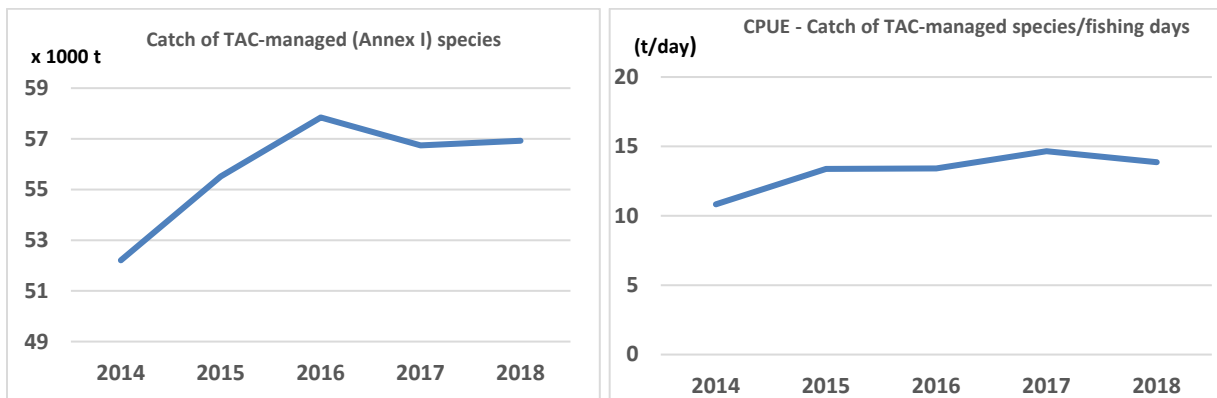
**Table 5.1.** *Fishing days, as defined by Article 1.6, by fishing gear.*

	Longline	Midwater-trawl	Bottom-Trawl	TOTAL
2014	352	56	4414	4822
2015	272	93	3785	4150
2016	260	181	3873	4314
2017	314	0	3558	3872
2018	304	82	3719	4105

**Figure 5.1.1** *Number of fishing vessels in Divisions 3LMNO by class size, 2014-2018. The class sizes are based on the STATLANT classification.*



**Figure 5.1.2** Catches (in tonnes) by Division of selected species managed by TAC, 2014-2018 (Source: CATs)

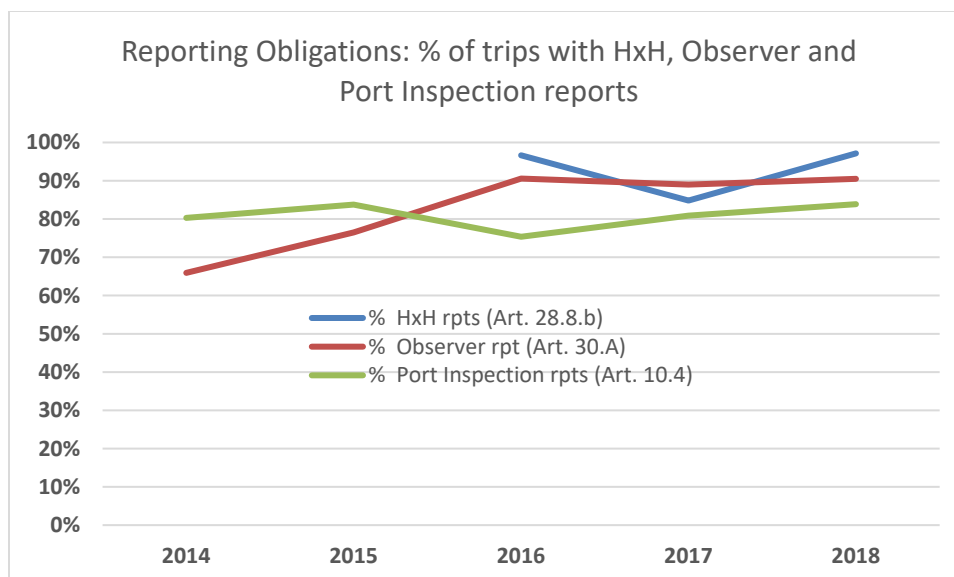


**Figure 5.1.3** Catch of TAC-managed species and CPUE in 2014-2018, expressed in total catch of TAC-managed species per fishing day. Data Source: CATs and VMS reports.

### 5.2 Reporting Obligations by Contracting Parties and Observers

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, observer reports from vessels operating under Article 30.A, and haul by haul reports in accordance with Article 28.8.b.





**Figure 5.2** *Percentage coverage of Port Inspections reports with Greenland halibut landings reports (Arts. 10.4 and 42.10), Observer Reports on fishing vessels operating under Article 30.A, and Haul by Haul reports (Article 28.8.b and Annex II.N), 2014-2018.*

### 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.

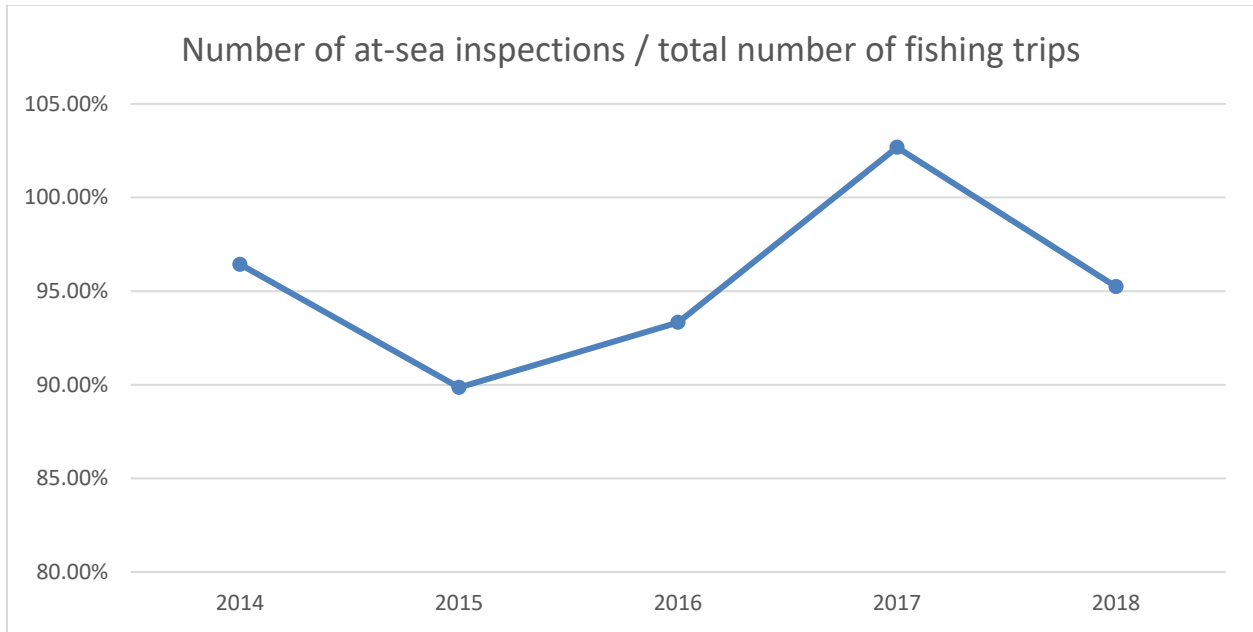
### 5.4 Inspections and Apparent Infringements

At-sea inspection rates, computed as a ratio of the number of at-sea inspections and the total fishing effort, in the period 2014-2018 are presented in Figure 5.4.1. Frequency of AI cases in the period 2014-2018 are presented in Figure 5.4.2.

Inspection rates have remained steady with no more than 10% inter-annual difference. The 2018 inspection rate decrease compared to the previous year.

With regards to AIs detected at sea and at port, mis-reporting of catches have remains to be the most common AI. 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 trips) in the NAFO Regulatory Area, 2014-2018. The 2017 instance of over 100% inspection rate occurred due to multiple inspections occurred during single trips.*

	2014	2015	2016	2017	2018
Bycatch - move-away	•				
By-catch requirements	••	•	••••	••	
Catch communication violations (COX)			•		
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	••	•	•	•••	•
Observer requirements	•				
Product labelling	•••			•	••
Quota requirements			••		
Vessel requirements - capacity plans	•		•		••
VMS requirements	•				

**Figure 5.4.2** Frequency of apparent infringement cases detected by at-sea inspectors and port authorities in 2014-2018. 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 gears. The catches are stable around 56 000 tonnes with a 3% discard rate.

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.

However, concerns are expressed with some discrepancies related to catch reporting and the sizable increase in the reporting of discards of Greenland shark, noting that they comprise 23.8% of all discards in NAFO.

## 7.0 Recommendations

STACTIC recommends that the Secretariat evaluates frequency of exceedance of bycatch thresholds and move-along compliance. STACTIC will include a section on bycatch and discard compliance in the Annual Fisheries and Compliance Review.

STACTIC recommends that all Contracting Parties continue to strive for coordination and collaboration.

STACTIC encourages Contracting Parties and Masters of fishing vessels to be mindful of the veracity of the haul by haul reports before being transmitted to the Secretariat.

STACTIC recommends that inspectors should continue to consider discrepancies in reporting and continue make use of the NAFO MCS Website when planning inspections.

STACTIC recommends that Contracting Parties continue to ensure the correct reporting of species by division, including species where no catch limitations apply.

STACTIC recommends that all Contracting Parties maintain and continue efforts to protect stocks that are subject to moratorium.

STACTIC recommends that Contracting Parties with an inspection presence continue to enforce the CEM with uniformity and consistency.

STACTIC recommends that the Secretariat split out the information in Table 3.3.1 by Contracting Party for the next Compliance Review.

STACTIC recommends to review the mechanism for updating the cancelation of the PSC1 to the NAFO Secretariat.

STACTIC recommends a column be added to Table 3.3.2 to clarify vessels intentions (e.g. landing vs. use of port services) for the next Compliance Review.

STACTIC recommends that vessel names be included in table 4.2 in the initial draft of the Compliance Review, but be removed prior to making the document public for the 2020 review.

STACTIC recommends that the Secretariat include a trend for the number of fishing vessels in figure 3.1 for the next Compliance Review.

## **Annex 46. Providing Information on the Implementation of the FAO Port State Measures Agreement**

[COM WP 19-23 now COM Doc. 19-33]

### **Background**

According to Article 24.1 of the FAO Port State Measures Agreement (PSMA) the Parties shall, within the framework of FAO and its relevant bodies, ensure the regular and systematic monitoring and review of the implementation of the PSMA, as well as the assessment of progress made towards achieving its objective.

Furthermore, Article 24.2 provides that the FAO shall convene a meeting of the Parties to review and assess the effectiveness of the PSMA in achieving its objective, four years after the entry into force of the Agreement. As the FAO PSMA entered into force in June 2016, a third meeting of the Parties for this purpose is planned for 2020, and the European Union has offered to host this meeting in the week of 30 November to 4 December 2020.

In this regard, the second meeting of the States Parties to the FAO PSMA adopted a questionnaire regarding how the States Parties have implemented the Agreement. The purpose of the questionnaire is to serve as a tool that monitors implementation and identifies challenges faced in implementation, as a part of the review and assessment of the effectiveness of the PSMA.

As the Regional Fisheries Management Organizations (RFMOs) have been given a very important role in the implementation of the FAO PSMA and in achieving its objective, it was also agreed that the FAO Secretariat shall invite RFMOs to provide information on their implementation of the PSMA. However, no questionnaire was developed for the RFMOs.

The questionnaire developed for the States Parties was agreed to be launched during the first week of June 2020 and remain open until 1 September 2020, and it is likely that the invitation to RFMOs to provide information will be sent at the same time as the questionnaire for the States Parties.

### **Proposal**

STACTIC is responsible for monitoring the implementation of the requirements in the NAFO CEM and should provide the response regarding the implementation of the FAO PSMA in NAFO. However, as the meetings of STACTIC normally take place in May and during the Annual Meetings of NAFO in September, STACTIC should finalize its response at the spring meeting in 2020. This does not allow much time for STACTIC to prepare such a response, and hence, we propose that the NAFO Secretariat is asked to provide a draft by the end of January 2020. The draft should then be discussed by a smaller working group established by STACTIC. This working group will prepare a draft response, to be discussed and agreed by STACTIC.

The response to FAO should provide a short description of the NAFO port State control system and its history, including amendments made to align with the FAO PSMA. It should also include the number of NAFO Contracting Parties, which are Parties to the PSMA.

Furthermore, the response should compare the NAFO port State control system with the FAO PSMA, and should include, inter alia, the issues listed below:

- Objective and area of application
- Measures to integrate port State control measures with other measures to prevent, deter and eliminate IUU fishing and fishing related activities in support of such activities
- Requirements for designating ports
- Requirements for entry into port, including the information required when vessels request port entry

- Requirements for denial of use of port
- Measures regarding inspections and follow up actions, including
  - minimum levels for inspections
  - measures on risk assessment and which vessels to prioritize
  - guidelines or requirements for the training of inspectors
  - requirements for the conduct of inspections
  - inspection procedures
  - inspection reports
  - transmittal of inspection results
- Procedures for denial of port entry and use of port, including sharing of information
- Requirements applicable to vessels from non-Contracting Parties and cooperating non-Contracting Parties
- Measures regarding the role of flag States
- Measures in place for exchanging information relating to port State control between the Contracting Parties, but also with FAO, other international organizations and RFMOs.
- Measures in place if, following inspection, there are clear grounds for believing that a vessel has engaged in IUU fishing or fishing related activities in support of such fishing, or if there are other compliance issues.

The response should also describe challenges experienced in aligning the NAFO port State control with the FAO PSMA.

Based on the above, it is proposed that the Commission requests the NAFO Secretariat to prepare a draft response to FAO, including the elements described above by the end of January 2020.

It is also proposed that STACTIC establishes a working group which, based on the draft from the Secretariat, shall prepare a response to FAO, to be discussed and agreed by STACTIC at its spring meeting in 2020.



### Annex 47. 2019 Press Release

FOR IMMEDIATE RELEASE

**Bordeaux, France, 27 September 2019-** The 41<sup>st</sup> Annual Meeting of the Northwest Atlantic Fisheries Organization (NAFO) took place from 23-27 September in Bordeaux, France. Delegates from the 12 NAFO Contracting Parties were welcomed to France by the French Minister for Agriculture and Food, Didier Guillaume, the French Director General for Fisheries and Aquaculture, Frédéric Gueudar Delahaye, and the NAFO President, Stéphane Artano. Contracting Parties were also welcomed by Stephan Delaux, Deputy Mayor of Bordeaux, Eric Banel, Interregional Director for the Sea, representing the Regional Prefect of New Aquitaine, and Raphaëlle Seguin, Counsellor at the Ministry for French Overseas Territories, later in the week.

At the meeting, NAFO agreed to advance its review of the Precautionary Approach Framework to support the long-term conservation and sustainable use of fisheries resources in the NAFO Regulatory Area. The comprehensive management strategy for Divisions 2+3KLMNO Greenland halibut, adopted in 2017, will continue to inform sustainable management decisions for this NAFO stock. NAFO agreed to reopen the Flemish Cap shrimp fishery (Division 3M) after an increase of the stock to levels above  $B_{lim}$ . The fishery for this shrimp stock has been closed since 2011.

In addition, to the traditional total allowable catch (TAC)\* and quota decisions, significant decisions were made regarding the following:

- NAFO agreed to a process to address the recommendations of the 2018 Performance Review, along with an annual progress reporting procedure.
- NAFO continued its commitment to transparency and agreed to post its vessel registry on the NAFO website.
- NAFO increased its Monitoring, Control and Surveillance data availability to at sea and in port inspectors.
- NAFO continued to make progress on the NAFO Observer Application for the instantaneous reporting of scientific and catch data to the NAFO Secretariat.
- NAFO reelected, Stéphane Artano (France in respect of St. Pierre et Miquelon), as NAFO President, and Temur Tairov (Russian Federation) as Vice-Chair of the NAFO Commission, for an additional two-year term.

\*All of the TACs and quotas can be found attached.

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**PART II.**  
**Report of the Standing Committee on International Control (STACTIC)**

41<sup>st</sup> Annual Meeting of NAFO, 23-27 September 2019  
Bordeaux, France

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## **Report of the Standing Committee on International Control (STACTIC)**

41<sup>st</sup> Annual Meeting of NAFO, 23-27 September 2019  
Bordeaux, France

### **1. Opening by the Chair, Judy Dwyer (Canada)**

The Chair opened the meeting at 14:00 hours on Monday, 23 September 2019 at the Hotel Pullman of Bordeaux-Le Lac in Bordeaux, France. 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 Republic of Korea, the Russian Federation, 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 18 – Other Business:

- a. SC Survey
- b. Inspectors Workshop
- c. Article 30
- d. Port State Measures

The agenda was adopted, as amended (Annex 2).

### **4. STACTIC participation**

Prior to the opening of this meeting, Contracting Parties met to discuss the participation of industry representatives in STACTIC. Recognizing the need for a productive meeting, Contracting Parties agreed as a temporary solution to walk through the agenda and the working papers to determine which items were deemed to be of a sensitive nature and were more appropriate to be discussed in an in camera session. Contracting Parties agreed that all working papers and agenda items would be discussed in an open session, with the exception of Agenda Item 6 (STACTIC WP 19-59) and the Secretariats' demonstration of the updates to the NAFO MCS Website under Agenda Item 9, noting these would be discussed in an in camera session restricted to government officials and NAFO Commissioners from each delegation. It was understood that after the in-camera discussion, the Chair would report out the results or recommendations in open session.

Contracting Parties noted that the current practice of identifying items for an in camera session would work as a short-term solution, but that a more permanent solution would be required. Contracting Parties agreed to task a small working group to develop a possible long-term solution for STACTIC participation. Some options that were discussed included an executive session of STACTIC, the development of a Terms of Reference for STACTIC, asking the NAFO Secretariat to review the Terms of Reference for compliance committees in other RFMOs, etc... Contracting Parties noted that the procedure adopted for this meeting, of identifying sensitive agenda items and working papers for an in camera session in advance of the meeting should continue until a long term solution is in place.

It was agreed to develop an ad hoc working group on STACTIC participation and task them with addressing the issue of participation of industry representatives in STACTIC, and examine the current Rules of Procedure in the possible development of a terms of reference for STACTIC. It was agreed that the NAFO Secretariat will review the Terms of Reference for compliance committees in other RFMOs and report their findings to the ad hoc working group. The ad hoc working group will report back to STACTIC at the 2020 STACTIC Intersessional



Meeting. Contracting Parties agreed and noted that this meeting should be held back to back with the EDG meeting.

It was **agreed** that:

- **an ad hoc working group on STACTIC participation be developed and task them with addressing the issue of participation of industry representatives in STACTIC, and consider the current Rules of Procedure in the possible development of a terms of reference for STACTIC.**
- **the NAFO Secretariat will review the Terms of Reference for compliance committees in other RFMOs and report their findings to the ad hoc working group.**
- **The ad hoc working group will report back to STACTIC at the 2020 STACTIC Intersessional Meeting.**
- **The ad hoc working group on STACTIC participation be held back to back with the EDG meeting in March 2020. Venue and dates to be determined.**

##### **5. Compliance review 2019 including review of apparent infringement reports and of chartering arrangements**

The NAFO Secretariat presented the draft Compliance Review outlined in STACTIC WP 19-43, noting that the overview of Chartering Arrangements (information presented in STACTIC WP 19-42) was included in this version of the Compliance Review as per the agreement from the 2018 Annual Meeting. Contracting Parties offered some clarification 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 which were drafted by the NAFO Secretariat. The final version of the draft Compliance Review is outlined in STACTIC WP 19-43 (Revised).

The NAFO Secretariat presented STACTIC WP 19-51 outlining a preliminary analysis of bycatch exceedance frequency and compliance to the 10-mile moving-away provision using the logbook (haul by haul) data from bottom trawl gears. The Secretariat noted that the intent of this presentation was to receive feedback from Contracting Parties on the methodology being used and receive input for improvements for presentation at the 2020 STACTIC Intersessional meeting. Contracting Parties thanked the Secretariat for the preliminary analysis but noted that further work and refinement was needed. Contracting Parties agreed that the analysis should continue and offered suggestions to enhance the analysis including that other data sources (e.g. VMS, observer reports) should be included in the analysis for verification, as well as an evaluation of whether there was a reduction in bycatch after moving 10nm. Canada encouraged further testing of the preliminary results as the analysis continues.

The European Union noted that, although the methodology followed in STACTIC WP 19-51 could be improved, the preliminary results already reveal serious concerns about the rationale and enforceability of certain provisions in the NAFO CEM relating to the implementation of bycatch and discard provisions. The European Union pointed out that a number of STACTIC working papers on such issues are repeatedly discussed in various STACTIC meetings, confirming how complex the implementation of the bycatch and discard provisions have become. The European Union also pointed out that some NAFO Contracting Parties have adopted a landing obligation; this also confirms the need to evaluate if the current bycatch and discard provisions in NAFO are still relevant. The European Union consequently calls STACTIC to request the Commission to mandate STACTIC to discuss the impact of the landing obligation on the current bycatch and discard provisions in the NAFO CEM.

It was **agreed** that:

- **The draft Annual Compliance Review outlined in STACTIC WP 19-43 (Revised) be forwarded to the Commission for adoption.**
- **That the Secretariat should proceed with the work on the analysis of bycatch exceedance frequency and compliance to the 10-mile moving-away provision.**

## **6. Measures concerning repeat non-compliance of serious infringements in the NAFO Regulatory Area**

Canada presented a discussion paper on measures concerning vessels demonstrating repeat non-compliance of serious infringements in the NAFO Regulatory Area in STACTIC WP 19-59. This discussion was held during an in-camera session. During the session, broad discussions were held based on the presentation from Canada on possible options for potential measures for addressing this issue. Canada thanked Contracting Parties for their input and agreed they may come forward with a new discussion paper or proposal at the 2020 STACTIC Intersessional Meeting.

It was **agreed** that:

- **Canada will reflect on the comments and discussions of STACTIC WP 19-59 and may present a new discussion paper or proposal at the 2020 STACTIC Intersessional Meeting.**

## **7. New and Pending Proposals on Enforcement Measures: Possible revisions of the NAFO CEM**

Canada presented STACTIC WP 19-25 (Revised) outlining a proposal for adjustments to multiple flap-type topside chafers (Annex III.B.2 of the NAFO CEM). Contracting Parties thanked Canada for the proposal and agreed to forward it to the Commission for adoption.

Norway presented STACTIC WP 19-48 outlining a proposal regarding an amendment to Article 13.6 of the NAFO CEM to restrict the use of multiple flap-type topside chafers to fisheries using smaller mesh sizes. Contracting Parties noted that the mesh size mainly used in NAFO fisheries is 130mm and suggested that could be used rather than 80mm or 100mm as proposed by Norway. The European Union questioned the utility of this revision as the chafers are used over the codend where that there is no more concern for selectivity. Other Contracting Parties may not share the view of the European Union that there are no concerns for selectivity in the codend where the chafers are attached. Norway agreed to reflect on the discussion and may present the working paper at the 2020 STACTIC Intersessional Meeting.

Canada presented STACTIC WP 19-27 (Revised) outlining a proposal to update production logbook and stowage plans at the request of inspectors. Contracting Parties thanked Canada for the proposal, and supported the concept of the proposal, but offered suggestions on the wording. Contracting Parties agreed to forward STACTIC WP 19-27 (Rev. 4) to the Commission for adoption.

Canada presented STACTIC WP 19-30 (Revised) outlining a joint Canada and European Union proposal amending the use of the MZZ (unspecified) species code in Article 28.6.g of the NAFO CEM. The United States of America expressed concerns about the removal of the reference to the FAO ASFIS List of Species for Fishery Statistics, and the proposal was revised to retain that text. It was agreed to forward STACTIC WP 19-30 (Rev. 2) to the Commission for adoption.

The Chair highlighted STACTIC WP 19-44, agreed at the 2019 STACTIC Intersessional Meeting, outlining the deletion of footnote 1 in Annex II.J of the NAFO CEM. Contracting Parties noted that there were several codes in Annex II.J that should be reviewed at the 2020 STACTIC Intersessional Meeting. It was agreed to forward STACTIC WP 19-44 to the Commission for adoption.

Canada presented STACTIC WP 19-56 clarifying the distribution of the notification of infringements in Article 37.5 of the NAFO CEM. Contracting Parties thanked Canada for the proposal and agreed to forward it to the Commission for adoption.

The European Union presented STACTIC WP 19-49 outlining a proposal to revise the observer reporting template in Annex II.M of the NAFO CEM to align with the revisions made to the observer program at the 2018 Annual Meeting. Contracting Parties thanked the European Union for their efforts in creating the new templates and offered some minor revisions presented in STACTIC WP 19-49 (Revised). The European Union requested that the Secretariat translate the new reporting template into the Excel file format and develop instructions to be used by the observers and included in the Observer application currently in development by the NAFO Secretariat. Canada and the European Union agreed to review the templates and instructions once they are completed by the Secretariat. Japan noted that they will continue to modify the template to include a Japanese translation of the table headings for easier use by their observers. It was agreed to forward STACTIC WP 19-49 (Revised) to the Commission for adoption.

