



Northwest Atlantic Fisheries Organization

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In all correspondence,
please refer to:

NAFO/23-164

14 July 2023

TO: All Contracting Parties;
Scientific Council Chairs;
Scientific Council Representatives; and
Designated Experts for Stock Assessments

Dear Colleagues;

Subject: Scientific Council and STACFIS Shrimp Assessment Provisional Agendas,
13–15 September 2023

We wish to confirm that the *NAFO Scientific Council and STACFIS Shrimp Assessment Meeting* will be held 13–15 September 2023 at the Hotel Ciudad de Vigo in Vigo, Spain. For those delegates that are unable to attend the meeting in-person, Webex capabilities will be provided.

Pursuant to Rule 4.1 of the *NAFO Rules of Procedure: Scientific Council*, the Provisional Agenda for the NAFO Scientific Council and STACFIS Shrimp Assessment Meeting is hereby dispatched to Contracting Parties.

All relevant meeting documentation will be accessible on the NAFO Meetings SharePoint at <https://meetings.nafo.int/sc/2023/shrimp> as it becomes available.

Yours sincerely,

Brynhildur Benediktsdóttir
Executive Secretary

BB:ll

cc: Karen Dwyer (Scientific Council Chair) and Mark Simpson (STACFIS Chair)

NAFO SCIENTIFIC COUNCIL AND STACFIS SHRIMP ASSESSMENT MEETING

Hotel Ciudad de Vigo
Vigo, Spain

13–15 September 2023

PROVISIONAL AGENDA

1. Provisional Agenda

The Scientific Council Shrimp Assessment Meeting Provisional Agenda (Appendix I), the STACFIS Agenda (Appendix II), Recommendations pertaining to NAFO stocks (Appendix III), and Designated Experts for NAFO stocks (Appendix IV), are also attached.

2. Venue of the Meeting

The NAFO Scientific Council and STACFIS Shrimp Assessment Meeting will take place, 13–15 September 2023, at:

[Hotel Ciudad de Vigo](#)
R. de Concepción Arenal, 5, 36201 Vigo
Pontevedra, Spain
Tel: +34 986 227 820
Email: reservas@ciudaddevigo.com

For those delegates who will be participating virtually, a Webex invitation will be circulated closer to the meeting date.

The registration will start at 0900 hrs on 13 September 2023 followed by the Opening Session at 0930 hrs. The Executive Committee, including Designated Experts, will meet at 0900 hrs.

3. Scientific Papers

Scientists submitting Research Documents (SCR Docs) and Summary Documents (SCS Docs) for consideration at the meeting are requested to submit their papers to the Secretariat Inbox on the [NAFO SharePoint site](#) prior to the meeting. The Scientific Council prescribed [guidelines](#) for the preparation of scientific papers (and assessment papers) are provided on the NAFO website. Please note that Scientific Council recommends that SCR Docs shall have an abstract of approximately 250 words.

4. Data Requirements

Designated Experts are here reminded of the 2010 NIPAG **recommendation** that, for shrimp in Div. 3M and Div. 3LNO, *biological and CPUE data from all fleets fishing for shrimp in the area should be provided, by 01 September.*

5. Representatives, Alternates, Experts and Advisers

In accordance with Rule 1 of the *NAFO Rules of Procedure: Scientific Council*, each Contracting Party shall notify the Executive Secretary of the names of its representatives, alternates, experts and advisers who will attend the Scientific Council Meeting, before commencement of the meeting. Please also indicate whether attendance will be in-person or virtually.

