



LDAC ADVICE TO THE EUROPEAN COMMISSION

Recommendations for NAFO 46th Annual Meeting (Halifax, 23-27 September 2024)

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BACKGROUND

The meeting of the NAFO Scientific Council (SCS) and its Standing Committees, held from the 31st of May to the 13th of June 2024, assessed the state of main commercial stocks in NAFO and as a result a table with recommendations for fishing opportunities for 2025 was presented (see table 1).

A delegation composed by the LDAC Chair, several members of the LDAC WG2 representing both the concerned EU MS fleets with commercial interest in the fishery and environmental NGOs, and the LDAC Executive Secretary all participated at a coordination meeting with the DG MARE lead negotiator and his team held virtually on 26th of August 2024. A summary overview was given on the report of the Scientific Council and its advice for 2025 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 ones on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) and on Risk Based Management Strategies (WG RBMS).

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 2025 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 2023 and 2024, as well as the level of estimated catch in terms of quota consumption in the last full year closed, i.e. 2023. The source of this data is the one agreed at the Joint Commission-Scientific Council "Catch Estimation Strategy Advisory Group" (CESAG).



The CESAG combines DCR (daily catch reports transmitted by fishing vessels to NAFO) and port inspection reports for all stocks and countries, completing it with Canada’s catch data within its EEZ. Finally, this table also contains the recommended TAC made by the Scientific Council for 2024.

Figure 1. Estimated catch for 2023 (CESAG), TACs adopted for 2023 and 2024 and SC recommendations for TAC for 2025 for main commercial stocks of NRA.

| Stock | Estimated Catch 2023 (t) | TAC 2023 (t) | TAC 2024 (t) | Recommended TAC for 2025 (t) |
|-----------------------------------|---------------------------------|---------------------|---------------------|---|
| Greenland Halibut (GHT) 2+3JKLMNO | 14 162 | 15 156 | 15 153 | <i>TBD - September</i> |
| Cod 3M | 6 027 | 6 100 | 11 708 | <i>TBD – “a level of F that promotes the growth of SSB”</i> |
| Cod 3NO* | 329 | ndf | ndf | ndf |
| American Plaice 3LNO* | 571 | ndf | ndf | ndf |
| American Plaice 3M* | 105 | ndf | ndf | ndf |
| Witch Flounder 3NO | 268 | 1 295 | 1 367 | 1 395 |
| Redfish 3M | 9 741 | 11 171 | 17 503 | 17 503 |
| Redfish 3LN | 8 231 | 18 100 | 18 100 | ndf |
| Redfish 3O* | 3 421 | 20 000 | 20 000 | 9 000? |
| White Hake 3NO* | 493 | 1 000 | 1 000 | 400 |
| Capelin 3NO* | 3 | ndf | ndf | ndf |
| Thorny Skate / Rays 3LNO | 2 100 | 7 000 | 7 000 | 7000? |
| Yellow Tail Flounder 3LNO* | 3 213 | 20 000 | 15 560 | 15 810 |
| Squid 3+4 (3LMNO)* | 112 | 34 000 | 34 000 | - |
| Shrimp 3M | 0 | ndf | ndf | - |
| Alfonsinos 6G* | 0 | ndf | ndf | ndf |

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



REQUESTS FOR ADVICE MADE TO SC BY NAFO COMMISSION FOR 2025

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

- Cod Div. 3M (TAC 2025 and 2026)
- Redfish Div. 3M (TAC 2025 and 2026)
- American plaice Divs. 3LNO (TACs 2025 and following years)
- Witch flounder Divs. 3NO (TAC 2025 and 2026)
- Thorny Skate Divs. 3LNO & Sub 3Ps (TACs 2025 and 2026)
- GHL Sub. 2 y Div. 3KLMNO (Postponed until September 2025)

In September 2024, an updated assessment will be issued in order to formulate some advice on recommended level of TAC for Shrimp Div. 3M (TACs 2025 and 2026).

The following stocks have been assessed in previous years and several TACs were set for 2024. The recommendations made for 2025 are in line with the recommendations made for 2024 and in previous years.

- Redfish Div. 3O (TACs 2023, 2024 and 2025)
- Cod Divs. 3NO (TACs 2022 and following years)
- Yellowtail Flounder Divs. 3LNO (TACs 2024 and 2025)
- Capelin Divs. 3NO (TACs 2022 and following years)
- White hake Divs. 3NO and Sub. 3Ps (TACs 2024 and following years)
- Roughead grenadier Subareas 2+3 (TACs 2020 and following years)
- Squid 3+4 (September) (TACs 2023, 2024 and 2025)
- Alfonsino Div. 6G (TACs 2020 and following years)

In June 2024, among other species, a complete evaluation of Cod 3NO and American Plaice 3LNO should have been done. In June 2023, the SC decided to postpone said evaluations until data are available. This is due to the fact that these stocks are at very low levels, without short term expectations to overcome the moratoria, and also due to the absence of the Canadian campaigns which are the main source of information of these evaluations. Meanwhile, monitoring of the stocks will be done with available data (Interim monitoring Report), and if there is any indication of change of state of those stocks, a full evaluation would be carried out.



