LDAC ADVICE TO THE EUROPEAN COMMISSION

Considerations for NAFO 45th Annual Meeting (Vigo, 18-22 Sept 2023)

Date of adoption: 8th of September 2023

Ref.: R-08-23/WG2

BACKGROUND

The meeting of the NAFO Scientific Council (SCS) and its Standing Committees, held from the 2nd to the 15th of June 2023, assessed the state of main commercial stocks in NAFO and as a result a table with recommendations for fishing opportunities for 2024 was presented (see table 1).

A LDAC delegation composed by the Chair, a Vice Chair, the Executive Secretary, and members of WG2 representing both the concerned EU MS fleets with commercial interest in the fishery and environmental NGOs participated at a coordination meeting with the DG MARE lead negotiator and his team held virtually on 28 June 2023. A summary overview was given on the report of the Scientific Council and its advice for 2024 and beyond in relation to the main stocks for decision, as well as other conservation issues including ecosystem considerations.

At the meeting there was also a short reference made to the work of several NAFO Working Groups, including the discussion on the ToR, and workshops such as the workshop meeting of fisheries managers and scientists to draft ecosystem objectives on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM); Workshop on Precautionary Approach Framework; or WG on Risk Based Management Strategies (WG RBMS);There were also discussions on the possibility of including in stock summary sheets the Total Catch Index (TCI). Other effective conservation measures and activities other than fishing were also discussed, with emphasis on the fact that closures take effect to fishing only but do not apply to other human extractive activities.

AIM OF THE ADVICE

Through the present advice, the LDAC would like to make several recommendations addressed to the negotiating team of DG MARE on behalf of the European Commission and the Fisheries Administrations of the Member States of the EU, based on the outcomes of the Scientific Council and relevant NAFO WGs. One of the key recommendations would be on the fishing opportunities for 2024 that will be decided at that meeting, together with other management and conservation measures which are of relevance of the commercial fisheries for the LDAC members (both EU fleet and other interest groups incl. NGO) in NAFO RA.

For comparative analysis purposes, below is a summary table containing TACs approved for 2022 and 2023, as well as the level of catch in terms of quota consumption in 2023 – source: data agreed at the Joint Commission-Scientific Council "Catch Estimation Strategy Advisory Group" (CESAG) combining DCR (daily catch reports transmitted by fishing vessels to NAFO), port inspection reports for all stocks and countries and STATLANT 21A for Canada catch within its EEZ. Finally, this table also contains the recommended TAC made by the Scientific Council for 2024.

Figure 1. Estimated catch for 2022 (CESAG), TACs adopted for 2022 and 2023 and SC recommendations for TAC for 2024 for main commercial stocks of NRA.

Stock	Estimated Catch 2022 (t)	TAC 2022 (t)	TAC 2023 (t)	Recommended TAC for 2024 (t)
Greenland Halibut** (GHT) 2+3JKLMNO	15 673	15 864	15 156	15 153
Cod 3M	3 997	4 000	6 100	11 708
Cod 3NO*	356	ndf	ndf	ndf
American Plaice 3LNO*	828	ndf	ndf	ndf
American Plaice 3M	128	ndf	ndf	ndf
Witch Flounder 3NO*	622	1 175	1 295	1 367
Redfish 3M	10 043	10 933	11 171	17 503
Redfish 3LN*	8 961	18 100	18 100	11 500
Redfish 3O*	3 906	20 000	20 000	9 000??
White Hake 3NO	531	1 000	1 000	400
Capelin 3NO*	7	ndf	ndf	ndf
Thorny Skate / Rays 3LNO*	3 526	7 000	7 000	3 710
Yellow Tail Flounder 3LNO	10 645	20 000	20 000	15 560
Squid 3+4 (3LMNO)*	36	34 000	34 000	-
Shrimp 3M	0	0	ndf	-
Alfonsinos 6G*	0	ndf	ndf	ndf

*ndf = no directed fishery (moratorium); * Stocks assessed in previous years. **HCR*

REQUESTS FOR ADVICE MADE TO SC BY NAFO COMMISSION FOR 2024

The LDAC notes that the stocks for which SCS has undertaken new assessments with its respective levels of TACs determined for this year are:

- GHL Sub. 2 y Div. 3KLMNO (TAC 2024 applying the HCR)
- Cod Div. 3M (TAC 2024 and 2025)
- Redfish 3M (TAC 2024 and 2025)
- American plaice 3LNO (TACs 2024, 2025 and 2026)
- Yellowtail Flounder Div. 3NO (TACs 2024 and 2025)
- White hake 3NOPs (TACs 2024 and 2025)

In September 2023, an updated assessment will be issued in order to formulate an advice on recommended level of TAC for the following stocks:

- Shrimp Div. 3M (TAC 2024)

The following stocks have been assessed in previous years and the recommendations made in line with a review of the available confirm the recommendations made for 2024.

- Redfish Div. 3LN (TACs 2023 and 2024)
- Cod Div. 3NO (TACs 2022, 2023 and 2024)
- American Plaice Div. 3LNO (TACs 2022, 2023 and 2024)
- Witch flounder Div. 3NO (TAC 2023 and 2024)
- Capelin Div. 3NO (TACs 2022…)
- Redfish Div. 3O (TACs 2023, 2024 and 2025)
- Thorny skate Div. 3LNO and Subdiv. 3Ps (TACs 2023 and 2024)
- Roughead grenadier Subareas 2+3 (TACs 2020…)
- Squid 3+4 (September) (TACs 2023, 2024 and 2025)
- Alfonsino Div. 6G (TACs 2020…)

In June 2024, among other species, a complete evaluation of Cod 3NO and American Plaice 3LNO should be done. Due to the absence of the Canadian campaigns which are the main source of information of these evaluations, and to the stocks being at low levels, it has been decided to postpone said evaluations until data are available.

SECTION I. FEEDBACK TO SC ADVICE ON TAC AND OTHER MANAGEMENT MEASURES FOR MAIN COMMERCIAL STOCKS OF INTEREST FOR THE LDAC

1. Cod on NAFO Div. 3M - Flemish Cap (TAC 2024)

Summary of scientific advice

At the SC meeting in June 2022, the SCAA Bayesian model approved at the 2018 benchmark was updated. The results show:

- The spawning stock biomass (SSB) has been declining rapidly since 2017 but remained stable during the last 3 years and is estimated to be above Blim (median 14 755 t).
- Recruitment (R) since 2013 has been variable at intermediate values, lower than those observed during the period 2011-2012.
- Fishing mortality (F) has remained below Flim (median 0.157) since the fisheries reopened in 2010 and has further decreased.

Stock projections indicate that the biomass will increase in 2025 in all scenarios except those with Fbar = Flim. Probability of SSB in 2024 were made under seven scenarios: Fsq, Fbar=0, F2023, 1/2Flim, 2/3Flim, 3/4Flim, Flim. Fbar is the median of F between ages 3-5, while Fsq is Fbar status quo, being the median of Fbar in the last 3 years (2020-2022).

Results indicated that, under all scenarios with Fbar≤2/3Flim , the total biomass will increase in the years projected, while the SSB 2025 above that of 2023 is between 14% and 100%, depending on the chosen scenario. Probability of Fbar > Flim in 2024 is ≤2% (except with Fbar=Flim as expected).