Norway presented STACTIC WP 19-47 outlining a proposal regarding the inclusion of vessels from IUU lists of other RFMOs on the NAFO IUU list. Norway noted that this proposal was also discussed in PECMAC (the compliance committee of the North East Atlantic Fisheries Commission (NEAFC)) and that they agreed to forward to the NEAFC Annual Meeting a proposal to include several other RFMO IUU lists on the preliminary IUU list (A list) to be reviewed by PECMAC prior to listing on the confirmed B list. It was noted that if NEAFC adopts the PECMAC recommendation, this would mean that this IUU list would automatically be included in the NAFO list, which may present problems. Contracting Parties were supportive of the concept of the proposal but requested to defer discussions to the 2020 STACTIC Intersessional Meeting. The United States emphasized that it could only agree to including vessels from other RFMOs IUU lists if their IUU listing processes were sufficiently similar to NAFOs.

The European Union presented STACTIC WP 19-50 outlining a proposal to migrate the observer tasks related to sharks to Article 30 of the NAFO CEM for clarification. It was agreed to forward STACTIC WP 19-50 to the Commission for adoption.

The European Union presented STACTIC WP 19-52 outlining a proposal for clarification on the timing of the closure of the 3M redfish fishery, proposing it would be 24:00UTC on the day prior to the date projected by the NAFO Secretariat. Contracting Parties expressed concerns with closing the fishery the day prior, and that 24:00UTC on the date provided by the Secretariat would provide the clarity needed and reduce the risk of having the fishery close with quota remaining. It was agreed to forward STACTIC WP 19-52 (Revised) to the Commission for adoption.

Canada presented STACTIC WP 19-57 outlining a proposal on content adjustment to add the RJ field (discards) to the COX report. Contracting Parties were supportive of the proposal but offered some clarifying edits and agreed to forward STACTIC WP 19-57 (Revised) to the Commission for adoption.

Canada presented STACTIC WP 19-58 outlining a proposal for adjustments to the OBR Report and reporting elements in Annex II.G and II.D.c of the NAFO CEM in response to a recommendation from the 2019 STACTIC Intersessional Meeting. Contracting Parties thanked Canada for their work and noted a small discrepancy between the LB and HA elements in Annex II.D.c, which were corrected in STACTIC WP 19-58 (Revised). It was agreed to forward STACTIC WP 19-58 (Revised) to the Commission for adoption.

The United States of America presented STACTIC WP 19-63 outlining a proposal to clarify the definition of directed fishery and the obligations of Contracting Parties and vessels. Contracting Parties thanked the United States of America for the proposal but felt that more time was required for review. It was agreed to defer discussions on STACTIC WP 19-63 to the 2020 STACTIC Intersessional Meeting.

The United States of America presented STACTIC WP 19-66 outlining a proposal for addressing incompatible measures for longline vessels. The United States noted that this proposal was originally presented at the 2019 STACTIC Intersessional Meeting as STACTIC WP 19-41 and has been modified following the receipt of

comments from other Contracting Parties. Several Contracting Parties noted some concerns with the proposal including the introduction of other gears (e.g. pots, traps, anchored gillnets, etc...) and noted that the changes were very substantial and required more time for review. It was agreed to defer the discussion of STACTIC WP 19-66 to the 2020 Intersessional Meeting and that Contracting Parties were invited to provide comments on the latest draft of the proposal to the United States of America in advance of the meeting.

It was **agreed** that:

- **The proposed changes to the NAFO CEM relating to adjustments to multiple flap-type topside chafers outlined in STACTIC WP 19-25 (Revised) be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM requiring that the inspectors be updated with information on the processed and stowed catch from the day of the inspection outlined in STACTIC WP 19-27 (Rev. 4) be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to the use of the MZZ species code in Article 28.6.g outlined in STACTIC WP 19-30 (Rev. 2) be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to the deletion of footnote 1 in Annex II.J outlined in STACTIC WP 19-44 be forwarded to the Commission for adoption.**
- **The codes outlined in Annex II.J of the NAFO CEM be reviewed at the 2020 STACTIC Intersessional Meeting.**
- **The proposed changes to the NAFO CEM on clarifying the distribution of the notification of infringements in Article 37.5 outlined in STACTIC WP 19-56 be forwarded to the Commission for adoption.**
- **The proposed revisions to Annex II.M of the NAFO CEM outlined in STACTIC WP 19-49 (Revised) be forwarded to the Commission for adoption.**
- **The NAFO Secretariat translate the revisions to Annex II.M outlined in STACTIC WP 19-49 (Revised) to the Excel file format and develop instructions for observers with assistance from Canada and the European Union.**
- **Discussions on STACTIC WP 19-47 outlining a proposal regarding the inclusion of vessels from IUU lists of other RFMOs on the NAFO IUU list be deferred to the 2020 STACTIC Intersessional Meeting.**
- **The proposed changes to the NAFO CEM for the migration of the observer tasks related to sharks to Article 30 for clarification outlined in STACTIC WP 19-50 be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to the timing of the closure of the 3M redfish fishery outlined in STACTIC WP 19-52 (Revised) be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to the addition of the RJ field to COX report outlined in STACTIC WP 19-57 (Revised) be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to adjustments to the OBR Report outlined in STACTIC WP 19-58 (Revised) be forwarded to the Commission for adoption.**

- **Discussions on STACTIC WP 19-63 outlining a proposal to clarify the definition of directed fishing and the obligations of Contracting Parties and vessels be deferred to the 2020 STACTIC Intersessional Meeting.**
- **Discussions on STACTIC WP 19-66 outlining a proposal for addressing incompatible measures for longline vessels be deferred to the 2020 STACTIC Intersessional Meeting.**

## **8. Discussions on the interpretation of Article 10 of the NAFO CEM**

The Chair opened this agenda item noting that at the March 2019 meeting of the EDG, and at the 2019 STACTIC Intersessional Meeting, Contracting Parties discussed the issue of the varying interpretations of Article 10 of the NAFO CEM, mainly the interpretation of “engaged in the Greenland halibut fishery”, and what that means for port inspection coverage. Contracting Parties continued the discussions at this meeting, but no consensus could be reached on the interpretation of the 100% port inspection coverage requirement. The two views expressed were that 1. port inspections are required for all landings of Greenland halibut (as outlined in Article 10.4.e) or 2. that port inspections were required only when a vessel was conducting a directed fishery for Greenland halibut.

As no consensus could be reached on this item, STACTIC agreed to request guidance from the Commission on the interpretation of these measures.

The European Union requested that, should the Commission consider that the 100% port inspection coverage rate is not compulsory, the Contracting Parties that do not apply this 100% rate, table a proposal to modify NAFO CEM Article 10.4.e accordingly, at the 2020 STACTIC Intersessional Meeting.

Denmark (in respect of the Faroe Islands and Greenland) noted, that the headline in Article 10 is for vessels that are authorized to fish as described in Article 10.4.b and 10.4.d and the article did not apply for vessels who have some single Greenland halibut as bycatch.

It was **agreed** that:

- **STACTIC request that the Commission advise on the interpretation of the port inspection requirements outlined in Article 10 (Greenland halibut) of the NAFO CEM, clarifying if the correct interpretation of the measure is 1. port inspections are required for all landings of Greenland halibut (as outlined in Article 10.4.e) or 2. that port inspections were required only when a vessel was conducting a directed fishery for Greenland halibut**

## **9. NAFO MCS website and application development**

The European Union presented STACTIC WP 19-53 outlining proposed amendments to the NAFO CEM to classify levels of access of all information and to define procedures for posting of information to the NAFO MCS Website via the NAFO Secretariat. The European Union highlighted that the proposal will streamline the posting processes and allow access for all Contracting Party representatives who are responsible for inspections, either at sea or in port. Contracting Parties thanked the European Union for their work and offered small revisions. It was agreed to forward STACTIC WP 19-53 (Revised) to the Commission for adoption.

The European Union presented STACTIC WP 19-54 outlining a proposal defining the process to grant access to the NAFO MCS Website to individuals within Contracting Parties. Contracting Parties thanked the European Union for the proposal and offered some clarifications and agreed to forward STACTIC WP 19-54 (Revised) to the Commission for adoption.

The European Union presented STACTIC WP 19-55 outlining a confidentiality disclaimer for individuals when accessing the NAFO MCS Website. Contracting Parties thanked the European Union for this proposal noting its importance as more and more information is being uploaded to the NAFO MCS Website. Contracting Parties

offered clarification on the text of the disclaimer and agreed that the NAFO Secretariat will add the disclaimer outlined in STACTIC WP 19-55 (Revised) to the NAFO MCS Website.

The NAFO Secretariat presented an update on the current development of the Observer Reporting Application in STACTIC WP 19-67. The Secretariat reported that the application has been tested at sea by Canadian and European Union observers and they have provided some feedback to the Secretariat. Some users reported that they found the device was small and difficult to use for data entry, and the Secretariat agreed to investigate the use of a larger tablet or developing a web-based application that could be used by the observer on a laptop. Another point was that some vessels were not equipped with internet capabilities, so there was no means to transmit the data directly from the vessel, and the Secretariat was investigating satellite internet devices and Contracting Parties suggested that the Iridium devices, as they have made advancements in their global coverage. Contracting Parties thanked the Secretariat for their work on the application and encouraged the Secretariat to continue its development.

In an in-camera session, the NAFO Secretariat provided a demonstration on the recent enhancements to the NAFO MCS website that had been requested by NAFO inspectors. Contracting Parties thanked the Secretariat for the work that has been done to the website noting that the changes will enhance the abilities of the inspectors to conduct risk assessments to improve the effectiveness of inspections. Contracting Parties encouraged the Secretariat to continue working on the enhancements to the MCS Website.

It was **agreed** that:

- **The proposed changes to the NAFO CEM relating to defining a procedure for posting of information to the MCS Website outlined in STACTIC WP 19-53 (Revised) be forwarded to the Commission for adoption.**
- **The proposed changes to the NAFO CEM relating to the process for granting access to the MCS website outlined in STACTIC WP 19-54 (Revised) be forwarded to the Commission for adoption.**
- **The NAFO Secretariat include the disclaimer outlined in STACTIC WP 19-55 (Revised) on the NAFO MCS Website.**
- **The NAFO Secretariat continue the work on the NAFO Observer Application and enhancements to the NAFO MCS Website and provide an update at the 2020 STACTIC Intersessional Meeting.**

## 10. Editorial Drafting Group (EDG) of the NAFO CEM

The Chair highlighted STACTIC WP 19-11 outlining proposed editorial changes in the NAFO CEM that the EDG forwarded to STACTIC as they required further discussion. On Article 5.2, Contracting Parties had lengthy discussions on the interpretations for the bycatch calculations, the use of Annex I.A species in the calculations, events that trigger the move along provisions, etc... noting the difficulties with implementing and enforcing the current bycatch provisions with respect to the calculations for any one haul in NAFO. STACTIC agreed that discussions will continue on these issues in the next in person EDG meeting. The European Union agreed to draft a document outlining their interpretations of these provisions to facilitate these discussions.

On Article 10.5.d.i, it was agreed that the proposed change to replace the word *notification* with *confirmation* was strictly editorial, and would be forwarded to the Commission for adoption in STACTIC WP 19-11 (Revised).

On Article 13.9, Contracting Parties expressed concerns with the proposed change to add a reference to the *FAO Guidelines on the Marking of Gears* as it was recently implemented and Contracting Parties would need to verify if they were currently following these guidelines domestically, and agreed to report back on this topic at the 2020 STACTIC Intersessional Meeting. Denmark (in respect of Faroe Islands and Greenland) shared

STACTIC WP 19-69 for information on Greenland's current practices for the marking of gear, which follows the *Convention on Conduct of Fishing Operations in the North Atlantic*.

On Article 28.3.b, it was noted that the concept of the smallest geographical area had already been addressed and a proposal adopted in STACTIC WP 19-21 from the 2019 STACTIC Intersessional Meeting.

On Article 38.1.c, Contracting Parties agreed that the discussions on these items should also be included in the next EDG meeting.

The NAFO Secretariat presented STACTIC WP 19-45 outlining potential edits to the 2019 NAFO CEM flagged by the NAFO Secretariat for review. STACTIC agreed that Article 30.20 of the NAFO CEM should be deleted in the 2020 CEM as the provision expires on 01 January 2020. STACTIC also agreed that Annex II.H of the NAFO CEM should be deleted as there is no longer a reference to it in the CEM, and observers are now required to send daily OBR reports, so there is no need for weekly OBR reports. These changes are reflected in STACTIC WP 19-45 (Revised). The Secretariat also highlighted a discrepancy in the VL field definitions in Annex II.C and II.D, as well as a lack of reference in the CEM to Annex II.I Part B, and Contracting Parties agreed to forward these issues, now highlighted in STACTIC WP 19-70, to the EDG for review.

It was **agreed** that:

- **The EDG, at their next face to face meeting, have a thorough discussion on the interpretations of the bycatch provisions in the NAFO CEM.**
- **The European Union will draft a discussion paper outlining their interpretations of the bycatch provisions to facilitate discussions at the next face to face EDG meeting.**
- **Contracting Parties will follow up on the domestic implementation of the *FAO guidelines on "Marking of gears"* and report back at the 2020 STACTIC Intersessional Meeting.**
- **The proposed editorial changes to the NAFO CEM outlined in STACTIC WP 19-11 (Revised) be forwarded to the Commission for adoption.**
- **The proposed editorial changes to the NAFO CEM outlined in STACTIC WP 19-45 (Revised) be forwarded to the Commission for adoption.**
- **To forward the items outlined in STACTIC WP 19-70 to the EDG for review at their next meeting.**
- **The EDG will meet virtually in the fall of 2019 to review the drafted changes to the NAFO CEM completed by the NAFO Secretariat following the adoption of the proposed changes to the NAFO CEM by the Commission.**
- **The EDG will have a face to face meeting back to back with the ad hoc working group on STACTIC participation in March 2020. Venue and dates to be determined.**

## 11. Review and Evaluation of Practices and Procedures

The NAFO Secretariat presented STACTIC WP 19-46 outlining the new documents from Canada, Denmark (in respect of the Faroe Islands and Greenland), and the United States of America on the Greenland shark identification and data collection methods.

The European Union noted that they intend to share some risk assessment methodologies for at-sea and in port inspections in the near future, as well as a checklist for the conduct of port inspections. Denmark (in respect of the Faroe Islands and Greenland) noted they are updating their instructions given to observers on discards and garbage disposal at-sea and that they will upload this to the Practices and Procedures webpage.

## 12. Review of Current IUU list Pursuant to NAFO CEM, Article 53

The NAFO Secretariat presented the NAFO IUU List update in STACTIC WP 19-14 and noted that there have been no changes since the 2019 STACTIC Intersessional Meeting.

## 13. Review of the reporting of provisional monthly catch (Article 28.8.a)

The European Union highlighted STACTIC WP 19-22 (Revised) outlining a proposal to revise the provisional monthly catch reporting requirement in Article 28. The European Union noted that the current revision included an exemption from the provisional monthly catch reporting requirement for Contracting Parties who are submitting daily catch reports. Denmark (in respect of the Faroe Islands and Greenland) expressed concerns with the interpretations of Article 28, as it is not clear whether nil-catch reports should be submitted. Contracting Parties agreed with the context of the proposal and offered clarifying revisions and agreed to forward STACTIC WP 19-22 (Rev. 2) to the Commission for adoption.

It was **agreed** that:

- **The proposed changes to the NAFO CEM related to the provisional monthly catch reporting requirement in Article 28 outlined in STACTIC WP 19-22 (Rev. 2) be forwarded to the Commission for adoption.**

## 14. Bycatches and Discards

Denmark (in respect of the Faroe Islands and Greenland) presented two discussion papers (STACTIC WP 19-61 and STACTIC WP 19-62) and requested that they be forwarded to the to the EDG for the discussions on bycatch provisions.

It was **agreed** that:

- **STACTIC WP 19-61 and STACTIC WP 19-62 be forwarded to the EDG for discussion at their next face to face meeting.**

## 15. Discussion of data classification and access rights

The NAFO Secretariat highlighted STACTIC WP 19-16 an update from the ad hoc Virtual NAFO Website Re-design Working Group, requesting that STACTIC review the fisheries information available on the NAFO Members pages and determine if this information should be posted to the NAFO public website. The NAFO Secretariat noted that this paper was presented at the 2019 STACTIC Intersessional Meeting, and that Contracting Parties requested a walk through of the website items to allow for further review. Contracting Parties agreed that the NAFO vessel registry should be made available on the NAFO public website, noting it includes notified vessels that have been authorized to fish in NAFO within the last two years, and that the vessel flag State, vessel name, and radio call sign be posted to the NAFO public website.

On the Research Vessel list, Contracting Parties noted that there may be some sensitive information in the current notifications that are posted and requested the NAFO Secretariat to consolidate the information for presentation at the 2020 STACTIC Intersessional Meeting and that STACTIC will review the consolidated information to determine if it is appropriate to be posted to the NAFO public website.

On the Provisional Catch information, Contracting Parties agreed that this information should remain on the NAFO Members pages as it contains provisional catch information that should not be made available to the public.

On the Practices and Procedures webpage, Contracting Parties noted that some of the information available on this page may not be appropriate for the public website, but required more time to review the information.



The European Union noted that some information, such as risk assessment methodologies may be better suited for posting to a Practices and Procedures page on the NAFO MCS Website, while other information would be suited for the public website. It was agreed that Contracting Parties review the material on the Practices and Procedures page to determine which information may be posted to the public website, and which information should be migrated to the NAFO MCS Website at the 2020 STACTIC Intersessional Meeting.

On the notification of lost gear, Contracting Parties agreed that the information on location and type of gear that was lost should be public information, but that some details currently posted to the NAFO Members pages should not be included. Contracting Parties requested the Secretariat to consolidate the location and gear details information, as well as create a map showing the locations of the lost gear for presentation at the 2020 STACTIC Intersessional Meeting, and STACTIC will determine if it is appropriate to be posted to the NAFO public website.

The European Union also requested that the information on the uptake of the 3M redfish fishery be made available on the NAFO public website so that operators can have access to this information in real time. Contracting Parties agreed that the 3M redfish catch uptake (only showing the total catch amount for the stock, no specific vessel catch details) will be posted to the NAFO public website.

The United States of America presented STACTIC WP 19-60 (Revised) outlining a proposal to improve transparency by making STACTIC working papers publicly available on the NAFO public website, unless otherwise requested by a Contracting Party or subject to confidentiality. The United States of America highlighted in the proposal NAFO's commitment to transparency in past meetings and documents and that STACTIC has the authority to adopt this decision within its own group. The United States of America also noted that STACFAD has committed to post their working papers to the NAFO public website and recommended this year to the Commission to further consider what documents should be included on the public website. Contracting Parties raised concerns about the proposal, noting that some working papers contain sensitive information and that, if there was going to be a procedure in place, it should be that the papers are confidential unless a decision is taken to make them public. This would ensure that no working papers with sensitive information get posted inadvertently. The United States of America noted that there are no current rules restricting a Contracting Party from posting working papers to the public website if they choose, and STACTIC agreed that this could be done, but some guidance for the NAFO Secretariat may be required. It was noted that the NAFO Secretariat could use their discretion to contact the involved Contracting Parties if a Contracting Party submitted a working paper for the public website that contained information relating to another Contracting Party.

It was **agreed** that:

- **The NAFO vessel registry (vessel flag State, vessel name, radio call sign) be posted to the NAFO public website.**
- **The NAFO Secretariat consolidate the information on the Research Vessels page of the NAFO Members website for review at the 2020 STACTIC Intersessional Meeting, and STACTIC will determine if it is appropriate to be posted to the NAFO public website.**
- **The Provisional Catch Information page of the NAFO Members pages will remain on the NAFO Members pages website and not be posted to the NAFO public website.**
- **Contracting Parties review the material on the Practices and Procedures page to determine which information may be posted to the public website, and which information should be migrated to the NAFO MCS Website at the 2020 STACTIC Intersessional Meeting.**

- **The NAFO Secretariat consolidate the location and gear details information, and create a map showing the locations of the lost gear for review at the 2020 STACTIC Intersessional Meeting, and STACTIC will determine if it is appropriate to be posted to the NAFO public website.**
- **The 3M redfish fishery real time catch uptake (showing total catch amounts) be posted to the NAFO public website.**
- **Any Contracting Party can request to have their own STACTIC working papers posted to the NAFO public website going forward.**

## 16. Discussion on Garbage Disposal and Labour Conditions Onboard Vessels

The European Union presented STACTIC WP 19-33 (Revised) outlining a proposal to address marine pollution in the NAFO CEM and noted this revision incorporated comments received from Contracting Parties since the 2019 STACTIC Intersessional Meeting. Japan noted that they agreed with the concept presented in the proposal but requested revisions, which were presented in STACTIC WP 19-33 (Rev. 2). Norway noted that there are other international organizations that cover these issues and that a reference to MARPOL would be sufficient for inclusion in the NAFO CEM. The European Union agreed to defer the proposal for discussion at the 2020 STACTIC Intersessional meeting.

Iceland recalled the decision at the 2018 Annual Meeting for Contracting Parties to submit a Single Point of Contact (SPOC) on the issue of labour conditions onboard vessels in the NRA to the NAFO Secretariat to post to the MCS Website and the Chair encouraged Contracting Parties to submit this information. Contracting Parties agreed to submit this information to the NAFO Secretariat, and some Contracting Parties provided their information during the meeting.

It was **agreed** that:

- **Discussion on STACTIC WP 19-33 (Rev. 2) outlining a proposal to address marine pollution in the NAFO CEM be deferred to the 2020 STACTIC Intersessional Meeting.**
- **Contracting Parties would continue to submit their Single Point of Contact (SPOC) on the issue of labour conditions onboard vessels to the NAFO Secretariat to post on the MCS Website.**

## 17. Discussion of the reporting of shark catches in the NAFO Regulatory Area

Canada provided an update that they are still working with Denmark (in respect of the Faroe Islands and Greenland) and the United States of America on the development of standardized methods to be used in NAFO for the identification and data collection requirements for Greenland sharks. Canada, on behalf of the group, have asked that Contracting Parties consider two questions, whether Contracting Parties have any additional information that they could provide for consideration and the second to ensure the most inclusive collection of insights, invites other Contracting Parties to participate in this group.

The European Union agreed to participate in the work of this group.

The group will discuss next steps and timelines intersessionally and provide an update at the 2020 STACTIC Intersessional Meeting.

It was **agreed** that:

- **Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union and the United States of America (with an invitation to other Contracting Parties to participate) will continue to work on standardization for the identification and data collection requirements for Greenland sharks and provide an update at the 2020 STACTIC Intersessional Meeting.**
- **Interested Contracting Parties submit information to the group by 30 November 2019.**

## **18. Other Business**

### **a. SC Survey**

The Chair highlighted STACTIC WP 19-64 outlining a survey request from the Scientific Council to STACTIC relating to provide the Scientific Council with information on the source of data included in the NAFO Observer Program Database. Contracting Parties filled out the survey and the results presented in STACTIC WP 19-64 (Revised) will be forwarded to the Scientific Council for information.

It was agreed that:

- **The survey results presented in STACTIC WP 19-64 (Revised) be forwarded to the Scientific Council for information.**

### **b. Inspectors Workshop**

The European Union noted that there have been two NAFO Inspectors Workshops in collaboration with Canada and that they have been extremely productive sessions that have resulted in a lot of practical discussions and improvements to the NAFO CEM. The European Union highlighted that the next session of the NAFO Inspectors Workshop will take place in the Azores from 29-31 October 2019. The European Union presented the draft Agenda for the workshop and invited all other Contracting Parties to send interested inspectors. The European Union agreed to forward logistical information to the NAFO Secretariat for circulation and requested confirmation of attendance by 10 October 2019. It was agreed that the NAFO Secretariat will circulate a reminder to STACTIC Participants on 26 September 2019.

It was agreed that:

- **The European Union will provide the logistical information for the upcoming NAFO Inspectors Workshop to the NAFO Secretariat.**
- **The NAFO Secretariat will circulate a reminder for the NAFO Inspectors Workshop and the logistical information to STACTIC participants by 26 September 2019.**
- **Contracting Parties interested in the upcoming NAFO Inspectors Workshop will confirm their attendance with the European Union by 10 October 2019.**

### **c. Article 30**

The Chair highlighted the importance of reviewing the implementation of the revisions to the NAFO Observer Program that were adopted at the 2018 NAFO Annual Meeting. The Chair highlighted Article 30.10.d outlining the requirements for Contracting Parties to report on their implementation of Article 30 by 01 March of each year and Article 30.18.d outlining the NAFO Secretariats' responsibilities to collate and present the reports from Contracting Parties to STACTIC at the Intersessional Meetings. It was agreed that the NAFO Secretariat would circulate a reminder to STACTIC participants by 01 February 2020 of the 01 March reporting requirements and circulate the draft reporting templates that were discussed at the 2018 Annual Meeting. It was also agreed that the review of Article 30 be added to the 2020 STACTIC Intersessional agenda.