SECTION I. RECOMMENDATIONS TO SCIENTIFIC COUNCIL (SC) ADVICE ON SETTING OF TAC LEVELS AND OTHER MANAGEMENT MEASURES FOR COMMERCIAL STOCKS OF INTEREST

1. Cod on NAFO Div. 3M - Flemish Cap (TACs 2025 and 2026)

Summary of scientific advice: stock status

At the SC meeting in June 2024, a Bayesian SCAA model, introduced at the 2018 benchmark, was used as the basis for the assessment of this stock with data from 1988 to 2023.

The current model shows the following results:

- The spawning stock biomass (SSB) has declined rapidly since the peak years of 2012 to 2017 but has remained stable during the last 4 years and is estimated to be above *Blim*.
- The recruitment (R) has varied since 2013 at intermediate levels but much lower than those observed in 2011-2012. In 2021, a good recruitment was observed, while in 2023 is at a very low level.
- Fishing mortality (F) has remained below *Flim* since the fishery reopened in 2010. In 2021, the minimum level of F since the re-opening was reached, increasing since then. In 2023, F is below *Flim* with high probability.

The SC proposes to have an advice for two years and that the next full assessment of the stock will be in 2026 (in 2025 there will be an interim monitoring similarly as for other stocks).

Stochastic projections of the stock dynamics from 2024 to the start of 2027 were conducted. *Fbar* is the mean of the F at ages 3-5 and is used as the indicator of overall fishing mortality; *Fsq* is the status quo F, calculated as the mean of the last three years *Fbar* (2021-2023).

The results indicate that under all scenarios with $Fbar \leq F2024$, total biomass during the projected years will increase, whereas the SSB is projected to increase in 2027 from 2024 with a probability higher than 50% under scenarios with $Fbar < 0.56 Flim$. The probability of SSB being below *Blim* is very low ($\leq 4\%$) in all the scenarios.

Under all scenarios, the probability of *Fbar* exceeding *Flim* is less than or equal to 10% in 2026.

SC advice still does not take into consideration the effects of the technical flanking measures for 3M Cod adopted in 2021.



LDAC technical considerations

The LDAC reminds that, despite the increasing trend in the last 4 years, from a TAC of 1,500t for 2021, 4,000t for 2022, 6,100t for 2023, 11 708 t for 2024, it is still far from the levels of over 17 000 t that was achieved in a single year in the previous decade but close to the 12,000 t average for the decade 2010-2019, which are at the TAC levels expected for the year 2025. 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 redfish 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 to the EU for Cod NAFO Div. 3M:

- **The SC notes that catch up to 3/4 Flim are projected to result in consecutive SSB growth in 2025 and 2026, plus a very low probability ($\leq 10\%$) of the stock going below Blim and of fishing mortality exceeding Flim. SSB in 2027 is projected to increase with a probability of more than 50% under all fishing scenarios with a fishing mortality F_{bar} (median 0.086) equal or less of 0.56 Flim. Scientific Council recommends a level of F that promotes SSB growth.**



- In line with SC recommendation, the LDAC would support the scenario 4 corresponding to $F_{bar} = 0.56F_{lim}$ resulting in $\leq 10\,913$ in 2025 and $\leq 12\,310$ in 2026 with a 50% probability of SSB in 2027 being higher than 2025.
- The Portuguese fishing sector requests the application of $F_{bar} = 3/4 F_{lim}$ (0.114). This was the same scenario chosen for last year and would result in a higher TAC of 13,949 t for 2025 and 14,558t for 2026 and therefore would be more beneficial for the economic viability of the EU fleet. The reason for this F selection is the difference between scientific estimations of biomass have been significantly lower than reality over the course of the last 4 years: for example, the SSB estimated for 2024 is 69 000t which is higher than scientific projections of previous years in the region of 40 000-45 000t. The assessment model is conservative by definition and runs retrospective simulations with data every year. The predicted reduction in SSB for 2027 is both distant and abrupt, very similarly to previous excessively conservative estimates.
- 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 2025 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 yearly since 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 requested at its 2023 advice that a scientific protocol should be set in place by the SC with a sampling plan to conduct 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.



- The LDAC is pleased to see that this sampling plan has now been developed by the SC. However, it is still concerned of the slow progress in the implementation side and the fact that no analysis has been carried out to date on the effectiveness and impact of these flanking measures. This results in the fact that the model is not considering these impacts for their assessment of the stock. The LDAC therefore strongly encourages the EU to give priority to the implementation of a sampling plan as soon as possible and no later than 2025.
- The EU trawl fleet targeting cod currently active in the area is willing to collaborate and volunteers to explore possibilities to carry out this exercise with scientists including the use of fishing units with twin trawl which might be of interest for gathering data and comparing results in a sampling plan.
- 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.
- The LDAC notes that this year SC is providing advice for this stock for the next two years and supports the SC proposal of conducting a full assessment of Atlantic cod in Division 3M every two years, since biological parameters and the stock status have remained quite stable in recent years. For this reason, this year SC is providing advice for this stock for the next two years. The LDAC also agrees with the caveat that the stock will be monitored via IMR in interim years and an assessment can be triggered by Scientific Council if changes are observed. This two-year window should be also an opportunity to integrate the evaluation of the impact and efficiency of the flanking measures on the recovery of this stock into the assessment.

