

June 28, 2021

The Honourable Bernadette Jordan
Minister of Fisheries, Oceans, and the Canadian Coast Guard
15th Floor, Centennial Towers
200 Kent Street
Ottawa, Ontario
K1A 0E6

Dear Minister Jordan:

Re: NWMB-NMRWB Joint Written Public Hearing to Consider the 2021/22 Total Allowable Catch Levels and Sharing Arrangements for Northern and Striped Shrimp in the Eastern and Western Assessment Zones

PROPOSAL FOR DECISION

At the Nunavut Wildlife Management Board (NWMB) regular meeting on March 10, 2021 (NWMB RM001-2021) and the Nunavik Marine Region Wildlife Board (NMRWB) meeting on March 24, 2021, Fisheries and Oceans Canada requested the following decisions and recommendations from the Boards regarding northern shrimp (*Pandalus borealis*) and striped shrimp (*Pandalus montagui*) for the 2021/22 fishing season:

1. In the Western Assessment Zone:
 - a. Decision on harvest levels for northern and striped shrimp in the Nunavut-West (within the Nunavut Settlement Area) and Nunavik-West (within the Nunavik Marine Region) management units.
 - b. Recommendation on the overall total allowable catch¹ for northern and striped shrimp.

¹ Total allowable catch is often used to define harvest limits in commercial fishery. In the *Nunavik Inuit Land Claims Agreement* (NILCA) harvest limits are defined as Total Allowable Takes. In the *Nunavut Agreement* harvest limits are defined as Total Allowable Harvest. For simplicity and efficiency this letter adopts total allowable catch to encompass both total allowable harvest and total allowable takes.



- c. Recommendation as to whether to continue the practice whereby northern and striped shrimp allocations in Nunavut-West and Nunavik-West may be harvested in either management unit, regardless of land claim boundaries.

2. In the Eastern Assessment Zone:

- a. Decision on harvest levels for northern and striped shrimp in the Nunavut-East (within the Nunavut Settlement Area) and Nunavik-East management units (within the Nunavik Marine Region).
- b. Recommendation on the overall total allowable catch for northern and striped shrimp.
- c. Recommendation on the distribution of the total allowable catch for northern shrimp between the Davis Strait management units (Davis Strait West and Davis Strait-East).
- d. Recommendation on the distribution of the total allowable catch for striped shrimp in the Davis Strait management units (Davis Strait West and Davis Strait-East).
- e. Recommendation as to whether to continue the practice whereby northern and striped shrimp allocations in Nunavut East and Nunavik East may be harvested in either management unit, regardless of land claim boundaries.

NWMB AND NMRWB JOINT PUBLIC HEARING

At the NWMB in-camera meeting on March 11, 2021 (NWMB IC001-2021) and the NMRWB in-camera meeting on March 25, 2021 (#50), the Boards passed resolutions to hold a joint written public hearing to gather submissions on the above considerations from co-management partners, industry stakeholders, and other interested parties. On April 2, 2021, the NWMB and NMRWB published public notice and sent letters of invitation to relevant parties regarding the joint written hearing.

One submission² was received by the deadline of April 30, 2021 from: A joint submission from Makivik Corporation and Nunavut Fisheries Association³.

NWMB AND NMRWB DECISIONS AND RECOMMENDATIONS

At the NWMB in-camera meeting on June 10, 2021 (NWMB IC002-2021) and the NMRWB meeting on June 15, 2021, the Boards reviewed all relevant written arguments

² A second submission was received on May 4 after the submission deadline from Northern Coalition. Northern Coalition represents Qikiqtaaluk Corporation, Makivik Corporation, Unaq Fisheries Inc. (Joint Venture between Qikiqtaaluk Corporation and Makivik), Tornqat Fish Producers Co-operative, Nunatsiavut Group of Companies, and Labrador Fishermen's Union Shrimp Company.