The SC signals that any level of catch corresponding to F being lower or equal to 3/4Flim in 2024 will have a very low probability (≤10%) that SSB is below Blim in 2024 and very low probability (≤10%) of being above Flim.

LDAC considerations

The LDAC reminds that the recommendation of a TAC of 1,500t for 2021, 4,000t for 2022, 6,100t for 2023 (with a recommendation of 11 708 t for 2024) means in practice and economic terms a reduction of catches from over 17 000 t in last years. However, the LDAC notes that there are indications that the biomass and recruitments appear to have stabilised since 2021 and hopes the SSB increases according to the projections in 2023-2025 linked to a combination of low fishing pressure and better environmental conditions. The low TAC and technical (flanking) measures in force, including use of mandatory "Norwegian" grid to avoid catch of small individuals and the continuation of the seasonal time area closure in the first quarter of the year (January-March) should contribute to protect spawning aggregations to improve future recruitments.

In line with the precautionary approach and to achieve a proper balance between biological, social, and economic sustainability, the LDAC would like to avoid high fluctuations on TAC between years and reiterate its proposal in adopting a robust medium-long term approach which can take into consideration the Management Strategy Evaluation (MSE) process for this stock to allow to set a correct baseline and flexibility mechanisms in the forthcoming years.

The LDAC reminds that environmental factors are playing a major role in the poor recruitments observed in the last decade in the Flemish Cap. Therefore, the LDAC supports the ongoing work of the Ecosystem Based Approach WG on species interactions and ecosystem productivity between cod, shrimp, and capelin stocks, and encourages to develop consistent and robust models to inform managers and bring ecosystem considerations into the advice without compromising management decisions on single stocks in the short term.

In summary, stability in catches must strike a balance with the outlook of HCR under development, within the remit of the scientific advice from SCS and the PA framework, while if exploitation patterns will not vary substantially and will remain stable to allow the SCS to run tests on projections.

LDAC Recommendations for Cod NAFO Div. 3M:

The NAFO Scientific Council (SC) notes that any catch level corresponding to F less than or equal to 3/4 Flim in 2024 results in a very low probability (≤10%) that the SSB will be below Blim and a very low probability (≤10%) of exceeding Flim in 2024. All fishing scenarios with F less than or equal to 2/3 Flim promote SSB growth, meaning a probability between 72 and 100% of increase of SSB in 2025 with respect of that of 2023 depending on the scenario chosen.

- ***The LDAC supports the SC recommendation on applying a Fbar = 2/3Flim with a value of F of 0.104 resulting on a level of catch in 2024 less or equal to 11,708 t.***

- ***The LDAC continues supporting the implementation of the technical (flanking) measures adopted at the Annual Meeting in September 2020 to rebuild the stock and protect spawning aggregations of 3M Cod, namely:***

    - ***Improving gear selectivity through the mandatory use of the sorting ("Norwegian") grid and analogue devices for all demersal trawlers targeting cod operating in NAFO RA.***

    - ***The time area closure for Subdivision 3M (Flemish Cap) from January to March 2024 to protect spawning aggregations of Cod, with fishing activity on cod allowed from April to December despite the significant impact on the fishing companies operations.***

- ***Notwithstanding the above, the LDAC notes that to date the SC has not been able to assess the measures implemented in 2021, i.e., no directed fisheries in the first trimester (January-March) and compulsory use of Norwegian grid separators for target fisheries on demersal trawlers from 1 April. The SC has said that they will need to wait until 2025 to quantify the impact of these technical measures.***

- ***The LDAC encourages that a scientific protocol should be set in place with a sampling plan to carry out a selectivity trials for both collecting data and testing the effectiveness and impact of the use of sorting grids in the reduction in catches of juvenile and small cod.***

- ***In the long term, it would be desirable also to make a comparison of the impact in reduction of fishing effort and catch in VMEs, changes in spatial distribution, changes in catch size and age, and studying of by catch in cod fishery and the catch of cod as by-catch for other target fisheries such as redfish.***

2. Redfish (RED) 3M (TACs 2024 and 2025)

Summary of scientific advice:

The catch composition of redfish in this area includes three species from the gender *Sebastes*: *Sebastes mentella* and *Sebastes fasciatus,* known and reported collectively as "*beaked redfish*", and *Sebastes norvegicus* (= *S. marinus*). The three of them are managed as one single stock belonging to a complex population structure in the Northwest Atlantic comprising from the Gulf of Mayne until the south of the Baffin Island. Catch advice is given based in the joint assessment of the species of "beaked redfish" considering the proportion of *S. norvegicus* in the total catch of redfish in recent years.

An assessment based in a model of Virtual Population Analysis (VPA_XSA) was approved. Results of the assessment reveal a decrease in SSB since 2014, but in 2022 it is still well above the average of the period. After several years with low recruitments, the estimated recruitment for 2020 and 2021 is above the average, while in 2022 the value is low. Fishing mortality is relatively low compared with levels observed in the 90's of the last century.

Short term projections have been made (2024-2026) under six different scenarios of fishing mortality and catch (F0, F0.1, F=M, Fstatusquo, 1.25TAC and 0.75 TAC). Fstatusquo is defined as the F level that brings captures for 2023 equal to the TAC. The assessment has had a trend to underestimate the size of the stock (both SSB and biomass of age 4+) during the last five years. Therefore, since the last assessment of 2021, the series of fishable biomass has been reviewed upward and, also, this component of the population has increased since 2021. Thus, the potential yields estimated in the projections are also more optimistic than those observed in the last assessment.

The SC has not been able to resolve the reason for this retrospective pattern, which adds uncertainty to the results of the projections. Except for the F=0 scenario, in all scenarios the SSB is projected to decrease and be around the mean of the assessment time series (since the late 1980s) in 2026.

Despite the scientific advice is based on a biannual TAC, this year due to the uncertainty of the projections it will be given for 2024 only, as this population will be reassessed next year.

LDAC considerations:

- The LDAC regrets the current situation of uncertainty of the projections.

- The LDAC notes that SSB is well above the average of the period and that recruitment is low. F remains at relatively low levels when compared to the last decades of the last century and remain stable.

- The LDAC also notes that the Redfish 3M stock is adjacent to 3LN and might have potential stock mixing or population overlaps. For the later, a proposal for setting the TAC for 2024 is 11 500 t.

LDAC Recommendations for Redfish 3M:

The LDAC supports the SC recommendation that total catch allowed do not exceed the current level of 17 503 t, despite the being F0.1 = 21 888 t for 2024.

- ***The LDAC notes that catch levels from EU fleet have remained stable and the TAC has been fully utilized.***

- ***The LDAC acknowledges the SC advice that total catch do not exceed the proposed level of 17 503 t, given the low recruitment and the uncertainties associated to the estimation of the SSB.***

- ***The LDAC observes that the setting of a biannual TAC has provided legal certainty and economic stability to this fishery*** **and it should continue in the future.**

3. Redfish Div. 3LN (TACs 2023 and 2024)

Summary of scientific advice:

This stock was assessed last year and the recommendation of the SC after the review for the TAC in 2024 is 11 500 t (median of the last 5 years).