2. Redfish (RED) 3M (TACs 2025 and 2026)

Summary of scientific advice:

Catches of redfish in Division 3M include three species of the genus *Sebastes*; *S. mentella*, *S. norvegicus* (= *S. marinus*) and *S. fasciatus*. For management purposes, they are considered as one stock. The assessment and advice are based on data for only two species (*S. mentella* & *S. fasciatus*), labelled as beaked redfish. The TAC advice is adjusted to reflect all three species on the Flemish Cap, based upon the relative species distribution in recent surveys.



Regarding the stock status in relation to the three main variables:

- SSB has declined since 2014, but in 2023 is still well above the long-term mean. After an extended period of declining recruitment.
- R estimates for 2020-2021 are above or at the mean, while 2022-2023 values are low.
- F remains relatively low compared to the 1980s and 1990s.

However, no reference points have been adopted to date.

Short term (2025-2027) stochastic projections were carried out for spawning stock biomass (SSB) and catch, under most recent level of natural mortality and considering seven options for fishing mortality and catch levels (F_0 , $F_{0.1}$, $F=M$, *Fstatusquo*, 1.25 TAC, TAC and 0.75 TAC). Projections assume that redfish catches (all species) in 2024 are equal to the redfish TAC.

The potential yields estimated in the projections are lower than seen in the 2023 assessment, because of the retrospective pattern in the last assessment. With the exception of the $F=0$ scenario, in all projection scenarios the SSB is projected to decline, and to be at around the average for the assessment time-series (since the late 1980s) by 2027.

LDAC technical considerations:

- The LDAC regrets the absence of reference points and the current situation of uncertainty of the projections made.
- The LDAC notes that SSB is well above the average of the period and F remains at relatively low levels when compared to the last decades of the last century and remain stable with no risk of overfishing.
- The LDAC also notes that the Redfish 3M stock is adjacent to 3LN and might have potential stock mixing or population overlaps.

LDAC Recommendations to the EU for Redfish 3M:

- **The LDAC supports the SC recommendation that total catch allowed do not exceed the F corresponding to the current TAC, i.e. 17 503 t in 2025 and 15 636 t in 2026. This is consistent with the life history of this stock, considering that current F levels are below $F_{0.1} = 0.0675$, and to try to maintain the stock around the long-term average waiting for the next recruitment boost.**
- **The LDAC notes that catch levels from EU fleet have remained stable and the TAC has been fully utilized.**
- **The LDAC supports the continuation of setting a biannual TAC for 2025 and 2026 as it has provided legal certainty and economic stability to this fishery.**



3. Redfish Div. 3LN (TACs 2025 and 2026)

Summary of scientific advice:

- There are two species of the genus *Sebastes* with distribution overlapping in several areas of Northwest Atlantic, namely on the Gulf of St. Lawrence, Laurentian Channel, off Newfoundland and south of Labrador Sea: the deep-sea redfish (*Sebastes mentella*), with a maximum abundance at depths greater than 350m, and Acadian redfish (*Sebastes fasciatus*), preferring shallower waters of less than 300m.
- This is a qualitative assessment with no reference point regarding Flim value. Regarding biomass, the stock has decreased since 2015 and B2023/Blim is estimated at 1.38.
- There is a 42% risk of the stock being below Blim in 2023. Recruitment (abundance 15-20 cm) has been below the long-term average since the mid-2010s in all surveys, with the exception of the 2023 EU-Spain survey in 3L. Relative fishing mortality has been increasing in recent years, but remains well below the time series high seen in the early 1990's.
- 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.
- This year, the stock assessment was based on a combined 3L and 3N EU-Spain, Canadian Fall Campelen and Spring Teleost mean standardized index. Looking at preliminary data from EU survey, the LDAC do not expect big changes about this stock
- The next assessment for this stock is scheduled for 2026.
- Work is ongoing to develop an MSE for this stock. 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 technical considerations:

- The LDAC regrets that this qualitative assessment model is not sufficiently robust or solid as is based on survey biomass indexes which have a lot of gaps amongst others due to Canadian changing of vessels and inability to define conversion factors to the new vessels and EU-Spain for 3L and 3N. The LDAC notes that the interval of uncertainty is considerably higher than in previous years estimations, with an “ad hoc” approach.
- The LDAC is surprised on the “no directed fishery” recommendation made by the SC on the basis of the stock assessment which is highly uncertain. The application of the precautionary approach is substantially more restrictive this year and differs from those of the previous years.
- The SC acknowledges that redfish are known to have variable and episodic recruitment, with potentially large periods of time between recruitment pulses and poorly understood relationships between stock size and recruitment. Impacts of delineations of stock boundaries and synchronicity between adjacent stocks are also unknown.
- The partially overlapping fishery of COD 2J3KL can now reopen in 2024 and 2025. If European vessels are impeded from conducting directing fisheries towards RED 3L just as they become theoretically able to catch cod in the same area, thit becomes much harder to properly utilize the reopened cod quota.