It was **agreed** that:

- **The NAFO Secretariat will circulate the draft reporting templates for the NAFO Observer program to STACTIC participants.**
- **The NAFO Secretariat will circulate a reminder to STACTIC participants on 01 February 2020 of the reporting requirements outlined in Article 30.10.d of the NAFO CEM.**
- **The review of Article 30 be added to the 2020 STACTIC Intersessional Meeting agenda.**

#### **d. Port State Measures**

The Russian Federation presented STACTIC WP 19-65 outlining a proposal to modify the timing for port States to respond to the submission of a PSC1 from “without delay” to within 12 hours. Contracting Parties noted concerns with the proposal as there have been instances where 12 hours have been exceeded due to verification processes with flag States, and office staffing. Russia revised the proposal and presented it in STACTIC WP 19-65 (Rev. 2) replacing the words “without delay” with “immediately”. Contracting Parties expressed the same concerns with the interpretation of immediately. The European Union highlighted that the proposal was in response to one case and that measures should not be amended to accommodate one issue with one vessel.

Several Contracting Parties noted that they can relate to the concerns expressed by Russia in relation to unexpected delays in the process, which can create a burden on the vessel operators. However, they also expressed there are many constraints within port States that make them unable to commit to such restricted time constraints. Contracting Parties agreed to add the discussion on the practical application of the port state measures to the agenda for the 2020 STACTIC Intersessional Meeting, including a discussion of the emerging technologies being used to streamline the PSC processes. It was agreed that the NAFO Secretariat continue its work on the development of the electronic PSC process in NAFO.

The European Union highlighted an issue that occurred with one of its vessels that required entry into port for reasons of force majeure and recalled that in such cases that NAFO CEM Article 42 applies.

It was **agreed** that:

- **The discussion on the practical application of the port state measures be added to the agenda for the 2020 STACTIC Intersessional Meeting.**
- **The NAFO Secretariat continue its work on the development of the electronic PSC process in NAFO**

#### **19. Election of Chair and vice-Chair**

At the 2017 Annual Meeting, Judy Dwyer (Canada) was elected as Chair and Aronne Spezzani (European Union) was re-elected as vice Chair. The Chair noted that the two-year period has ended and opened the floor for nominations for the Chair and vice-Chair.

The European Union nominated Kaire Märtin (European Union) to serve as the next Chair of STACTIC. Contracting Parties expressed their unanimous support for the election of Kaire Märtin to serve as STACTIC Chair for a period of two years.

The United States of America nominated Patrick Moran (United States of America) to serve as the next vice-Chair of STACTIC. Contracting Parties expressed their unanimous support for the election of Patrick Moran to serve as STACTIC vice-Chair for a period of two years.

It was **agreed** that:

- **Kaire Märtin (European Union) will serve as the next Chair of STACTIC for a period of two years.**
- **Patrick Moran (United States of America) will serve as the next vice-Chair of STACTIC for a period of two years.**

## **20. Time and Place of next meeting**

The next STACTIC Intersessional meeting will be hosted by the Russian Federation in Murmansk from 12-14 May 2020.

## **21. Adoption of Report**

The report was adopted on 26 September 2019, prior to the adjournment of the meeting.

## **22. Adjournment**

The meeting was adjourned at 12:45 hours on 26 September 2019. The Chair thanked France (in respect of St. Pierre et Miquelon) for hosting the meeting and the NAFO Secretariat for their support during the meeting. The Chair also thanked the meeting participants for their cooperation and input. The participants likewise expressed their thanks and appreciation to the Chair for her leadership during her four years as Chair.

**Annex 1. List of Participants**

Judy Dwyer (Chair) Natasha Barbour Mike Hurley Paul Shea Lloyd Slaney Jerry Walsh	<b>Canada</b>
Signe Bork Hansen Meinhard Gaardlykke Mads T. Nedergaard	<b>Denmark (in respect of the Faroe Islands and Greenland)</b>
Genadijus Babcionis Alexis Bensch Carlos Chamizo Gema De Frutos Carlos Ferreira Margarita Mancebo Robledo Epp Meremaa Eglė Radaitytė Mario Santos Aronne Spezzani Xosé Tubio	<b>European Union</b>
Mehdi Bouchelaghem Laurent Bouvier	<b>France (in Respect of St. Pierre et Miquelon)</b>
Jóhann Ásmundsson Birgir H Björnsson Björgólfur H. Ingason	<b>Iceland</b>
Kenro IINO Takeshi MIWA Hideki MORONUKI Junichiro OKAMOTO	<b>Japan</b>
Kjetil Gramstad Hilde Ognedal	<b>Norway</b>
Ilya Skryabin	<b>Russian Federation</b>
Haena Lee	<b>Republic of Korea</b>
Kathy Cyr Mike Henry Gene Martin Patrick Moran Katie Pohl Eric Reid Mike Sissenwine Richard Usher	<b>United States of America</b>
Jana Aker Ricardo Federizon Matt Kendall DJ Laycock	<b>NAFO Secretariat</b>

## **Annex 2. Agenda**

1. Opening by the Chair, Judy Dwyer (Canada)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. STACTIC participation
5. Compliance review 2019 including review of apparent infringement reports and of chartering arrangements
6. Measures concerning repeat non-compliance of serious infringements in the NAFO Regulatory Area
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. NAFO MCS website and application development
10. Editorial Drafting Group (EDG) of the NAFO CEM
11. Review and Evaluation of Practices and Procedures
12. Review of Current IUU list Pursuant to NAFO CEM, Article 53
13. Review of the reporting of provisional monthly catch (Article 28.8.a)
14. Bycatches and Discards
15. Discussion of data classification and access rights
16. Discussion on Garbage Disposal and Labour Conditions Onboard Vessels
17. Discussion of the reporting of shark catches in the NAFO Regulatory Area
18. Other Business
  - a. SC Survey
  - a. Inspectors Workshop
  - b. Article 30
  - c. Port State Measures
19. Election of Chair and vice-Chair
20. Time and Place of next meeting
21. Adoption of Report
22. Adjournment





**PART III.**  
**Report of the NAFO Standing Committee on Finance and Administration (STACFAD)**

41<sup>st</sup> Annual Meeting of NAFO, 23-27 September 2019  
 Bordeaux, France

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

41<sup>st</sup> Annual Meeting of NAFO, 23-27 September 2019  
Bordeaux, France

**1. Opening by the Chair, Deirdre Warner-Kramer (USA)**

The first session of STACFAD was opened by the Chair, Deirdre Warner-Kramer (USA) at 14:00 hours on Monday, 23 September 2019. The Chair welcomed delegates and members of the NAFO Secretariat to the meeting.

The Chair noted the excellent representation of Contracting Parties as delegates were present from Canada, Denmark (in respect of the Faroe Islands and Greenland), European Union, France (in respect of St. Pierre et Miquelon), Japan, Republic of Korea, Russian Federation and the United States of America (Annex 1).

**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 2018**

Grant Thornton LLP performed the audit for the 2018 fiscal year, in accordance with the NAFO Financial Regulations. The draft financial statements were circulated to the Heads of Delegations and STACFAD delegates in advance of the meeting.

The Secretariat presented the draft Audited Financial Statements of the Northwest Atlantic Fisheries Organization for the year ended December 31, 2018. It was noted that the financial statements will be shown as draft until after they are reviewed by STACFAD and approved by the Organization. The Committee reviewed the statements in detail.

Total expenditures incurred for the fiscal period ending 2018, as shown in the draft financial statements, amounted to \$2,281,697, which was \$15,303 under the approved budget of \$2,297,000. It was noted that the total expenditures included an extraordinary item of \$21,789 for the MSC Website in which grant revenue was received to offset the expense. Excluding this extraordinary item, expenses for the year were \$37,092 under budget.

The deficiency of revenues over expenditures for 2018 was \$79,552. It was also noted that \$12,000 was added to the relocation fund, bringing the fund total to \$48,000 for future recruitment and relocation costs of internationally recruited staff.

**STACFAD recommends that:**

- **The 2018 Financial Statements be adopted.**

**5. Administrative and Activity Report by NAFO Secretariat**

The Executive Secretary highlighted NAFO administrative matters and activities for the period September 2018 to August 2019 (COM Doc. 19-06).

## 6. Financial Statements for 2019

The Secretariat presented the 2019 Financial Statements (projected to 31 December) to the Committee. The operating budget for 2019 was approved at \$2,274,000 while expenditures for the year are projected to be at \$2,236,000, or \$38,000 under the approved budget. Noteworthy expense variances for the year were as follows:

- Salaries being over budget due to the release of new salary tables;
- Annual Meeting costs being below budget due to the hosting of the Annual Meeting in France; and
- Fewer SC Intersessional meetings being held than expected.

All remaining 2019 operating expenses are anticipated to be on or near budget for the year. The above noted cost savings of \$38,000 will be returned to the accumulated surplus and will be available to reduce Contracting Parties contributions in 2020.

### Assessed Contributions

At the beginning of 2019, the accumulated surplus had \$308,142, which was deemed to be in excess of the needs of the Organization and was allocated towards the 2019 operating budget. Therefore, in order to meet the 2019 operations budget of \$2,274,000, Contracting Parties were assessed contributions in the amount of \$1,965,858.

### Balance Sheet

The Organization's cash position at 31 December 2019 is estimated to be \$681,246. The cash balance should be sufficient to finance appropriations in early 2020 pending the receipt of annual payments by Contracting Parties in the Spring of 2020. All contributions due from Contracting Parties for 2019 have been received.

An update on the activities of the Scientific Research and other Trust Funds, including contributions received and disbursed, for 2019 was presented in STACFAD WP 19-07.

## 7. Review of Accumulated Surplus and Funds

### a. Accumulated Surplus, Contingency Fund and Relocation Fund

According to the 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.

The Secretariat noted the accumulated surplus account at 31 December 2019 is estimated to be \$659,000.

#### 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 2020, 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 \$60,000 for future recruitment and relocation costs of internationally recruited staff.**

## b. Performance Review Fund

The Secretariat proposed establishing a Performance Review Fund (STACAD WP 19-06).

The establishment of this fund would avoid significant increases to the budget every five to seven years to fund a performance review and would allow for annual installments to pre-fund the next performance review.

### STACFAD recommends that:

- **Rule 4.5 of the NAFO Financial Regulations be amended to allow for the establishment of a performance review fund within the accumulated surplus account, as follows:**

**The Standing Committee on Finance and Administration and the Commission shall review the amount available in the accumulated surplus account during each annual meeting. Insofar as possible, the Commission shall anticipate unforeseen expenditures during the succeeding three years and shall attempt to maintain the accumulated surplus account at a level sufficient to 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 for use in an emergency in accordance with Rule 4.4.**

**In addition, the Organization shall also maintain a recruitment and relocation fund to pay recruitment and relocation costs for incoming and outgoing internationally recruited staff. The recruitment and relocation fund balance shall be kept at a maximum of \$100,000.**

**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.**

- **A Performance Review Fund be established and be set at \$15,000 to pay for costs associated with having an external performance review.**

## 8. Update on the NAFO websites

The NAFO Secretariat provided an update on the NAFO websites including the implementation of all recommendations from the 2018 Annual Meeting (STACFAD WP 19-01). The Committee appreciated the increased functionality. As agreed at the last Annual Meeting, STACFAD noted that all of its 2018 Working Papers are now available on the public website.

The Chair noted that two specific recommendations from the 2018 NAFO Performance Review Panel, are related to the work of the *Ad Hoc Virtual NAFO Website Re-Design Working Group*:

- Recommendation 25, Chapter V.3.1 *“Recommends NAFO reorganizes its website library based on the topics covered. [pg. 36]”*
- 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]”*

In response to Recommendation 25, STACFAD recognized the ongoing work of the NAFO Secretariat to maintain and improve the accessibility of all of the information on the NAFO website, and encouraged this work to continue.

In response to Recommendation 26, to further increase transparency and accessibility, STACFAD recommended that NAFO explore ways to make most meeting documents, including Working Papers, available on the NAFO public website prior to the relevant meeting. STACFAD recognized that such a move would have technological, logistical, and policy implications that would need to be worked through, including how to ensure transparency without impeding efficiency, as well as the process for determination of which Working Papers may be of a confidential nature and should not be posted. STACFAD therefore recommended that the

Secretariat, in conjunction with the *Ad Hoc Virtual NAFO Website Re-Design Working Group*, work over the next year to explore options for making NAFO Working Documents more accessible. This work should explore the operational and policy implications of such a move, including, for example, whether different practices would apply to the Annual Meeting versus intersessional working groups, the process and criteria for determining which types of documents would not be posted in advance, and information security and technological considerations. The virtual Working Group should take due note of the discussions and conclusions of STACTIC on the accessibility of its Working Papers, as well as the practices and experiences of other Regional Fisheries Management Organizations.

In addition to the participation of the Chairs of STACFAD and STACTIC, STACFAD recommended that each Contracting Party identify at least one participant in the virtual Working Group.

**STACFAD recommends that:**

- **The *Ad Hoc Virtual NAFO Website Re-Design Working Group* to convene in 2020 to address Recommendation 26 of the 2018 NAFO Performance Review Panel and present its recommendations to the Commission at the 2020 Annual Meeting.**
- **Prior to the first meeting of the *Ad Hoc Virtual Working Group*, the NAFO Secretariat to prepare a discussion document including key issues and operational concerns regarding posting of Working Papers to the NAFO public website, as well as practices and procedures from other RFMOs.**
- **To ensure the efficient work of the Virtual Working Group, each Contracting Party identify at least one representative to participate in this work.**

## 9. Personnel Matters

The Executive Secretary put forward the Database Developer/Programmer-Analyst, Office Administrator and Scientific Information Administrator positions for promotion to the next salary level. The Executive Secretary also proposed that the Fisheries Information Administrator be promoted to the Senior Fisheries Information Administrator.

**STACFAD endorses the:**

- **Promotion of the Database Developer/Programmer-Analyst, Office Administrator and Scientific Information Administrator positions to the next salary level and also the promotion of the Fisheries Information Administrator to the Senior Fisheries Information Administrator.**

## 10. Internship Program

The Secretariat presented a report (STACFAD WP 19-02) on the activities and tasks of the two interns in 2019, Javier Guijarro Sabaniel and Anna Wall.

The efforts of Contracting Parties were noted in raising the profile of the NAFO Internship program in their respective countries ensuring a healthy participation. The Committee recognized the considerable benefits of the internship program to the Organization and the intern themselves, and once again endorsed its continuation.

**STACFAD recommends that:**

- **The internship period be maintained for six (6) months during 2020.**

## 11. Report on the Annual Meeting of the International Fisheries Commissions Pension Society (IFCPS)

The annual meeting of the International Fisheries Commissions Pension Society (IFCPS) was hosted by NAFO during 15–17 April 2019 in Halifax, Nova Scotia, Canada. 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, change in custodian, investment policy review, employee booklet, investment performance, employee/employer contributions, as well as the financial status, was presented within the information paper (STACFAD WP 19-03).

The Committee noted that the next triennial valuation of the pension plan is scheduled for 1 January 2020. Any budgetary considerations resulting from the valuation will be addressed at next year's meeting.

The next annual meeting of the IFCPS will be hosted by the U.S. Department of State during 15–17 April 2020 in Washington, DC, USA.

## 12. Implementation of 2018 Performance Review Panel recommendations

In addition to the two recommendations discussed above under agenda item 8, the Committee reviewed the "Draft Action Plan for the Implementation of the Recommendations from the 2018 Report of the NAFO Performance Review Panel", as contained in COM WP 19-22, specifically those assigned for STACFAD's future consideration.

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]

STACFAD felt that developing an overall operational plan would be beneficial, and it noted that such a plan should be clear and concise with input from the NAFO Secretariat, Chairs of NAFO bodies and Working Groups.

The compilation of relevant operational information into one comprehensive document would allow the Organization to prioritize, identify overlapping workload and allocate resources. The plan could include such items as five-year review of VMEs, multi-annual TACs, and pertinent work plans. STACFAD noted that such a compilation of planned future actions on the management side would complement the strategic plan already under development by the Scientific Council.

### STACFAD recommends that:

- **The Secretariat, in consultation with the Chairs of the NAFO bodies and Working Groups, prepare a draft annual operational plan for review by STACFAD at the 2020 Annual Meeting.**

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]

The Committee felt confident that the capable resources available at the Secretariat can initiate the process to design a new visual identity especially considering the strong established brand identity already present in NAFO.

### STACFAD recommends that:

- **The Secretariat initiate a process to design a new visual identity for NAFO that reflects the role and responsibilities of the Organization, for presentation to STACFAD at the 2020 Annual Meeting.**

### 13. Budget Estimate for 2020

The Committee reviewed the 2020 budget estimate as detailed in COM WP 19-01.

Approved Budget 2019	Preliminary Budget Forecast 2019	Budget Estimate 2020
\$2,274,000	\$2,315,000	\$2,369,000

The 2020 budget estimate of \$2,369,000 represents an increase of \$95,000 or 4.2% over the prior years approved budget.

The personal services budget accounts for \$71,000 or 3.1% of the total increase for 2020. 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, the budget also includes a provision for approved promotions and a maternity leave.

The sessional meetings budget increased by \$46,000. This can be attributed to substantial increases in the cost of hosting an Annual Meeting when held in Halifax versus when the Annual Meeting is hosted by a Contracting Party.

The SC intersessional meetings decreased by \$35,000 as no special intersessional meetings are planned for 2020.

The relocation of the NAFO Headquarters, originally expected to occur in 2019, has been delayed until 2020. As the prior year's budget included an additional \$5,000 in both the equipment and supplies budget, to cover unforeseen equipment or miscellaneous upgrades as a result of the relocation, these amounts have been carried forward to 2020.

#### STACFAD recommends that:

- **The budget for 2020 of \$2,369,000 (Annex 3) be adopted.**
- **That the Budget Estimate, Preliminary Budget Forecast, and Preliminary Calculation of Billing for Contracting Parties no longer be considered restricted documents and be posted on the NAFO SharePoint with other Commission Working Papers.**

A preliminary calculation of billing for the 2020 financial year is included in Annex 5.

### 14. Budget Forecast for 2021 and 2022

STACFAD reviewed the preliminary budget forecast for 2021 (\$2,417,000) and 2022 (\$2,416,000) (Annex 4) and approved the forecast in principle. It was noted that the budget for 2021 will be reviewed in detail at the next Annual Meeting.

### 15. Adoption of 2019/2020 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.

Report of STACFAD, 23-27 September 2019

The Secretariat members nominated the following people to serve as members of the Staff Committee for September 2019–September 2020: Ignacio Granell (European Union), Brian Healey (Canada) and Deirdre Warner-Kramer (USA).

**STACFAD recommends that:**

- **The Commission appoint the three Staff Committee nominees for September 2019–September 2020: Ignacio Granell (European Union), Brian Healey (Canada) and Deirdre Warner-Kramer (USA).**

## 16. Office Relocation Update

The NAFO Secretariat has been informed by the Government of Canada that the new Secretariat's location has been chosen. The new Secretariat office space will be in the Summit Place office building (1601 Lower Water St.) in downtown Halifax, Nova Scotia. The new location will be convenient for NAFO meeting participants due to its close proximity to hotels and eating establishments in downtown Halifax. The headquarters relocation is expected to take place in early 2020.

Canada noted that funding is in place to ensure a smooth transition to the new location. The Secretariat expects that no additional expenses are anticipated to be incurred by the Organization for the move and has not had any indication otherwise from Canada.

STACFAD was pleased to hear the progress on the relocation although the Committee emphasized the importance of ensuring the timing of the relocation not coincide with the Organization's busy cycle leading up the Annual Meeting.

## 17. Other Business

No other matters were discussed under this agenda item.

## 18. Election of vice-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 vice-Chair for a two-year term.

## 19. Time and Place of 2020-2022 Annual Meetings

As previously agreed, the 2020 and 2021 Annual Meetings will be held 21-25 September and 20-24 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 2022 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 19–23 September 2022.**

The Committee 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 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 14:15 hours on 25 September 2019.

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 Haque, Azra Lavigne, Élise (vice-Chair)	<b>Canada</b>
Schroeder, Denise	<b>Denmark (in respect of the Faroe Islands and Greenland)</b>
Blazkiewicz, Bernard Marot, Laura	<b>European Union</b>
Monneau, Marianna	<b>France (in respect of St. Pierre et Miquelon)</b>
Shinohara, Shogo	<b>Japan</b>
Choe, Donghwah	<b>Republic of Korea</b>
Badina, Julia	<b>Russian Federation</b>
Mencher, Elizabethann Warner-Kramer, Deirdre (Chair)	<b>United States of America</b>
Kingston, Fred Goodick, Stan LeFort, Lisa Pacey, Alexis	<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 2018
5. Administrative and Activity Report by NAFO Secretariat
6. Financial Statements for 2019
7. Review of Accumulated Surplus and Funds
  - a. Review of Accumulated Surplus, Contingency and Relocation Fund
  - b. Performance Review Fund
8. Update on the NAFO websites
9. Personnel Matters
10. Internship Program
11. Report of the Annual Meeting of the International Fisheries Commissions Pension Society (IFCPS)
12. Implementation of 2018 Performance Review Panel recommendations
13. Budget Estimate for 2020
14. Budget Forecast for 2021 and 2022
15. Adoption of 2019/2020 Staff Committee Appointees
16. Office Relocation Update
17. Other Business
18. Election of vice-Chair
19. Time and Place of 2020-2022 Annual Meetings
20. Adjournment

**Annex 3. Budget Estimate for 2020**

NORTHWEST ATLANTIC FISHERIES ORGANIZATION  
Budget Estimate for 2020  
(Canadian Dollars)

	Approved Budget 2019	Projected Expenditures 2019	Preliminary Budget Forecast 2020	Budget Estimate 2020
1. Personal Services				
a) Salaries	\$1,127,000	\$1,137,000	\$1,163,000	\$1,186,000
b) Superannuation and Annuities	469,000	469,000	469,000	470,000
c) Medical and Insurance Plans	93,000	95,000	100,000	99,000
d) Employee Benefits	67,000	69,000	71,000	72,000
Subtotal Personal Services	<u>1,756,000</u>	<u>1,770,000</u>	<u>1,803,000</u>	<u>1,827,000</u>
2. Additional Help	2,000	2,000	2,000	2,000
3. Communications	24,000	24,000	24,000	24,000
4. Computer Services	51,000	51,000	51,000	54,000
5. Equipment	33,000	33,000	28,000	33,000
6. Fishery Monitoring	41,000	41,000	42,000	42,000
7. Hospitality Allowance	3,000	3,000	3,000	3,000
8. Internship	11,000	10,000	11,000	11,000
9. Materials and Supplies	33,000	33,000	28,000	35,000
10. NAFO Meetings				
a) Sessional	132,000	115,000	134,000	178,000
b) Inter-sessional Scientific	60,000	30,000	60,000	25,000
c) Inter-sessional Other	35,000	31,000	35,000	37,000
Subtotal NAFO Meetings	<u>227,000</u>	<u>176,000</u>	<u>229,000</u>	<u>240,000</u>
11. Other Meetings and Travel	34,000	35,000	32,000	39,000
12. Professional Services	45,000	44,000	48,000	45,000
13. Publications	14,000	14,000	14,000	14,000
	<u>\$2,274,000</u>	<u>\$2,236,000</u>	<u>\$2,315,000</u>	<u>\$2,369,000</u>

Notes on Budget Estimate 2020  
(Canadian Dollars)

Item 1(a)	<b>Salaries</b> Salaries budget estimate for 2020.	\$1,186,000
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.	\$470,000
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.	\$99,000
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.	\$72,000
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	\$24,000 \$18,000 6,000
Item 4	<b>Computer Services</b> Computer hardware, software, supplies, support and website hosting.	\$54,000
Item 5	<b>Equipment</b> Leases (print department printer, photocopier and postage meter) Purchases Office Relocation Maintenance	\$33,000 \$15,000 9,000 5,000 4,000
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	\$42,000 \$39,000 3,000

Report of STACFAD, 23-27 September 2019

Item 10(a)	<b>NAFO Sessional Meetings</b> Annual Meeting, September 2020, Halifax, Canada SC Meeting, June 2020, Halifax, Canada SC Meeting, October 2020	\$178,000
Item 10(b)	<b>NAFO Inter-sessional Scientific Meetings</b> Provision for inter-sessional meetings and a general provision for unforeseen expenses necessarily incurred by SC required for the provision of answering requests for advice from the Commission.	\$25,000
Item 10(c)	<b>NAFO Inter-sessional Other</b> General provision for Commission inter-sessional meetings.	\$37,000
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), Regional Fishery Body Secretariats' Network (RSN), United Nations	\$39,000
Item 12	<b>Professional Services</b> Professional Services (audit, consulting, legal fees, and insurance) Professional Development and Training Public Relations	\$45,000 \$29,000 11,000 5,000
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

**Annex 4. Preliminary Budget Forecast for 2021 and 2022**

## NORTHWEST ATLANTIC FISHERIES ORGANIZATION

## Preliminary Budget Forecast for 2021 and 2022

(Canadian Dollars)