³ Nunavut Fisheries Association includes, Qikiqtaaluk Corporation, Baffin Fisheries, Arctic Fishery Alliance, Cumberland Sound Fisheries Ltd/Pangnirtung Fisheries Ltd.



and evidence provided through the written public hearing ⁴. Having made complementary decisions and recommendations, the NWMB and NMRWB are providing this joint letter. The Boards' decisions and recommendations are set out immediately below. More details about the Board's decisions and recommendations are presented in Appendix 1 and Appendix 2.

NWMB Nunavut Agreement Jurisdiction

To ensure there is ongoing dialogue, the NWMB wish to remind you the Board has previously determined with Shrimp Fishing Area-0 that there is a need to clarify NWMBs role in the management of commercial fisheries inside and outside of the Nunavut Settlement Area pursuant to Article 5 and Article 15 of the *Nunavut Agreement*. The Board has jurisdiction over wildlife management decisions in the Nunavut Settlement Area under Article 5. Under Article 15, the NWMB has a role to provide relevant information to the Minister of Fisheries and Oceans for marine areas beyond the Nunavut Settlement Area.

When setting the total allowable catch for Shrimp Fishing Area-0, the NWMB raised issues about the operation of administrative boundaries for management units and the *Nunavut Agreement*, particularly Article 5. The NWMB was made to understand setting a total allowable catch for the Nunavut Settlement Area would require satisfying a section 5.3.3 condition (excerpt from August 26, 2020, letter from Minister Bernadette Jordan to NWMB Chair).

The Board's decision made reference to *Nunavut Agreement* section 5.6.16 which gives authority to establish a Total Allowable Harvest as an overall limit on permissible harvest, applicable to all harvesting, including Inuit harvesting inside and outside the commercial context. In considering this decision, the Board is mindful of the purpose and implications of such a limit in the context of *Nunavut Agreement* section 5.3.3. It remains unclear, based on the information and rationale for decision submitted to the Board, how Section 5.3.3 of the *Nunavut Agreement* has been considered.

This process raises similar interpretation issues. In the addendum dated March 5, 2021, Fisheries and Oceans Canada “presents the Boards with the information needed to provide advice to the Minister of Fisheries and Oceans Canada for the 2021-22 fishery in the Western Assessment Zone and Eastern Assessment Zone”. The addendum identifies the Nunavut-East and Nunavut-West management units for northern and striped shrimp are within the Nunavut Settlement Area. It is not clear how s. 5.3.3 should be considered. The addendum states “Science cannot detect trends for either stock at this time”. The addendum clarifies that the stocks would be “situated in the Healthy Zone relative to...” pending features of the Precautionary Approach Framework. The NWMB is uncertain how this quota, which has been treated as preceding the *Nunavut Agreement* and subject to section 5.6.4, can be modified without regard to the terms of Article 5, “including the purpose and implications of such [quotas] in the context

⁴ All the relevant documents and written submissions received on time and considered by the Boards are publicly available for download from the NWMB's website, www.nwmb.com.



of *Nunavut Agreement* section 5.3.3". Despite this, and in reliance on long-standing Fisheries and Oceans Canada practice, this issue is only raised to bring attention to interpretive discrepancies in the wildlife management of certain management units subject to your ultimate jurisdiction.

The Board reminds you, in our letter of April 08, 2021, the Board authorized its staff to engage with your staff with the aim of clarifying NWMB's role in the management of commercial fisheries inside and outside of the Nunavut Settlement Area pursuant to Article 5 and Article 15 of the *Nunavut Agreement*.

Total Allowable Catch Decisions and Recommendations

RESOLVED that, pursuant to Sections 5.2.3 and 5.4 of the *Nunavik Inuit Land Claims Agreement* and Section 15.3.4 of the *Nunavut Agreement*, the NWMB and NMRWB recommend that the total allowable catch in the Western Assessment Zone for the 2021/2022 fishing season be as follows:

1. For northern shrimp (*Pandalus borealis*):
 - a A total allowable catch of 5,090 tonnes in Western Assessment Zone; and
2. For striped shrimp (*Pandalus montagui*):
 - a A total allowable catch of 9,470 tonnes in the Western Assessment Zone; and