LDAC Recommendations to the EU for Redfish 3LN:

- **The SC notes on its report that the stock has decreased since 2015 and there is a 42% risk of the stock being below Blim in 2023 (where the cut-off risk limit is 10% for Blim). Recruitment has been at or below the long-term average since the mid-2010s. The SC proposes, to be consistent with the NAFO Precautionary Approach, that no directed fishery should occur in 2025 and 2026; and that bycatch should be kept at the lowest possible level.**
- **Due to the reasons expressed above, the LDAC considers the stock assessment flawed due to the high uncertainty and asks that a “statu quo” approach is established with a TAC consistent with that of previous years or slightly smaller until a MSE is developed for this stock. The SC recommendation of “no direct fishery” is deemed as disproportionate to the risk as the current assessment is very uncertain and this is a drastic measure with serious socio-economic consequences for those EU fleets targeting this species as a result of a “zero TAC”.**



- **The LDAC would like the EC to keep the fishery open and propose maintaining catch limits within current levels as in previous years, 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 Div. 30, Thorny skate or White hake.**
- **The LDAC notes that there is limited knowledge of the state of the stock and uncertainties associated to the change of model but a no directed fishery is considered as a wrong application of precautionary approach, putting a disproportionate burden on those affected fleets. In this regard, the LDAC notes that catch levels from EU fleet have remained stable in the last 5 years in the region of 11 000 t and the quota for the EU has been fully utilized in the last years.**
- **Due to the special circumstances of this stock, the LDAC advocates to set a one-year advice and TAC for 2025 only, instead of a two year one, and reassess the stock in 2025 with a full assessment to improve data available and science.**
- **The LDAC considers it very important the ongoing work to develop an MSE for this stock and considers that no drastic decisions should be taken until this work is completed.**
- **The LDAC cannot avoid noticing this advice for no directed fisheries appears just as another fishery will likely reopen in an overlapping area: COD 2J3KL.**

4. Redfish Div. 30 (TACs 2023, 2024 and 2025)

Summary of scientific advice

This stock was assessed in 2022 and the recommendation of the SC after the review for the TAC in 2025 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 in 2022 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 advice 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 2025”.**

5. Witch Flounder (*Glyptocephalus cynoglossus*) Div. 3NO (TACs 2025 and 2026):

Summary of scientific advice

- On population distribution, the stock mainly occurs in Division 3O along the southwestern slopes of the Grand Bank. In most years the distribution is concentrated toward the slopes but in certain years a higher percentage may be distributed in shallower water.
- On stock status, the stock has increased slightly since 2015 and is estimated at 44% *Bmsy*. At the beginning of 2024, there is an 11% risk of the stock being below *Blim* and less than 1% risk of *F* being above *Flim*. Recent recruitment is about average.



- On reference points, B_{lim} is 30% B_{msy} and F_{lim} is F_{msy} (STACFIS 2004 p 133).
- On projections made, the probability of F being above F_{lim} ranged from <1% to 51% for the catch scenarios tested. The population is projected to grow under all scenarios and the probability that the biomass in 2027 is greater than the biomass in 2024 is greater than 61% in all scenarios. The population is projected to remain below B_{msy} through to the beginning of 2027 for all levels of F examined with a probability of 91% or greater. The probability of projected biomass being below B_{lim} by 2027 was 5% to 10% in all catch scenarios examined and was 5% by 2027 in the $F=0$ scenario.
- On the assessment model selected, a Schaefer surplus production model in a Bayesian framework was used for the assessment of this stock. The results were comparable to the previous assessment. Input data comes from research surveys and the fishery.

LDAC technical considerations

The LDAC notes that, despite the uncertainty, the stock trends are overall positive:

- The biomass is increasing on a regular basis since 1994 (except 2013-2015).
- The fishing mortality remains at low risk of being above F_{lim} in 2025.
- It is estimated that the population is projected to grow under all scenarios and the probability that the biomass in 2027 is greater than the biomass in 2024 is greater than 61% in all scenarios.

LDAC Recommendation to the EU for Witch Flounder 3NO

- **The LDAC supports the advice of the EC as indicated below: The Scientific Council recommends that F should be scenario 4, i.e. F no higher than 75% F_{msy} (0.0458) corresponding to a catch equal or lower to 1 395 t in 2025 and 1 461 t in 2026.**
- **The LDAC emphasizes that with this scenario in the projection period the probability of being below B_{lim} is very low ($\leq 10\%$).**
- **The LDAC looks forward to the next full assessment of this stock will be in 2026.**



6. Thorny Skate (*Rajias*) in Division 3LNOPs (TACs 2025 and 2026)

Summary of scientific advice

- The management unit is confined to NAFO Divisions 3LNO, which is a portion of the stock that is distributed in NAFO Divisions 3LNO and Subdivision 3Ps.
- No new survey information is available to determine stock status. However, due to the longevity of the species and the low level of catch in recent years, it is unlikely that there have been major changes to the state of the stock. Recruitment is currently unknown. Fishing mortality is currently unknown but thought to be low. The life history characteristics of thorny skate result in low rates of population growth and are thought to lead to low resilience to fishing mortality.
- There are no accepted reference points for this stock. The previously used Blim is no longer applicable. The stock assessment is based upon a qualitative evaluation of stock biomass trends and recruitment indices. It is considered data limited and as such associated with a relatively high uncertainty. Input data are research survey indices and fishery data. Due to the lack of conversion factors in Canadian surveys, and incomplete or missing surveys, survey data after 2019 were not considered in evaluation of stock status.
- The next full assessment of this stock will be in 2026.

