



## Northwest Atlantic Fisheries Organization

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In all correspondence,  
please refer to:

NAFO/24-177

18 July 2024

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,  
17–19 September 2024

We wish to confirm that the *NAFO Scientific Council and STACFIS Shrimp Assessment Meeting* will be held 17–19 September 2024 at the NAFO Secretariat, in Halifax, Canada. 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/2024/shrimp> as it becomes available.

Yours sincerely,

Brynhildur Benediktsdóttir  
Executive Secretary

BB:db

cc: Diana González-Troncoso (Scientific Council Chair) and Martha Krohn (STACFIS Chair)

## NAFO SCIENTIFIC COUNCIL AND STACFIS SHRIMP ASSESSMENT MEETING

NAFO Secretariat  
Halifax, Canada

17–19 September 2024

### 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, 17–19 September 2024, at:

NAFO Secretariat  
1601 Lower Water Street, Suite 401  
Halifax, Canada

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 17 September 2024 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 reminded of the 2010 NIPAG **recommendation** that, for shrimp in Division 3M and Divisions 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**

NAFO Secretariat  
Halifax, Canada

17-19 September 2024

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**APPENDIX I. PROVISIONAL AGENDA – SCIENTIFIC COUNCIL SHRIMP ASSESSEMENT MEETING**

NAFO Secretariat

Halifax, Canada

17–19 September 2024

- I. Opening (Chair: Diana González-Troncoso)
  1. Appointment of Rapporteur
  2. Adoption of Agenda
  3. Attendance of Observers
  4. Plan of Work
- II. Review of Recommendations in 2023
- III. Fisheries Science (STACFIS Chair: Martha Krohn)
- 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
  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 Divisions 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 2025 AND BEYOND OF CERTAIN STOCKS IN SUBAREAS 2, 3 AND 4 AND OTHER MATTERS**

(From [SCS Doc. 24/01](#))

Following a request from the Scientific Council, the Commission agreed that items 1, 2, 3 and 7 should be the priority for the June 2024 Scientific Council meeting subject to resources.

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	Interim Monitoring Only
Cod 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 3LNO Northern shrimp in Div. 3M	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	SA 6 Alfonsino SA 2-3 Roughhead Grenadier Capelin in 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). For 3M shrimp supplementary advice in terms of fishing-days could also be considered as appropriate.

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

- In 2024, advice should be provided for 2025 for: Cod in Div. 3M and Redfish in Div. 3LN.
- In 2024, advice should be provided for 2025 and 2026 for: Redfish in Div. 3M, Thorny skate in Div. 3LNO, Witch flounder in Div. 3NO, and Northern shrimp in 3M.
  - With respect to Northern shrimp in Div. 3M, Scientific Council is requested to provide its advice to the Commission prior to the 2024 Annual Meeting based on the survey data up to and including 2024.
- In 2024, advice should be provided for 2025, 2026 and 2027 for: American plaice in Div. 3LNO.

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 most recently 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 to advance work on the 2+3KLMNO Greenland halibut and 3LN redfish MSE processes during 2023-2024, as per the approved 2024 workplan [COM-SC RBMS-WP 23-06 (Rev. 3)]:
  - a. For the Greenland Halibut MSE: test Candidate Management Procedures (CMP) performance against established management objectives and initial discussions on exceptional circumstances protocol.
  - b. For the 3LN Redfish MSE: (1) review and finalize Operating Models, (2) review any further work on performance statistics; (3) select the CMP(s) for RBMS consideration and potential testing against established management objectives.
4. The Commission requests that the Scientific Council continue to work on tiers 1 and 2 of the Roadmap, specifically to:
  - a. Annually provide catch information in relation to 2TCI, including recent cumulative catch levels and a scoping of expected cumulative catch levels;
  - b. As practicable and taking into account Scientific Council capacity constraints, develop stock summary sheets for NAFO managed stocks that are evaluated using HCR or MSE processes.
5. In relation to the habitat impact assessment component of the Roadmap (VME and SAI analyses), the Commission requests that Scientific Council:
  - a. Support the Secretariat in developing a centralized data repository using ArcGIS online to host the data and data-products for scientific advice;
  - b. Continue working with WG-EAFFM towards developing operational objectives for the protection of VMEs and biodiversity in the NRA; and
  - c. Work towards the reassessment of VMEs and impact of bottom fisheries on VMEs for 2026.
6. 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 2023 (NAFO COM-SC RBMS-WP 23-19 (Revised)), specifically to undertake testing of the Provisional Draft PA Framework (COM-SC RBMS-WP 23-20 (Revised)).
7. The Commission requests Scientific Council to update the 3-5 year work plan, which reflects requests arising from the 2023 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.
8. The Commission requests that any new Canadian stock assessments for Cod 2J3KL and Witch flounder 2J3KL, and any new ICES stock assessments for Pelagic *Sebastes mentella* (ICES Divisions V, XII and XIV; NAFO 1) be included as an annex to the Scientific Council's annual report.
9. The Commission requests the SC to monitor and provide regular updates 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.
10. The Commission requests that the Scientific Council at its 2024 meeting: summarize the information it currently has available regarding the current and future impacts of climate change on NAFO-managed stocks, non-target species, and associated ecosystems; and identify any consequential data gaps, research needs and opportunities for productive research.