RESOLVED that, pursuant to Sections 5.6.4 of the *Nunavut Agreement*, the NWMB establish the following total allowable catch for shrimp in the Nunavut-West management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a A total allowable catch of 2,545 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area; and
2. For striped shrimp (*Pandalus montagui*):
 - a A total allowable catch of 4,735 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area; and

RESOLVED that, pursuant to Section 5.2.3 of the *Nunavik Inuit Land Claims Agreement*, the NMRWB establish the following total allowable take for shrimp in the Nunavik-West management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a A total allowable catch of 2,545 tonnes in the Nunavik-West management unit within the Nunavik Marine Region
2. For striped shrimp (*Pandalus montagui*):
 - a A total allowable catch of 4,735 tonnes in the Nunavik-West management unit within the Nunavik Marine Region; and

RESOLVED that, the NWMB and NMRWB recommend that the practice whereby *P. borealis* and *P. montagui* allocations in Nunavut-West and Nunavik-West may be harvested in either management unit, regardless of land claim boundaries be continued;



and

RESOLVED that, pursuant to Section 15.3.4 of the *Nunavut Agreement* and Section 5.4.4 of the *Nunavik Inuit Land Claims Agreement*, the NWMB and NMRWB recommend the following total allowable catch levels in the and Eastern Assessment Zone for the 2020/2021 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 12,932 tonnes in the Eastern Assessment Zone; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 1,861 tonnes in the Eastern Assessment Zone; and

RESOLVED that, pursuant to Sections 5.6.4 of the *Nunavut Agreement*, the NWMB establish the following total allowable catch for shrimp in the Nunavut-East management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 2257 tonnes in the Nunavut-East management unit within the Nunavut Settlement Area; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 761 tonnes in the Nunavut-East management unit within the Nunavut Settlement Area; and

RESOLVED that, pursuant to Section 5.2.3 of the *Nunavik Inuit Land Claims Agreement*, the NMRWB establish the following total allowable take for shrimp in the Nunavik-East management unit for the 2021/2022 fishing season:

1. For *Pandalus borealis* (Northern shrimp):
 - a. A total allowable catch of 565 tonnes in the Nunavik-East management unit within the Nunavik Marine Region; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 326 tonnes in the Nunavik-East management unit within the Nunavik Marine Region; and

RESOLVED that, the NWMB and NMRWB recommend that the practice whereby northern (*P. borealis*) and striped (*P. montagui*) shrimp allocations in Nunavut-East and Nunavik-East may be harvested in either management unit, regardless of land claim boundaries be continued; and

FURTHERMORE, the NMRWB sees no reason to object to the request from industry to continue the practice whereby *P. montagui* allocations may be harvested in either Nunavik-West / Nunavik-East, regardless of management unit boundaries, unless there is a conservation concern with harvesting between the Western Assessment Zone and Eastern Assessment Zone.



Distribution of Total Allowable Catch

RESOLVED that, pursuant to Section 15.3.4 of the *Nunavut Agreement* and Section 5.4.4 of the *Nunavik Inuit Land Claims Agreement*, the NWMB and NMRWB recommend the following distribution of the total allowable catch in the Davis Strait-West and Davis Strait-East management units for the 2020/2021 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 2415 tonnes in the Davis Strait-East management unit that is further subdivided as follows:
 - i. A total allowable catch of 1007 tonnes for the offshore; and
 - ii. A total allowable catch of 1408 tonnes for Nunavut; and
2. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 7688 tonnes in the Davis Strait-West management unit that is further subdivided as follows:
 - i. A total allowable catch of 4067 tonnes for the offshore; and
 - ii. A total allowable catch of 3259 tonnes for Nunavut; and
 - iii. A total allowable catch of 362 tonnes for Nunavik; and
3. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 774 tonnes in the Davis Strait-East and Davis Strait-West management units.

Additional Recommendations

RESOLVED that, the NWMB and NMRWB recommend that additional research be conducted to investigate the potential use of multi-year averaging of fishable biomass to calculate total allowable catches.

REASONS FOR THE BOARDS' DECISIONS AND RECOMMENDATIONS

The decisions and recommendations made by the Boards are meant to ensure a sustainable harvest of northern and striped shrimp in the Eastern and Western Assessment Zones. The Boards have also considered the most recent scientific information on the stocks, including that provided by Fisheries and Oceans Canada, and input from industry stakeholders.