LDAC technical considerations

- The LDAC notes that SSB was 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 2022-2024 for Thorny Skate in 3LNO Division has been 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%.

- Regarding the internal allocation within the EU, Spain has a quota of 3 403 t (77% of the total), with a declared consumption of quota close to 90%. Portugal has assigned 660 t (15%), and Estonia 345 t (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 1 050 t. 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 have a “roll over” decision on the TAC for this stock 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 2025"*.

LDAC Recommendations to the EU for Thorny skate 3LNO

- **The SC acknowledges that the Thorny skate stock has had a stable low level of overall catch levels (3 460 t in average for the period 2019-2023). The SC also predicts that it is unlikely that there have been major changes to the state of the stock. 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” for 2025 and 2026 which are stable in the region of 3 500 t in average.**
- **However, the LDAC has diverging 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 3 500 t for 2025 based on the average catch levels from 2019 to 2023.**
 - *The fishing sector of the LDAC agrees with the catch limitation advice but not with the link between catch and TAC for this stock. They remind that the SC does not propose a TAC but “no increase in catches”. This has been the case since 2013 with a TAC fixed at 7 000 t for division 3LNO, considering that the catch levels are stable around 3 500 t and that the EU is the only CPCs having a directed fishing in the zone. Other CPCs (Russia and Canada) are not participating in this fishery and therefore do not have 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 2025 as follows: "Should catches exceed 5,000 t, additional measures would be adopted to further restrain catches in 2025".*



- *The NGO group argue that the TAC should be aligned with the real catches with a maximum of 5 000 t as upper limit.*
- **The LDAC encourage SCS to collect additional data to improve quality and reliability of the stock assessment in future.**

7. Cod in Divs. 3NO

Summary of scientific advice

This is one of the stocks for which there is no new assessment. Based on a review of available data, the SC proposed a TAC for Cod Divs. 3NO based on an Interim Monitoring Report (IMR) without carrying out a full assessment. It has confirmed its recommendation made for 2024 of “no directed fishery” (ndf) until the IMR shows that the state of this stock has changed.

LDAC technical considerations

The LDAC acknowledges the very low level of recruitments and poor state of the stock in terms of biomass and looks forward the next stock assessment to ascertain any potential rebuilding measures for this stock.

LDAC Recommendations to the EU for Cod in Divs. 3NO

- **The LDAC supports waiting for the new stock assessment scheduled for 2025 prior to making any recommendation to this stock.**

8. 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 scientific 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.

LDAC technical considerations

- Management regime change

The LDAC emphasizes the continuity of its points raised in previous years, 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 2023 NAFO meeting revealed limited, if any, headway in the pursuit of a consensus on a new management framework. Notably, some CPCs 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.

Considering this, 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 to the EU 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, ensuring that stock assessment is handed over in time for decision at the NAFO Annual Meeting.**
- **On scientific assessment models, the LDAC recognizes the need for the SC to prioritize its work but would still like to ask the SC to restart the work to explore an SS3 model 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 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 regime, the LDAC urges the EC to consider how to meet the challenge of underutilization of the fishery by other contracting parties. 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.**



9. Northern Cod 2J3KL

Background

As per doc. NAFO/24-168, with date 9 July, NAFO Secretary informed to CPs on the intention of Canada to re-establish a commercial fishery for Northern cod in NAFO Divisions 2J3KL for the 2024 seasons, effectively ending the 32 year moratorium. This means de facto a reopening of the fishery in international waters subject to NAFO RA. This stock was de facto open for Canadian vessels within the Canadian EZZ since at least 1998, under “stewardship” quotas, individual licences, or other schemes¹.

According to Article 7, paragraph 1 of the NAFO Conservation and Enforcement Measures, a Canadian Total Allowable Catch (TAC) shall be considered 95% of the overall TAC for this stock. The Canadian TAC has been set at 18,000 tonnes which represents the 95pc of the overall TAC of 18,947 tonnes. The remaining 5% is allocated as follows: 65.4% (619 tonnes) to the EU (excluding Bulgaria, Estonia, Latvia, Lithuania, Poland, and Romania) and 34.6% (328 tonnes) to other Contracting Parties (including Bulgaria, Estonia, Latvia, Lithuania, Poland, and Romania), as per NAFO CEM Arts 7.1, 7.2 and 7.4.