The catch composition of redfish in this area includes two species from the gender Sebastes: *Sebastes mentella* and *Sebastes fasciatus,* known and reported collectively as "*beaked redfish*". Both species are managed as one single stock belonging to a complex population structure in the Northwest Atlantic comprising from the Gulf of Mayne until the south of the Baffin Island.

The projection model used for this stock (ASPIC) was updated with available data but was rejected by the SC as basis for its advice. The continuous imbalance between the survey indexes observed recently and biomass estimations from ASPIC ended in a lack of confidence in the model as a result of an over estimation of the recruitment not suitable for this species (>0,2).

To make the stock assessment, a mixed approach was used combining the survey indexes result of the median of the Spanish surveys in 3L y 3N and the spring and autumn Canadian surveys in 3LN. The projections have not been carried out due to the rejection of this model.

The rejection of the model and the lack of estimates from the Canadian spring surveys in 2020 and 2021 impedes the calculation of F but based on the available data, it is expected that F levels have not changed substantially (from 2010-2016 was close to zero, then augmented in 2018 and 2019).

In absence of reference points as a result of the flawed model, until the MSE is completed, a provisional Blim has been adopted using a median of the period 1991-2005 with a combined survey index.

In summary, despite the limited knowledge on the state of the stock since 2019, available data indicate that:

- Biomass is within or below the long-term median.
- Stock seems to be above the provisional Blim,
- Recruitment (measured as individuals between 15 and 20 cm) has been below the long-term median since mid-2010s for the four surveys analysed (Canadian spring and autumn and Spanish surveys in 3NO y 3L).

LDAC considerations:

LDAC does not have any new considerations because it is a species evaluated the previous year.

LDAC Recommendations for Redfish 3LN:

The SC recommends that total catch allowed do not exceed the current level of 11 500 t (median of the last 5 years).

- ***The LDAC notes that catch levels from EU fleet have remained stable and the quota for the EU has been fully utilized in the last years.***

- ***The LDAC acknowledges the SC advice that total catch do not exceed the current level of 11 500 t, given the limited knowledge of the state of the stock and uncertainties associated to the change of model and to be precautionary in terms of protecting level of future recruitments and biomass.***

- ***Notwithstanding the above, the LDAC would like the EC to propose maintaining the TAC as in previous years, i.e., near the current levels of 18 100 t with a footnote to revise this figure should catches exceed 11 500 t. This approach is fully consistent with that asked for other stocks such as redfish 30, thorny skate or white hake.***

- ***The LDAC observes that the setting of a biannual TAC provides legal certainty and economic stability to this fishery.***

4. Redfish Div. 3O (TACs 2023, 2024 and 2025)

Summary of scientific advice

This stock was assessed last year and the recommendation of the SC after the review for the TAC in 2024 is 9 000 t. The main elements of the assessment are:

- This stock is considered data poor.

- The trends-based assessment has been done on a qualitative basis and is based on surveys and catch. It is associated with a high uncertainty.

- A proxy for Bmsy has been adopted based on surveys as the average of the temporal series (since 1991) of a biomass index combined from Canadian spring and autumn surveys. An interim Blim has been defined as 0.3 BMSY-proxy. Given that the survey indexes for this species can show unrealistic fluctuations year after year, a single year above or below Blim is insufficient to indicate a change in the state of the stock.

- The stock is below BMSY-proxy. The biomass in 2020 was above Blim with a high probability (96%). The state of the stock could not be determined for 2021 due to the not realisation of the Canadian spring and autumn surveys in Div. 3O.

- Due the slow growth rate of this species and the interpretation of the fluctuations of the index year after year, it is supposed that the state of the stock in 2021 will be similar to that of 2020. The recruitment indexes since 2012 generally have been around the average for the time series.

LDAC Recommendations for Redfish 3O

The SC concluded during the assessment last year that the stock is below a temporal proxy of BMSY based on surveys, but above the limit reference point (BLIM=0,3BRMS-proxy) with a probability of 96%. There is not sufficient information to base forecast of potential catch levels. The average catch is around 9 000 t during the period used to calculate the MSY proxy (1991 - 2021). The SC cannot advice on a level of TAC appropriate for 2023, 2024 and 2025.

Given that the SC is not able to provide advise on a TAC for the period 2023-2025, the LDAC proposes a roll over of the current TAC, established in 20 000 t, given that the average catch from recent years is stable around 9 000 t and not increasing and this would allow to maintain relative stability and allocation keys for EU countries. Similarly, as for other stocks such as thorny skate, a footnote could be introduced as safeguard as follows: "Should catches exceed 9 000 t, additional measures could be adopted for further restrain level of catch in 2024".

5. Witch Flounder (*Glyptocephalus cynoglossus*) Div. 3NO (TACs 2023 y 2024):

Summary of scientific advice

This stock was assessed last year and the recommendation of the SC after the review for the TAC in 2024 is 1 367 t.

Regarding population distribution, this stock is mainly in Div. 3O thorough the southwestern slope of the Grand Banks. In some years, a higher percentage can be distributed in shallow waters. The fishery was reopened to a directed fishery in 2015. Before its reopening, this stock was mainly caught as by-catch in the trawl fisheries of yellow tail flounder, redfish, rays, and Greenland halibut.

This stock was assessed last year using a Bayesian surplus production model. The input data were the catch data series from 1960-2021 and the Canadian spring and autumn survey data. Full assessments took place in 2017-2020 and 2022. The results of this evaluation show that this stock is at 49% of Bmsy (60 510 t). In early 2022, there is a 9% risk that the stock is below Blim and 1% risk that F is above Flim (Fmsy = 0.063). Recruitment is uncertain.

Two groups of projections were made, with two different assumptions: one considering catch for 2022 equal to TAC (1 175 t) and another considering catch in 2022 will be equal to the average catch of the last five years (700 t). It is estimated that the population will grow for all scenarios, although it will remain below Bmsy until 2025 for those F levels examined with a probability over 85%. Probability that projected SSB is below Blim in 2025 is between 5 and 9% in all catch scenarios and 3-4% in scenarios with F=0, depending on catch in 2022. Probability that SSB in 2025 is higher than 2022 is more than 60% for all scenarios.

LDAC considerations

The LDAC notes that, despite the uncertainty, the stock trends are positive:
- The biomass is increasing on a regular basis since 1994 (with the exception of the period 2013-2015).
- The fishing mortality remains at low risk (14%) of being above Flim in 2022.
- It is estimated that the population will increase for all scenarios forecasted, even if it will remain below Bmsy until early 2025 with a probability over 85%.

LDAC Recommendation for Witch Flounder 3NO

The LDAC supports the advice of the SC as indicated below and has no further comments to make: "The SC recommended last year that F does not exceed 2/3 Fmsy resulting in catches lower than 1 295t in 2023 and 1 367 t in 2024. The main reason being that there is a probability of exceeding Flim higher than 30% in 2024 for values of F higher than 2/3 Fmsy = 0.041".

6. Thorny Skate (*Rajas*) in Division 3LNOPs (TACs 2023 and 2024)

Summary of scientific advice

This stock was assessed last year and the recommendation of the SC after the review for the TAC in 2024 is 3 710 t, as this level is the current catch.

