

**SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD**

FOR

Information:

Decision:

Recommendation: X

Issue: 2023 Total Allowable Catch level for Northern Shrimp (*Pandalus borealis*) in Shrimp Fishing Area 0



Northern shrimp (*Pandalus borealis*)

Background

A competitive fishery for Northern shrimp (*Pandalus borealis*) exists in Shrimp Fishing Area (SFA) 0, located in Baffin Bay. SFA 0 is immediately adjacent to and partially within the Nunavut Settlement Area (NSA), however fishing is only permitted outside of the NSA (see map at Appendix 1).

The fishery in SFA 0 operates on a calendar year (January 1 – December 31). Harvesting activity, if any, would likely occur no earlier than June due to ice conditions.

The TAC in SFA 0 has been 500 t since 1996 with the exception of 2020, where an interim TAC of 250t was set with no final TAC decision. No catches have been recorded since the onset of this fishery. Nunavut fishing interests currently have access to the SFA 0 fishery via Qikiqtaaluk Corporation's offshore licence, and through their 50% ownership of the Unaaq offshore licence.

As this fishery occurs in waters adjacent to the NSA, the Department is seeking a recommendation from the NWMB on the 2023 Total Allowable Catch (TAC) for *P. borealis* in SFA 0.

In July 2022, the NWMB re-affirmed a previous recommendation to expand access to the competitive fishery to include enterprises that currently have Nunavut sub-allocations, namely: Arctic Fishery Alliance (AFA), Baffin Fisheries Coalition (BFC), Cumberland

Sound Fisheries Ltd. (CSFL), and Qikiqtaaluk Corporation (QC). It was expressed that expansion of this fishery to Nunavut enterprises would provide increased access and opportunity for fisheries development. No decision on expanded access was taken by the Minister in 2022 and the Department deems this recommendation to be still active.

Ahead of the 2023 management decision, DFO sought to clarify the intended area of application of the Board's 2022 recommendation. Following discussion with NWMB technical staff, DFO understands that this recommendation seeks to provide Nunavut sub-allocation holders (see above) access to the competitive fishery that occurs outside the NSA. The Minister will consider this recommendation, and any further views the Board may wish to provide on this matter, as part of management decisions for the 2023 fishing season.

Science Information

Regular stock assessment surveys for Northern shrimp are not conducted in SFA 0 as there has never been an active fishery in the area. SFA 0 was last assessed in 2010 based on surveys in 2006 and 2008 (Canadian Advisory Report 2010/024) (Summary in Appendix 2).

These surveys indicated that biomass indices were low. The fishable biomass index was 750 t (2006) and 1,100 t (2008) with female spawning stock biomass index of 580 t (2006) and 800 t (2008). Based on the biomass indices from 2006 and 2008, if the historic 500t competitive TAC were set and fully taken in 2023, the potential exploitation rate would be high (66.7 per cent and 45.4 per cent, respective of the fishable biomass index considered).

With only two surveys, no biomass trends can be determined and current biomass levels and recruitment status are unknown. The area is not currently fished and based on the observed biomass, future prospects for a fishery are limited. As there have been no surveys targeting SFA 0 for 15 years, the Department may consider a request for a scientific survey in the coming years. However, such a request would be considered in the context of a number of other departmental priorities in regards to science research.

Consultation

The Department sought views on the SFA 0 TAC for 2023, including views on the approach to establish a multi-year TAC, from members of the Northern Shrimp Advisory Committee with interest in the fishery. At the time of this submission, the Canadian Association of Prawn Producers, representing 10 of 17 offshore licence holders with access to the competitive fishery, stated support of a one year TAC of 500t for 2023.

Recommendation

In the absence of an annual science survey, and given that no fishing has ever occurred in this area, the Department is considering a multi-year approach to setting the TAC in SFA 0. A multi-year TAC would help to reduce administrative burden, with no anticipated impact on fishery operations. As such, it is recommended that the competitive TAC for Northern shrimp (*P. borealis*) in SFA 0 be rolled over at 500 t on a two-year basis, for both the 2023 and 2024

fishing seasons.

Summary of Request

DFO is requesting from the Board:

- 1) Recommendation on the competitive TAC for Northern Shrimp (*P. borealis*) in SFA 0 fishable outside the NSA for 2023, including the option to implement a multi-year TAC for two or more years.

The Department also offers this opportunity for the Board to re-affirm, or comment further on its previous recommendation regarding expanded access in SFA 0 to Nunavut enterprises for 2023.