Total Allowable Catch Decisions and Recommendations

P. borealis is a bycatch species in the Western Assessment Zone, with a significant part of the total allowable catch not regularly harvested. Given the increase in the fishable biomass, maintaining the exploitation rate at 15.5% will provide a 61% increase in total allowable catch. Although this is over the 15% increase in total allowable catch from the previous season which is the maximum recommended by Fisheries and Oceans Canada, this exploitation rate is within the range from which the stock has been shown



to recover.

P. montagui, which is the directed fishery in the Western Assessment Zone, has decreased in fishable biomass for the past two years following an increase in exploitation rate, though the stock remains in the healthy zone. Given these considerations, the Boards have decided to maintain the exploitation rate at 18.6%.

P. montagui is a bycatch species in Davis Strait-East and -West and is a directed fishery in Nunavut-East and Nunavik-East. The stock has displayed precipitous fluctuations in fishable biomass every year since 2012. Industry has stated that accidental harvest of *P. montagui* may have negative impacts on the directed *P. borealis* fishery in the Eastern Assessment Zone. Thus, the Boards recommend maintaining the exploitation rate at 9.9%, resulting in an increase in total allowable catch.

Finally, the Boards recommend that the exploitation rate for *P. borealis* in the Eastern Assessment Zone be increased to 15%. Although this is over a 15% increase in total allowable catch from the previous season, as outlined in the harvest decision rules in this area, this exploitation rate is within the range from which the stock has been shown to recover. The Boards made a conscientious decision to take a precautionary approach to *P. borealis* in the Eastern Assessment Zone total allowable catch until impacts of increased fishing pressure are known due to a higher total allowable catch for the bycatch species, *P. montagui*.

Management Measures

The Boards considered the historical context and industry recommendations in recommending the continuation of the management measures whereby shrimp allocations within Inuit land claim regions (Nunavut-West and Nunavik West of the Western Assessment Zone, and Nunavut-East and Nunavik-East management units of the Eastern Assessment Zone) may be harvested in either management unit within an assessment zone regardless of land claim boundary. Additionally, NMRWB considered the request from industry to continue the practice whereby *P. montagui* allocations may be harvested in either Nunavik-West or Nunavik East, regardless of management unit boundaries, and is supportive of the continuation of this management measure as long as there is no conservation concern posed by harvesting between the two assessment zones. Harvests are to continue being reported according to where the harvest began.

Distribution of Total Allowable Catch

For the distribution of the total allowable catch of shrimp in the Western and Eastern Assessment Zones, the Boards considered the joint feedback provided by Nunavut Fisheries Association and Makivik Corporation, who are the primary harvesters of the stocks in question. The Boards have accepted and applied industry's distribution suggestions in their decisions and recommend them to the Minister of Fisheries and Oceans Canada.



Boards' Recommendation on Two-Year Averaging

Industry used two-year averaging of the fishable biomass as an approach to calculate total allowable catches in their submission. Industry stated that the Northern Shrimp Advisory Committee generally accepts two-year averaging. The Boards considered that averaging is not detailed in the established harvest control rules in the Integrated Fisheries Management Plan. The Boards are also aware that Fisheries and Oceans Canada considers the most recent survey estimate as the clearest representation of stock status and calculates total allowable catches based on the most recent survey when considering decisions from the Boards. Consequently, the Boards decided to calculate total allowable catches based on the fishable biomass from 2020 for simplicity and consistency with how Fisheries and Oceans Canada reviews total allowable catches. However, given that industries have repeatedly expressed their preference for multi-year averaging of fishable biomass the Boards recommend that science advice be sought on the use of two-year averaging for subsequent decisions.