	Preliminary Budget Forecast 2021	Preliminary Budget Forecast 2022
1 Personal Services		
a) Salaries	\$1,217,000	\$1,214,000
b) Superannuation and Annuities	474,000	474,000
c) Medical and Insurance Plans	104,000	108,000
d) Employee Benefits	77,000	72,000
Subtotal Personal Services	1,872,000	1,868,000
2 Additional Help	2,000	2,000
3 Communications	25,000	25,000
4 Computer Services	56,000	56,000
5 Equipment	29,000	29,000
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	179,000	179,000
b) Inter-sessional Scientific	30,000	30,000
c) Inter-sessional Other	37,000	37,000
Subtotal NAFO Meetings	246,000	246,000
11 Other Meetings and Travel	39,000	39,000
12 Professional Services	45,000	46,000
13 Publications	14,000	14,000
	\$2,417,000	\$2,416,000

## Annex 5. Preliminary Calculation of Billing for Contracting Parties for 2020



**Preliminary calculation of billing  
for the 2020 financial year  
(Canadian Dollars)**

Budget Estimate	\$2,369,000
Deduct: Amount Allocated from Accumulated Surplus	\$299,000
<b>Funds required to meet 2020 Administrative Budget</b>	<b>\$2,070,000</b>

**Part A**

Contracting Parties	Catches 2017	Catch %	NAFO Convention Article IX.2.a,b,c			Subtotal
			10%	30%	60%	
Canada	159,970	36.16%	\$86,217	\$51,750	\$449,107	\$587,075
Cuba	-	-	-	\$51,750	-	\$51,750
Denmark (in respect of Faroe Islands and Greenland) (Note 2)	162,823	36.82%	\$87,755	\$51,750	\$457,304	\$596,809
European Union	43,280	9.79%	-	\$51,750	\$121,592	\$173,342
France (in respect of St. Pierre et Miquelon)	1,283	0.29%	\$691	\$51,750	\$3,602	\$56,043
Iceland	-	-	-	\$51,750	-	\$51,750
Japan	2,589	0.59%	-	\$51,750	\$7,328	\$59,078
Norway	2,762	0.62%	-	\$51,750	\$7,700	\$59,450
Republic of Korea	-	-	-	\$51,750	-	\$51,750
Russian Federation	9,536	2.16%	-	\$51,750	\$26,827	\$78,577
Ukraine	-	-	-	\$51,750	-	\$51,750
United States of America	59,997	13.57%	\$32,336	\$51,750	\$168,539	\$252,625
<b>Total</b>	<b>442,240</b>	<b>100.00%</b>	<b>\$207,000</b>	<b>\$621,000</b>	<b>\$1,242,000</b>	<b>\$2,070,000</b>

**Part B**

Contracting Parties	Subtotal from Part A	NAFO Convention Article IX.2.d (Note 1)					Subtotal	Total contribution
		% Contribution	Catch % minus DFG	10%	30%	60%		
Canada	\$587,075	28.37%	57.25%	\$25,191	\$9,502	\$119,679	\$154,372	\$741,447
Cuba	\$51,750	2.50%	-	-	\$9,502	-	\$9,502	\$61,252
Denmark (in respect of Faroe Islands and Greenland) (Note 2)	\$596,809	28.83%	-	-\$34,841	-\$104,522	-\$209,046	-\$348,409	\$248,400
European Union	\$173,342	8.37%	15.49%	-	\$9,502	\$32,381	\$41,883	\$215,225
France (in respect of St. Pierre et Miquelon)	\$56,043	2.71%	0.46%	\$202	\$9,502	\$962	\$10,666	\$66,709
Iceland	\$51,750	2.50%	-	-	\$9,502	-	\$9,502	\$61,252
Japan	\$59,078	2.85%	0.93%	-	\$9,502	\$1,944	\$11,446	\$70,524
Norway	\$59,450	2.87%	0.99%	-	\$9,502	\$2,070	\$11,572	\$71,022
Republic of Korea	\$51,750	2.50%	-	-	\$9,502	-	\$9,502	\$61,252
Russian Federation	\$78,577	3.80%	3.41%	-	\$9,502	\$7,128	\$16,630	\$95,207
Ukraine	\$51,750	2.50%	-	-	\$9,502	-	\$9,502	\$61,252
United States of America	\$252,625	12.20%	21.47%	\$9,448	\$9,502	\$44,882	\$63,832	\$316,457
<b>Total</b>	<b>\$2,070,000</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,070,000</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                      3,346 metric tons  
Greenland                            159,477 metric tons





Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission-Scientific Council Working Group on  
Risk-Based Management Strategies (WG-RBMS) Meeting**

06 February 2020  
by WebEx

NAFO  
Dartmouth, Nova Scotia, Canada  
2020

## **Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

06 February 2020  
by WebEx

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## **Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

06 February 2020  
by WebEx

### **1. Opening by the co-Chairs, Fernando Gonzales-Costas (European Union) and Jacqueline Perry (Canada)**

The meeting was opened at 10:00 hours (Atlantic Standard Time) on Thursday, 06 February 2020. The co-Chairs, Fernando Gonzalez-Costas (European Union) and Jacqueline Perry (Canada), welcomed representatives from Canada, European Union, and the United States of America (Annex 1).

### **2. Appointment of Rapporteur(s)**

The NAFO Secretariat (Tom Blasdale, Scientific Council Coordinator and Ricardo Federizon, Senior Fisheries Management Coordinator) was appointed as Rapporteur.

### **3. Review of Terms of Reference**

Co-Chair, Jacqueline Perry, introduced the Terms of Reference (ToRs) of *the NAFO Scientific Council Precautionary Approach Working Group (PA-WG)* (SCS Doc. 16/15) as presented in Annex 1 of the agenda, noting in particular that ToR point 2 has links with the on-going work of WG-EAFFM.

It was generally noted that lack of progress since January 2017 can largely be attributed to a lack of capacity and available expertise within SC rather than the achievability of the ToRs. However, it was further noted that the lack of progress could also partly be due to the ambiguity of the current ToRs. It was suggested that more concrete ToRs could help to a faster progress.

A particular sticking point relates to point 1.c of the ToRs. There has been disagreement over whether  $F_{msy}$  should be treated as a target or limit reference point. WG-RBMS members commented that this is a matter that would require direction from the Commission.

It was agreed that the current ToRs should continue to guide this work. SC will consider the ToRs during its June meeting and propose changes, if considered necessary.

### **4. Recap of progress so far on the PA review**

Co-Chair, Fernando Gonzales-Costas, presented the current state of the working paper that is being developed by the Scientific Council Technical Working Group. The most recent version of this paper was presented as COM-SC RBMS-WP 20-01. Progress against specific ToRs was summarized as follows:

*1. To clarify the following elements:*

*a. To confirm/review the NAFO PA reference points definition in page 3 NAFO/FC Doc. 04-18;*

On this ToR, there is not much progress.

*b. To confirm/review the NAFO Management strategies and courses of action, including risk levels; on page 3 NAFO/FC Doc. 04-18;*

On this ToR, there is not much progress.

*c. Distinction between MSY and limit/target related reference points;*

This is one of the points where there have been more discussions. The most up-to-date conclusions and doubts are reflected in the COM-SC RBMS-WP 20-01.

*d. Analysis in support of the development of other reference points (e.g. targets, buffers);*

There is information in the COM-SC RBMS-WP 20-01 but there has been no final SC discussion.

*e. To review the methods for the calculation and interpretation of risk and the quantification and qualification of uncertainties related to them;*

There is information in the COM-SC RBMS-WP 20-01 but there has been no final SC discussion.

*f. For stocks where risk analyses are not possible, provide options on how to establish buffer reference points on a stock by stock basis;*

There is some information in the COM-SC RBMS-WP 20-01 but there has been no final SC discussion

*g. Determine the conditions for when/if reference points should change and / or be re-evaluated.*

On this ToR, there is not much progress.

*2. Consider how a revised PA can fit within an Ecosystem Approach.*

The existing text in the COM-SC RBMS-WP 20-01 should be updated with the conclusions of WG-ESA, SC and WG-EAFFM on this subject (Ecosystem Summary Sheets, etc). The main task of how to adapt the single-stock approach to the ecosystem approach still remain and will be a possible task for the WG-EAFFM August 2020 Workshop.

*3. In reviewing the NAFO PAF the WG will also take into consideration other Precautionary Approach Frameworks with a focus in the North Atlantic;*

This task is practically completed and was discussed by the SC. The most current revision is found in the COM-SC RBMS-WP 20-01. It may need an update since the work was done in 2016.

It was noted that, although many of the issues were discussed, not many have been resolved and that the material in the COM-SC RBMS-WP 20-01 has not yet been discussed in the SC or in WG-RBMS.

## **5. Plans for work going forward including a provisional timeline**

The meeting agreed that it is necessary to re-visit the Chair and membership of the *NAFO Scientific Council Precautionary Approach Working Group (PA-WG)* since it has been inactive for an extended period.

It was suggested that the SC be asked to reconvene the *PA-WG*, in some form. The working group may meet by WebEx in advance of the June meeting to agree on current status in regard to COM-SC RBMS-WP 20-01 and try to advance the document before the June meeting. The outcome of the SC discussion, possibly including suggestions for work that could be outsourced, will be presented to WG-RBMS during the August meeting. It will be necessary to ensure that this material is circulated well in advance of the August meeting. A SharePoint section will be made available for use of the group.

The European Union delegation informed that it has made available to the NAFO Secretariat an amount of 100,000 € to finance possible work on the revision of the PA Framework. It was agreed the need to have guidance from PA-WG on how it could be allocated to advance this work.

Karen Dwyer (Canada) volunteered to take on the lead role of coordinating with SC with regards to reviving the working group.

## 6. Other WG-RBMS Matters

### 3M cod MSE

The European Union reported that their scientists are still working on this. The results will be presented to the SC before anything is presented to WG-RBMS. It is unlikely that there will be MSE progress to present to SC this year. The Secretariat will complete the summary document for presentation to the WG- RBMS in August. The 3M cod MSE code and results have been archived by the Secretariat in the NAFO secured network, as agreed.

### Greenland halibut MSE

There will be an update assessment of this stock during the June SC meeting. A problem has been detected with the confidence intervals of projections produced under the SSM operating model, but it was not possible to determine the cause or extent of the issue within the timeframe of the June 2019 SC meeting. Canadian scientists are reviewing this and will present it at the June SC this year. It may be necessary to consider this matter during the WG-RBMS August meeting,

### 3LN redfish Conservation Plan and Harvest Control Rule

As outlined in the questions forwarded to the SC as recommended by WG-RBMS, SC will complete a full assessment and provide five-year projections. WG-RBMS will consider these results in August. Canada noted that this was a very important stock to Canada and that consistent with their domestic process, it has started work to consider additional options in the review of the 3LN redfish conservation plan and harvest control rule. This work will be further informed by the planned work of the SC in June and Canada will continue to update the WG-RBMS on this work and may have something more formal to share in advance of the August meeting.

## 7. Date and Time of Next Meeting

It was proposed that a half-day joint session of WG-RBMS and WG-EAFFM should be held to discuss the results of the WG-EAFFM Workshop. Pending agreement with WG-EAFFM, the meeting dates in August would be as follows:

13 – 14 August	WG-EAFFM Workshop
17 – 19 August	WG-EAFFM meeting
19 August (afternoon session)	Joint meeting of WG-RBMS and WG-EAFFM to discuss outcomes of the WG-EAFFM Workshop
20 – 21 August	WG-RBMS meeting

## 8. Adjournment

The meeting adjourned at 11:45 hours (Atlantic Standard Time) on 06 February 2020.

## Annex 1. List of Participants

### CO-CHAIRS

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Lisa LeFort. Senior Executive Assistant.

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## Annex 2. Agenda

1. Opening by co-Chairs, Fernando González-Costas (European Union) and Jaqueline Perry (Canada)
2. Appointment of Rapporteur(s)
3. Review of Terms of Reference

*Annex 1 "Proposed ToR for the Scientific Council technical working group on PA Framework" (as contained in FC-Doc. 15-19 and SCS Doc. 16/15) will be discussed under this agenda item.*

4. Recap of progress so far on the PA review

*Annex 2 "Timeline for the revision of the PA Framework from WG-RBMS 2016" (as contained in SCS Doc. 16-19, pg. 13) will be discussed under this agenda item.*

5. Plans for work going forward including a provisional timeline
6. Other WG-RBMS matters
7. Dates and time of next meeting
8. Adjournment

## Annex 1 (of the Agenda).

### **Scope of the review of the NAFO Precautionary Approach Framework (PAF) adopted by the Fisheries Commission (FC-Doc. 15-19), and discussed by the Scientific Council Precautionary Approach Working Group as its Terms of Reference (SCS Doc. 16/15)**

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.



### Annex 2 (of the Agenda).

**Timeline for PA review as revised by Scientific Council in September 2016 (SCS Doc. 16-19, pg. 13)  
(Original timeline for the PA revision agreed by WG-RBMS in 2016 contained in FC-SC Doc. 16-01).**

Timeline for PA Revision	status Sep. 16	16/ M	A	M	J	J	A	S	O	N	D	17/J	F	M	A	M	J
<b>ToR 3.</b>																	
Discuss NAFO PA Successes and failures (done in March 2016)	✓																
Members work on summarizing the PA framework as used in other RFMOs and national plans (April-May 2016)	✓																
Results to be reviewed at the June 2016 SC Meeting.	✓																
<b>ToR 1a. and 1c. (These tasks are related and should be completed together).</b>																	
Review existing PA framework. (started in March 2016)	x																
June-September – Work on these ToRs.	x																
Present work to the joint meeting (September 2016)	✓																
<b>ToR 1f.</b>																	
Discuss spreadsheetstock status(March 2016 and April 2016)	✓																
Distribute to DEs to fill in completely (June 2016)	✓																
Classify stocks with regards to assessment level (June 2016).	x																
<b>ToR 1d. Can only be done after 1f</b>	x																
<b>ToR 1e</b>																	
March-May 2016 Members potentially work on ideas for analyses to help with identifying risk levels	x																
Work on analyses for risk levels (June-September 2016)	x																
<b>ToR 1b. Can only be done after 1a, 1c and 1e is finished</b>	x																
<b>ToR 2.</b>																	
Discuss with Chairs of WG-ESA working together on fitting the PA into an Ecosystem Approach (June 2016)	✓																
Work to be done at the November 2016 WG-ESA meeting																	
Work to Reviewed by SC at the June 2017 meeting																	
This ToR may need more time after the June 2017 meeting																	
<b>ToR 1g Along with ToR 2 will be finished after the other ToRs.</b>																	

✓ = completed, x - in progress.



Northwest Atlantic Fisheries Organization



**Report of the NAFO Ad Hoc Virtual NAFO Website Re-Design Working Group:  
Data Classification (WG-Data) Meeting**

02 March 2020  
via WebEx

NAFO  
Dartmouth, Nova Scotia, Canada  
2020

## Report of the NAFO Ad Hoc Virtual NAFO Website Re-Design Working Group: Data Classification (WG-Data ) Meeting

02 March 2020  
via WebEx

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## **Report of the NAFO Ad Hoc Virtual NAFO Website Re-Design Working Group: Data Classification (WG-Data ) Meeting**

02 March 2020  
via WebEx

### **1. Opening by the Chair, NAFO Secretariat**

The meeting was opened at 10:00 hours (Atlantic Standard Time) on 02 March 2020. The NAFO Secretariat welcomed the Chair of STACFAD as well as representatives from Denmark (in respect of the Faroe Islands and Greenland), European Union (EU), Norway and the United States of America (Annex 1).

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

The NAFO Secretariat (Lisa LeFort, Senior Executive Assistant) was appointed as Rapporteur.

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

The agenda was adopted as previously circulated, with the exception of the reversal of agenda item 5 and 6.

### **4. Update of Completed Work since Last Meeting in December 2017**

The NAFO Secretariat presented COM WP 20-01 detailing a brief summary of work completed since the last meeting of the Working Group in December 2017.

Furthermore, the NAFO Secretariat presented COM WP 20-02 detailing the work completed specifically in response to Recommendation 25 of the 2018 NAFO Performance Review Panel.

The NAFO Secretariat had identified five main themes to categorize the Library section on the NAFO public website, specifically:

- General Information
- NAFO Commission
- NAFO Scientific Council
- Joint NAFO Commission-Scientific Council
- ICNAF and historical documentation.

While the Working Group agreed that the use of thematic categories increased user accessibility of information, it was noted that the five main themes should be reflected on both the “side bar” and “drop down menu” of the Library section on the NAFO public website.

### **5. Documentation Practices and procedures from other RFMOs**

The NAFO Secretariat presented COM WP 20-03, a discussion paper outlining the current documentation practices and procedures of other RFMOs.

It was felt that further review was required of other RFMOs and similar international organizations. Some members felt that, in their experience, the Working Paper could be improved upon based on their experiences attending other RFMO meetings.

Report of WG-Data,  
02 March 2020

The Working Group **agreed** that:

- **The members of the Working Group review COM WP 20-03 to ensure the documentation practices and procedures detailed for other RFMOs is accurate and complete.**
- **Any suggested amendments to COM WP 20-03 are to be forwarded to the NAFO Secretariat by 31 March 2020 so the Working Paper may be revised for discussion at the next meeting of the Working Group.**

## 6. Posting of Working Papers to the NAFO public website

The NAFO Secretariat presented COM WP 20-04, a discussion paper of key issues and operational concerns regarding posting of Working Papers to the NAFO public website, if NAFO decides to make working papers publicly available.

The Working Group discussed in detail the technological, logistical and policy implications that need to be considered by NAFO regarding the posting of more meeting documentation (such as Working Papers) to the NAFO public website.

It was felt that further consideration of these implications was required.

The Working Group **agreed** that:

- **The members of the Working Group reflect on COM WP 20-04 to ensure the key issues and operational concerns are reflected regarding posting of Working Papers to the NAFO public website, if NAFO decides to make working papers publicly available.**
- **The NAFO Secretariat revise COM WP 20-04 to reflect the discussion of the 02 March meeting of the Working Group. This revised Working Paper will be forwarded to members of the Working Group by 30 April for discussion at the next meeting of the Working Group.**

## 7. Any Other Business

No other business was discussed under this agenda item.

## 8. Next Steps

The group discussed the work to be completed for the 2020 Annual Meeting of NAFO.

At the 2019 Annual Meeting of NAFO, it was noted that two specific recommendations from the 2018 NAFO Performance Review Panel relate to the work of the *Ad Hoc Virtual NAFO Website Re-Design Working Group*:

- Recommendation 25, Chapter V.3.1 *“Recommends NAFO reorganizes its website library based on the topics covered. [pg. 36]”*
- 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]”*

For that reason, at the 2019 Annual Meeting of NAFO, the Commission **agreed** that:

- **In relation to the *Ad Hoc Virtual NAFO Website Re-Design Working Group*:**
- **The Working Group convene in 2020 to address Recommendation 26 of the 2018 NAFO Performance Review Panel and present its recommendations to the Commission at the 2020 Annual Meeting.**

- **Prior to the first meeting of the Ad Hoc Virtual Working Group, the NAFO Secretariat to prepare a discussion document including key issues and operational concerns regarding posting of Working Papers to the NAFO public website, as well as practices and procedures from other RFMOs.**
- **To ensure the efficient work of the Virtual Working Group, each Contracting Party identify at least one representative to participate in this work.**

The Secretariat, in conjunction with the *Ad Hoc Virtual NAFO Website Re-Design Working Group*, will work over the next year to explore options for making NAFO Working papers more accessible to the public.

#### **9. Date and Time of Next Meeting**

The next meeting of the Working Group is proposed to be held April/May via WebEx.

The focus of this meeting will be to review the revisions of COM WP 20-03 and COM WP 20-04, including any incorporated amendments from Working Group members.

#### **10. Adjournment**

The meeting adjourned at 11:30 hours (Atlantic Standard Time) on 02 March 2020.

**Annex 1. List of Participants**

<b>CHAIR OF STACFAD</b>	Warner-Kramer, Deirdre
<b>DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)</b>	Bork Hansen, Signe
<b>EUROPEAN UNION (EU)</b>	Marot, Laura
<b>NORWAY</b>	Vikanes, Ingrid
<b>UNITED STATES OF AMERICA</b>	Jaburek, Shannah Mencher, Elizabethann Pohl, Katie
<b>NAFO SECRETARIAT</b>	Kingston, Fred Goodick, Stan Aker, Jana LeFort, Lisa Pacey, Alexis



**Annex 2. Agenda**

1. Opening by the Chair, NAFO Secretariat
2. Appointment of Rapporteur
3. Adoption of the Agenda
4. Update of Completed Work since Last Meeting in December 2017
5. Documentation Practices and procedures from other RFMOs
6. Posting of Working Papers to the NAFO public website
7. Any Other Business
8. Next Steps
9. Date and Time of Next Meeting
10. Adjournment





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

17 March 2020  
NEAFC Secretariat, Virtual Meeting

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## **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 NEAFC Secretary, Darius Campbell opened the meeting and welcomed participants to the fully virtual meeting of JAGDM. He explained that the Chair had resigned his post in the Icelandic administration and the Vice-Chair was also unable to chair the meeting. Given the exceptional circumstances, including the coronavirus outbreak, this left JAGDM without a Chair for this particular meeting; the Secretary offered to chair, if no objections. Participants were content that the Secretary could chair this meeting as an exception, and there were no objections from Contracting Parties.
- 1.2 The following Contracting Parties were present: Canada, Denmark (in respect of Faroes and Greenland), the European Union (EU), the Russian Federation 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, although some re-ordering of points was agreed to facilitate discussion.

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

#### **a. NAFO**

- 4.1 The NAFO Secretariat presented document JAGDM 2020-01-15 on messages and reports (VMS Stats) received by the NAFO Secretariat. This is a general overview of volume of data being submitted by NAFO Contracting Parties in 2019 and total messages stored for the past 10 years.
- 4.2 JAGDM noted the report without further discussion.

#### **b. NEAFC**

- 4.3 The NEAFC Secretariat presented document JAGDM 2020-01-04 NEAFC VMS Statistics in 2019. The document showed the number of messages and reports accepted by type in 2019 and reports cancelled by type of report in 2019. There were well over 475 thousand messages and reports stored in the NEAFC MCS database in 2019.
- 4.4 JAGDM noted the report without further discussion.
- 4.5 The NEAFC Secretariat presented document JAGDM 2020-01-05 – NEAFC Data Exchange Statistics 2019: Analysis of Return Messages. This document was designed to give better understanding of how the system was performing overall. Through pie charts of position, catch and activity and registry messages.
- 4.6 JAGDM noted the report without further discussion.
- 4.7 Finally, the NEAFC Secretariat presented document JAGDM 2020-01-06 VMS Annual Activity. The document was a summary of annual activity, showing number of vessels sending POS by month and vessel sending catch and activity report by month, in 2019.

4.8 JAGDM noted the report following some clarifications.

## 5. NEAFC issues

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

5.1 The NEAFC Secretariat presented document JAGDM 2020-01-09 – Technical Implications of Implementing 2019 NEAFC Recommendations. This document is a standing item on the JAGDM agenda and in 2019 there were two recommendations listed below:

- Recommendation 12:2020 to amend the NEAFC Scheme of Control and Enforcement in order to make lists of notified and authorised vessels publicly available on the NEAFC website;
- Recommendation 19:2020 to amend the Internal Registration Numbers (IR) Format in NEAFC Scheme of Control and Enforcement.

5.2 In discussion, the Chair informed participants that the list of notified and authorised vessels was now publicly available on the NEAFC website. The NAFO Secretariat believed this was a work in progress in NAFO. The NEAFC Secretariat volunteered to share experience with NAFO as needed.

5.3 JAGDM noted the report.

#### i. Update to ISMS-minor adjustments following Rec. 22:2020

5.4 The NEAFC Secretariat informed participants on some minor adjustments to the ISMS Article 7.2 amendments under Recommendation 22:2020. The Secretariat explained Recommendation 22:2020 as adopted had included some minor errors in the version with tracked changes submitted to the Annual Meeting of NEAFC and thus the Secretariat used text from the original proposal adopted by JAGDM in document 2019-02-07 to correct these minor errors (as well as logging the relevant details in its files).

5.5 JAGDM noted the information and that this now meant the ISMS had accordingly been corrected on the website.

### b. Issues Raised by PECMAC

#### i. Confirming PSC Species

5.6 This is a standing item on the JAGDM agenda for an update on any additions needed to the list of fish species on the PSC system and Annex V of the NEAFC Scheme.

5.7 JAGDM noted that there were no requests from Contracting Parties in 2019 to add species.

#### ii. Business Continuity Plan for FLUX network

5.8 The Chair presented document JAGDM 2020-01-12 – Business Continuity Plan (BCP) for FLUX Network. This had been preceded by a detailed presentation by European Commission on its FLUX TL system (see below). The presentation and subsequent discussion covered many of the elements of the paper on procedures to ensure resilience and avoiding loss of messages. The remaining issues for discussion were whether the BCP adequately described the procedure to deal with down time, including looking forward to Version 2 of ERS, as well as whether it adequately describing the fall back procedure.

5.9 In discussion, Contracting Parties noted some small changes to the BCP text to improve it. However such changes were not considered time critical since the BCP was already adequately implemented in the ISMS Article 14.2.2.