The management unit is limited to NAFO Div. 3LNO, which is part of the stock distributed in NAFO Div. 3LNO and Subdivision 3Ps. Rays are caught with gillnets, trawl nets and longlines. In the skates and rays targeted fisheries, other commercial species are landed as by-catch (cod, monkfish, plaice…). Rays are also caught as by-catch for other demersal targeted fisheries.

Overall, catch levels are well below the TAC because Canada usually does not fish its quota for this stock. The stock is considered as data poor. Its evaluation is qualitative, based on survey and catch trends and is associated with high uncertainty.

The stock was above Blim in 2019. No new survey information was available to ascertain the state of the stock. However, given the long-life traits of this species and the stability in catch in recent years (approximately 3 710 tones for the period 2017 – 2021), it is not likely that significant changes have occurred in population. Recruitment in 2019 was average and level of F is unknown but considered to be low.

LDAC considerations

The LDAC notes that SSB is estimated to be above Blim in 2019 (last value of surveys) and the long-life trait of the species and stability in level of catch in recent years makes it not likely that there have been any substantial changes.

The TAC adopted by NAFO for 2022 and 2023 for Thorny Skate in 3LNO Division is 7,000 t, and the distribution of the quota for this stock is as follows: European Union 4,408t (63%); Canada 1,167 t (17%); Russia 1,167 t (17%); and others, the remaining 3%. The situation of the stock is stable, so the most logical decision. would seem to be a roll over for 2024-2025.

Regarding the EU, the internal allocation gives to Spain 3,403 t (77% of the total), with a declared consumption of quota in 2021 close to 90%. Portugal has assigned 660 t (15%), and Estonia 345t (8%).

The SC has included again in his report the recommendation of "*keeping the quotas close to the catches*" and two important countries with quota do not use it: Canada has an independent skate fishery in 3PS within its EEZ and adjacent to 3LNO, over the same stock, but that is managed as a separate unit, and there Canada maintains unchanged since 1997 an independent quota of 1,050t. There is also a small share for San Pierre et Miquelon, and Russia is not interested in the fishery.

A literal application of the Scientific Council recommendation of keeping the quotas close to the catches, will drastically reduce the TAC, so it is very important for the EU's fleet, to roll over the actual Thorny Skate quotas, for the next two years, to keep in the quota table the actual Note 12: "*Should catches exceed 5,000 tones, additional measures would be adopted to further restrain catches in 2023*".

LDAC Recommendations for Thorny skate 3LNO

The LDAC encourage SCS to collect additional data to improve quality and reliability of the stock assessment in future.

The SC acknowledges that the stock has been stable at recent catch levels (approx. 3 710 t in average for the period 2017-2022). However, given the low resilience of this species and higher historic biomass stock levels, the SC advice recommends not to increase catch. As in previous years, the LDAC reiterates its agreement with the SC recommendation of "no increase in catches" which are stable in the region of 3,700t in average.

<u>However, the LDAC has mixed views on the specific translation into figures of the advice for the 3LNO portion as it cuts down the proposed TAC in half, from 7 000t in the last years to 3 710 t for 2024 based on the average catch levels from 2017 to 2022</u>

The <u>fishing sector of the LDAC</u> notes that with the same advice, the proposed TAC for division 3LNO has been set at 7 000 t since 2013, considering that the catch levels are stable around 3 500 t given that the EU is the only CPCs having a directed fishing in the zone, with other CPCs (Russia and Canada) not participating in this fishery and therefore without having a real impact in the conservation of the stock. They remind the importance of the Thorny Skate 3LNO stock for some EU MS, in particular Spain, which do fully utilise its allotted quota since 2013. As a safeguard measure, the fishing sector of the LDAC is in favour of maintaining in the quota table the reference to Note 12 updated to 2023 as follows: "*Should catches exceed 5,000 t, additional measures would be adopted to further restrain catches in 2023*".

The <u>NGO group</u> argue that the TAC should be aligned with the real catches with a maximum of 5 000 t as upper limit.

7. <u>Cod in Divs. 3NO</u>

A TAC zero has been established for this stock. Due to the very low recruitments and poor state of the stock in terms of biomass, the SC recommends a non-directed fishery for the period 2022-2024.

<u>LDAC considerations</u>

The level of catch for this stock is very low and F is below Flim.

LDAC Recommendations for Cod in Divs. 3NO

<u>The industry of the LDAC opposes in principle to the idea of a non-directed fishery and setting a moratorium for this stock</u>, as it is linked in terms of stock distribution to the area where Canada has a TAC in place within their EEZ (namely Div. 3L).

8. <u>Northern Cod 2J3KL</u>

As in previous years, the LDAC reiterates notes with concern the situation of this stock, caught within the Canadian EEZ, and expects that Canada reduces the fishing pressure within its EEZ. The LDAC recommends that the EU should keep following closely the evolution of the catches in this area.

To maintain pressure on Canada, the EU should not exclude an option that in the future asking Canada to give entitlement to other countries to access to this fishery, as there is a consensus on a moratorium that everybody is implementing except Canada. Not only has Canada not refrained from fishing in these areas of the RA, but the catches there have reportedly increased year after year. For instance, the TAC increased of 25% from 9,500 tons in 2018 to 12,350 tons in the period 2019-2021. For 2022 and 2023, Canada increased further their "experimental" TAC to near 13,000 tons, while the EU fleet has not access to 3L cod and there is a moratorium on 3NO (leaving only 3M Cod as the only fishing ground)[1]. Moreover, it seems that there is also a significant number of unreported catches and discards that need to be included when it comes to Canada's catches of cod 2J3KL[2].

This increase in TAC occurs despite scientific advice stating that "*despite good growth in recent years, the stock is still in the critical zone with a low recruitment level*" [3]. Furthermore, Fisheries and Oceans Canada (DFO) indicates that "*management actions must promote stock growth and removals from all sources must be kept to the lowest possible level until the stock has cleared the critical zone*"[4][5]

The LDAC would like to bring once again the attention of the EC to Parliamentary Canadian report where a former member of the New Democratic Party Caucus intervenes on the issue on discards and unreported mortality rates related to regulatory framework of stewardship northern cod fishery. From this intervention the LDAC understands that not all catches are reported and considering that the EU is a stakeholder in this stock it increases LDAC concern about Canadian disregard for internationally agreed moratorium[6].

The existing agreement between Canada and the EU on the sharing of TAC in that area elapsed in 2005, but that does not mean Canada is entitled to unilaterally set a TAC for itself on this closed stock. Once the stock is in a good condition (which Canada seems to think it is judging by its actions), the EC should explore the possibilities to fish on those areas based on past track records and considering that this could be a good compensation for the possible reduction of fish in the Flemish Cap due to the new human activities in the area.