CONCLUSION

The Boards hereby forward their decisions and recommendations to you, for your consideration pursuant to the relevant terms of the *Nunavut Agreement* and the *Nunavik Inuit Land Claims Agreement*. Please be assured that the NWMB and the NMRWB will continue to work collaboratively with the Department of Fisheries and Oceans Canada and other co-management partners in ensuring that the management of shrimp in the Nunavut Settlement Area and the Nunavik Marine Region fully aligns with the terms of the *Nunavut Agreement* Article 5 and *Nunavik Inuit Land Claims Agreement* Article 5.

If you or your officials have any questions with respect to the content of this letter, please do not hesitate to contact the NWMB and the NMRWB at your convenience.

Sincerely,

Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board

Iola Metuq
Chairperson
Nunavik Marine Region Wildlife Board

cc. Anika Bychok, Fisheries and Oceans Canada;
Erika Parrill, Fisheries and Oceans Canada;
Derek Mahoney, Fisheries and Oceans Canada.



Appendix 1

Summary of the Boards decisions and recommendations of harvest levels and overall total allowable catches for both species of shrimp in the Western and Eastern Assessment Zones.

Assessment Zone	Species	Scenario	Total Allowable Catch (tonnes)	Exploitation Rate	% Change of Total Allowable Catch
WAZ	P. borealis	Maintain ER	5,089	15.5%	61.0%
	P. montagui	Maintain ER	9,469	18.6%	-21.0%
EAZ	P. borealis	Industry 3	12,932	15.0%	21.4%
	P. montagui	Maintain ER	1,861	9.9%	121.0%



Appendix 2

Summary of the Boards' decisions and recommendations.

Assessment Zone	Management Unit	Joint	Nunavut	Nunavik
WAZ	WAZ	<p>RESOLVED that, pursuant to Sections 5.2.3 and 5.4 of the <i>Nunavik Inuit Land Claims Agreement</i> and Section 15.3.4 of the <i>Nunavut Agreement</i>, the NWMB and NMRWB recommend that the total allowable catch in the Western Assessment Zone for the 2021/2022 fishing season be as follows:</p> <ol style="list-style-type: none"> For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> A total allowable catch of 5,090 tonnes in Western Assessment Zone; and For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> A total allowable catch of 9,470 tonnes in the Western Assessment Zone; and 		
WAZ	Nunavut-West		RESOLVED that, pursuant to Section 5.6.4 of the <i>Nunavut Agreement</i> , the NWMB	

			<p>establish the following total allowable catch for shrimp in the Nunavut-West management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 2,545 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area; and 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 4,735 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area 	
WAZ	Nunavik-West			<p>RESOLVED that, pursuant to Section 5.2.3 of the <i>Nunavik Inuit Land Claims Agreement</i>, the NMRWB establish the following total allowable catch for shrimp in the Nunavik-West management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch

				<p>of 2,545 tonnes in the Nunavik-West management unit within the Nunavik Marine Region</p> <p>2. For striped shrimp (<i>Pandalus montagui</i>):</p> <p>a. A total allowable catch of 4,735 tonnes in the Nunavik-West management unit within the Nunavik Marine Region</p>
WAZ	WAZ	RESOLVED that, the NWMB and NMRWB establish that the practice whereby <i>P. borealis</i> and <i>P. montagui</i> allocations in Nunavut-West and Nunavik-West may be harvested in either management unit, regardless of land claim boundaries be continued		
EAZ	EAZ	RESOLVED that, pursuant to Section 15.3.4 and 15.3.7 of the <i>Nunavut Agreement</i> and Section 5.4.4 of the <i>Nunavik Inuit Land Claims Agreement</i> , the NWMB and NMRWB recommend the following total allowable catch levels in the and Eastern Assessment Zone for the 2020/2021 fishing		

		<p>season:</p> <ol style="list-style-type: none"> For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> A total allowable catch of 12,932 tonnes in the Eastern Assessment Zone; and For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> A total allowable catch of 1,861 tonnes in the Eastern Assessment Zone 		
EAZ	Nunavut-East		<p>RESOLVED that, pursuant to Section 5.6.4 of the <i>Nunavut Agreement</i>, the NWMB establish the following total allowable catch for in the Nunavut-East management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> A total allowable catch of tonnes in the 2257 Nunavut-East management unit within the Nunavut Settlement Area; and For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> A total allowable catch of 761 tonnes in the 	