**JAGDM agreed that:** the NEAFC Secretariat could draft some minor improvements to the BCP text, taking on board its comments. JAGDM would keep the document under review and come back to it at future meetings to see if the changes met a threshold to formally propose an amendment of the ISMS.

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

**i. Issues of Business Rules on Duplicates for a final proposal**

5.10 The Chair presented document JAGDM 2020-01-11 – Duplicates in NEAFC ERS System. A discussion on how to implement duplicate checking in NEAFC ERS has been ongoing through NEAFC ERS WG and JAGDM since October 2018. Now, following further consideration by the ERS-IMP on proposed additions to Version 2 of ERS FLUX, the issue has now been returned to JAGDM for consideration on the next steps/a proposal in order to build a robust set of business rules to identify duplicates.

5.11 In discussion,  
It was clarified that individual TL messages (envelopes) were given unique identifier numbers (“operation number”). This avoided duplication of TL messages, however it did not mean the contents of the TL Message did not contain duplication as only the envelope not the contents were checked by the FLUX Transportation Layer. It was also noted that the text in the JAGDM document on “a basic two level identifier check as the duplicate check” was from earlier documentation and not applicable. The EU also clarified that within the EU duplicated identifiers of FLUX ERS business messages were rejected (by business rules) and that FA reports with duplicated identifier were ignored (only the first report is kept). It was further agreed that any duplication tests would need to be set up as business rules for the contents of the messages (such as catch data) rather than at the FLUX TL level.

**JAGDM agreed that:** the business rules for the content of the ERS messages should be returned to ERS-IMP with the conclusion that the TL layer would not do the duplicate check on message content. JAGDM requested the NEAFC Secretariat to prepare a draft analysis paper (with support of any Contracting Party willing to do so) to come up with a more concrete proposal for business rules on duplicates, in particular on catch reporting.

**ii. FLUX TL**

5.12 The EU presented document JAGDM 2020-01-17 FLUX TL – EU Presentation, providing information on FLUX TL. The detailed presentation would be circulated to participants.

5.13 In discussion,  
The European Union explained that the system was able to detect when the recipient party was receiving messages, but resent messages after a downtime would not follow the same order as they were sent to the forwarding node. Only after the time out period (i.e. after more than 72 hours of downtime) would the sender know if a message had failed. The EU would also develop a feature which would allow the sender to receive messages if his messages had not been delivered. Such e-mail alert systems needed human intervention rather than machine to machine communication, but thousands of such e-mails being sent should be avoided. It was considered more helpful to have e-mails to alert if a server or application was running rather than on individual message failures.

5.14 The Chair then presented document JAGDM 2020-01-03 on Version 2 of the ERS FLUX System: Transport Layer retries – time out and sequencing. He noted the system had been set up to deal with the NEAFC Secretariat’s normal office hours. The 72-hour time out for delivery of messages (TODT) was aimed at avoiding lost messages.

5.15 In discussion,  
It was clarified that the expectation was that the ERS Version 1 would be initially implemented for European Union fisheries activities reporting, with other Parties following on at some point during the transition period, by which time a Version 2 should be agreed.

5.16 On Specific questions raised in the paper:

Further information would be useful:

1. *On how EU Member States have dealt with delivery failures at the EU Central node?*

A European Union business continuity plan covered this issue allowing the recipient to request data from the sender in case of a failure. A longer TODT as in NEAFC had also been offered although Member States preferred a smaller TODT and an email exchange instead.

2. *On the possibility of automated server monitoring between NEAFC systems and Contracting Party FMCs?*

Already covered above; the European Union was not convinced of the feasibility of such a solution or indeed whether it was necessary with the reconfigurable resend mechanisms in place.

3. *On the timeout and retry situation in FLUX-TL to better understand the function and the consequences of changing the TODT value for a later version of the ERS?*

Since the system was configurable per node by node basis, or per data flow and destination, it was considered that as experience was developed the system could be adjusted to needs.

4. *On the routines needed at the Contracting Parties to ensure that no data get lost after a downtime (expected or not expected).*

In discussion, JAGDM noted the earlier conclusion that sequencing was not likely to be addressed by the FLUX TL but by the business system on message content.

5.17 **As above in the duplicate check on message content, JAGDM referred the issue of sequencing back to ERS-IMP for consideration on technical solutions related to message content rather than at the FLUX TL (envelope) layer.**

**d. NEAFC Information Security Management System (ISMS)**

**i. Upgrade to ISO 27001:2013 version (ISMS article 4 last paragraph)**

5.18 The Chair presented document JAGDM 2020-01-08 ISO 27001:2013 Upgrade – Policy Documentation. This paper was for information only, informing JAGDM of the process following the 2019 gap audit in regards to the 2013 ISO standard for information and security management. The Chair reminded participants that NEAFC aims were to be cognisant of the ISO 27001:2013 standard, and meet its standards where relevant, rather than being certified under the standard.

**As agreed at JAGDM 2019-03**, external consultants were providing a suite of policies for the NEAFC ISMS aimed at bringing the NEAFC standard up to ISO 27001:2013 where relevant. The list of policies and the ongoing process of review was explained.

**JAGDM noted the update.**

**ii. Risk management (ISMS article 3) status of the work**

- 5.19 The NEAFC Secretariat presented document JAGDM 2020-01-13 NEAFC Risk management (ISMS article 3) update on work. The Secretariat presented the current information security risk matrix with the relevant risk management actions. One risk that needed further treatment related to password security, in particular on password complexity. JAGDM provided advice in this regard.

**JAGDM agreed that:** the NEAFC Secretariat should continue its work to upgrade password requirements for the NEAFC websites.

**iii. Amendments to ISMS Article 7.2 – PSC public pages**

- 5.20 The NEAFC Secretariat presented Document JAGDM 2020-01-07 NEAFC ISMS Changes – Update of the ISMS tables referring to information in the PSC Public Pages.

**JAGDM agreed to adopt the document.**

**e. Archiving: NEAFC operational data archiving policy**

- 5.21 The NEAFC Secretariat presented document JAGDM 2020-01-14 NEAFC Operational Data Archiving Policy. Last year JAGDM considered a paper from the NEAFC Secretariat, setting out the Secretariats plan on how to archive operational data. JAGDM agreed to consider a paper from the Secretariat with more information on the historical operational data needs. In continuing this work, the NEAFC Secretariat considered more information was needed from the Contracting Parties on their specific needs on historical data. The paper included a draft questionnaire to send to Contracting Parties for comment by JAGDM.

**JAGDM agreed that:** the Secretariat should finalise the questionnaire and send to NEAFC Contracting Parties.

**6. NAFO issues**

**a. Technical implications of Recommendations**

No update.

**b. ISMS for NAFO**

No update.

**c. Items Requested by STACTIC**

- 6.1 The NAFO Secretariat presented document JAGDM 2020-01-16 Content adjustment to COX Report. This document was for information, informing JAGDM on the process in NAFO when vessels were sending catch on exit (COX) reports with no RJ (Rejected) field for discards included. The Annual Meeting of NAFO adopted amendment to the COX message to include RJ as a new mandatory field in the messages.
- 6.2 In discussion, Norway asked if the message will be rejected (NAK) if this mandatory field, is not reported as 0 quantity when there is no data to report. (The vessel has used a CAT to report the catch and the



discarded catch). The NAFO Secretariat explained the process to include zero discards in messages. Given this was a transition phase during 2020 NAFO measures, the VMS system will for some time include this as an optional field.

JAGDM noted the document.

## **7. Any other business**

7.1 JAGDM 2020-01-10 List of JAGDM outputs in 2019. This paper was a standing item paper informing JAGDM of last year's outputs for information only.

7.2 Election of Chair and Vice-Chair.

The NEAFC Secretariat had been informed that the Vice-Chair Natasha Barbour was willing to stand again which was welcomed by JAGDM. No nominations were forthcoming for a Chair.

**JAGDM requested the Secretariats to follow a written procedure with Contracting Parties to nominate a new Chair for JAGDM.**

**JAGDM duly re-elected Natasha as Vice-Chair with acclamation.**

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

8.1 No discussion under this agenda item.

## **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 very positive and effective participation in the Virtual meeting. He wished them all good health in the difficult period ahead.



Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission–Scientific  
Council Catch Estimation Strategy Advisory Group (CESAG) Meeting**

24 April 2020  
via WebEx

NAFO  
Dartmouth, Nova Scotia, Canada  
2020

## **Report of the NAFO Joint Commission–Scientific Council Catch Estimation Strategy Advisory Group (CESAG) Meeting**

24 April 2020  
via WebEx

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## **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 24 April 2020. 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, and USA) were in attendance (Annex 1).

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

The NAFO Secretariat (Ricardo Federizon and Tom Blasdale) was appointed rapporteur for this meeting.

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

The provisional agenda previously circulated was modified. Under agenda item 6 Other Business “*2018 NAFO Performance Review Panel Recommendation # 4*” was inserted. The adopted agenda is reflected in Annex 2.

### **4. Review and finalization of the 2019 Catch Estimates**

At the CESAG WebEx meeting in February (COM-SC CESAG-WP 20-01), while in the process of reviewing the preliminary 2019 catch estimates, it was realized that the SC recommendation of incorporating the mesh information as potential enhancement to the Catch Estimation Strategy (as outlined in Annex 1 of COM-SC Doc 17-08) could not be applied. The recommendation relating to mesh size information was highlighted from a science perspective. As the submission of the haul by haul reports requires 100% coverage, they are the best potential source of the mesh size information. The haul by haul reports are transmitted to the Secretariat using the template as presented in Annex II.N of the NAFO Conservation and Enforcement Measures. The Secretariat was requested to draft a recommendation to include mesh information in the haul by haul reporting. The draft recommendation was presented by the Secretariat and refined by CESAG at this meeting. It was agreed to forward the recommendation to the Commission (see agenda item 7). CESAG also reiterated its 2017 recommendation relating to the review by STACTIC of current measures relating to reporting catch by Division (see agenda item 7).

The Secretariat presented the catch estimates of all NAFO TAC-managed stocks and all other species for 2019 (COM-SC WP 20-05). This represents the core task that was assigned to the Secretariat --- applying the Catch Estimation Strategy in deriving the catch estimates.

Canada indicated that it would provide the remaining supplementary data (3NO Capelin, 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).

### **5. Review of statistics and catch data comparison prepared by the Secretariat**

Upon request of CESAG, three working papers were prepared and presented by the Secretariat:

1. COM-SC CESAG-WP 20-02, on the comparison of catch data sources,
2. COM -SC CESAG-WP 20-03, on the calculation of the availability of catch amounts on a division basis in port inspection, and

Report of CESAG,  
24 April 2020

3. COM-SC CESAG-WP 20-04, 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 20-05 and helpful when calculating the catch estimates using the Catch Estimation Strategy.

## 6. Other Business

### a. 2018 NAFO Performance Review Panel Recommendation #4

The group recalled the 2018 NAFO Performance Review Panel Recommendation # 4, which states that “*NAFO implements the applicable outcomes of the catch estimates methodology study once completed, continue the work of CESAG and utilize Scientific observer data.*”

In response, CESAG agreed to have a meeting in February 2021 to review the 2019 report *Catch Estimates Methodology Study* completed by MRAG Americas, and identify elements in that report that could be applied by CESAG towards the improvement of the Catch Estimation Strategy (see agenda item 7).

In spite of the issue of availability of the Scientific observer data, CESAG noted that its actions in performing its work are in alignment with the *Action Plan for the Implementation of the Recommendations from the 2018 Report of the NAFO Performance Review Panel* (NAFO COM Doc. 19-32). It committed to continue its work in accordance with the PR recommendation and the Action Plan.

## 7. 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.

## 8. Date and time of next meeting

The next meeting will be in February 2021 via WebEx. A doodle survey will be circulated to determine the date and time.

## 9. Adjournment

The meeting was adjourned at 11:00 hours (ADT)

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**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 2019 Catch Estimates
5. Review of statistics and catch data comparison prepared by the Secretariat
  - a. Other Business
6. 2018 NAFO Performance Review Panel Recommendation #4
7. Recommendations
8. Date and time of next meeting
9. Adjournment



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**

30 April 2020  
via WebEx

NAFO  
Dartmouth, Nova Scotia, Canada  
2020

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## 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

30 April 2020  
via WebEx

### 1. Opening by Chair, Temur Tairov (Russian Federation)

The meeting was opened at 10:05 hours (Atlantic Standard Time) on Thursday, 30 April 2020 by the Chair, Temur Tairov (Russian Federation). He welcomed representatives from Canada, Denmark (in respect of Faroe Islands and Greenland), European Union, Japan, Iceland, Norway, and the United States of America (Annex 1).

### 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 adopted without amendment (Annex 2).

### 4. Presentation by the Secretariat and discussion of the bycatch analysis that was performed in support of Tasks 2.1 and 2.2 of the NAFO Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26).

The Secretariat presented the results of bycatch analysis of the haul by haul reports of 2016-2019 (COM BDS-WP 20-01). The Secretariat stressed that the analysis was performed based on the instructions and guidance of the WG as documented in the previous meetings (see COM Doc. 18-04 and COM Doc. 19-05).

In performing the analysis, the following NCEM articles served as the guideline in formulating the methodology:

- **Article 5.2:** *For any one haul, the species which comprises the largest percentage, by weight, of the total catch in the haul shall be considered as being taken in a **directed fishery** for the stock concerned.*
- **Article 6.2.b:** *A species listed in Annex I.A **shall be classified as bycatch** when it is taken in a Division where any of the following situations exist:*
  - (a) no quota has been allocated to that Contracting Party for that stock in that Division, in accordance with Annex I.A;*
  - (b) a ban on fishing for a particular stock is in force (moratoria); or***
  - (c) the "Others" quota for a particular stock has been fully utilized, following notification by the Executive Secretary in accordance with Article 5.*
- **Article 6.3:** *Each Contracting Party shall ensure that its vessels, including vessels chartered in accordance with Article 26, shall limit the retention of on board species classified as bycatch to the maxima specified below:*
  - (a) for cod in Division 3M, redfish in 3LN and witch flounder in 3NO: 1250 kg or 5%, whichever is the greater;***
  - (b) for cod in Division 3NO: 1000 kg or 4%, whichever is the greater;***

**(c) for all other stocks listed in Annex I.A where no specific quota has been allocated to the flag State Contracting Party: 2500 kg or 10%, whichever is the greater;**

**(d) where a ban on fishing applies (moratorium): 1250 kg or 5%, whichever is the greater;**

**(e) when the "Others" quota opened for that stock has been fully utilized: 1250 kg or 5%, whichever is the greater;**

**(f) once the directed fishery for redfish in Division 3M is closed in accordance with Article 5.5(d): 1250 kg or 5%, whichever is the greater; and**

**(g) while conducting a directed fishery for yellowtail in Divisions 3LNO: 15% of American plaice; otherwise bycatch provisions in Article 6.3 (d) apply.**

- **Article 6.6:** Each Contracting Party shall ensure that its vessels:

(a) ...

(b) observe the following, where the weight of any species subject to the **bycatch limits exceeds the greater of the limits specified in paragraph 3 of this Article in any one haul;**

...

- **Article 6.9<sup>1</sup>:** The percentage of bycatch in any one haul is calculated as the percentage, by weight, for each stock listed in Annex I.A of the total catch from that haul.

These allowed the determination of the directed stock/species and its bycatch for each haul.

Eleven interactions (11) of *Directed stock (non-moratorium stock) - Bycatch stock (moratorium stock)* were performed (see Article 6.2 (b) of the NAFO Conservation and Enforcement Measures (CEM)). The temporal and spatial analysis to identify "hotspots" of bycatch occurrence of each interaction constitutes the core task of the exercise. In addition, probability analysis bycatch occurrence of 11 identified interactions and of American plaice and skates in Division 3M as bycatch stocks were performed.

The eleven *Directed stock - Bycatch stock* interactions subjected to the detailed bycatch analysis are:

- 3M Cod (COD)– 3M American plaice (PLA)
- 3M Redfish (RED) – 3M PLA
- 3LN RED in 3L – 3L COD
- 3LN RED in 3N – 3NO COD in 3N
- 3LN RED – 3LNO PLA in 3LN
- 3O RED – 3NO COD in 3O
- 3O RED - 3LNO PLA in 3O
- 3LNO Yellowtail flounder (YEL) – 3NO COD
- 3LNO YEL – 3LNO PLA

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<sup>1</sup> In COM BDS-WP 20-01, this Article was mistyped as Article 6.4. The correct article number is 6.9.

- 3LNO Skates (SKA) – 3NO COD
- 3LNO SKA – 3LNO PLA

Greenland halibut (GHL), although considered one of the major fisheries in the NAFO Regulatory Area (NRA), was not included in the detailed analysis because of the relatively low incidence of moratorium species in the haul. The Secretariat agreed to make the analysis of bycatch in the GHL fishery available on the SharePoint site for the information of Contracting Parties.

Takeaway from the spatial and temporal analysis include:

- No interannual spatial and temporal variation was observed in the 11 fisheries-bycatch interactions (see Figures 1-11 in COM BDS-WP 20-01).
- COD and PLA are the major bycatch species of the groundfish fisheries in the NRA. They comprise the moratorium stocks of 3L COD, 3NO COD, 3M PLA and 3LNO PLA.
- RED fisheries hotspots in the Nose and Tail of the Grand Banks (Divisions 3LNO) are located near the slopes of the Bank.
- Similar *Directed stock - Bycatch stock* interactions were observed in the YEL and SKA fisheries in Divisions 3LNO despite the different minimum mesh size requirements for the fisheries, i.e. 130 mm and 280 mm, respectively.
- IN 3LN RED fishery, two stocks of COD were observed to be bycatch, namely the 3NO and 3L stocks.

In addition to the temporal and spatial analysis, results on the following analysis were presented:

- Probabilities of bycatch incidence and threshold exceedance;
- Monthly analysis of 3LNO YEL and 3LNO SKA fisheries;
- Frequency analysis of WIT and SKA incidence in the Flemish Cap (Division 3M); and
- Annual summary table of discards by Division (COM BDS-WP 20-02).

Discussions emanating from the presentation centered on the scope of the analysis and the caveats, including:

- Non-inclusion in the analysis of hauls by longline gear,
- Non-inclusion in the analysis of discards,
- Non-inclusion in the analysis of two bycatch situations relating to no quota allocation and “Others” quota as described in Articles 6.2.(a) and (c),
- Non-inclusion of the seasonal and monthly analysis relating to hotspots of bycatch incidence.
- Bycatch threshold analysis in any one haul calculated on the basis of the methodology for bycatches on board (Article 6.4: total catch of stocks listed in Annex I.A only), instead of on the methodology for bycatches in any one haul (Article 6.9: total catch from that haul, i.e. total quantities of stocks both Annex I A-listed and non-listed stocks).

Regarding missing haul by haul reports for 2018 and 2019, the Secretariat explained that reports received following the completion of the current analysis as presented could be included but it was unlikely the results would change and would potentially represent significant additional work.

Regarding the longline gear, the Secretariat explained that it was the intention at the onset to conduct a separate analysis. However, the number of data points from the longline gear was not sufficient to allow the temporal and spatial analysis. It is estimated that fishing effort of longline (in terms of fishing days) constitutes about 5% of the total fishing effort in the NRA. Bottom trawl constitutes most of the fishing effort in the NRA.

Regarding discards, the number of data points was also not sufficient to allow temporal and spatial analysis. In discard summary table presented in COM BDS-WP 20-02, discards from longline and bottom trawl were combined. From the haul by haul reports, discards account for less than 2% of the total catch by weight.

Regarding bycatch situations as described in Articles 6.2.(a) and (c), information on quota allocations and quota transfers is required to make the analysis possible. This information is not contained in the haul by haul report. Furthermore, the Secretariat observes that based on the annual compliance reviews detected incidents of bycatch exceedance in a “no quota” or “Others” situation are rare.

Regarding the more finely grained mapping to identify hotspots, the Secretariat explained that a quarterly mapping was done on the 11 interactions and that the maps of bycatch occurrences would be made available shortly after the meeting. The Secretariat would continue with the monthly mapping in similar format as that presented at the 2019 meeting

Regarding the calculation of bycatch threshold in one haul (see last bullet above), some Contracting Parties indicated a potential flaw in the presented analysis --- the understanding and application of Article 6.9 in the calculation of the bycatch percentage threshold, and stressed that the methodology in Article 6.9 calculates the percentage for each Annex I.A stock on the basis of the total catch in one haul (total quantities of both Annex I.A-listed and non-listed species) while the methodology in this report considered the percentages on the basis of the total quantities of Annex I.A-listed stocks only. The Secretariat confirmed that the sum of Annex -I species (species listed in the Quota Table) in the haul was used as the denominator in the percentage calculation. The Secretariat indicated that if accepted as potential flaw, probabilities of threshold exceedance (see Figure 12 of COM BDS-WP 20-01) would be affected. However, the mapping of the “hotspots” (Figures 1-11) may be viewed as bycatch “absence-presence” indicators regardless of how Article 6.9 was applied. The Secretariat added that the preliminary results of the temporal and spatial analysis had been presented in the previous meetings using the agreed methodology and the current results represent an update incorporating the 2019 data.

#### **5. Review and preliminary discussions on Task 3 "*Identification of Priorities*" and Task 4 "*Development of Management Options*" of the NAFO Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26).**

As discussions on the presentation (see agenda item 4) segued to this agenda item, it was highlighted that the tasks outlined in Sections 2 and 3 of the Action Plan are important to inform and support in the completion of the tasks in Section 4, particularly on the time-area management and fishery-specific solutions (the Action Plan is attached as Annex 3 of this report for quick reference)(see agenda item 8).

In an effort to address the issues discussed above, it was agreed that the haul by haul data used in the analysis be uploaded to the SharePoint. The purpose is twofold: 1) the WG to review the methodology, calculations and results of the presented analysis, 2) the WG to identify further lines of analysis to complement the analysis that has been done. With regards to the temporal and spatial analysis, the Secretariat indicated that the methodology and preliminary results had been presented and reviewed by the WG in the previous meetings. The Secretariat requested that specific guidance be provided by end July with regards to the re-analysis or modification, if any, of the presented analysis and to the complementary analysis that may have to be performed (see agenda item 8) specific to supporting Task 4. Depending on the developments, the Chair of the WG may have to convene a meeting prior to the Annual Meeting in September to discuss the new results.

Regarding the high survivability rates in Task 2.2, the SC Chair reported that some work has commenced intersessionally and the request would be addressed at the upcoming SC June meeting. It was recalled that the Commission included this in the SC request at the 2019 Annual Meeting, as per the recommendation of this WG. It was agreed to forward a similar recommendation pertaining to Tasks 3.1 and 3.2 (see item 8).



## **6. Implementation of the 2018 Performance Review Panel Recommendations relevant to this working group**

The WG recalled the 2018 Performance Recommendations (PR), particularly Recommendations 7, 17, and 18 where this WG, together with STACTIC, is identified a lead NAFO Bodies in the implementation (COM BDS-WP 20-03). The WG committed to continue its work in accordance with the PR recommendations (COM Doc. 19-32) and with the Action Plan (see Annex 3), including its coordination and engagement with STACTIC.

## **7. Other Matters**

There was no further matter discussed under this agenda item.

## **8. Recommendations**

The WG-BDS agreed on the following recommendations:

- 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 (COM Doc. 17-26)*.**
- 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)*.**

## **9. Adoption of report**

This reported was adopted through correspondence.

## **10. Adjournment**

The meeting adjourned at 12:15 hours (Atlantic Standard Time) on 30 April 2020.

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## Annex 2. Agenda

1. Opening by Chair, Temur Tairov (Russian Federation)
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Presentation by the Secretariat and discussion of the bycatch analysis that was performed in support of Tasks 2.1 and 2.2 of the NAFO Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26).
5. Review and preliminary discussions on Task 3 "*Identification of Priorities*" and Task 4 "*Development of Management Options*" of the NAFO Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26).
6. Implementation of the 2018 Performance Review Panel Recommendations relevant to this working group
7. Other Matters
8. Recommendations
9. Adoption of report
10. Adjournment

### **Annex 3. Action Plan in the Management and Minimization of Bycatch and Discards (COM Doc. 17-26)**

This Action Plan builds on the version adopted by the NAFO Fisheries Commission (FC) in September 2015<sup>1</sup>. The Action Plan below, if adopted, will conclude the initial objective of the ad-hoc NAFO WG on By-catch, Discards and Selectivity (WG-BDS). However, the FC may re-convene WG-BDS ad-hoc, as required to support implementation of the Action Plan;

The Action Plan will initially focus on stocks included in Annexes IA and IB of the NCEMs, as well as, other stocks, as identified by the Working Group (i.e. 3M Witch flounder and 3M Thorny skate). Unless otherwise directed by the Commission, stocks regulated by NAFO will be the priority for the development of management options. In addition, other species of living marine resources that may be impacted by NAFO fisheries might be considered. The Action Plan will ensure that there is a systematic and horizontal consideration of the overarching objectives set out below across NAFO bodies, at least up to 2021. NAFO bodies identified will take the lead for each of the specified actions, but are expected to involve other bodies and coordinate with them regularly.