---

[1] More info: https://www.dfo-mpo.gc.ca/fisheries-peches/decisions/fm-2021-gp/atl-36-eng.html l and https://www.dfo-mpo.gc.ca/fisheries-peches/decisions/fm-2021-gp/atl-27-eng.html

[2] For instance, page 6 and 7 of the Report of the Standing Committee on Fisheries and Oceans (March 2017) https://www.ourcommons.ca/Content/Committee/421/FOPO/Reports/RP8826804/foporp10/foporp10-e.pdf

[3] Page 5 of the Report of the Standing Committee on Fisheries and Oceans (March 2017) https://www.ourcommons.ca/Content/Committee/421/FOPO/Reports/RP8826804/foporp10/foporp10-e.pdf

[4] DFO, "Northern (NAFO Divs. 2J3KL) Cod Stock Update," Canadian Science Advisory Secretariat Science Response 2015/018, May 2015, p. 8

[5] https://www.saltwire.com/atlantic-canada/business/cod-and-caplin-quota-decisions-in-newfoundland-and-labrador-alarm-oceana-canada-100594898/

[6] Page 8 of the Report of the Standing Committee on Fisheries and Oceans (March 2017) https://www.ourcommons.ca/Content/Committee/421/FOPO/Reports/RP8826804/foporp10/foporp10-e.pdf

LDAC Recommendation for Cod 2J3KL

The LDAC is of the opinion that while Canada is still fishing for cod 2J3KL, all CPCs for which the cod 2J3KL quota had been reduced to 0, should receive a compensation. The level of compensation should be calculated based not only on subsequent TACs set by Canada but also on unreported catches and discards from Canadian EEZ.

The LDAC also recommends that Canada should be made aware that, regardless the technical nomenclature and arguments provided, the reality is that they are setting a unilateral TAC and conducting a targeted fishery on this area. It is also imperative that the EU, together with other CPCs, begin the process of obtaining fishing possibilities in the 2J3KL areas in line with past track records and the existing fishing activity in the area. Also, additional attention needs to be focused on unreported mortality.

Given the above, the LDAC would like the EU to ask for:

- ***Canada either to close this "stewardship fishery" or follow the NAFO rules and allocate a fair share for the 5% of their total catch (including by-catch and discards) that the EU is entitled to.***
- ***Fishing data on cod 2J3KL from Canadian fishery covering not only official catches but also a level of unreported catches and discards,***
- ***Data and reporting by Canada on the seismic, deep-sea mining and oil drilling activity that are currently going on in that area.***

The LDAC is aware how sensitive the cod 2J3KL matter is. However, the LDAC believes that this is one of the issues that could be used by the EC to seek agreement in other dossiers of stocks of interest for the EU where Canada's position is crucial.

9. Shrimp 3M

EU past and present catch effort

The 3M Shrimp fishery was reopened in 2020 but it was closed again in 2022. The EU is by far the largest stakeholder among the NAFO CPs, both in terms of the current fishing-day allocation share and historical catches from this stock. Within the EU, Estonia is the largest fishing nation of 3M shrimp followed by Latvia and Lithuania. The stock has also been harvested, to a lesser extent, by Denmark, Poland, Spain, and Portugal.

A Lithuanian trawler was fishing in October in 2020 for one trip. In 2021, both Lithuanian and Danish trawlers were fishing. Due to insufficient export documentation available from Canadian veterinary authorities, those EU vessels were not able to unload its catches in Canada, causing a “de facto” landing ban for the EU fleet and negatively affecting the track-record of EU effort.

LDAC considerations

- Release of scientific advice:

In September 2023, the updated assessment of the joint ICES-NAFO Pandalus Working Group will be released in order to formulate a management decision at the Annual Meeting. This is a continuation of what has been done in the previous years and the LDAC is in favour of continuing this exercise.

- Benchmark exercise and assessment models:

ICES held a benchmark workshop on Pandalus stocks (WKPRAWN) on 24–28 January 2022 for three stocks of Northern shrimp. The goal was to evaluate the appropriateness of data and methods to determine stock status and investigate methods that could be used in future update assessments. The result of this work will be the "best available" method that ICES advice will be based on (whether analytical or non-analytical assessments).

According to WKPRAWN report, despite there were interesting results there was limited progress on the Flemish Cap stock (pra.27.3M). As a result, the stock was categorized as data limited and the previous assessment model was used.

Regarding the data quality and availability, despite the fact that a long-term EU survey from 1988 to present is available for the stock covering the period of the moratorium including length-composition data, there are still issues.

The benchmarks of the other shrimp stocks of the Joint ICES-NAFO Pandalus Working Group are now considered finished (Barents Sea, Irminger), except that of the 3M stock. At that moment, the data available for the 3M stock is far from the ideal and continues to be a data limited stock. In this respect, the moratoria is also hampering collection of catch data from concerned fleets.

- Management regime change

The LDAC emphasizes the continuity of its points raised in the previous year, to uphold fishing efforts within scientifically determined limits. This imperative, however, must be balanced with a thoughtful consideration of the socioeconomic repercussions stemming from underutilization. The LDAC asserts that the most straightforward approach to reconcile these aspects is through the implementation of a total catch limit from the fishery, while retaining the existing effort-based system.

The proceedings of the 2022 NAFO meeting revealed limited, if any, headway in the pursuit of a consensus on a new management framework. Notably, Canada's resolute stance underscored the formidable challenges inherent in this endeavour. Reflecting upon the lessons of the past year, the LDAC acknowledges a notable degree of scepticism regarding the likelihood of achieving a comprehensive agreement on a new management framework. Nonetheless, the imperative of maintaining the fishing within scientifically prescribed boundaries remains of paramount significance.

In light of these considerations, the LDAC advances the proposition that introducing a Total Allowable Catch (TAC) within the prevailing effort-based framework would constitute a prudent measure.

LDAC recommendations for Shrimp 3M:

- ***On release of scientific advice, the LDAC requests that ICES-NAFO Pandalus WG continues releasing its advice for 3M Shrimp in September 2023, ensuring that stock assessment is handed over in time for decision at the NAFO Annual Meeting.***

- ***On scientific assessment models, the LDAC would like to ask the SC to explore an SS3 model for this stock given the partial and patchy nature of the available data.***

- ***On data review and benchmark exercise, the LDAC would like to ask that a follow up ICES benchmark on Pandalus is convened in 2024 and that its outcomes and advice are incorporated in the work of the NAFO Scientific Committee with the view of improving assessment and management recommendations in coming years.***

- ***On management, the LDAC urges the EC to consider how to meet the challenge of underutilization of the fishery by other contracting parties.***

- ***On management regime, given the challenges surrounding the attainment of an agreement among contracting parties, the LDAC proposes maintaining the existing management regime while imposing a cap on the total allowable catch.***

10. Greenland Halibut (GHL) 2+3KLMNO

Summary of scientific advice

The recommended TAC for 2024 is similar to that of 2023, namely 15 153 t.
The present HCR was adopted by the NAFO Commission at the Annual Meeting in 2017 to calculate TACs for GHL in the Subarea 2 + Div. 3KLMNO. The HCR is based on the biomass indexes from scientific surveys and has two components of the biomass used to calculate the TAC: one based on the biomass to be achieved ("*target*") and the other on the trends shown by the surveys ("*slope*"). The final annual TAC is the result of the mean average of the estimation of TAC from both "target" and "slope", with the restriction of not allowing a TAC variation of +-10% between consecutive years.

The survey indexed upon which the HCR is applied are: Canadian autumn survey in Divs. 2J3K; Canadian spring survey in Divs. 3LNO; Canadian autumn survey in Divs. 3LNO; European survey in Flemish Cap in Div. 3M; and Spanish survey in Div. 3NO. This year, three of the five last values of the Canadian spring survey are missing, so that these series have been excluded in the HCR. The sensitivity analysis indicated that excluding these surveys has had a minimal impact (below 5%) in the result of the HCR.