**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 - 2025**

(from [SCS Doc. 24/03](#))

Denmark (on behalf of Greenland) hereby requests for scientific advice on management in 2025 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 2023 given for 2024-2026. The Scientific Council is requested to continue its monitoring of the above stocks and provide updated advice as appropriate in the event of significant changes in stock levels.

### **2. Atlantic Wolffish and Spotted Wolffish**

Advice on Atlantic Wolffish (*Anarhichas lupus*) and Spotted Wolffish (*Anarhichas minor*) in Subarea 1 was in June 2023 given for 2024-2026. The Scientific Council is requested to continue its monitoring of the above stocks and provide updated advice as appropriate in the event of significant changes in stock levels.

### **3. Greenland Halibut, Offshore**

Advice on Greenland Halibut, Offshore in Subareas 0 and 1 was in 2022 given for 2023 and 2024. Denmark (on behalf of Greenland) requests the Scientific Council to provide updated advice on appropriate TAC levels for 2025 to 2026.

### **4. Greenland Halibut, Inshore, West Greenland**

Advice on the inshore stocks of Greenland Halibut in Subarea 1 was in 2022 given for 2023-2024. Denmark (on behalf of Greenland) requests the Scientific Council to provide advice on appropriate TAC levels for 2025 to 2026. If appropriate, Denmark (on behalf of Greenland) would request the Scientific Council to use an MSY-approach.

### **5. Northern Shrimp, West Greenland**

Subject to the concurrence of Canada as regards to Subareas 0 and 1, Denmark (on behalf of Greenland) requests the Scientific Council before December 2024 to provide advice on the scientific basis for management of Northern Shrimp (*Pandalus borealis*) in Subareas 0 and 1 in 2025 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 t increments. Future catch options should be provided for as many years as data allows for.

### **6. Northern Shrimp, East Greenland**

Furthermore, 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 2025 and for as many years ahead as data allows for.

### ANNEX 3. CANADA'S REQUEST FOR COASTAL STATE ADVICE - 2025

(from [SCS Doc. 24/04](#))

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

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

The Scientific Council is requested to provide an overall assessment of status and trends in the total stock area throughout its range and to specifically advise on TAC levels for 2025 and 2026. The stock status should be evaluated in the context of management requirements for long-term sustainability and the advice provided should be consistent with NAFO's Precautionary Approach Framework.

It is noted that at this time only general biological advice and/or catch data are available, and few standard criteria exist on which to base advice. Canada encourages the Scientific Council to continue to explore a model-based approach to bridge survey time series (i.e. data from the RV Paamiut and RV Tarajoq), and opportunities to develop risk-based advice in the future, noting that data conditions do not allow for such advice at this time.

#### 2. **Northern shrimp (Subarea 1 and Division 0A)**

Canada requests that the Scientific Council consider the following options in assessing and projecting future stock levels for Northern shrimp (*Pandalus borealis*) 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 5,000t increments with forecasts for 2025 to 2027 (inclusive). These options should be evaluated in relation to Canada's Harvest Strategy (2022 revised version attached) and NAFO's Precautionary Approach Framework.

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 2025 to 2027. 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**

17-19 September 2024

- I. Opening (Martha Krohn)
  - 1. Appointment of Rapporteur
  - 2. Adoption of Agenda
  - 3. Plan of Work
- II. General Review
  - 1. Review of Recommendations in 2023
  - 2. Review of Catches
- III. Stock Assessments
  - 1. Northern shrimp (*Pandalus borealis*) on the Flemish Cap (NAFO Division 3M) (Full assessment)
  - 2. Northern shrimp (*Pandalus borealis*) on the Grand Bank (NAFO Divisions 3LNO) (Interim Monitoring)
  - 3. Northern shrimp (*Pandalus borealis*) off West Greenland (NAFO Subarea 0 and Subarea 1) (Full assessment)
  - 4. Northern shrimp (*Pandalus borealis*) in the Denmark Strait and off East Greenland (ICES Divisions 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.*

STATUS: No progress from last year. This recommendation is reiterated.

STACFIS **recommends** that *analytical assessments for this stock should be further investigated building on work considered in previous years (SPiCT, SS3).*

#### 2. Northern Shrimp in Divisions 3LNO

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.*

STATUS: No new information was available to the current meeting and this recommendation is reiterated.

NIPAG **recommended** in 2018 that *further work on the development of a recruitment index for Div. 3LNO be completed.*

STATUS: This recommendation is reiterated.

#### 3. Northern shrimp in SA 0 and SA 1

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

STATUS: In progress. Sampling has occurred in 2022 and 2023 in the Greenlandic fleets. Whenever catches in Canadian SFA 1 are realized, sampling for size determination is advised.

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

STATUS: In progress

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

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

This recommendation is reiterated and the work should be continued to improve coverage of the fleet.

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

This recommendation is reiterated.

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

This recommendation is reiterated.

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

This recommendation is reiterated.

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

The following is the list of Designated Experts for 2024 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