			Nunavut-East management unit within the Nunavut Settlement Area	
EAZ	Nunavik-East			<p>RESOLVED that, pursuant to Section 5.2.3 of the <i>Nunavik Inuit Land Claims Agreement</i>, the NMRWB establish the following total allowable catch for shrimp in the Nunavik-East management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For <i>Pandalus borealis</i> (Northern shrimp): <ol style="list-style-type: none"> a. A total allowable catch of 565 tonnes in the Nunavik-East management unit within the Nunavik Marine Region 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 326 tonnes in the Nunavik-East management unit within the Nunavik Marine Region
EAZ	Davis Strait-East and - West	RESOLVED that, pursuant to Section 15.3.4 and 15.3.7 of the <i>Nunavut Agreement</i> and Section 5.4.4 of the <i>Nunavik</i>		

		<p><i>Inuit Land Claims Agreement</i>, the NWMB and NMRWB recommend the following distribution of the total allowable catch in the Davis Strait-West and Davis Strait-East management units for the 2020/2021 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 2415 tonnes in the Davis Strait-East management unit that is further subdivided as follows: <ol style="list-style-type: none"> i. A total allowable catch of 1007 tonnes for the offshore; and ii. A total allowable catch of 1408 tonnes for Nunavut; and 2. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 7688 tonnes in the Davis Strait-West management unit that is further subdivided as follows: <ol style="list-style-type: none"> i. A total allowable catch 		
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		<p>of 4067 tonnes for the offshore; and</p> <p>ii. A total allowable catch of 3259 tonnes for Nunavut; and</p> <p>iii. A total allowable catch of 362 tonnes for Nunavik; and</p> <p>3. For striped shrimp (<i>Pandalus montagui</i>):</p> <p>a. A total allowable catch of 774 tonnes in the Davis Strait-East and Davis Strait-West management units.</p>		
EAZ	Nunavut-East and Nunavik-East	RESOLVED that, the NWMB and NMRWB establish that the practice whereby northern (<i>P. borealis</i>) and striped (<i>P. montagui</i>) shrimp allocations in Nunavut-East and Nunavik-East may be harvested in either management unit, regardless of land claim boundaries be continued.		
EAZ	Nunavik-West and Nunavik-East			RESOLVED that, the NMRWB the practice whereby striped shrimp (<i>P. montagui</i>) allocations in may be harvested in either Nunavik-West or



				Nunavik-East, regardless of management unit boundaries should be continued.
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August 14, 2021

Mr. Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board
P.O. Box 1379
Iqaluit, NU
X0A 0H0

Mr. Iola Metuq
Chairperson
Nunavik Marine Region Wildlife Board
P.O. Box 443
Inukjuak, QC
J0M 1M0

Dear Mr. Shewchuk and Mr. Metuq:

I am writing in response to your correspondence of June 28, 2021, regarding the Nunavut Wildlife Management Board's (NWMB) and the Nunavik Marine Region Wildlife Board's (NMRWB) decisions and recommendations on *Pandalus borealis* and *P. montagui* in the Eastern Assessment Zone (EAZ) and the Western Assessment Zone (WAZ).

Western Assessment Zone

I agree with the Boards that for the WAZ, aggregate Total Allowable Catches (TACs) resulting in an increase of 61 per cent (15.5 per cent Exploitation Rate [ER]) for *P. borealis* and a decrease of 21 per cent (18.6 per cent ER) for *P. montagui* are acceptable and do not pose a conservation risk.

Consistent with that approach,

In the Nunavut West management unit, within the Nunavut Settlement Area, I accept the NWMB's decision and set the harvest levels for *P. borealis* at 2,545t and *P. montagui* at 4,735t; and,

In the Nunavik West management unit, within the Nunavik Marine Region, I accept the NMRWB's decision and set the harvest levels for *P. borealis* at 2,545t and *P. montagui* at 4,735t.

This will result in TACs of 5,090t for *P. borealis* and 9,470t for *P. montagui* in the WAZ, as outlined in Appendix 1 to this letter.