LDAC considerations

- The LDAC notes the considerable reduction in fishing effort made by the fishing fleets (mainly EU) since the HCR entered into force, with a decrease in catches from a TAC of approximately 45,000 t to the ceiling now established around 16 000 t.

- Notwithstanding the above, and despite the starting point being set at low levels, the LDAC considers that the HCR is proving effective in providing stability and long-term planning to the management of this fishery.

- However, it notes that the application of the HCR as currently designed has implied a 15% decrease of the TAC since 2020, and the present advice of 15 153 t constitutes the lowest quantity in the history of management of this stock.

- The Spanish and Portuguese trawl fleet industry note that it seems to do not reflect the real situation in the fishing grounds, where they find all group ages of GHL in abundance in their trawls, showing a disparity between catch reports from fleets and scientific survey. One possible explanation could be attributable to the size and wide distribution of the stock. The scientific surveys only cover some sample areas and are an average of five different campaigns with different weight.

Scientific surveys in closed areas for GHL (CR Question #3)

- The SC considers that the real impact of the hauls carried out in the scientific surveys for demersal bottom trawlers in the closed marine areas would be significantly reduced if they were shortened up to 20 minutes of duration maximum.

- The quality of the EU survey indexes for GHL y RHG in subareas 2 y 3 show a loss of quality in the estimations when omitting these hauls. Besides creating noise and bias to the estimation of the biomass index, it omits those with higher age or length size (same applies to RED and WIT).

- Despite the SC recommends that this issue should be dealt with by experts from WGESA during its November meeting, we would like to flag this issue in this advice.

- The LDAC notes that, according to the SC, in 2023 exceptional circumstances occurred due to the recent gaps in Canadian survey time series.

Development of MSE for GHL2+3KLMNO and RED 3LN (CR Question #4)

- The SCE recommends under point a) to compile catch and survey data and any additional source of information used in current assessment models.

- In this respect, the LDAC thinks that this should be an argument also to consider carrying out again hauls in MPAs for scientific surveys only and with the limited time to minimise impact to be able to carry out a robust assessment.

LDAC Recommendations for Greenland Halibut 2+3KLMNO

The LDAC supports the advice of the SC in application of the Harvest Control Rule advice a TAC for 2024 based on the approved HCR, resulting in 15 153 t.

The LDAC looks with concern the lack of data of the Canadian spring surveys, which have not been conducted for the period 2020-2023. The area and time where this campaign takes place correlates with the best time and area (Subdiv. 3LN) to fish where more catches are reported by the commercial fleet.

The LDAC also notes that "exceptional circumstances" have occurred in 2023 due to the lack of data because of the absence of the Canadian spring surveys during the last four years with the subsequent gaps in the time series. Luckily, following a sensitivity analyses, the SC concluded that the application of the HCR will still be appropriate. In view of this, the TAC proposed for 2024 derived from the HCR (15 153 t).

The LDAC hopes that Canada can conduct their spring survey in 3LN in 2024 following 4 years of operational problems (attributable to COVID and mechanical problems with research vessels).

The EU is recommended to follow up this issue bilaterally with Canada in their negotiations, given the importance of this survey for assessing the biomass of the stock and repercussions on the fixation of the TAC because of the application of the HCR. The repeated absence of spring survey for fourth consecutive year has triggered the exceptional circumstances, luckily not causing a negative "knock on" effect for the economic performance of the concerned fishing fleets.

11. Northern Shortfin Squid in Subareas 3+4

Summary of scientific advice

The assessment for this stock has been deferred until the Annual Meeting. The SCS made a recommendation in 2019 which was then maintained for the period 2020–2023: *The primary biomass index (Div. 4VWX) and mean body size value for 2018 were not available for use in the assessment. The 2019 values indicated that the stock may be moving towards a high productivity period. SC advice is a TAC of no more than 34 000 tones/year.* The management decision was to set up a TAC in line with the SC recommendation (i.e., 34 000 t/year) with a roll over in 2023.

LDAC considerations

The LDAC notes that, in terms of fishing dynamics, since the nineties, the squid fishery has been mainly a seasonal one with low level of catches. However, there is several Spanish vessels represented in the LDAC which have become more active in the area targeting squid during the last years.

LDAC Recommendations for Squid in Subareas 3+4 (*Illex illecebrosus*):

- ***The LDAC looks forward to having the interim monitoring for this stock prior to the Annual Meeting so a sound management decision can be made.***

- ***Whether the scientific recommendation is the same as in previous years or there is no recommendation in time for the Annual Meeting, the LDAC advises that the European Commission should consider requesting a rollover of 34 000t for this stock considering the socio-economic importance of this fishery for the Spanish cephalopod freezer fleet.***

12. American plaice 3M

Summary of scientific advice

The stock has recovered to mid-1990s levels; However, recruitment has been poor since 2018. The SC considers that there is insufficient evidence that the stock can support a fishery at this time and recommends no directed fishery in 2024, 2025 and 2026. Bycatch should be kept at the lowest possible level.

The stock mainly inhabits depths of less than 600 m in the Flemish Cap. Currently, 3M flounder is caught as bycatch in other trawl fisheries, mainly in the redfish and cod fisheries.

A qualitative assessment based on seasonal indices and catch data from commercial fisheries was approved. The results show that the stock biomass has increased in recent years due to two recruitment pulses (at 3 years) in 2008-2012 and 2015-2018, recovering to levels similar to those observed in the mid-1990s when the fishery was closed. However, recruitment has been low since 2018, while F remains low.

LDAC considerations

- A TAC of 2 000 t was in force for this stock in the period 1979-1993. A reduction to 1,000 t was agreed for 1994 and 1995 and since then it has been under a fishing moratorium.
- The level of catch for this stock is very low and F is below Flim.

LDAC Recommendations for American plaice 3M

- ***The industry of the LDAC opposes in principle to the idea of a non-directed fishery and the result of setting a moratorium for this stock.***

13. Yellowtail flounder 3LNO

This stock was evaluated using a Bayesian production model. Comment that the lack of information from Canadian surveys in recent years increases the uncertainty of the results. The biomass of the stock has decreased since 2021 but remains above Blim with a probability of 0.61. There is a very low risk that the stock will be below Blim or that the current F will be greater than Flim. Recent recruitment is unknown.

The medium-term projections (2024-2026) were made assuming that the catch in 2023 would be equal to the approved TAC (20,000 t.). In recent years catches have been lower than the approved TACs due to different reasons. The following F scenarios have been projected between 2024 and 2026: F=0, Fstatus quo, 75% Fmsy, 85% Fmsy and Fmsy. At the end of the projection period, the risk of biomass being less than Blim is 6% or less in all scenarios.

For the projections with Fstatus quo, the probability that F > Flim=Fmsy in 2025-2026 is between 0.11 and 0.12, with 75% Fmsy between 0.27 and 0.28 and with 85% Flim at 0.36. The probability that the biomass in 2026 will be higher than in 2023 is between 0.60 and 0.38. Fishing mortalities of up to 75% Fmsy, corresponding to catches of 15,560 t and 15,810 t in 2024 and 2025, respectively, result in a risk of no more than 30% of exceeding Flim, and project to maintain the stock around Bmsy with a very low risk of falling below Blim.