LDAC technical considerations

- The LDAC notes that Article 7 CEM has never been implemented in practice and it is critical to ensure that future directed fishing activities for this stock by CPs in the NAFO Regulatory Area are also conducted within a framework of strong management measures and level playing field that ensure both the long-term conservation of this important resource and the respect for historical fishing rights in the area.
- The LDAC would like to once again draw the EC's attention to the fact that, for several years, Canada not only ignored the moratorium imposed on Northern cod but also significantly increased catches year after year. For example, the TAC increased by 25% from 9,500 tons in 2018 to 12,350 tons during the 2019-2021 period. In 2022 and 2023, Canada further increased their 'experimental' TAC to nearly 13,000 tons. This may have influenced the slower recovery of the stock, thereby delaying the reopening of the fishery.
- Now that COD 2J 3KL has been formally reopened as a commercial fishery by the Canadian government, the remaining NAFO parties are entitled to 5%, of which the greatest share is attributed to the EU, including the quotas of member-states that were at the time yet outside the Union. However, Canada has been stalling the formal reopening of the fishery in NAFO, causing a very real risk that other parties' ships will not be able to take advantage of their quotas, for simple lack of time.

¹ MSC Pre-assessment Report for The Canadian Cod Stewardship Fishery in NAFO Divisions 2J3KL



LDAC recommendations to the EU on Northern Cod 2J3KL

- **The LDAC is in favour of reopening the fishery with immediate effect.**
- **The LDAC agrees with the EU that, as indicated in the CEM, this fishery should be reopened with all the core modalities clear such as the level of fishing opportunities allocation and share of the EU. What remains is how the allocation key of the 5% is going to be distributed among other NAFO CPCs.**
- **In this respect, the LDAC is in favour for the EU to engage in discussions both multilaterally with all interested CPs to dedicate part of the 34.6% share to be transferred to the EU to include those EU countries that were formally non-EU members on the year of reference provided (1996) and hence are not included in principles under the original 65.4% attributed to the EU, namely: Poland, Estonia, Lithuania, Latvia, Romania and Bulgaria. In any case, these countries should be part of the EU share based on their historical fishing rights.**
- **The LDAC notes that this fishery is also very important for cod trawl fleets from Portugal, Germany and Spain; and that the overall TAC for this area is currently bigger than that of 3M Cod. The reopening of the fishery in late 2024 could be also useful to start with catch trials in the area after a long time of moratoria.**
- **The LDAC also recommends that Canada should be made aware that, regardless of the technical nomenclature and arguments provided, including the notion of a 'stewardship fishery,' the reality is that they were setting a unilateral TAC and conducting a targeted fishery in this area during the moratorium. In this regard, the EU should not exclude the option of asking Canada to provide compensation to all CPs that refrained from this fishery during the moratorium.**



10. Greenland Halibut (GHL) in SA2 + 3KLMNO

N.B. This point includes the feedback to special requests for advice on setting of TAC using the most recently HCR and determine whether exceptional circumstances are occurring; and continuing to advance with work on the MSE processes as per approved 2024 workplan.

Summary of scientific advice

- 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.
- Exceptional circumstances are occurring due to recent gaps in EU-Spain 3L survey time series. However, sensitivity analysis indicate that the application of the HCR will still be appropriate. Therefore, the SC advice for 2025 based on the TAC derived from the HCR is 14 791t.
- Last, the Scientific Council did not respond to the request for a new MSE to be adopted in September 2024.

LDAC technical 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 below 15 000 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 14 791 t constitutes once again the lowest quantity in the history of management of this stock, as it has been the case of the previous years.
- 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 GHJ 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.

LDAC Recommendations for Greenland Halibut 2+3KLMNO

- **Despite the caveats expressed above regarding the automatic 5% in-year reduction of TAC, the LDAC supports the advice of the SC in application of the Harvest Control Rule advice a TAC for 2025 based on the approved HCR, resulting in 14 791 t.**
- **The Portuguese fleet considers that the European vessels cannot continue to pay the cost of Canada failing to perform their surveys, and that the TAC should, at worse, be rolled over from 2024.**
- **The LDAC is concerned on the continuation of data gaps 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 again in 2024 (for fourth consecutive year) due to the lack of data because of the absence of the Canadian spring surveys combined with EU-Spain in 3L resulting in gaps in the time series. Luckily, following a sensitivity analyses, the SC concluded on 2023 that the application of the HCR will still be appropriate. We hope that this criterion remains for 2024 and a TAC can be derived from the HCR at the level recommended.**



11. Northern Shortfin Squid in Subareas 3+4

Summary of scientific advice

The assessment for this stock has been deferred again until the Annual Meeting in September 2024. 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 tonnes/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 the following years.

LDAC technical 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 (currently slightly above 100 tonnes).

However, there are Spanish vessels represented in the LDAC which have become more active in the area targeting squid during the last years and are interested to keep this fishery open.