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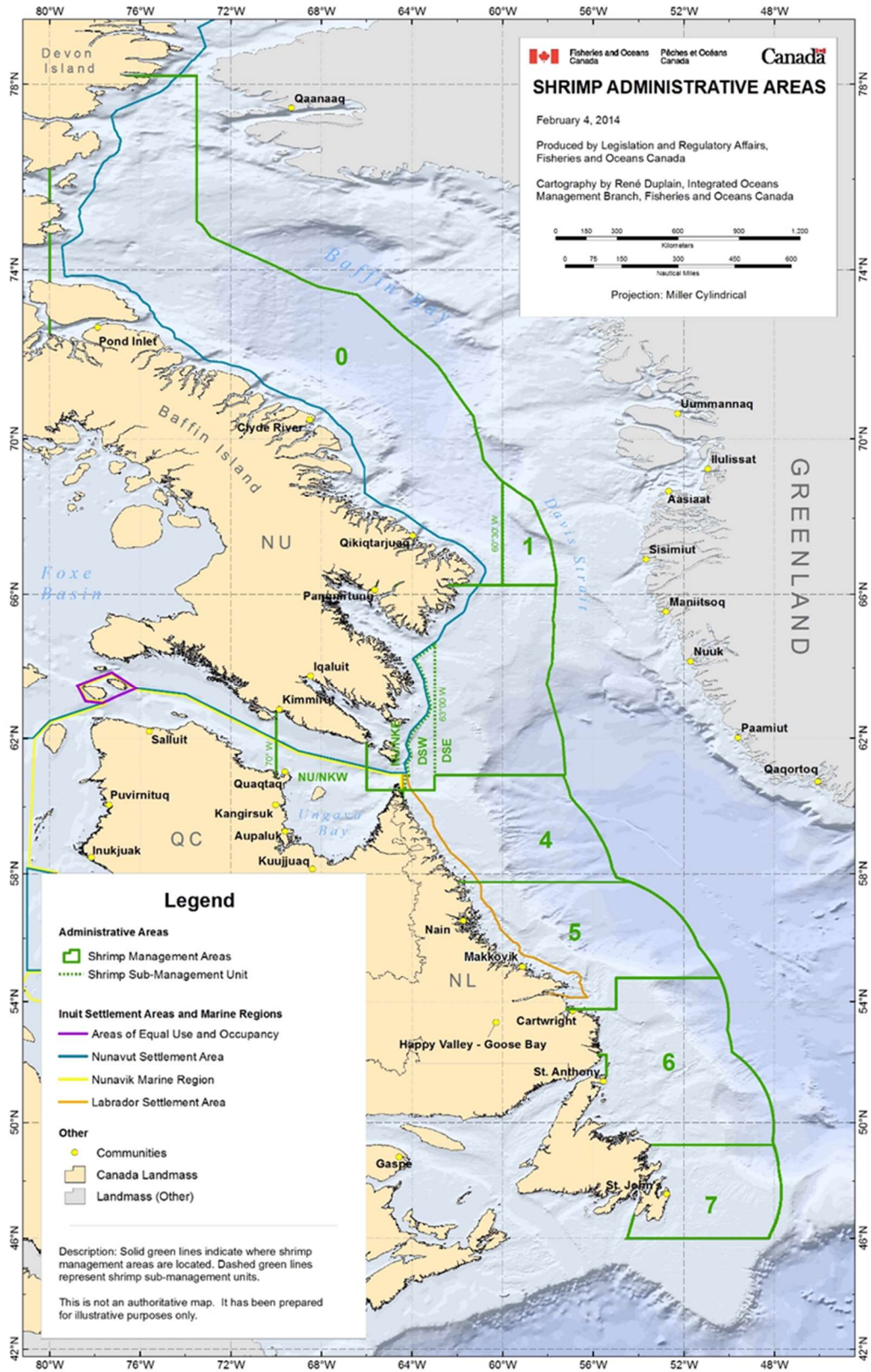
Date: May 5, 2023

Appendices

Appendix 1 – Map of groundfish and shrimp administrative areas in Atlantic Canada (including Shrimp Fishing Area 0)

Appendix 2 – Summary: Assessment of Northern Shrimp (*Pandalus borealis*) in SFA 0, 2, 3 and Striped Shrimp (*Pandalus montagui*) in SFA 2, 3 and 4 west of 63°W (Science Advisory Report 2010/024)

APPENDIX 1



APPENDIX 2

Science Advisory Report 2010/024

SUMMARY: Assessment of Northern Shrimp (*Pandalus borealis*) in SFA 0, 2, 3 and Striped Shrimp (*Pandalus montagui*) in SFA 2, 3 and 4 west of 63°W

SFA 0 – *Pandalus borealis*

Fishery

- No fishery in recent years.

Biomass

- Resource status is based on two surveys conducted in 2006 and 2008.
- Fishable biomass index was 750 t (2006) and 1,100 t (2008).
- Female spawning stock biomass index was 580 t (2006) and 800 t (2008).

Recruitment

- Recruitment is uncertain.

Mortality

- Competitive TAC of 500 t could result in a potential exploitation rate index of 40%-70% based on the observed biomass. A lower TAC is recommended.

Current Outlook and Future Prospects

- Future prospects for a fishery are limited.
- There are no plans for future surveys in this area.