LDAC Recommendation for yellowtail flounder 3LNO

Due to the lack of information from Canadian surveys (latest data: 2019) and uncertainty on the recruitment, the LDAC proposes applying the scenario 3 of the stock projections, resulting in a F = 75% Fmsy and a F median value of 0,151 with a resulting yield of 15 560 t for 2024, in line with the precautionary approach.

14. White hake Div. 3NOPs

The management unit for which advice is sought is Div. 3NO, which is part of a stock distributed in Div. 3NOPs.

This stock is considered to be data poor. Its assessment is done qualitatively based on the trend of surveys and catches and is associated with high uncertainty (Figure 6). The last available survey that covered the entire range of the stock was in fall 2020 and the last index of the main survey used was in 2019. Until new data are available to allow a full assessment, this stock will be monitored year to year by the CC. Right now, the status of the stock is unknown.

The status of the stock is unknown. White hake catches in 3NO should not increase above recent levels (the average of the last five years is around 400 tons).

Although it is a complementary stock to other targeted species of the Spanish fleet, it is not less important to establish at the forthcoming NAFO Annual Meeting some guidelines so that the SC can evaluate it, and this could be done once the Canadian campaigns are resumed. The important point is that the improvement of the stock (without having a scientific evaluation to corroborate it) is causing a problem of activity by which the vessels must be avoiding fish much more abundant than what the formula indicates, demonstrated by the reports of the control observers, which confirm a continuous application of the "move on" rule due to excess of catch for this stock.

All this added to the fact that the reality allows us to know that the scientific campaign that is deployed in 3L by Spain offers a large volume of information, could to a large extent make up for the lack of the Canadian spring campaign, by this one as long as those of the North American country are not recovered.

LDAC considerations:

LDAC notes the lack of data for this stock but highlights that the fishing vessels, when they encounter catch of white hake, apply the “move on” rule.

LDAC Recommendation for White hake 3NOs

LDAC suggests that the SC produces a scientific report documenting the data drawn from the control observers’ reports with the times when the fishing vessels have applied the “move on” rule.

SECTION II. ECOSYSTEM CONSIDERATIONS

Greenland halibut Management Strategy Evaluation (MSE) Subarea 2 + 3 KLMNO (TAC 2024) (CR Question #2) and MSE processes for Greenland halibut 2+3KLMNO and redfish 3LN (CR Question #4):

Exceptional Circumstances have occurred due to recent gaps in the Canadian survey time series. However, sensitivity analyses indicate that the application of HCR is still appropriate. The TAC for 2024 derived from the HCR is 15 153 t. Commercial catch and survey data have been finalized for use in the upcoming 3LN redfish and 2+3KLMNO halibut MSE processes. However, given the introduction of new research vessels for the Canadian surveys, the complexities associated with obtaining and applying conversion factors may delay progress on both MSE.

Several Operating Models (OMs) have been proposed and reviewed for the halibut MSE, addressing uncertainties associated with factors such as recruitment variability, catch levels, selectivity patterns, natural mortality variation, and survey availability issues. The CC approves the initial list of OMs, which will be applied once conversion factors for the Canadian fall campaign are available. The main Candidate Management Procedure (CMP) under consideration is the current one (combination of "slope" and "target". Preliminary results indicate that its performance is comparable to that determined in the 2017 SSM process.

Initial OMs for 3LN redfish were reviewed and included production, age-based and campaign-based catch-at-length models. The CC supports further development of the OMs, including further exploration of the age-based catch-at-length model and other model formulations. The development of performance statistics and CMPs are still in their early stages, as decisions must be based on the final OMs.

LDAC Considerations:

- LDAC is concerned that the historical data from previous Canadian surveys cannot be secured, and that old data is still used for describing the stock.
- LDAC notes that TAC decreases every year despite the stock being in good shape.

LDAC recommendation on GHL MSE

The LDAC takes into consideration and supports the SC's working criterion that although exceptional circumstances have been identified due to gaps in recent series from the Canadian campaigns, sensitivity analyses indicate that the application of the HCR is still appropriate, and the resulting TAC generated by it is correct.

Scientific campaigns in closed areas (CR question #3)

While bottom trawl research surveys have an impact on VMEs, the Scientific Council (SC) concluded that the available evidence does not support the total exclusion of the surveys from protected areas. In general, survey impacts are not considered to cause long-term damage to VMEs due to their small area of influence and long recurrence interval. Evaluation of the exclusion of closed areas from research campaigns indicated that indices of some stocks would be affected, making them unreliable for conducting scientific advice in future. In addition, these research campaigns also play an important role in monitoring the conservation objectives of protected areas.
The SC recommends that research surveys can be conducted within closed areas in the NRA, but that every effort be made to minimize sampling impacts and maximize data collection on catches made in vulnerable areas.

LDAC recommendation on Scientific campaigns in closed areas:

The LDAC concours with the SC recommendations and supports that bottom trawl research surveys are performed on VMEs as the impact is negligible and the information they provide is highly valuable and necessary for accurate and reliable scientific data collection.

Continuing work on sustainable catches under the Ecosystem Roadmap (CR question #5)

The SC developed a template on how to include Total Catch Index (TCI) information in the stock summary sheets (SSSs). This template includes a reference to the TCI in the summary table and a new section describing the sustainability of catches for the guild and EPUs to which the SSS stock belongs. These modifications have been implemented in the SSSs of the stocks assessed in 2023.

The design of the SSSs already included a section for TCI information; this section has been updated to reflect the newly adopted framework and the ecosystem reference point.
ecosystem reference point.

Regarding management considerations for occasions when the 2TCI ecosystem benchmark is exceeded, similar to those when Exceptional Circumstances are triggered within the SSM and Effective methods for communicating TCI-related information to the Commission, particularly for when the 2TCI is exceeded or expected to be exceeded:

- The SC notes that while catches above the 2TCI ecosystem benchmark are clearly associated with negative ecosystem outcomes, this high level of catch has been infrequent. This supports the treatment of these events as an analogous Exceptional Circumstances situation in the Management Strategy Evaluation.

- The SC identified a number of scientific and management considerations that are important in defining courses of action in the event of a 2TCI exceedance.

- To support WG-EAFFM discussions on possible management measures in the event that the 2TCI level is exceeded, and to regularly report TCI-related information to the Commission, the SC developed a report on the sustainability of catches at the ecosystem level to summarize information on the Catch/TCI relationship. The structure and content of these reports are expected to evolve based on discussions and comments from managers in the WG- EAFFM and the Commission.

LDAC recommendation on work on sustainable catches under the Ecosystem Roadmap

The WG-EAFMM Workshop held from 8-10 August 2022 in Halifax confirmed broad support for the work undertaken by scientists on the Total Catch Index (TCI). Following the work of three independent experts who reviewed and validated the suitability and robustness of the Total Catch Index (TCI), it is fundamental that all relevant parties (scientists, policy makers, stakeholders…) are actively involved prior that TCI have the potential to be used as additional tool for stock assessments and underpinning of management decisions. This will ensure a common understanding on definitions and implications of scenarios proposed, including the effects and implications in the bilateral and multilateral negotiations leading to decisions on management of commercial fishing stocks.