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 3LNO – Recommendation for 2025 and beyond

Summary of scientific advice

- Advice for American plaice in Divisions 3LNO is provided based on an Interim Monitoring Report which indicates no major changes in this stock. There will be no full assessment until interim monitoring shows that conditions have changed.
- During the 2023 Annual meeting, the Commission requested that in June 2024, advice should be provided for 2025-2027 for 3LNO American plaice. Following a discussion during the January 2024 meeting about lack of data and workload issues, SC concluded that the Commission request for advice for the 3LNO American plaice would be responded via an Interim Monitoring Report, unless changes in the state of the stock arise. The most recent Canadian surveys cannot be directly compared to previous series due to a lack of conversion factors to new survey vessels for this stock. However, given the overall scale of recent Canadian indices, and with the continued low levels of American plaice reported in the EU-Spain surveys, there is nothing to indicate a change in the status of the stock.
- Scientific Council recommends that, in accordance with the rebuilding plan, there should be no directed fishing on American plaice in Divisions 3LNO until an assessment indicates a very low probability of being below Blim. Bycatches of American plaice should be kept to the lowest possible level and restricted to unavoidable bycatch in fisheries directing for other species.

LDAC technical considerations

- The level of catch for this stock is very low and F is below Flim.
- The LDAC finds the situation of this stock as a vicious circle or “dormant stock”, as fishery will not reopen until a full assessment takes place while NAFO has agreed to monitor this stock but not to conduct a full assessment until IMR proves that there are changes in this situation.

LDAC Recommendations for American plaice 3LNO

- **The LDAC agrees on the maintenance of a “status quo” for the closure for this stock only if a full assessment is conducted to take appropriate management measures. We reiterate that the mandate of RFMOs is to achieve knowledge of its fisheries so as to conduct appropriate management thereof and, where there are knowledge gaps, to address them.**



13. White hake Div. 3NOPS

Summary of scientific advice

- The management unit for which advice is sought is Div. 3NO, which is part of a stock distributed in Div. 3NOPS.
- No new full assessment has been conducted for this stock in 2024 as its data is 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. No information is available on recruitment and relative fishing mortality since this year.
- IMR concluded that there was no significant change of the stock. Therefore, until new data are available to allow a full assessment, this stock will be monitored year to year by the SC.
- The status of the stock is unknown. There is increased uncertainty in current stock trends given recent survey challenges and the lack of complete conversion factors for the Canadian surveys.
- In view of the above, the SC proposed that white hake catches in 3NO should not increase above recent levels (the average of the last five years is around 400 tons).

LDAC technical considerations:

- The LDAC notes the lack of data for this stock but highlights that the fishing vessels, when they encounter a catch of white hake, apply the "move on" rule. This creates problems of fishing effort displacement with a sudden influx of those non-targeted species.
- 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. 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.



LDAC Recommendations for White hake 3NOPs

- **The LDAC is in conformity with the SC advice of keeping catches of white hake not above recent levels (the average of most recent five years being around 400t) and looks forward to a full assessment of this stock in 2025, as indicated by the SC.**
- **The 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 and an analysis of these data takes place.**

SECTION II. ECOSYSTEM CONSIDERATIONS

Feedback to some of the special Requests for Management Advice:

- 1. Ecosystem approach (COM request 4) Provide catch information in relation to 2TCI, including recent cumulative catch levels and a scoping of expected cumulative catch levels**

Summary of scientific advice

- The SC developed in 2023 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 EPU 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.
- The LDAC notes that work is currently being carried out on tiers 1 and 2 of the Ecosystem Roadmap and that the next scheduled update of the Ecosystem Summary Sheets (ESSs) will be in 2027. The LDAC also notes the vacancies in Designated Experts for the ESSs coupled with ongoing challenges in the Scientific Council's workload.
- 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 several 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 technical considerations:

- The WG-EAFMM Workshop held from 8-10 August 2022 in Halifax confirmed its 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 involvement 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.

LDAC recommendation on work on catch information in relation to 2TCI

- **The LDAC wishes to request to the EU to reinforce the scientific capacity in this area and sponsor at least 1 European fisheries scientist to carry out the important work of estimation of the 2TCI and the future update of the EESs.**



The EU fleet fishing in NAFO represented in the LDAC:

- ***Supports the expansion of scientific capacity but not at the expense of fisheries assessment and management. If new scientific approaches are to be examined in the SC annual workplan, it cannot be at the expense of existing needs. Prioritisation should be towards needed fisheries assessments that are not fulfilled due to lack of resources and not to new ventures.***
- ***Cannot avoid noticing that the same Scientific Council that repeatedly lacks resources to provide advice on the core functions of NAFO by evaluating stocks also has resources to create completely new and very ambitious models and evaluations of entire ecosystems.***
- ***Notes that NAFO does not have competence over all or even most matters that influence the ecosystems within its geographic area and should not be expected to assume ecosystem goals and responsibilities with the single tool it does have, i.e. managing fisheries.***
- ***Further notes that entities that have both the competence and the responsibility to assume ecosystem goals and responsibilities in their areas of sovereignty, like the coastal states that are parties of NAFO, are not developing such tools.***

2. Work towards the reassessment of VMEs and impact of bottom fisheries on VMEs for 2026 (special request #5c)

LDAC technical considerations:

- The LDAC supports the WG-EAFFM recommendation that the Commission request the SC to provide management options as part of the reassessment of bottom fishing to be discussed in 2025.
- The LDAC reiterates that impacts from bottom trawl research surveys 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 a key role in monitoring conservation objectives of protected areas.
- The SC recommended that every effort to be made to minimize sampling impacts and maximize data collection on catches made in vulnerable areas.