The Action Plan will require support from the NAFO Secretariat for the analysis of by-catch data, notably haul-by-haul data. This would be carried out in consultation with other NAFO bodies, such as the WGBDS, SC and STACTIC.

#### **A. Overarching objectives**

1. Effective management and the minimization of by-catch and discards, and improvement of selectivity, in fisheries of the NRA.
2. Accurate reporting of target, non-target and incidental catch.
3. Account for total catch (retained and non-retained) in scientific assessments and management measures.
4. Management measures are adaptive and address changing fishery conditions over time, or differences among areas and fleets.
5. Management measures reflect the precautionary and ecosystem approaches to fisheries management.
6. Identify priority areas for by-catch management, in particular areas where there is a risk of causing serious harm to by-catch species.
7. Ensure linkage to other NAFO bodies doing work related to by-catch management (e.g. STACTIC, WG-EAFFM, WG-ESA, WG-CR).

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<sup>1</sup> FC Doc. 15-22 Rev (Annex 13 to the Fisheries Commission report on the 37th NAFO Annual Meeting in 2015).

**B. Actions, actors, timing****1. Data management**

<b>What</b>	<b>Expected result</b>	<b>NAFO body</b>	<b>Timeline</b>
<b>1.1. Standard formats, data collection and data transmission</b>	Ensure that all forms and data used to report catch and effort are standardized according to existing NCEM provisions, including observer data.	Secretariat/STACTIC	AM 2019
<b>1.2. Logbook data</b>	Haul-by-haul data is available for NAFO bodies, with relevant breakdown for catches by species, retained and non-retained.	Secretariat	AM 2019
<b>1.3. Data completeness and identification of gaps</b>	<p>Identify gaps in information on by-catch, whether retained or not retained, i.e. is NAFO (1) capturing all the information it needs to assess by-catch, selectivity and discards and (2) are NCEM rules on reporting of by-catch being complied with?</p> <p>The Working Group should review data gaps identified by the Secretariat. If appropriate may also consider recommending updates to the species included in the Annex I.C of the CEM</p>	Secretariat/WG	AM 2019
<b>1.4. Data sharing</b>	Improve information sharing with other international bodies (e.g. NEAFC) and sharing best practices related to by-catch discards and selectivity among Contracting Parties.	STACTIC/ CPs	AM 2019

**2. Ongoing analysis and monitoring**

What	Expected result	NAFO body	Timeline
<b>2.1. Trends, patterns and anomalies</b>	<p>a) Annual mapping of by-catch in NAFO from 2016 forward using haul by haul data</p> <p>b) Secretariat to continue to analyze trends, patterns anomalies in reported catch of identified non Annex Ia and Annex Ib species (3M Witch flounder, 3M Thorny Skate)</p>	Secretariat	AM 2020
<b>2.2. Specific issues by time, area, depth, fleet and fishery</b>	<p>Specific issues identified as part of the work under 2.1.</p> <p>Secretariat to compile data on discards in the NRA</p> <p>Identification of species under NAFO catch or effort limits with high survivability rates.</p>	Secretariat SC	AM 2020

**3. Identification of priorities**

What	Expected result	NAFO body	Timeline
<b>3.1. Moratoria species</b>	Identify moratoria stocks where the level of bycatch/discards may be impeding recovery	SC (with BDS)	AM 2021
<b>3.2. Areas where there is a risk of causing serious harm to by-catch species</b>	Identify areas, times and fisheries where by-catch and discards, notably of moratoria species, that have a higher rate of occurrence.	SC (with BDS)	AM 2021
<b>3.3. High rates of discards</b>	Identify the species with the highest rate of discards in the NRA	Secretariat	AM 2021



**4. Development of management options**

<b>What</b>	<b>Expected result</b>	<b>NAFO body</b>	<b>Timeline</b>
<b>4.1. management</b> <b>Time-area</b>	For NAFO fisheries identified as priorities under Action group 3, assess the merit of time-area management measures and/or new move-on rules.	WG-BDS STACTIC	AM 2021
<b>4.2. solutions</b> <b>Fishery-specific</b>	For NAFO fisheries identified as priorities under Action group 3, assess the merits of specific solutions per fishery, including the development and assessment, with the Scientific Council, of selectivity tests.	WG-BDS STACTIC SC	AM 2021
<b>4.3. Identification of best practices</b>	Best practices / possible mitigation measures to avoid by-catch per time, area, depth, fleet and fishery.	BDS SC	AM 2020

**3. Review**

No later than 2022, this Action Plan should be reviewed and assessed, if appropriate by including it expressly in the scope of a NAFO Performance Review.



Northwest Atlantic Fisheries Organization



**Report of the NAFO Standing Committee on International Control (STACTIC)  
Intersessional Meeting**

12-15 May 2020

NAFO  
Halifax, Nova Scotia, Canada  
2020

## Report of the NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting

12-15 May 2020

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## **Report of the NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting**

12-15 May 2020

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

The Chair of STACTIC, Kaire Märtin (European Union) opened the meeting at 11:05UTC on 12 May 2020 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, and the United States of America (Annex 1). The Chair thanked Contracting Parties for their cooperation and flexibility during the unprecedented situation.

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

The NAFO Secretariat (Jana Aker) was appointed as rapporteur.

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

The Chair noted several agenda items that, prior to the meeting, were agreed to be deferred until the next in-person meeting. In addition, the following amendments were made to the agenda under agenda item 23 – Other Business:

- a. Discussion of COVID-19
- b. Mid-Season Report on the status of the 3M Shrimp Fishery
- c. Product Form presentation – Annex II.K

The agenda was adopted, as amended (Annex 2).

### **4. Annual Compliance Review, 2019**

The NAFO Secretariat highlighted the Draft 2019 Compilation of Fisheries Reports table in STACTIC WP 20-02 (Revised) and presented the compilation of NAFO fishing reports for STACTIC Annual Compliance Review in STACTIC WP 20-12 (Revised). Contracting Parties thanked the Secretariat for the work on the compliance working papers and provided comments and clarifications. Contracting Parties agreed to forward any comments on STACTIC WP 20-02 (Revised) and STACTIC WP 20-12 (Revised) to the NAFO Secretariat by 12 June 2020 for inclusion in the final version that will be circulated on 22 June 2020.

The Chair highlighted STACTIC WP 20-03 (Revised) outlining the Summary of Inspection Information for 2019 submitted in accordance with Article 40.4 of the NAFO CEM. Iceland noted that they had a port inspection in 2019 and have sent the information to the NAFO Secretariat for inclusion. The European Union requested further information from the United States of America on a specific infringement, noting some of the details of the follow-up actions were not entirely clear. The United States of America provided further details and agreed to work with the European Union to clarify the details of the alleged infringement and follow-up actions. Contracting Parties agreed to forward written comments on STACTIC WP 20-03 (Revised) to the NAFO Secretariat by 12 June 2020. The United States of America also thanked the European Union for the invitation to participate in a port inspection and highlighted the importance of the ongoing collaboration between Contracting Parties in relation to NAFO inspection activities.

Canada presented a discussion paper on measures concerning vessels demonstrating repeat non-compliance of serious infringements in the NAFO Regulatory Area in STACTIC WP 20-04. Canada noted that there have been extensive discussions on this topic that started in 2016, and that it has been a difficult issue to address in a way that is compatible with the legislative mechanisms of all Contracting Parties. The working paper offered some options for discussion for defining repeated non-compliance and outlining a reporting process.

Contracting Parties thanked Canada for their work and highlighted the importance of this discussion, however also noted that there were still some issues with the process outlined in the discussion paper. One being having a vessel deemed as repeatedly non-compliant upon issuance of an apparent infringement rather than following the confirmation of the infringement and subsequent legal follow-up that would be required by some Contracting Parties, as well as clarification of which serious infringements would be included in the definition, specifically in relation to infringements that are considered serious according to Article 38.1 (m) when there is no observer onboard. Canada thanked Contracting Parties for their comments and agreed to reflect and were encouraged to continue the discussions on this topic, with the possibility of presenting another discussion paper at the 2020 Annual Meeting.

It was **agreed** that:

- **Contracting Parties would provide written comments on the Draft Compilation table of Fisheries Reports 2019 (STACTIC WP 20-02 (Revised)), the Compilation of NAFO Fishing Reports for STACTIC Annual Compliance Review presentation (STACTIC WP 20-12 (Revised)), and the Summary of Inspection Information for 2019 (STACTIC WP 20-03 (Revised)) to the NAFO Secretariat by 12 June 2020.**
- **Canada will consider the comments from Contracting Parties on the measures concerning vessels demonstrating repeat non-compliance of serious infringements in the NAFO Regulatory Area discussion paper (STACTIC WP 20-04) with the possibility of presenting another discussion paper at the 2020 Annual Meeting.**

## 5. Review of Article 30 of the NAFO CEM

The NAFO Secretariat presented the summary of observer information for 2019 in STACTIC WP 20-09. The Secretariat noted that there was no reporting template for this requirement and had compiled the elements by each requirement outlined in Article 30 as most Contracting Parties submitted the information in that way. The table included only a synthesis of the information that was provided by Contracting Parties, and Contracting Parties provided further details on some of the points outlined in the table. It was agreed that additional details and updates could be provided to the NAFO Secretariat by 12 June. Furthermore, it was noted that not all Contracting Parties had submitted information in accordance with the requirements outlined in Article 30.10.d and 30.6.e, and that those Contracting Parties that participated in fishing activities in 2019 should submit the relevant information to the NAFO Secretariat following the template in the working paper by 12 June 2020. Contracting Parties agreed that the revised working paper should be reviewed again at the 2020 Annual Meeting.

It was **agreed** that:

- **Contracting Parties that conducted fishing activities in 2019 agreed to submit the reporting requirements outlined in Article 30.10.d and Article 30.6.e (where relevant) to the NAFO Secretariat by 12 June 2020.**
- **The updated observer information from Contracting Parties be incorporated into STACTIC WP 20-09 and a revised version be presented at the 2020 Annual Meeting.**

## 6. STACTIC Participation

This item was deferred to the 2020 Annual Meeting.

## 7. New and pending proposals on enforcement measures: Possible revisions of the NAFO CEM

Norway presented a discussion paper regarding the inclusion of vessels from IUU lists of other RFMOs to the NAFO IUU list in STACTIC WP 20-07. Norway recalled the proposal that was presented at the 2019 Annual meeting (STACTIC WP 19-47) and highlighted that NEAFC had agreed to amend the NEAFC Scheme of Control and Enforcement to include vessels from the IUU lists of a number of other RFMOs to its IUU list. As the problem of IUU is global, and NEAFC and NAFO are including vessels from each others IUU lists on their respective IUU lists, Norway was of the opinion that NAFO should include similar amendments to the NAFO CEM, and asked

for the views of Contracting Parties on this. Contracting Parties thanked Norway for the discussion paper and noted that they were fully supportive of mechanisms to prevent and deter IUU fishing activities in NAFO, but some required additional time, noting that they would need to seek additional input. Contracting Parties also noted that more details were required, such as which RFMOs would have a sufficient nexus to NAFO, e.g. location, type of fishery, etc...), the listing mechanisms of the other RFMOs, and details to ensure NAFO Contracting Parties have notice and opportunity to object to any vessel inclusion similar to the current processes outlined in Article 53 of the NAFO CEM. The European Union noted that cross-referencing RFMOs lists increases the effectiveness of this mechanism to fight IUU (e.g. limiting the market for illegal catches) and offered its assistance to Norway to table a proposal. Norway thanked Contracting Parties for their comments. They will reflect on them and agreed to cooperate with the European Union with regard to drafting a new proposal for presentation at the 2020 Annual Meeting.

It was **agreed** that:

- **Norway will consider the comments made and cooperate with the European Union with regard to drafting a new proposal regarding the inclusion of vessels from IUU lists of other RFMOs to the NAFO IUU list for presentation at the 2020 Annual Meeting.**

## **8. Discussions on the interpretation of Article 10 of the NAFO CEM**

This item was deferred to the 2020 Annual Meeting.

## **9. Port State Measures**

### **a. Practical application of Port State Measures in NAFO**

This item was deferred to the 2020 Annual Meeting.

### **b. FAO Port State Measures Agreement**

The Chair presented the information on the NAFO implementation of the FAO Port State Measures Agreement in STACTIC WP 20-01 (Rev. 2), and noted that this document was drafted by a smaller working group that met on 23 April 2020 in response to the request in COM Doc. 19-33. The Chair requested that Contracting Parties submit any further comments on the document to the NAFO Secretariat by 15 June 2020, and if they are not substantive, the comments will be incorporated and sent in response to the FAO survey which will be open from June-September 2020. If Contracting Parties provide substantive comments, the Chair will call another meeting of the small working group to review them. Contracting Parties agreed with this way forward.

It was **agreed** that:

- **Contracting Parties will submit comments to the NAFO Secretariat on the NAFO implementation of the FAO Port State Measures Agreement text in STACTIC WP 20-01 (Rev. 2) by 15 June 2020.**
- **The Chair will review the comments submitted by Contracting Parties on STACTIC WP 20-01 (Rev. 2) and determine if a second meeting of the working group will be required before submitting the responses to the FAO questionnaire.**

## **10. Marking of gears**

This item was deferred to the 2020 Annual Meeting.

## **11. NAFO website and application development**

The NAFO Secretariat highlighted STACTIC WP 20-08 and presented an update on the work to the MCS Website and the observer reporting application. Contracting Parties thanked the Secretariat for the developments to the NAFO MCS Website, noting the importance of the tools and information on the website that have greatly

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facilitated inspection and FMC activities. On the observer application, the NAFO Secretariat noted that there are currently technical issues with connecting the application with an independent communication device that will be resolved within the coming months and would provide an update at the 2020 Annual Meeting. Contracting Parties thanked the Secretariat for the update and continued to offer support for testing the application when required.

## **12. Report and recommendations of the Editorial Drafting Group (EDG)**

This item was deferred to the 2020 Annual Meeting.

## **13. Half-year review of the implementation of new NAFO CEM measures**

No items discussed under this agenda item.

## **14. Review and evaluation of Practices and Procedures**

The Chair noted that there were no updates since last discussed at the 2019 Annual Meeting in STACTIC WP 19-46.

## **15. 2019 NAFO Inspectors workshop**

The European Union presented the summary report of NAFO Inspectors Workshop in STACTIC WP 20-05. The European Union noted that the meeting took place in October 2019 in the Azores, Portugal, and was open to participation from inspectors from all Contracting Parties. Representatives from Canada, Denmark (on behalf of the Faroe Islands and Greenland), the European Union, and the United States of America participated in the workshop along with a member of the NAFO Secretariat. Contracting Parties thanked the European Union for hosting the workshop and noted the importance of the ongoing communication and collaboration of Contracting Party inspectors to ensure the consistency of the enforcement of the NAFO CEM. The NAFO Executive Secretary noted that the inclusion of the NAFO Secretariat in the Inspectors Workshop has increased spending under the travel budget of the Secretariat and this spending was not anticipated when the budget was approved by the Commission. Consequently, the Secretariat will be asking for an increase to its budget at the 2020 Annual Meeting to accommodate this increased cost. Contracting Parties supported this and noted the importance of having the NAFO Secretariat present at the workshop. Canada noted that they will be hosting the next NAFO Inspectors Workshop, but the date is yet to be determined given the current COVID-19 situation.

## **16. Review of current IUU list Pursuant to NAFO CEM, Article 53**

The Chair noted that there were no updates to the NAFO IUU list since last discussed at the 2019 Annual Meeting in STACTIC WP 19-14. The Chair also highlighted the discussion paper from Norway (STACTIC WP 20-07), specifically that NEAFC has adopted the proposal to include other RFMO IUU lists into their IUU list and that will be finalized at the NEAFC annual meeting. It was noted that this may have an impact where NAFO adopts the NEAFC IUU list as per Article 49.1.c of the NAFO CEM and that STACTIC will need to discuss these changes and how they relate to the NAFO IUU list. Canada also noted that there had been discussion of the status of some of the vessels that are currently listed on the IUU list, and the European Union agreed to follow-up on this and provide an update at the 2020 Annual Meeting.

It was **agreed** that:

- **The European Union would follow-up on some of the vessels listed in the NAFO IUU list and provide an update at the 2020 Annual Meeting.**



**17. Bycatch, discards, and selectivity****a. Results of the WG-BDS meeting, April 2020**

The NAFO Secretariat provided a summary of the results from the 30 April 2020 meeting of the Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area in STACTIC WP 20-13, noting that the report of the meeting has not been finalized. The Chair of the WG-BDS, Temur Tairov (Russian Federation), noted that there is further work to be completed by the working group, and another meeting may be called prior to the 2020 Annual Meeting depending on the analyses being completed by the NAFO Secretariat. Contracting Parties raised several questions relating to the analysis completed by the NAFO Secretariat including which calculation of bycatch was used as the basis for the analysis, how targeted species was determined in relation to vessels that have quota for multiple stocks, and how the threshold levels were calculated. The NAFO Secretariat agreed to follow-up with Contracting Parties on their questions and continue working on the analyses for presentation to the WG-BDS and report back to STACTIC.

**b. Sorting grids for 3M Cod**

This item was deferred to the 2020 Annual Meeting.

**18. Discussion of data classification and access rights**

This item was deferred to the 2020 Annual Meeting.

**19. Report and advice of the Joint Advisory Group on Data Management (JAGDM), 17-18 March 2020**

The vice-Chair of JAGDM, Natasha Barbour (Canada), presented a summary of meeting highlights from the JAGDM meeting in March 2020 (report available in COM Doc. 20-03) and noted that no NAFO-specific items were discussed during the meeting with the exception of providing updates on recent work that NAFO had completed. The vice-Chair also highlighted that an election for a new chair will be taking place via correspondence from the NAFO and NEAFC Secretariats. The time and place of the next meeting of JAGDM is to be determined.

**20. Discussion on garbage disposal and 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 Contracting Parties agreed to submit and provide relevant updates to the NAFO Secretariat.

The European Union presented a discussion paper outlining a proposal for inclusion of measures relating to marine pollution in the NAFO CEM in STACTIC WP 20-10, noting it was a revision of a proposal that was presented at the 2019 Annual Meeting. Contracting Parties thanked the European Union for their work on the proposal and agreed on the importance of addressing the issues of garbage disposal and pollution at sea. Contracting Parties noted that there were several elements in the proposal that would require further review and consultation before moving forward with the proposal. Some Contracting Parties expressed concerns about the potential ambiguity that could be caused by including specific details relating to marine pollution within the NAFO CEM, noting that a reference to Annex 5 of MARPOL could be sufficient to address the issue. The European Union thanked Contracting Parties for their input and agreed to work further on the proposal in consideration of the comments received from Contracting Parties and bring a revised proposal to the 2020 Annual Meeting.

It was **agreed** that:

- **Contracting Parties will provide the Single Point of Contact (SPOC) for labour conditions and any relevant updates to the NAFO Secretariat for inclusion on the NAFO MCS Website.**

- **The European Union will consider comments received from Contracting Parties on STACTIC WP 20-10 and bring a revised proposal to the 2020 Annual Meeting.**

## **21. Discussion of the reporting of shark catches in the NAFO Regulatory Area**

This item was deferred to the 2020 Annual Meeting.

## **22. Implementation of the Performance Review Recommendations**

This item was deferred to the 2020 Annual Meeting.

## **23. Other business**

### **a. Discussion of COVID-19**

The Chair opened this agenda item by highlighting the various correspondence that has been circulated relating to the measures being applied by Contracting Parties during the current COVID-19 pandemic. The Chair noted that in the correspondence submissions, there is a common reference that STACTIC has a role to discuss the measures relating to the situation, but the specific tasking to STACTIC remains unclear. Considering this, the Chair requested that Contracting Parties each provide an update on the current issues they are facing, both domestically and within NAFO, as well as their interpretations of the role of STACTIC.

The European Union informed that the discussion on the way forward with regard to the difficulties is ongoing at NAFO Heads of Delegation (HoD) level. The options considered with regard to situations in which a Contracting Party cannot comply with a NCEM obligation due to the pandemic are the general suspension of the obligation and the assessment of this non-compliance as deriving from emergency circumstances. A general suspension was proposed for the observer scheme, later withdrawn, with a number of HoD currently supporting the European Union approach based on identification of emergency circumstances, given that the general suspension affecting all Contracting Parties regardless of the COVID-19-related circumstances would be non-optimal. The European Union noted that the role of STACTIC would be decided at HoD together with the approach to be followed. The role for STACTIC proposed in the European Union HoD letter would consist of compiling the information from the Contracting Parties on the emergency circumstances surrounding a non-compliance linked to the COVID-19 pandemic, including technical discussions and clarifications needed. The information would be then transmitted for decision making to the NAFO Fisheries Commission, which would be in a position to identify and treat accordingly the emergency circumstances linked to the COVID-19 crisis.

Canada informed Contracting Parties that there was a Ministerial Order to suspend observer operations in Canada that came into force in April. Because of this, Canada opted to use the observer derogation clause outlined in Article 30.6 of the NAFO CEM, and subsequently proposed a suspension of the NAFO Observer Program (NAFO/20-133), but following further discussions withdrew the proposal. However, Canada expressed some concerns with the potential issues their current derogation could cause, specifically in relation to Article 38.1.m. Canada reflected on the European Union proposal (NAFO/20-128), and agreed in principle with the way forward, where Contracting Parties use their own discretion to address their specific issues related to COVID-19, and STACTIC review issues during the 2021 compliance review process. Canada did raise concerns with the use of the term “force majeure”, as this has specific meaning in the context of port State measures, and offered the suggestion to use “emergency circumstances related to COVID-19”, and offered to present a proposal. Canada also noted that at the time, the domestic and international conservation and patrol efforts have been considered critical by the Minister, and therefore will continue to be an active presence in the NRA in terms of control and enforcement, and highlighted that there are many procedures and protocols that have been developed to ensure the health and safety of everyone involved.

Denmark (Faroe Islands) reported that there are currently no vessels operating in the NRA, but that there has been one issue where a vessel landed in port that had Greenland halibut (GHL) onboard, and that no physical inspection was possible for that vessel (Article 10.4). The Faroe Islands noted they circulated correspondence

in relation to this issue, but that it was likely that port inspection operations would be returning to normal in the near future as there were no more cases of COVID-19 in the Faroe Islands. The Faroe Islands noted that they would like to see the specific issues being faced by Contracting Parties in this situation highlighted and forwarded to the Commission for review. Denmark (Greenland) noted that they currently have no vessels in the NRA and have not received any vessel for landing, so have had no issues complying with the NAFO CEM to date. Greenland supported the suggestion of reporting to the Commission on the specific issues being faced by Contracting Parties and noted the need for guidance on how STACTIC should be evaluating these specific issues.

Iceland reported that they have no vessels currently operating in the NRA and are not at present conducting port inspections. Iceland noted that they have not received any vessels landing Greenland halibut (GHL) but are monitoring the situation to meet the required 15% port inspection coverage outlined in Article 43.10 of the NAFO CEM. Iceland noted their support for the approach proposed by European Union and that the role of STACTIC be to review the compliance issues related to COVID-19. Iceland also noted concerns with any temporary suspensions of the NAFO CEM as each country will be lifting the restrictions at different times, so having one timeline for all Contracting Parties would not be practical, and also that further guidance is required from the Commission before moving forward with any decisions on the COVID-19 issue.

Japan reported that there is currently one vessel operating in the NRA, and because of the restrictions on travel, the same observer remains onboard that vessel. Japan expressed concerns that if something were to happen to that observer, they would not be able to deploy another observer onboard (Article 30). Japan noted its support for the process outlined in the European Union proposal on the role of STACTIC to review the specific issues related to COVID-19 during the compliance review 2021 and agreed that further guidance from the Commission would be necessary to move forward.

Norway reported that domestically risk assessment had been conducted and general standards to avoid contamination during inspections had been developed, and that physical inspections now would resume gradually. Norway also noted that there is currently one Norwegian vessel fishing for cod in the NRA, and that although there had been some challenges, they had been able to deploy an observer from the Canadian company Seawatch to this vessel. As the vessel had been carrying an observer for the first period it was fishing in the NRA, Norway was now employing the derogation in accordance with Article 30.6, and the observer had left the vessel earlier this week. Norway also noted support for the European Union proposal not to suspend any particular provision of the NCEM. However, if it was agreed that Contracting Parties may take unilateral measures and these would be considered force majeure or emergency circumstances, Norway was of the opinion that it seemed inappropriate for STACTIC to re-examine those measures. If STACTIC should have any role with regard to COVID-19 measures, it should be to conduct a subsequent evaluation of the situation with the aim of identifying best practice solutions to be applied in similar situations in the future.