NAFO SCIENTIFIC COUNCIL AND STACFIS SHRIMP ASSESSMENT MEETING

Hotel Ciudad de Vigo
Vigo, Spain

13-15 September 2023

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APPENDIX I. PROVISIONAL AGENDA – SCIENTIFIC COUNCIL SHRIMP ASSESSEMENT MEETING

Hotel Ciudad de Vigo, Vigo, Spain
13-15 September 2023

- I. Opening (Chair: Mark Simpson)
 1. Appointment of Rapporteur
 2. Adoption of Agenda
 3. Attendance of Observers
 4. Plan of Work
- II. Review of Recommendations in 2022
- III. Fisheries Science (STACFIS Chair: Mark Simpson)
- IV. Formulation of Advice (see Annexes 1–3)
 1. Request for Advice on TACs and Other Management Measures (Item 1, Annex I)
 - a) Northern shrimp in Div. 3M
 - b) Northern Shrimp in Div. 3LNO
 2. Requests from Coastal States (Items 5 and 6 of Annex II, item 2 of Annex III)
 - a) Northern shrimp off West Greenland (Subareas 0 and 1)
 - b) Northern shrimp in Denmark Strait and off East Greenland (ICES Div. XIVb and Va)
- V. Other Matters
 1. Scheduling of Future Meetings
 2. Topics for Future Special Sessions
 3. Other Business
- VI. Adoption of Scientific Council and STACFIS Reports
- VII. Adjournment

ANNEX 1. COMMISSION'S REQUEST FOR SCIENTIFIC ADVICE ON MANAGEMENT IN 2024 AND BEYOND OF CERTAIN STOCKS IN SUBAREAS 2, 3 AND 4 AND OTHER MATTERS

(From [SC Doc. 23/01](#))

Following a request from the Scientific Council, the Commission agreed that items 1, 2, 4 and 7 should be the priority for the June 2023 Scientific Council meeting subject to resources and COVID-related restrictions.

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

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

Advice should be provided using the guidance provided in **Annexes A or B as appropriate**, or using the predetermined Harvest Control Rules in the cases where they exist (currently Greenland halibut 2+3KLMNO). However, for 3M shrimp supplementary advice in terms of fishing-days should also be considered to the extent feasible.

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

- In 2023, advice should be provided for 2024 for Cod in Div. 3M and Northern shrimp in Div. 3M.
- With respect to Northern shrimp in Div. 3M, Scientific Council is requested to provide its advice to the Commission prior to the 2023 Annual Meeting based on the survey data up to and including 2023.
- In 2023, advice should be provided for 2024 and 2025 for: Redfish in Div. 3M, White hake in Div. 3NO, Yellowtail flounder in Div. 3LNO and Northern shrimp in Div. 3LNO.
- In 2023, advice should be provided for 2024, 2025 and 2026 for: American plaice in Div. 3M.

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

2. The Commission requests the Scientific Council to monitor the status of Greenland halibut in Subarea 2 + Div 3KLMNO annually to compute the TAC using the agreed HCR and determine whether exceptional circumstances are occurring. If exceptional circumstances are occurring, the exceptional circumstances protocol will provide guidance on what steps should be taken.
3. The Commission requests that Scientific Council continue its evaluation of the impact of scientific trawl surveys on VME in closed areas and the effect of excluding surveys from these areas on stock assessments.
4. The Commission requests that Scientific Council continue to advance work on the 2+3KLMNO Greenland halibut and 3LN redfish MSE processes during 2022-2023, as per the approved 2023 workplan [COM-SC RBMS WP 22/07], in particular :
 - a. Review and finalize the data series to be used for the two MSEs;
 - b. For the Greenland Halibut MSE: (1) propose, review and finalize Operating Models (OMs) to be used; and (2) Test Candidate Management Procedures (CMPs) to support the RBMS recommendation of an HCR to the Commission; and
 - c. For the 3LN Redfish MSE: (1) Proposal of an initial review of Operating Models; and (2) work to support the development of performance statistics and CMPs.
5. The Commission requests that the Scientific Council continue to work on tiers 1 and 2 of the Roadmap, specifically to:
 - a. Include on a regular basis summary information on TCI in stock summary sheets (including indications of other NAFO managed stocks within the corresponding guild) and ecosystem summary sheets.
 - b. Work to support WG-EAFFM in exploring:
 - i. Management considerations for occasions in which the 2TCI ecosystem reference point were to be exceeded, similar to those when exceptional circumstances are triggered within MSE.
 - ii. Effective methods to communicate TCI-related information to the Commission, in particular for when 2TCI is, or expected to be exceeded.
 - c. Complete the development of the 3LNO ecosystem summary sheet (ESS), advance as much as possible the development of the 3M ESS, and continue working, if capacity allows, toward undertaking a joint Workshop with ICES (International Council for the Exploration of the Sea) on reporting on North Atlantic ecosystems.
6. In relation to the habitat impact assessment component of the Roadmap (VME and SAI analyses), the Commission requests that Scientific Council to:

- a. Complete the re-assessment of its previously recommended closures of 7a, 11a, 14a and 14b, incorporating catch and effort data for fisheries of shrimp from 2020 and 2021 into the fishing impact assessments. This work is needed for the 2023 WG-EAFFM meeting;
 - b. Support the Secretariat in creating standardized data layers (using GIS), and products with supporting documentation (including metadata) for periodic reassessment purposes required to support the implementation of the NAFO Roadmap towards an Ecosystem Approach; and
 - c. Continue working with WG-EAFFM towards developing operational objectives for the protection of VMEs and biodiversity in the NRA.
7. The Commission requests Scientific Council to continue progression on the review of the NAFO PA Framework in accordance to the PAF review work plan approved in 2020 and revised in 2022 (NAFO COM-SC Doc. 20-04), specifically:
 - a. Develop a small set of revised PA frameworks based on the conclusions of the first PA Framework workshop to inform RBMS in proposing a draft revised framework in 2023; and
 - b. Apply in an illustrative way the revised PA frameworks to selected NAFO stocks, and consider how the SC advice may have differed under the revised PA Frameworks to inform RBMS in proposing a draft revised framework in 2023
 8. The Commission requests Scientific Council to update the 3-5 year work plan, which reflects requests arising from the 2022 Annual Meeting, other multi-year stock assessments and other scientific inquiries already planned for the near future. The work plan should identify what resources are necessary to successfully address these issues, gaps in current resources to meet those needs and proposed prioritization by the Scientific Council of upcoming work based on those gaps.
 9. The Commission requests that any new results from stock assessments and the scientific advice of Pelagic *Sebastes mentella* (ICES Divisions V, XII and XIV; NAFO 1) to be presented to the Scientific Council, and request the Scientific Council to prepare a summary of these assessments to be included in its annual report.
 10. The Commission requests that any new Canadian stock assessments for Cod 2J3KL and Witch flounder 2J3KL be included as an annex to the Scientific Council's annual report.
 11. The Commission requests Scientific Council, jointly with the Secretariat, to conduct ongoing analysis of the Flemish Cap cod fishery data by 2023 in order to:
 - a. monitor the consequences of the management decisions (including the analysis of the redistribution of the fishing effort along the year and its potential effects on ecosystems, the variation of the cod catch composition in lengths/ages, and the bycatch levels of other fish species, benthos in general, and VME taxa in particular); and
 - b. carry out any additional monitoring that would be required, including Div. 3M cod caught as bycatch in other fisheries during the closed period.

12. The Commission requests Secretariat and the Scientific Council with other international organizations, such as the FAO and ICES to inform the Scientific Council's work related to the potential impact of activities other than fishing in the Convention Area. This would be conditional on CPs providing appropriate additional expertise to Scientific Council.

ANNEX B. Guidance for providing advice on Stocks Assessed without a Population Model

For those resources for which only general biological and/or catch data are available, few standard criteria exist on which to base advice. The stock status should be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with the precautionary approach.

The following graphs should be presented, for one or several surveys, for the longest time-period possible:

- a. time trends of survey abundance estimates
- b. an age or size range chosen to represent the spawning population
- c. an age or size-range chosen to represent the exploited population
- d. recruitment proxy or index for an age or size-range chosen to represent the recruiting population.
- e. fishing mortality proxy, such as the ratio of reported commercial catches to a measure of the exploited population.
- f. Stock trajectory against reference points

And any information the Scientific Council deems appropriate.

