

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  
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### 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.