The Russian Federation reported that there are several vessels that have been operating in the NRA since the COVID-19 pandemic started and their main concern is ensuring there is no contamination for the crew members onboard the vessels. The Russian Federation felt the role of STACTIC was to develop recommendations in response to the current COVID-19 to forward to the Commission for review and adoption, specifically measures relating to safety procedures and protocols to be followed by the NAFO Inspectors at sea. The Russian Federation noted their correspondence (NAFO/20-140) relating to a recent inspection of a Russian vessel by a European Union inspection presence. The master of the vessel reported concerns to the Russian Federation relating to the inspection, and the European Union clarified the details of the inspection and noted no issues were raised at the time of the inspection and explained that the measures of the protective protocol applied during the deployment were notified to all Contracting Parties several weeks in advance of the inspection. The protective protocol accommodated all measures suggested by the Russian Federation and included a 3-weeks quarantine period for all crewmembers. The European Union expressed readiness to discuss further the inspection protocols in place with a view to share best practices. The Russian Federation asked Contracting Parties with inspection presence to upload their protective safety protocols to the NAFO MCS Website and the European Union agreed to provide an updated version.

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The United States of America reported that they have temporarily suspended their domestic observer program in the Greater Atlantic Region and that this suspension is regularly reviewed in light of the changing circumstances. The United States noted that they continue to have an inspection and enforcement presence while undertaking appropriate risk assessments. The United States highlighted their proposal that was circulated to Contracting Parties in NAFO/20-143 noting their concerns with having Contracting Parties advise of their inability to comply with relevant measures due to COVID-19 on a case-by-case basis rather than having a decision by all Contracting Parties to temporarily suspend the relevant measures. Particularly, the United States noted that there is no process in place under the CEMs or otherwise to consistently evaluate the application and use of any such defense on a case-by-case basis. The United States proposed that STACTIC identify the measures that are currently difficult for Contracting Parties to meet because of COVID-19 and draft a proposal to the Commission to temporarily suspend these measures on an expedited timeline.

The European Union noted that the difficulties due to the pandemic expressed by STACTIC members mainly relate to Article 10 (GHL landings) and Article 30 (Observers scheme) NAFO CEM for which no suspensions are currently proposed. The European Union informed that their proposal that was circulated in NAFO/20-128 favors the approach of assessing the measures taken at a later date, trusting that all Contracting Parties are doing their best to comply with their obligations, rather than suspending specific measures for all Contracting Parties, even those that are still able to comply with those measures.

The Chair thanked all Contracting Parties for the valuable discussions and for their input on the COVID-19 issue. The Chair noted that there was no clear consensus on the way forward to address the COVID-19 issue and what the role of STACTIC should be. In light of the discussion and the urgency of the situation, the Chair proposed that STACTIC requests advice from the Commission, as soon as possible, on whether the current COVID-19 situation requires a proposal for the temporary suspension of specific measures in the NAFO CEM or whether Contracting Parties can continue to operate under their own discretion under emergency measures relating to COVID-19. Contracting Parties agreed with the proposal offered by the Chair.

Based on the decision of the Commission on the way forward, STACTIC requests advice on what their role should be going forward with the current COVID-19 situation. If the Commission agrees that current measures in the NAFO CEM need to be suspended, STACTIC requests clarification on whether it will then be the responsibility of STACTIC to propose these measures to the Commission. If the Commission agrees that Contracting Parties can continue to operate under their own discretion under the emergency measures relating to COVID-19, STACTIC ask for clarification on whether STACTIC should compile, make a first review of and report for decision-making to the Commission on the measures undertaken by Contracting Parties via the compliance review, or simply review the measures reported in order to identify best practice solutions to be applied in similar situations in the future.

It was **agreed** that:

- **STACTIC will request advice from the Commission on whether the current COVID-19 situation requires a proposal for the temporary suspension of specific measures in the NAFO CEM or whether Contracting Parties can continue to operate under their own discretion under emergency measures relating to COVID-19.**
- **Following the decision of the Commission, if the Commission agrees that current NAFO CEM measures need to be suspended, STACTIC requests clarification on whether it will then be the responsibility of STACTIC to propose these measures to the Commission. If the Commission agrees that Contracting Parties can continue to operate under their own discretion under the emergency measures relating to COVID-19, STACTIC requests clarification regarding whether STACTIC should compile, make a first review of and report for decision-making to the Commission on the measures undertaken by Contracting Parties via the compliance review, or simply review the measures reported in order to identify best practice solutions to be applied in similar situations in the future.**

### **b. Mid-Season Report on the status of the 3M Shrimp Fishery**

Canada presented a discussion paper to propose the creation of a mid-season report on the status of the 3M shrimp fishery in STACTIC WP 20-06. Canada noted the potential utility of having this report in advance of the 2020 Annual Meeting to facilitate discussions in anticipation of a request to STACTIC from the Commission and/or working group on 3M shrimp. Contracting Parties thanked Canada for the paper but noted that the Secretariat would need to produce this information for both the working group on 3M shrimp and the Commission (as outlined in COM Doc. 19-27). The Secretariat noted that the elements in the proposal can be produced in advance of the 2020 Annual Meeting for discussion at the Commission and communicated to STACTIC. Canada noted that the purpose of the paper was to initiate a discussion on what analysis and reports would be required to review the 3M shrimp fishery and thanked Contracting Parties for their engagement in the discussion. Recognizing the elements of the discussion paper would be made available by the Secretariat in advance of the 2020 Annual Meeting, Canada withdrew the proposal from STACTIC.

### **c. Product Form presentation – Annex II.K**

The European Union presented an information paper on the product form presentation in Annex II.K in STACTIC WP 20-11, noting that the background of the paper was an infringement issued to a European Union vessel in 2019. The European Union clarified that the traditional cut for cod in the European Union is gutted and headed with collars left on but that there is no code for this in Annex II.K. GUH is used for gutted and headed presentation without collars and the generic code OTH or OTH-GUH is used instead for the traditional cut. The infringement had no follow up because the use of OTH is appropriate in the absence of a dedicated product form code. Canada indicated that the GUH code is being used for gutted and headed with collars left on by a number of other Contracting Parties and agreed to work interessionally with the European Union to find a solution. Contracting Parties thanked the European Union for the discussion paper noting the importance of this issue. The European Union agreed to work intersessionally with interested Contracting Parties to develop a proposal for a dedicated product form code for gutted and headed presentation with collars on.

It was agreed that:

- **The European Union will work intersessionally on a proposal on a specific product form code.**
- **The European Union will provide an update to the follow up of the reported infringement in relation to this issue in STACTIC WP 20-03 by 12 June 2020.**

### **24. Time and place of next meeting**

The next STACTIC meeting is scheduled to take place from 21-25 September 2020 in Halifax, Canada. The Chair noted that this is dependent on the status of the COVID-19 situation.

The Chair also asked participants if there was interest in scheduling the STACTIC Participation and Editorial Drafting Group (EDG) from 16-18 September 2020 in Halifax, Canada in advance of the Annual Meeting. Contracting Parties requested time to review scheduling before committing to those meeting dates and the Chair requested feedback on this by 26 May 2020.

### **25. Adoption of Report**

The report was discussed during the meeting and adopted via correspondence following the end of the meeting.

### **26. Adjournment**

The meeting was adjourned at 13:15UTC on 15 May 2020. The Chair thanked meeting participants for their cooperation and input. The participants likewise expressed their thanks and appreciation to the Chair for her leadership as well as to the NAFO Secretariat for their arrangements/technical work.

## Annex 1. Participant List

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Report of STACTIC,  
12-15 May 2020

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## Annex 2. Agenda

1. Opening of the meeting
2. Appointment of Rapporteur
3. Adoption of Agenda
4. Annual Compliance Review, 2019
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. Port State Measures
  - a. Practical application of Port State Measures in NAFO
  - b. FAO Port State Measures Agreement
10. Marking of gears
11. NAFO 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. 2019 NAFO Inspectors workshop
16. Review of current IUU list Pursuant to NAFO CEM, Article 53
17. Bycatch, discards, and selectivity
  - a. Results of the WG-BDS meeting, April 2020
  - b. Sorting grids for 3M Cod
18. Discussion of data classification and access rights
19. Report and advice of the Joint Advisory Group on Data Management (JAGDM), 17-18 March 2020
20. Discussion on garbage disposal and labour conditions onboard vessels
21. Discussion of the reporting of shark catches in the NAFO Regulatory Area
22. Implementation of the Performance Review Recommendations
23. Other business
  - a. Discussion of COVID-19
  - b. Mid-Season Report on the status of the 3M Shrimp Fishery
  - c. Product Form presentation – Annex II.K
24. Time and place of next meeting
25. Adoption of Report
26. Adjournment



Northwest Atlantic Fisheries Organization



**Report of the NAFO *Ad Hoc* Virtual NAFO Website Re-Design Working Group:  
Data Classification (WG-Data) Meeting**

23 June 2020  
via WebEx

NAFO  
Dartmouth, Nova Scotia, Canada  
2020

**Report of the NAFO *Ad Hoc* Virtual NAFO Website Re-Design Working Group:  
Data Classification (WG-Data) Meeting**

23 June 2020  
via WebEx

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**Report of the NAFO *Ad Hoc* Virtual NAFO Website Re-Design Working Group:  
Data Classification (WG-Data) Meeting**

23 June 2020  
via WebEx

**1. Opening by the Chair, NAFO Secretariat**

The meeting was opened at 10:00 hours (Atlantic Daylight Time) on 23 June 2020 with representatives from Canada, Denmark (in respect of the Faroe Islands and Greenland), European Union (EU) and the United States of America (Annex 1).

**2. Appointment of Rapporteur**

The NAFO Secretariat (Lisa LeFort, Senior Executive Assistant) was appointed as Rapporteur.

**3. Adoption of the Agenda**

The agenda was adopted as circulated (Annex 2).

**4. Documentation Practices and Procedures from other RFMOs**

The NAFO Secretariat presented COM WP 20-03 (Revised), a discussion paper outlining the current documentation practices and procedures of other regional fisheries management organizations (RFMOs), which was revised to include submissions from Working Group members to better reflect their experiences when participating in other RFMO meetings.

Of the 17 RFMOs that were contacted:

- One (1) RFMO is in the process of developing a meeting documentation policy;
- Two (2) RFMOs do not publish its meeting documents, such as Working Papers, for the general public in advance of individual meetings;
- Six (6) RFMOs publish its meeting documentation, such as Working Papers, for the general public in advance of individual meetings;
- Seven (7) RFMOs follow a similar policy to NAFO for access to its meeting documentation, such as Working Papers, for the general public in advance of individual meetings; and
- One (1) RFMOs has a hybrid approach to publishing meeting documents, such as Working Papers, for the general public in advance of the individual meeting.

The *Ad hoc* Virtual Working Group agreed that while COM WP 20-03 (Revised) may not be a complete and exhaustive list of documentation practices and procedures from every RFMO, it does provide an accurate glimpse into what is taking place in other RFMOs.

The general feeling is that documentation practices and procedures vary greatly in RFMOs however it appears that many RFMOs, including NAFO, share the common goal of providing greater transparency, whenever possible.

After discussion, the *Ad hoc* Virtual Working Group **agreed** that a hybrid meeting documentation policy could ensure transparency without impeding efficiency.

This hybrid meeting documentation policy could include:

- **Prior to the start of a meeting**, NAFO meeting documentation, such as Working Papers, that is received and deemed open access be made available to the general public on the NAFO website.
- **During the meeting**, NAFO meeting documentation, such as Working Papers, and subsequent revisions be posted on the NAFO Meetings SharePoint.
- **Following the Annual Meeting of NAFO in September**, the majority of meeting documentation, such as Working Papers, that is adopted is converted into a NAFO document and made available to the general public on the NAFO website.

The *Ad hoc* Virtual Working Group **agreed** that feedback from NAFO Bodies, Standing Committees, and Working Groups is required before such a hybrid meeting documentation policy could be developed. This feedback would be sought during upcoming meetings in 2020/2021.

## 5. Posting of Working Papers to the NAFO public website

It was noted that before the *Ad hoc* Virtual Working Group can determine if meeting documentation, such as Working Papers, should be posted to the general public on the NAFO website, NAFO should clearly define what is meant by meeting documentation and what is meant by working papers.

Currently, most meeting documentation consists of:

- Provisional Agenda;
- General meeting information (i.e. venue and travel arrangements);
- Working Papers;
- NAFO Documents; and
- Meeting Reports.

Working Papers are loosely divided into the following categories:

- Proposals by one or more Contracting Party;
- Presentations;
- Summary Documents; and
- Information papers.

The majority of adopted meeting documentation, such as Working Papers, are converted into a NAFO document and made available to the general public on the NAFO website, following the Annual Meeting of NAFO in September.

The NAFO Secretariat presented COM WP 20-04 (Revised), which is a discussion paper of key issues and operational concerns that need to be considered before it can be decided whether NAFO should make working papers publicly available on the NAFO website.

The technological, logistical and policy implications were discussed. One key factor that was identified was that appropriate confidentiality guidelines are required to identify which meeting documentation, such as Working Papers, may be of a confidential nature and should not be posted to the general public on the NAFO website.

For example, Working Papers often are compiled by the NAFO Secretariat and/or multiple Contracting Parties. In these instances, it would be difficult for either the NAFO Secretariat or a single Contracting Party to unilaterally determine which meeting documentation is of a sensitive nature. Development of appropriate confidentiality guidelines would identify which meeting documentation, such as Working Papers, may be of a confidential nature and should not be posted to the general public on the NAFO website.

The *Ad hoc* Virtual Working Group **agreed** that feedback from NAFO Bodies, Standing Committees, and Working Groups is required before appropriate confidentiality guidelines could be developed for NAFO meeting documentation, such as Working Papers. This feedback would be sought during upcoming meetings in 2020/2021.

## 6. Other Business

No other business was discussed under this agenda item.

## 7. Next Steps and/or Recommendations

**The NAFO *Ad Hoc* Virtual NAFO Website Re-Design Working Group: Data Classification (WG-Data) agreed that:**

- a. **Feedback is required from NAFO Bodies, Standing Committees, and Working Groups during upcoming meetings in 2020/2021 regarding two matters (as outlined in COM WP 20-20).**
  - a. **Factors to consider in the development of a hybrid meeting documentation policy, and**
  - b. **Factors to consider in the development of appropriate confidentiality guidelines for NAFO meeting documentation, such as Working Papers.**
- b. **To convene in summer 2021 to review any feedback received from NAFO Bodies, Standing Committees, and Working Groups regarding factors to consider in a hybrid meeting documentation policy as well as factors to consider in the development of appropriate confidentiality guidelines for NAFO meeting documentation, such as Working Papers.**
- c. **To provide an update at the 2021 Annual Meeting of NAFO on development of a documentation policy regarding posting of meeting documentation, such as Working Papers, to the general public on the NAFO website.**

## 8. Date and Time of Next Meeting

The next meeting of the *Ad hoc* Virtual Working Group is to be held in summer 2021.

This timing will allow the Working Group to receive (and review) feedback from NAFO Bodies, Standing Committees and Working Groups.

## 9. Adjournment

The meeting adjourned and the meeting report was adopted by correspondence.

**Annex 1. List of Participants**

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<b>EUROPEAN UNION (EU)</b>	Marot, Laura
<b>UNITED STATES OF AMERICA</b>	Jaburek, Shannah
<b>NAFO SECRETARIAT</b>	Kingston, Fred Goodick, Stan LeFort, Lisa Pacey, Alexis



**Annex 2. Agenda**

1. Opening by the Chair, NAFO Secretariat
2. Appointment of Rapporteur
3. Adoption of the Agenda
4. Documentation Practices and Procedures from other RFMOs
5. Posting of Working Papers to the NAFO public website
6. Any Other Business
7. Next Steps and/or Recommendations
8. Date and Time of Next Meeting
9. 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**

17-19 August 2020  
Via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2020

## 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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## **Report of the NAFO Joint Commission-Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) Meeting**

17-19 August 2020  
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### **1. Opening by the co-Chairs, Carmen Fernández (European Union) and Elizabethann Mencher (USA)**

The meeting was opened by the chairs Carmen Fernández (European Union) and Elizabethann Mencher (USA), at 08:30 hours Halifax time (12:30 UTC/GMT) on Monday, 17 August 2020.

The co-Chairs welcomed the scientists and fisheries managers from Canada, European Union, Iceland, Japan, Norway, Russian Federation, Ukraine and the United States of America. Invited Expert (Andrew Kenny) and observers from ABNJ Deep Seas Project, Dalhousie University, Ecology Action Centre and Oceans North Canada were also welcomed (Annex 1).

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

The Senior Fisheries Management Coordinator and Scientific Council Coordinator (NAFO Secretariat) were appointed co-Rapporteurs of this meeting.

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

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

The co-Chairs noted that, due to the format of the meeting, it was unlikely that there would be time to address all agenda items. Following suggested prioritization of work items for the Commission and further discussion between the co-Chairs, three areas were proposed as priority: the re-evaluation of the VME closure areas, continuing progress on the EAF roadmap (including planning for the postponed NAFO WG-EAFFM Workshop of fisheries managers and scientists to draft ecosystem objectives) and the preparation for a review of NAFO CEM Chapter II.

### **4. Review of the July 2019 Recommendations (COM-SC Doc. 19-03), including requests to the SC from 2019 Annual Meeting (COM Doc. 19-29)**

WG-EAFFM noted that, due to time constraints in the June SC meeting (held by correspondence instead of the usual in-person format), it was not possible for SC to address all of the requests for advice from the Commission. In particular, SC did not address Commission requests 16, 18 and 3 and there was, therefore, no discussion under items 6e, 6f and 6g during the present meeting.

Also, WG-EAFFM noted that most of the nine recommendations from COM-SC Doc. 19-03 involve processes and that, subject to the prioritization of the agenda items (see above), they would be covered at this meeting, as reflected in the current agenda.

With regards to the recommendation from COM-SC Doc. 19-03 on the definition of fishing times for bottom contact gear, an updated recommendation to this effect was formulated by the WG this year to ensure consistency within the NAFO Conservation and Enforcement Measures (NAFO CEM) (see agenda item 10 recommendation 4).

### **5. Implementation of the 2018 Performance Review Panel Recommendations relevant to this working group (COM Doc. 19-32)**

The WG-EAFFM recalled the 2018 NAFO Performance Recommendations and noted that three (3) recommendations identified this WG as the lead NAFO Body for implementation (NAFO/COM Doc. 19-32):

- PR Recommendation 1, pertaining to Ecosystem Approach Framework Roadmap;
- PR Recommendation 14, pertaining to fishing surveys on Vulnerable Marine Ecosystems (VMEs) within closed areas;
- PR Recommendation 15, pertaining to FAO 3-alpha codes for VME indicator species;

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The WG-EAFFM is in agreement that its actions in performing its work are in alignment with the *Action Plan for the Implementation of the Recommendations from the 2018 Report of the NAFO Performance Review Panel* (NAFO COM Doc. 19-32), as reflected in the agenda and recommendations of this and the previous meetings.

The WG-EAFFM have also taken note of the additional recommendation contained in NAFO COM Doc. 19-32 pertaining to non-fishing activities and their impact on the stocks, fisheries and biodiversity in the NAFO Regulatory Area.

The WG-EAFFM committed to continue its work in accordance with the PR recommendations and the Action Plan.

## **6. Presentation and discussion of SC responses to COM requests for advice in 2019 (COM Doc. 19-29)**

### **a. Request 7 – Re-assessment of VME closures by 2020, including Area #14**

Andrew Kenny (co-Chair of WG-ESA and former co-Chair of WG-EAFFM, and invited expert at this meeting), presented on behalf of SC the response provided by SC in June 2020 based on work undertaken by WG-ESA in 2019 (COM-SC EAFFM-WP 20-07).

Overall, SC did not recommend the removal or reduction of any of the currently closed areas. The SC assessed the level of protection of some VME types as poor (black coral and sea pen) or inadequate (erect bryozoans, sea squirt and small gorgonian) and management action is recommended as essential for these VME types.

Given the challenging circumstances of the WG-EAFFM meeting, as well as the Annual Meeting, some CPs suggested rolling over the currently closed VME areas for one year.

SC members at the WG-EAFFM meeting explained that, according to their understanding, the SC response suggested that the current areas should not be removed or reduced, as well as a need to consider refining and/or expanding some of the closure boundaries. Due to constraints caused by Covid-19 pandemic, it has not been possible to fully consider these recommendations, including the inter-sessional work required to come up with possible management options, and the WG agreed that it would not be feasible to do this work during the current meeting. WG-EAFFM therefore supports maintaining the current situation regarding closures until the end of 2021, thereby providing additional time to formulate the required potential management options (see agenda item 10 recommendation 1).

WG-EAFFM considered the SC recommendation to include Black Coral in the NAFO CEM VME indicator species list. It was not formerly included in the NAFO list of VME indicator species due to lack of evidence showing that it forms aggregations in the NRA, which would constitute a VME. The increased amount of data available for the present analysis indicates that it does indeed form aggregations in the NRA. Consequently, and in accordance with the SC advice, WG-EAFFM recommends to include Black Corals in the NAFO CEM list of VME indicator species (see agenda item 10 recommendation 2).

### **b. Request 6 – Assessment of NAFO bottom fisheries for 2021**

Andrew Kenny presented on behalf of SC the SC response to this request (COM-SC EAFFM-WP 20-06).

WG-EAFFM noted and thanked the SC for their considerable work for the 2020 VME review and the 2021 re-assessment. WG-EAFFM discussed the likely possibility that WG-ESA will have to meet virtually this year due to Covid-19 travel constraints, and that, as a result, the SAI assessment may be delayed. WG-EAFFM therefore noted that there is a significant risk that SC may not be able to provide a full response regarding the re-assessment of NAFO bottom fisheries in its June 2021 report.

Some CPs expressed concern about the current approach to SAI analysis, particularly with regard to the application of expert judgment in weighting the individual assessment metrics against the six FAO criteria. SC participants expressed the view that developing and applying this weighted approach would likely require further face-to-face meetings and, potentially, a workshop to resolve. WG-EAFFM advised that the SAI analysis should proceed even if it is not possible to weight the individual assessment metrics against the six FAO criteria for the 2021 assessment, which would be consistent with the approach adopted for the last assessment (in 2016).

Pierre Pepin (co-Chair of WG-ESA) indicated that the Significant Adverse Impact (SAI) assessment, due to be available next year, would help in delimiting the closures with minimal disturbance to the fishing industry. SAI will be in the agenda of the WG-ESA at its next meeting (in late 2020).

WG-EAFFM discussed about the process to develop management responses based on SC's advice arising from the SAI assessments. SC members noted they have previously avoided making specific recommendations on the exact nature of management actions required (which may not necessarily be more extensive area closures, as other alternatives might potentially be entertained), as this is considered to be the purview of the Commission. However, fishery managers in WG-EAFFM noted that additional guidance from scientists would be useful to effectively initiate discussions at the 2021 WG-EAFFM meeting. Consequently, in relation to the 2021 re-assessment of bottom fishing as well as the continued discussion on the VME fishery closures, WG-EAFFM recommended that the SC be requested to 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 (see agenda item 10 recommendation 3).

WG-EAFFM takes note of SC's intent, as part of the next cycle of VME and bottom fishery assessments scheduled to begin after 2021, to conduct a review of the precise spatial scope to be considered for the assessment of VME extent and the adequacy of fisheries closures for VMEs present in the tail of the Grand Bank, 3L and 3M and the assessment of bottom fisheries. This review will have no impact on the 2021 assessment process.

#### **c. Request 5 – SC report on its work on Ecosystem Approach**

Pierre Pepin (co-Chair of WG-ESA) presented on behalf of SC the response to this Commission request (COM-SC EAFFM-WP 20-05). The presentation centered on the Ecosystem Production Potential (EPP) and its use for fisheries advice.

WG-EAFFM stressed the importance of the SC's work on the Roadmap, and the WG's strong support to continue its development. SC presented three recommendations in relation to the Roadmap. WG-EAFFM was generally supportive of all of them, but some CPs expressed the need for additional time to fully consider them. WG-EAFFM noted that the first recommendation, which relates to SC alerting the Commission when certain catch thresholds are exceeded, was operational in nature and, as an interim management measure, could be implemented already in the short term. The other two recommendations require considerable additional work and could, therefore, only result in management actions in the longer term. WG-EAFFM will consider each of the recommendations again at its 2021 annual meeting.

Some CPs further expressed the need for the NAFO EAFM Roadmap workshop, which was slated for Summer 2020 but was postponed due to Covid-19 concerns, to further consider these recommendations (see agenda item 8).

Two recommendations were drafted pertaining to how ecosystem advice could inform management decisions and implementation of the EAFM Roadmap (see agenda item 10 recommendations 5 and 6).

#### **d. Request 12 – Ecosystem Summary Sheet for Divisions 3LNO**

Pierre Pepin (co-Chair of WG-ESA) presented on behalf of SC the response to this Commission request (COM-SC EAFFM-WP 20-08). The presentation centered on the Ecosystem Summary Sheet (ESS) for Divisions 3LNO. The ESS provides a synoptic perspective on the state of NAFO ecosystems and their management regimes, and will be presented to the Commission at the 2020 Annual Meeting, in accordance with a WG-EAFFM recommendations from 2019.

From the summary and recommendations emanating from the ESS work, two issues garnered further discussions.

One is the consideration of reduction of piscivore catch levels, particularly redfish, Greenland halibut, and Atlantic cod. One Contracting Party indicated that measures concerning reduction of catch requires further reflection and consultations.