**ANNEX 2. DENMARK (ON BEHALF OF GREENLAND) COASTAL STATE REQUEST FOR
SCIENTIFIC ADVICE - 2024**

(from [SCS Doc. 23/03](#))

Denmark (on behalf of Greenland) hereby requests for scientific advice on management in 2024 of certain stocks in NAFO Subareas 0 and 1. Denmark (on behalf of Greenland) requests the Scientific Council for advice on the following species:

1. Golden Redfish and Demersal Deep-Sea Redfish

Advice on Golden redfish (*Sebastes marinus*) and demersal deep-sea redfish (*Sebastes mentella*) in Subarea 1 was in June 2020 given for 2021-2023. The Scientific Council is requested to provide advice on appropriate TAC levels for 2024 to 2026.

2. Atlantic Wolffish and Spotted Wolffish

Advice on Atlantic Wolffish (*Anarhichas lupus*) and Spotted Wolffish (*Anarhichas minor*) in Subarea 1 was in June 2020 given for 2021-2023. The Scientific Council is requested to provide advice on appropriate TAC levels for 2024 to 2026.

3. Greenland Halibut, Offshore

Advice on Greenland Halibut, Offshore in Subareas 0 and 1 was in 2022 given for 2023 and 2024. The Scientific Council is requested to evaluate whether the data collected in 2022 is sufficient to reconsider the harvest recommendation for 2024. If so, the Scientific Council is requested to provide updated advice on appropriate TAC levels for 2024, taking the new data into account.

4. Greenland Halibut, Inshore, West Greenland

Advice on the inshore stocks of Greenland Halibut in Subarea 1 was in 2022 given for 2023-2024. The Scientific Council is requested to continue its monitoring of the above stocks and provide updated advice in the event of significant changes in stock levels. Scientific Council are also requested to evaluate the performance of an appropriate analytical assessment model and its perception of the stock trajectory.

5. Northern Shrimp, West Greenland

The Scientific Council is requested, before October, to provide advice on the scientific basis for management of Northern Shrimp (*Pandalus borealis*) in Subareas 0 and 1 in 2024. The advice is requested to be in line with Greenland's stated management objective of maintaining a mortality risk of no more than 35% in the first-year prediction and to provide a catch option table ranging with 5,000 tonne increments. Future catch options should be provided for as many years as data allows for.

6. Northern Shrimp, East Greenland

The Scientific Council is in cooperation with ICES requested to provide advice on the scientific basis for management of Northern Shrimp (*Pandalus borealis*) in Denmark Strait and adjacent waters east of southern Greenland in 2023 and for as many years ahead as data allows for.

ANNEX 3. CANADA'S REQUEST FOR COASTAL STATE ADVICE - 2024

(from [SCS Doc. 23/04](#))

Canada would like to submit its request to the Scientific Council for advice on the following species:

1. Greenland halibut (Subarea 0 + 1 (offshore))

In 2022, advice on Greenland Halibut in Subareas 0 and 1 (offshore) was given for 2023 and 2024. The Scientific Council is requested to evaluate whether the data collected in 2022 is sufficient to reconsider the harvest recommendation for 2024. If so, the Scientific Council is requested to provide an updated assessment of status and trends in the total stock area throughout its range and to advise on the 2024 TAC level.

2. Shrimp (Subarea 1 and Division 0A)

Canada requests the Scientific Council to consider the following options in assessing and projecting future stock levels for Shrimp in Subarea 1 and Division 0A:

The status of the stock should be determined and risk-based advice provided for catch options corresponding to Z_{msy} , in 5,000-10,000t increments (subject to the discretion of Scientific Council), with forecasts for 2024 to 2026. These options should be evaluated in relation to Canada's Harvest Strategy (2022 revised version attached) and NAFO's Precautionary Approach Framework, and presented in the form of risk analyses related to B_{msy} , 80% B_{msy} , B_{lim} (30% B_{msy}) and Z_{msy} .