LDAC recommendation on impact of bottom fishing in VMEs:

- **The LDAC concurs with the WG-EAFFM recommendation for the SC to provide management options as part of the reassessment of bottom fishing to be discussed in 2025. The LDAC reiterates 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.**
- 3. Monitor and provide update on relevant research related to the potential impacts of activities other than fishing in the Convention Area, subject to the capacity of the Scientific Council.**

LDAC technical considerations:

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.

LDAC Recommendations on impact of activities other than fishing in NAFO CA

- **The LDAC recommends that the protection of VMEs should expand to all human extractive 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.**
- **The LDAC recommends that the work carried out by IEO-CSIC in previous years developing charts with all available information on existing human activities and pressures in NAFO CA. It was presented and discussed at WGEAFFM. The LDAC requests both Spain and the EU that continue supporting this work in future and caters adequate funding to gain a better understanding of both the overall (cumulative) effects and the individual (relative) impacts that these human extractive activities have on the seafloor and the ecosystem in general.**



4. Impact of seal predation on fish stocks

Summary of scientific advice and LDAC technical considerations:

- The creation of the Atlantic Seal Science Task Team (ASSTT) was announced on March 2020 to gather input on the Department of Fisheries and Ocean's (DFO) science activities and programs related to seals and their role in the Northwest Atlantic ecosystem. The ASSTT is a direct response to the concerns raised by commercial fish harvesters in Eastern Canada about the impact seal predation is having on fish stocks. The ASSTT considers the food, feeding and migration data for the harp and grey seal populations in Atlantic Canada to be woefully inadequate to accurately determine the role seals play in the Northwest Atlantic Ecosystem and the impacts on other ecosystem components.
- The grey seal population has increased from around 15,000 in the 1960's to 424,300 animals in 2016. This is the largest population of grey seals in the world and has been expanding its geographic range throughout Eastern Canada.
- The harp seal population has increased from approximately 2 million animals in the 1970's to 5.5 million in 2001 to an estimated 7.6 million in 2019. This is the largest harp seal population in the world and is the largest Northwest Atlantic harp seal population in recorded history. Total prey consumption by harp seals in 2014 was estimated to be approximately 3.2 million metric tonnes (95% CI 2.1 mt – 4.9 mt)⁵. The same year, all commercial landings in Newfoundland and Labrador totaled around 256,000 tons.

LDAC recommendations on impact of seal predation on fish stocks

- **The LDAC wishes the EU to flag at the next Annual Meeting the issue of seal science and management of the seal population.**
- **The LDAC supports the 9 recommendations described in the ASST report published on April 2022² (appended to this advice) in order to mitigate the impact of growing populations.**
- **The LDAC deems this topic as highly relevant from the perspective of marine ecosystems, commercial fishing, and food security.**
- **The LDAC advice the EU to request NAFO SC to carry out a report or assessment of the current situation on seal predation based on the findings of the above-mentioned report.**

² <https://www.dfo-mpo.gc.ca/science/documents/mammals-mammiferes/atlantic-seal-phoque-atlantique/appendix5-annex5/ASSTT-Final-report-English.pdf>



SECTION III. MONITORING, CONTROL AND SURVEILLANCE CONSIDERATIONS

1. Proposal for derogation of 100% observer coverage rule in NAFO

The LDAC notes that this topic will be included in the agenda of STACTIC for discussion at the next Annual Meeting. The LDAC is in favour of making progress on the development of minimum standards for electronic monitoring systems (EMS) that might lead to the eventual adoption and gradual implementation of a remote electronic monitoring (REM) as alternative for physical observers. In any case, this REM should be implemented on a stepwise approach and on a voluntary basis, allowing adaptation periods for fleets and correct technical specifications for interoperability for data exchange of different CPCs MCS systems.

2. Review of by-catch rules of American Plaice in the Yellowtail Flounder for 2024

This proposal refers particularly for the review of the interim measure adopted at the last Annual Meeting in relation to by-catch of American Plaice in the fishery of Yellowtail Flounder.

The LDAC expects to know more about the implementation of the control rules and the data analysis provided by NAFO Secretary. The LDAC notes that the EU should make questions 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 whether if to extend this measure specifically for this fishery only or rather adopt a broader and more flexible approach on by-catch for all relevant stocks.

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

The LDAC encourages the EU to move forward and engage with other CPCs for adoption of control measures aimed to prohibit entry into port for vessels to deter the landing of this species that currently have a zero catch (pending of revision of advice, as if it changes this provision might be lifted). 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):

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 at the coordination meeting between the EU and the stakeholders held mid-week, 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/REM is introduced, the LDAC would like to see the implementation of a transition period to implement these changes on a voluntary and stepwise approach.**
 - **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/REM 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-REM 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 extending its support to 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 also included.**
- **The NGO group does not wish to see a further 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).**

- **Prohibition to land catches of Irminger Sea redfish in NAFO ports:**

The LDAC is in favour of this proposal, which is already implemented at NEAFC and in national ports of NAFO CPCs. This proposal must be combined with monitoring of transshipments at sea as it is currently the case for the Russian vessels in the last years.

-END-