The other is the recommendation that the NAFO Secretariat request information from Canada and ICCAT for stocks in or migrating through the 3LNO Ecosystem Production Unit, which WG-EAFFM endorsed. Canada noted the significant amount of data to be requested of Canada, and indicated that the request has potential policy and legislative implications, which may impact what information it is able to provide.

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Substantial discussion took place around the consideration of non-fishery activities in the development of the ESS, and WG-EAFFM urged CPs to provide resources and information to improve analysis on the “*other human activities*” indicators. One CP in particular stressed the relevance of having the ESS to reflect the extent of the presence of other human activities in the ecosystem. The ESSs are intended to provide a synoptic perspective on the state of NAFO ecosystems and their management regime. As such, a comprehensive description of all the activities impacting the ecosystem is key to support the ESS in achieving its goal as a tool for strategic assessment, advice, and planning.

WG-EAFFM also noted the importance of CPs to proactively provide relevant research that inform SC’s work and of the provision of external experts from other international organizations such as FAO and ICES. A recommendation to this effect was drafted (see agenda item 10 recommendation 7).

**e. Request 16 – Impacts of potential activities other than fishing**

*This agenda item was deferred, since no response from SC was available.*

**f. Request 18 – Sea turtles, sea birds, and marine mammals in the NAFO Regulatory Area**

*This agenda item was deferred, since no response from SC was available.*

**g. Request 3 – Impacts of removal of survey sets from VME closed areas on stock assessment metrics.**

*This agenda item was deferred, since no response from SC was available.*

**7. Discussion on process for review of Chapter II of the NAFO Conservation and Enforcement Measures “Protection of Vulnerable Marine Ecosystems (VMEs) in the Regulatory Area from Bottom Fishing Activities”, as required by Chapter II, Article 24.**

According to Article 24 of the NAFO CEM, the provisions of Chapter II shall be reviewed by the Commission no later than 2020.

The WG noted that such a review could not be conducted at this meeting because it requires input from STACTIC and SC. WG-EAFFM considers that STACTIC should review the implementation of Chapter 2 and SC should review the effectiveness of the measures from the scientific perspective. A recommendation to this effect was drafted. The process is anticipated to have a 2-year timeline to 2022 (see agenda item 10 recommendation 8).

**8. Discussion on next steps, including pertaining to the postponed NAFO WG-EAFFM Workshop of fisheries managers and scientists to draft ecosystem objectives, originally scheduled in August 2020**

Due to the Covid-19 pandemic, the planned workshop, 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. It was recalled that the Terms of Reference for this workshop were already adopted in 2019 (NAFO COM-SC Doc. 19-10).

It was agreed that the planning of this workshop shall continue, with an initial tentative schedule similar to what was originally planned, but with one year delay, i.e. the workshop could occur on the week prior to the back-to-back meetings of WG-EAFFM and the WG-RBMS in Summer 2021. However, upon discussion, WG-EAFFM considered that this may not be an optimal timing, because attention at that time may instead be focused on matters related to VME closures and assessment of bottom fisheries, compromising the success chances of the EAFM workshop. The EU, which was hosting the workshop in 2020, offered to host it whenever it takes place.

The meeting was also reminded of the earlier request to CPs for expert nominations (communication NAFO-20/121, April 2020), to which only two CPs have responded so far. CPs were encouraged to respond to this communication, providing their proposals to the Secretariat as soon as possible. It is expected that about 5 or 6 presentations could be usefully given on the first workshop day (one of those presentations would be from NAFO) and that it may be possible for NAFO to find money to cover the expenses of the 5 or so corresponding invited external experts (provided STACFAD agrees a budget for this in September; the NAFO Secretariat agreed to follow up on this). Another aspect raised in discussion was whether workshop participation should be open to other international organizations, such as ICES and FAO (possibly as observers), and other RFMOs.



It was agreed that a small sub-group of members from WG-EAFFM would be convened to develop the details of the workshop, including adding some detail on the structure of the event as well as dealing with the questions just noted. WG-EAFFM members interested to participate in the sub-group's work were requested to indicate this by e-mail to the WG-EAFFM co-chairs by early September.

## 9. Other Matters

### a. Update on the possible renewal of the FAO Deep Sea Project

Tony Thompson (FAO) provided an update of the *ABNJ Deep Seas Project*. Dr. Thompson reported on the accomplishments of the first Project and the renewal of this Project (now renamed the Deep Sea Fisheries Project), which is in the final stages of development (COM-SC EAFFM-WP 20-02). A novel aspect in the new project is the consideration of cross-sector integration, including threats to Deep Sea Fisheries from other sectors and frameworks to manage such threats.

The Executive Secretary informed the WG that NAFO had been a collaborating partner on the previous Project, with 'in-kind' contributions from NAFO scientists, managers and Secretariat members in sharing expertise in the field of fisheries science and fisheries management with the FAO, other deep-sea RFMO's and other organizations involved with oceans.

The renewed Project is anticipated to commence in 2022 and NAFO is being requested to continue being a collaborating partner. As with the previous Project, NAFO's continuing work on VMEs and the development of an ecosystem approach framework to fisheries management could constitute much of NAFO's 'in-kind' contribution, although the details still need to be worked out. As with NAFO's participation in the previous Project, NAFO's participation in the renewed Project would have to be approved by the Commission.

### b. State-of-play of the BBNJ negotiations

The Executive Secretary informed on the progress of the Biological Diversity Beyond Areas of National Jurisdiction (BBNJ) process in which he has been participating in the negotiations as an observer (COM-SC EAFFM-WP 20-03). Due to the COVID-19 pandemic, the fourth (and last) round of negotiations, scheduled for March 2020, has been postponed indefinitely. He identified that the main issues of these negotiations of particular interest for this WG and NAFO are area-based management tools, environmental impact assessments and governance structure of any international legally binding instrument (ILBI) and how it will interact with NAFO.

### c. Proposed Memorandum of Understanding (MOU) between Secretariats of NAFO and 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. A draft text of the MOU was presented (EAFFM WG 20-04) and the WG was requested for advice in the improvement of the draft text. The Executive Secretary noted that the focus of the MOU was on marine scientific research and the collection of data, which would be of particular relevance for the SC.

The WG-EAFFM noted the presentation. Due to the limited time available it could not make any explicit action in terms of a recommendation. Instead, the WG encouraged the Secretariat to continue the exploratory talks with the SSSC in refining the draft MOU.

## 10. 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.

## 11. Adoption of the report

The report was adopted via correspondence.

## 12. Adjournment

The meeting was adjourned at 13:00 on 19 August 2020.

## Annex 1. List of Participants

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Report of the WG-EAFFM,  
17-19 August 2020

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## Annex 2. Agenda

1. Opening by the co-Chairs, Carmen Fernández (European Union) and Elizabethann Mencher (USA)
2. Appointment of Rapporteur
3. Adoption of the Agenda
4. Review of the July 2019 Recommendations (COM-SC Doc. 19-03), including requests to the SC from 2019 Annual Meeting (COM Doc. 19-29)
5. Implementation of the 2018 Performance Review Recommendations relevant to this Working Group (COM Doc. 19-32)
6. Presentation and discussion of SC responses to COM requests for advice in 2019 (COM Doc. 19-29)
  - a. Request 7 – Re-assessment of VME closures by 2020, including Area #14
  - b. Request 6 – Assessment of NAFO bottom fisheries for 2021
  - c. Request 5 – SC report on its work on Ecosystem Approach
  - d. Request 12 – Ecosystem Summary Sheet for 3LNO
  - e. Request 16 – Impacts of potential activities other than fishing
  - f. Request 18 – Sea turtles, sea birds, and marine mammals in the NAFO Regulatory Area
  - g. Request 3 – Impacts of removal of survey sets from VME closed areas on stock assessment metrics
7. Discussion on process for review of Chapter II of the NAFO CEM “*Protection of Vulnerable Marine Ecosystems (VMEs) In the Regulatory Area from Bottom Fishing Activities*”, as required by Chapter II, Article 24
8. Discussion on next steps, including pertaining to the postponed WG-EAFFM Workshop of Fishery Managers and Scientists to draft Ecosystem Objectives originally scheduled in August 2020
9. Other Matters
  - a. Update on the possible renewal of the FAO Deep Sea Project
  - b. State-of-play of the BBNJ negotiations
  - c. Proposed MOU between Secretariats of NAFO and the Sargasso Sea Commission
10. Recommendations
11. Adoption of the report
12. Adjournment

**Annex 3. Proposed 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
	<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 barrette</i>	Geodiidae	
	<i>Geodia macandrewii</i>	Geodiidae	
Large-Sized Sponges (PFR - Porifera)	<i>Geodia parva</i>	Geodiidae	
	<i>Geodia phlegraei</i>	Geodiidae	
	<i>Haliclona</i> sp.	Chalinidae	ZHL
	<i>Iophon piceum</i>	Acarinidae	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)
	<i>Thenea valdiviae</i>	Pachastrellidae	ZTH (Thenea)
	<i>Weberella bursa</i>	Polymastiidae	



Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
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
<b><u>Black corals (AOZ- Antipatharia)</u></b>	<b><u><i>Stichopathes sp.</i></u></b>	<b><u>Antipathidae</u></b>	<b><u>QYX</u></b>
	<b><u><i>Leiopathes cf. expansa</i></u></b>	<b><u>Leiopathidae</u></b>	
	<b><u><i>Leiopathes sp.</i></u></b>	<b><u>Leiopathidae</u></b>	
	<b><u><i>Plumapathes sp.</i></u></b>	<b><u>Myriopathidae</u></b>	
	<b><u><i>Bathypathes cf. patula</i></u></b>	<b><u>Schizopathidae</u></b>	
	<b><u><i>Parantipathes sp.</i></u></b>	<b><u>Schizopathidae</u></b>	
	<b><u><i>Stauropathes arctica</i></u></b>	<b><u>Schizopathidae</u></b>	<b><u>SOW</u></b>
	<b><u><i>Stauropathes cf. punctata</i></u></b>	<b><u>Schizopathidae</u></b>	
	<b><u><i>Telopathes magnus</i></u></b>	<b><u>Schizopathidae</u></b>	
	Small Gorgonians (GGW)	<i>Acanella arbuscula</i>	Isididae
<i>Anthothela grandiflora</i>		Anthothelidae	WAG
<i>Chrysogorgia sp.</i>		Chrysogorgiidae	FHX
<i>Metallogorgia melanotrichos*</i>		Chrysogorgiidae	
<i>Narella laxa</i>		Primnoidae	
<i>Radicipes gracilis</i>		Chrysogorgiidae	CZN
<i>Swiftia sp.</i>		Plexauridae	
Large Gorgonians (GGW)	<i>Acanthogorgia armata</i>	Acanthogorgiidae	AZC
	<i>Calyptrophora sp.*</i>	Primnoidae	
	<i>Corallium bathyrubrum</i>	Coralliidae	COR (Corallium)
	<i>Corallium bayeri</i>	Coralliidae	COR (Corallium)
	<i>Iridogorgia sp.*</i>	Chrysogorgiidae	
	<i>Keratoisis cf. siemensii</i>	Isididae	
	<i>Keratoisis grayi</i>	Isididae	
	<i>Lepidisis sp.*</i>	Isididae	QFX (Lepidisis)
	<i>Paragorgia arborea</i>	Paragorgiidae	BFU
<i>Paragorgia johnsoni</i>	Paragorgiidae	BFV	

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
	<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 cf. christii</i>	Halipteridae	ZHX (Halipteris)
	<i>Halipteris finmarchica</i>	Halipteridae	HFM
Sea Pens (NTW – Pennatulacea)	<i>Halipteris</i> sp.	Halipteridae	ZHX (Halipteris)
	<i>Kophobelemnon 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>Eucreatea loricata</i>	Eucreateidae	WEL
Sea Lilies (CWD – Crinoidea)	<i>Conocrinus lofotensis</i>	Bourgueticrinidae	WCF
	<i>Gephyrocrinus grimaldii</i>	Hyocrinidae	

Common Name and FAO ASFIS 3- ALPHA CODE	Taxon	Family	FAO ASFIS 3- ALPHA CODE
	<i>Trichometra cubensis</i>	Antedonidae	
Sea Squirts (SSX – Ascidiacea)	<i>Boltenia ovifera</i> <i>Halocynthia aurantium</i>	Pyuridae Pyuridae	WBO

Unlikely to be observed in trawls; *in situ* observations only:

Large                    *Syringamina* sp.    Syringamminidae  
xenophyophores



Northwest Atlantic Fisheries Organization



**Report of the NAFO Joint Commission-Scientific Council Working Group on  
Risk-Based Management Strategies (WG-RBMS) Meeting**

20-21 August 2020  
via WebEx

NAFO  
Halifax, Nova Scotia, Canada  
2020

## Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting

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## **Report of the NAFO Joint Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS) Meeting**

20-21 August 2020  
via WebEx

### **1. Opening by the co-Chairs, Fernando González-Costas (European Union) and Jacqueline Perry (Canada)**

The meeting was opened at 08:30 hours (Atlantic Standard Time) on Thursday, 20 August 2020. The co-Chairs, Fernando González-Costas (European Union) and Jacqueline Perry (Canada) welcomed the scientists and fisheries managers from Canada, European Union, Japan, Norway, Russian Federation, Ukraine and the United States of America (Annex1).

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

The NAFO Secretariat (Tom Blasdale, Scientific Council Coordinator and Ricardo Federizon, Senior Fisheries Management Coordinator) was appointed as Rapporteur.

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

The provisional agenda previously circulated was adopted without revision (Annex 2).

### **4. Presentation of the 3M cod MSE the summary document (Secretariat)**

The SC Coordinator referred the WG to COM-SC RBMS-WP 20-05: the 3M cod MSE guiding and summary document. This document will require some further revision following which it will be circulated for comments from SC and WG-RBMS participants by the end of November 2020.

### **5. Precautionary Approach Framework revision (Commission Request 8)**

In September 2019, the Commission identified this task as a priority for SC work in 2020. A meeting of WG-RBMS was held in February 2020 with the revision of the PA as the main point of the agenda (COM-SC Doc. 20-01). A key outcome of this meeting was the decision to re-activate the Scientific Council Precautionary Approach Working Group (PA-WG). In March 2020, the PA-WG was reconvened with Karen Dwyer (Canada) as the new chair. The WG held further meetings in April and May 2020 and the outcomes were considered during the June meeting of Scientific Council to respond the Commission Request 8 (COM-SC RBMS-WP 20-03).

#### **a. Review of Terms of Reference**

The co-Chair noted that the PA-WG terms of reference for the revision of the NAFO Precautionary Approach were reviewed by WG-RBMS in February 2020 (COM-SC Doc. 20-01) and by PA-WG in March 2020 where it was agreed that the terms of reference as outlined in SCS Doc. 16-15 remain appropriate.

#### **b. Progress on the Precautionary Approach Framework**

The Chair of PA-WG presented progress made by the Scientific Council in 2020 which is fully described in COM-SC RBMS-WP 20-09. Based on this information the SC responded to the Commission Request 8 in June 2020, describing the following about the progress made and how to focus future work on the PAF review, as follows.

SC compared the PA frameworks from a number of jurisdictions in the North Atlantic (PA Revision, ToR 3), and laid out a plan to address the other two Terms of Reference. In the development of the various framework components, consideration will be given to solutions for the full range of data availability with the goal that most of the PA framework elements could be adopted for all stocks. While this revision of the NAFO PAF is intended to retain its single-species focus, whenever appropriate, the proposed solutions will be informed by the ecosystem principles contained in the NAFO Roadmap for an Ecosystem Approach. SC emphasized that

continued progression on the review is dependent on commitments from Contracting Parties to provide the necessary resources.

Items in ToR 1 can be defined under three general headings, dealing with:

- **Mapping objectives.**

This involves items a), c), and g) where conceptual questions are presented, that address how the framework would represent basic convention objectives. Item a) reviews definitions, item c) explores the role of MSY-based reference points as limits and /or targets and g) asks about the conditions under which the reference points may need changing (keeping them constant may hinder the ability of the framework to achieve its objectives).

- **Structural aspects of the framework.**

This involves items b) and d) which ask about the structure of the framework; which reference points are to be considered, how they are going to be used, and how risk is considered in the design of the framework.

- **Quantification of uncertainty and risk.**

This involves items e) and f) which directly address the analytical methods in which risk is estimated and applied, including tiered approaches taking into account data quality/availability. This last point is also related to the structural aspects described above. Where probabilities are estimated to inform on risk, these should be based on the statistical estimation of imprecision for the best assessment, or through the development of management procedures within MSE exercises.

The review of the PA framework will be approached in a structured and sequential way by addressing conceptual issues first, and second addressing the more operational aspects. The overarching Ecosystem Approach to Fisheries Management umbrella will be given consideration at every step, by examining how the proposed solutions align with the principles laid out in the NAFO Roadmap. This will allow for the development of an updated PA framework in which there would be connection points to the ideas embedded in the Roadmap. Without being prescriptive, that could constitute the basic link between ToR 1 and 2 and foster a parallel treatment of both ToRs.

### **c. Plans for work going forward including a provisional timeline**

At its June 2020 meeting, SC proposed an initial work plan. WG-RBMS further developed this work plan to clarify the role of this working group and the timing of the various meetings. This revised workplan is presented in Annex 3.

Based on this workplan, a funding proposal will be developed for submission to the European Union by mid-September (see Annex 4).

## **6. Greenland halibut MSE problems detected with the confidence intervals of projections produced under the SSM operating model.**

Some inconsistencies in the SSM MSE results were detected by SC in June 2019, however lack of documentation prevented verification of calculations: consequently, SSM MSE results were not used by SC when checking for Exceptional Circumstances in 2019. In 2020, SC conducted a review of the SSM MSE simulations. Several mistakes were found and corrected and a reconstructed MSE was ran for the base case SSM operating model. Performance statistics of the agreed Harvest Control Rule (HCR) were also revisited for the reconstructed SSM base case simulations. Preliminary revised reference points were calculated using  $F_{0.1}$  and  $B_{0.1}$  as proxies for  $F_{MSY}$  and  $B_{MSY}$ . The reconstructed base case SSM simulations indicate the agreed HCR meets all performance criteria.



Consequently, WG-RBMS is comfortable that no additional configurations of the SSM MSE runs will be required. The WG suggested that SC focus their attention on planning for the next full review of this MSE in 2023.

## 7. 3LN redfish Conservation Plan and Harvest Control Rule (Commission Request 11)

Recognizing that the 3LN Redfish Conservation Plan and Harvest Control Rule as outlined in Annex I.H of the NAFO CEM prescribes an annual TAC until 2020, the Commission at its September 2019 Annual Meeting made a request to SC (Request 11 in COM Doc. 19-29):

*The Commission requests that Scientific Council do an update assessment for 3LN and five year projections (2021 to 2025) to evaluate the impact of annual removals at 18 100 tonnes against the performance statistics from NCEM Annex I.H. If this level of catch does not result in fulfilling these performance statistics, SC should advise the level of catch that would.*

In June 2020, SC formulated the response to the request. The SC Chair provided a detailed presentation of the response, including the update assessment and 5-year projections (COM-SC RBMS-WP 20-07). In its meeting report (SCS Doc. 20-14), the SC response is encapsulated as:

SC conducted an update assessment of Redfish in Division 3LN followed by five-year projections (2021 to 2025) to evaluate the impact of annual removals at 18 100 tonnes on stock biomass and fishing mortality in relation to  $B_{lim}$ ,  $B_{msy}$  and  $F_{msy}$  by 2026. At the beginning of 2020 the stock was in the safe zone, with a probability of biomass being above  $B_{msy}$  > 90%, and with the probabilities of biomass being below  $B_{lim}$  and fishing mortality being above  $F_{msy}$  less than 1%.

Annual catch of 18 100 tonnes during 2021 - 2025 will maintain biomass above  $B_{msy}$  at the beginning of 2026 with very high probability (> 90%). Also the probability of  $B_{2026} < B_{lim}$  or  $F_{2025} > F_{msy}$  is <1% if the 2020 HCR TAC is maintained during 2021-2025.

However, the probability of  $B_{2026} > B_{2020}$  is close to being very low (12%), and most likely in the medium term this catch level will trigger a marginal biomass decline already suggested by the majority of recent observed data. In general, recent recruitment appears to be low. Despite these circumstances, the stock is projected to remain in the safe zone.

Scientific Council will continue to assess this stock on a 2 year schedule.

According to Annex I.H of the NAFO CEM, a full review/evaluation of the management strategy at the end of the 7-year implementation period (which will be in 2021). Discussions ensued in WG-RBMS on to how the review/evaluation should proceed as it was realized that no guidance exists to this effect.

WG-RBMS would request the SC, through the Commission, reflect on this issue in September. Cognizant of the current workload of the SC (e.g. PA Review, Ecosystem Approach, deferred agenda items from the June 2020 meeting), it was clarified that it would be a “scoping” exercise, and not necessarily a development of a workplan per se, as the process would need input by the Commission. SC discussions emanating from the scoping exercise will feed into this WG in the development of a workplan on the review/evaluation of the management strategy. A recommendation to this effect was drafted, to be forwarded to the Commission (see agenda item 11).

Canada circulated a working paper pertaining to the review of management strategy/Harvest Control Rule for 3LN Redfish (COM-SC RBMS-WP 20-04). The paper contains draft objectives, and introduces the concept of adaptive harvest control approach to managing fully recovered stocks, and recognizes the stock dynamics for 3LN Redfish including being driven by episodic recruitment with a period of biomass growth followed by a period of decline.. It was emphasized that the working paper is not a proposal. Rather, it is a discussion paper intended to engender participants’ feedback and comments for consideration in the development of the review/evaluation workplan. The review/evaluation process is anticipated to have a 2-year timeline.

In view of the expiration of Annex I.H and the absence of the review/evaluation which could not be conducted at this meeting, it was agreed that a recommendation of a 2-yr Total Allowable Catch (TAC) of 18 100 tonnes

applicable for 2021 and 2022 be maintained. The TAC-recommendation is consistent with the projections results made in June by the SC. Consequently, the Annex I.H should be updated to reflect the applicability of Management Strategy/Harvest Control Rule until 2022 (Annex 5). A recommendation will be forwarded to the Commission for consideration and adoption. (See agenda item 11).

## **8. SC report on its work on Ecosystem Approach (Commission Request 5)**

WG-ESA co-Chair Pierre Pepin (Canada), on behalf of SC, reported on the SC's work on the Ecosystem Approach, specifically on the SC response to this request (COM-SC RBMS-WP 20-06). WG-RBMS discussed its involvement in this process and committed to continue coordinating the work with the joint Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) to keep each other updated.

## **9. Implementation of the 2018 Performance Review Recommendations relevant to this working group**

WG-RBMS recalled the 2018 NAFO Performance Recommendations and noted that three (3) recommendations identified this WG as the lead NAFO Body to implement (COM-SC RBMS-WP 20-02):

- PR Recommendation 2, pertaining to Precautionary Approach Framework (PAF) review;
- PR Recommendation 3, pertaining to “data-poor” stocks in the PAF;
- PR Recommendation 27, pertaining to acceptable risk regarding the outcomes of conservation and management measures.

WG-RBMS is in agreement that its actions in performing its work are in alignment with the *Action Plan for the Implementation of the Recommendations from the 2018 Report of the NAFO Performance Review Panel* (NAFO COM Doc. 19-32), as reflected in the agenda of this and the previous meetings. Regarding Recommendation 27, it was noted that this is a process that entails dialogue between the Commission and SC and that this WG serves as the forum of the continuing dialogue. It was also noted that this issue would also likely come up as part of discussions during the upcoming NAFO PA Framework Review.

WG-RBMS committed to continue its work in accordance with the PR recommendations and the Action Plan.

## **10. Other matters**

The WG recalled the three (3) suggested meeting windows for 2021 (COM-SC WP 20-02): 22 February – 05 March, 19-April – 30 April 2021, and 12-23 July 2021. It noted that the next regular meeting will occur in the July 2021 window.

## **11. Recommendations**

**The WG-RBMS recommends:**

- 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.**

## **12. Adoption of Report**

The report was adopted via correspondence.

## **13. Adjournment**

The meeting adjourned at 13:00 hours on 21 August 2020.

## Annex 1. List of Participants

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## **Annex 2. Agenda**

1. Opening by the co-Chairs, Fernando González (European Union) and Jacqueline Perry (Canada)
2. Appointment of Rapporteur
3. Adoption of the Agenda
4. Presentation of the 3M cod MSE the summary document (Secretariat)
5. Precautionary Approach Framework revision (Commission Request 8)
  - a. Review of Terms of Reference
  - b. Progress on the Precautionary Approach Framework
  - c. Plans for work going forward including a provisional timeline
6. Greenland halibut MSE problems detected with the confidence intervals of projections produced under the SSM operating model.
7. 3LN redfish Conservation Plan and Harvest Control Rule (Commission Request 11)
8. SC report on its work on Ecosystem Approach (Commission Request 5)
9. Implementation of the 2018 Performance Review Recommendations relevant to this working group
10. Other matters
11. Recommendations
12. Adoption of the report
13. Adjournment

### **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)

Report of WG-RBMS,  
20-21 August 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.