Presentation of the results should include graphs and/or tables related to the following:

- Historical and current yield, biomass relative to B_{msy} , total mortality relative to Z_{msy} , and recruitment (or proxy) levels for the longest time period possible;
- Total mortality (Z) and fishable biomass for a range of projected catch options (as noted above) for the years 2024 to 2026. Projections should include both catch options and a range of effective cod predation biomass levels considered appropriate by the Scientific Council. Results should include risk analyses of falling below: B_{MSY} , 80% B_{msy} and B_{lim} (30% B_{msy}), and of being above Z_{msy} based on the 3-year projections, consistent with the Harvest Decision Rules in Canada's Harvest Strategy; and
- Total area fished for the longest time period possible.

Please provide the advice relative to [Canada's Harvest Strategy](#) as part of the formal advice (i.e., grey box in the advice summary sheet).

APPENDIX II. PROVISIONAL AGENDA – STACFIS

13-15 September 2023

- I. Opening (Mark Simpson)
 - 1. Appointment of Rapporteur
 - 2. Adoption of Agenda
 - 3. Plan of Work
- II. General Review
 - 1. Review of Recommendations in 2022
 - 2. Review of Catches
- III. Stock Assessments
 - 1. Northern shrimp (*Pandalus borealis*) on the Flemish Cap (NAFO Div. 3M) (Full assessment)
 - 2. Northern shrimp (*Pandalus borealis*) on the Grand Bank (NAFO Div. 3LNO) (Full assessment)
 - 3. Northern shrimp (*Pandalus borealis*) off West Greenland (NAFO SA 0 and SA 1) (Full assessment)
 - 4. Northern shrimp (*Pandalus borealis*) in the Denmark Strait and off East Greenland (ICES Div. XIVb and Va) (Full assessment)
- IV. Other Business
 - 1. FIRMS Classification for NAFO Shrimp Stocks
- V. Adjournment

APPENDIX III. RELEVANT RECOMMENDATIONS

1. Northern Shrimp in Division 3M

NIPAG **recommended** in 2016 that *further exploration of the relationship between shrimp, cod and the environment be continued in WGESA and NIPAG encourages the shrimp experts to be involved in this work.* This recommendation was **reiterated** in 2021

2. Northern Shrimp in Divisions 3NLO

NIPAG **recommended** in 2015 that *ecosystem information related to the role of shrimp as prey in the Grand Bank (i.e. 3LNO) Ecosystem be presented to NIPAG.* This recommendation was **reiterated** in 2022

NIPAG **recommends** in 2018 that *further work on the development of a recruitment index for Div. 3LNO be completed.* This recommendation was **reiterated** in 2022

3. Northern shrimp in SA 0 and SA 1

SC **recommends** *increasing commercial sampling of catch composition to cover both Canadian and Greenlandic fleets.*

SC **recommends** *developing a joint Canadian and Greenlandic sampling program to determine predation pressure from various fish species.*

4. Northern shrimp in the Denmark Strait and off East Greenland (ICES Div. 14b and 5a)

SC **recommends** *commercial sampling of catch composition.*

SC **recommends** *exploration of the use of SPiCT for two and three year projections.*

SC **recommends** *exploration of available data from the east Greenland stock.*

SC **recommends** *development of possible harvest control rules for this fishery.*

**APPENDIX IV. DESIGNATED EXPERTS FOR PRELIMINARY ASSESSMENT OF
CERTAIN NAFO STOCKS**

The following is the list of Designated Experts for 2023 assessments:

From the Science Branch, Northwest Atlantic Fisheries Centre, Department of Fisheries and Oceans, P. O. Box 5667, St. John's, NL, Canada A1C 5X1, Canada

Northern shrimp in Divisions 3LNO Nicolas Le Corre Nicolas.LeCorre@dfo-mpo.gc.ca

From the Instituto Español de Oceanografía, Aptdo 1552, E-36200 Vigo (Pontevedra), Spain

Shrimp in Division 3M Jose Miguel Casas Sanchez mikel.casas@ieo.csic.es

From the Greenland Institute of Natural Resources, P. O. Box 570, DK-3900 Nuuk, Greenland

Northern shrimp in Subarea 0+1 AnnDorte Burmeister anndorte@natur.gl

Northern shrimp in Denmark Strait Tanja B. Buch TaBb@natur.gl