Habitat impact assessment (VMEs and SAI analysis) (CR question 6):

Regarding the completion of the re-evaluation of the previously recommended closures of areas 7a, 11a, 14a and 14b by incorporating 2020 and 2021 shrimp fishery catch and effort data into the fishery impact assessments. This work took place at the WG-EAFFM meeting which took place in Edinburgh in July 2023:

- The overlap analysis of the shrimp fishery and VME areas 7a, 11a, 14a and 14b indicated that these closures would affect at most 0.8% of the area fished for shrimp and 0.5% of the average reported catch in 2020-2021.
- Therefore, the SC concluded that these four closures (7a, 11a, 14a and 14b) are unlikely to overlap the shrimp fisheries in the 3M Division.
- The SC recommends that closures 7a, 11a, 14a and 14b remain in force until December 2026.

LDAC recommendation on habitat impact assessment

The LDAC supports the scientific advice and work of the WG-EAFMM and abides by its recommendations, considering the minimal overlap of less than 1% of the overlap analysis of shrimp fisheries with VMEs which should not have a significant socio-economic impact.

Potential impact of activities other than fishing in the Convention area (CR question 12):

The SC reiterates its previous advice that a number of activities occurring in the NRA (especially oil and gas) have significant overlap with NAFO bottom fisheries, NAFO closures and VMEs, and have the potential to affect fishery resources and the ecosystem. These activities have increased in recent years.

Information on "*activities other than fishing*" (e.g., trends, spatial location, overlap with fisheries, VMEs and closed areas, and potential impacts) will continue to be included in the ESSs. The geographic location of oil and gas activities in the NRA is publicly available from several sources. In contrast, information on the assessment of potential impacts of such activities, as well as mitigation measures, is scarce or difficult to obtain.

The SC also notes that current experience, particularly within the WG-ESA and generally in the SC, is insufficient to allow the SC to assess the long-term impacts of these activities on fishery resources, VMEs and the marine ecosystem in general.

The SC requests access to data and analysis from the CPs' oil and gas activity monitoring programs. The SC also reiterates that the CPs provide expertise in assessing the marine environmental impacts of activities other than fishing (e.g., oil and gas).

The SC recognizes the value of the recently approved NEREIDA project in providing updates on available information on activities other than fishing (primarily oil and gas, as well as marine debris).

LDAC recommendation on potential impact of activities other than fishing in NRA:

The LDAC notes that the number of areas closed to fishing increases steadily but at the same time, Canada is making oil and gas exploration drills in closed areas.

The LDAC recommends that the protection of VMEs should expand to all human activities, despite NAFO being a fisheries organisation. NAFO is one of the RFMOs leading the way in the implementation of an ecosystem approach so this cannot be ignored.

SECTION III. MONITORING, CONTROL AND SURVEILLANCE CONSIDERATIONS

1. Proposal from Canada on adding a "capture date" to labelling requirements

At the STACTIC WP 22-25, there was a proposal from Canada in relation to adding the "capture date" to the labelling requirements for a product. This proposal has been put forward again in 2023.

Canada noted that the requirement "*capture date*" already exists specifically for shrimp under NAFO CEM Art. 27.34. Canada proposed to delete from point 1.c) of art. 27 the specific mention to shrimp and therefore extend this requirement to all other stocks as follows: "*the date of capture (including the year, month, and day)*"

In reply to this proposal, DFG and the EU noted that this measure might have a difficult compliance in practice. The EU indicated that they would need more time to carefully analyse the possible impacts in the current practices on board fishing vessels as well as identify the range of scenarios before taking any decision on this. Canada expressed its will to continue discussing this matter and consider limiting the scope of application to a few selected species. Canada added that they would work at intersessional meetings to produce a modified proposal together with other CPCs in time for the next STACTIC meeting.

2. Derogation of 100% observer coverage rule in NAFO

The LDAC notes this discussion and is in favour of progress on development of minimum standards for electronic monitoring systems (EMS) so they can cover the gap of physical observers if finally reduced from 100% to a minimum of 50%, depending on the outcome of the decision at next STACTIC in the Annual Meeting on the derogation of this rule.

3. Canadian proposal of changing by-catch rules

This proposal refers particularly for the by-catch of American Plaice in the fishery of Yellowtail Flounder. The LDAC notes that the EU is looking at potential implications from haul by haul data, as well as feedback from EU MS and stakeholders on by catch of skates and rays´ fisheries in the American Plaice fishery, so they have sufficient evidence and elements to take a decision at the annual meeting.

4. Introduction of commercial trial hauls to improve scientific knowledge of stocks:

This is a proposal put forward by Japan to review the state of the stock of the squid fisheries. It has been debated in 2023 and the main point for negotiation is the duration of the trial (Japan proposes 1 month but the EU is not comfortable with this given the lack of reporting from observers onboard on discrepancies).

5. Prohibition to land catches of Irminger Sea redfish in NAFO ports:

The EU wishes to adopt this control measures of prohibition to enter into port for vessels to deter the landing of this species that currently have a zero catch. It is worthwhile to note that Faroe and Norway have already taken measures in their own national ports. A similar proposal was already endorsed by NEAFC.

LDAC Recommendations on Monitoring, Control and Compliance / STACTIC work:

General Recommendations:

- **The LDAC advises the DG MARE negotiation team to regularly inform on the state of play of the above referred discussions that will likely continue at the next STACTIC to be held during the NAFO Annual Meeting.**

- **The LDAC also request that the above-mentioned items are included for discussion in the mid-week meeting between the EU and the stakeholders, as any potential measure adopted could have an impact for the fishing vessels' operations.**

Specific recommendations:

- **Review of observer coverage:**
  - **If there is a reduction from 100% observer coverage and EMS is introduced, the LDAC would like to see the implementation of a transition period to implement these changes.**
  - **The LDAC agrees that a combination of both human observers and EMS providing 100% coverage would be the aspiration for ensuring adequate control and compliance of all fleets. However:**
    - **The fishing sector of the LDAC expresses its preference for the physical presence of observers onboard commercial vessels operating in NRA as EMS has still many technical and operational loopholes which hampers its effective implementation and the way to provide information to NAFO Secretariat and the SC.**
    - **The NGO group supports that there should be no representative coverage of all fleets, species, areas using both human and EMS and not an either/or. Ideally, EMS should supplement human observer coverage until EMS is fully developed and proven to achieve comparable results for both target and bycatch species monitoring.**

- **Review of bycatch rules:**
  - **The fishing sector of the LDAC is in favour of supporting the Canadian proposal on modification of by-catch rules increasing the percentage if this does not only refer to American Plaice and Thorny Skate is included.**
  - **The NGO group does not wish to see an increase of by-catch threshold levels for any species, and in particular for thorny skate. The NGO is in favour however of improving reporting accuracy of total removals from sea (landings + discards).**

- **Introduction of commercial trial hauls to improve scientific knowledge of stocks:**
  The LDAC would be in favour of investigating the appropriateness of conducting commercial trawling hauls validated by scientists through presence of observers on board in order to improve knowledge of fisheries, not only circumscribed for squid.

- **Prohibition to land catches of Irminger Sea redfish in NAFO ports:**
  The LDAC is in favour of this proposal, which must be combined with monitoring of transshipments at sea as it is currently the case for the Russian vessels in the last years.

-END-