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Eastern Assessment Zone

I regret that I cannot accept the Boards' decisions to increase the *P. borealis* quota within Nunavut East and Nunavik East by 242 per cent, and the *P. montagui* quota within Nunavut East and Nunavik East by 121 per cent due to the risk it poses to the overall EAZ stock sustainability.

For *P. borealis*, the Boards' decision will significantly increase fishing pressure near Resolution Island, believed to be an important shrimp spawning area. For *P. montagui*, Fisheries and Oceans Canada (DFO) Science has advised caution when setting the TAC due to large yearly fluctuations displayed by the stock, which suggest that it may currently be at the fringes of its distribution.

While discussions on the quota in Nunavut East and Nunavik East continue, I have decided to increase the *P. borealis* quotas in the Davis Strait management units by 15 per cent overall as is consistent with the Harvest Decision Rules outlined within the Integrated Fisheries Management Plan for Northern and Striped shrimp. For *P. borealis* in Davis Strait West, I have set a quota of 8,308.75t. For *P. borealis* in Davis Strait East, I have set a quota of 2,995t. For *P. montagui*, I have set a quota of 471.5t in the Davis Strait management units. Full details can be found in Appendix 1 to this letter.

By way of next steps, I seek the Board's reconsideration of its decisions for Nunavut East and Nunavik East communicated in the June 28, 2021, letter.

Upper Stock Reference Points

I understand that the Boards rejected the Department's request for a decision on the Upper Stock Reference Points for *P. borealis* and *P. montagui* in the EAZ and WAZ.

At this time, I will refrain from establishing Upper Stock Reference Points for EAZ and WAZ stocks and will direct officials to continue to work with your staff members. It should be recognized that I will continue to use the best available information, which may include recommended Upper Stock Reference Points, to guide decisions.

Harvesting within assessment zones and across management unit boundaries

There are no conservation concerns pertaining to the Boards' proposal to permit the practice of harvesting shrimp allocations across the Nunavut East and Nunavik East management unit boundaries and I would support the continuance of that practice.

I understand that the NMRWB recommended the approval of industry requests to continue practices whereby *P. montagui* allocations are harvested in either Nunavik West or Nunavik East, regardless of assessment zone boundaries, provided that the practice does not represent a conservation concern. The science advice for these stocks, and therefore the identification

of sustainable levels of harvest, is underpinned by the ability to quantify and assess harvest levels in the WAZ and EAZ individually. Allowing vessels to harvest across these assessment zones undermines this ability and could compromise the provision of future science advice. It would likely increase the uncertainty in the stock assessment, and may therefore predicate more caution in fisheries management decisions.

I would encourage the Boards to engage with departmental officials on this matter to discuss the management and administration of the shrimp resource in the EAZ. Further, as per the NWMB's request, my officials will be reaching out to NWMB staff to initiate conversations on the role of the NWMB and the Department in the management of our marine fisheries.

I appreciate the Boards' collaboration and cooperation in the sustainable management of the shared shrimp resource in the North.

Yours sincerely,

A handwritten signature in blue ink, consisting of a stylized 'B' followed by a long horizontal line.

The Honourable Bernadette Jordan, P.C., M.P.
Minister of Fisheries, Oceans and the Canadian Coast Guard

Enclosure: 1

Cc: Timothy Sargent, Deputy Minister, Fisheries and Oceans Canada
J.-G. Forgeron, Senior Assistant Deputy Minister, Fisheries and Harbour
Management, Fisheries and Oceans Canada

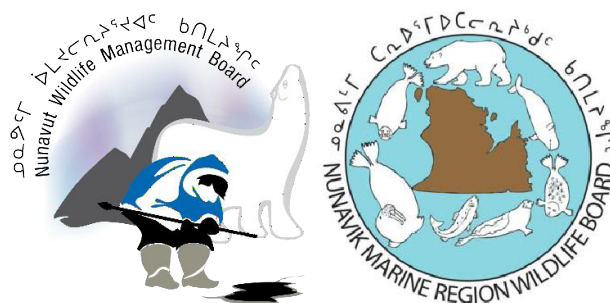
Appendix 1 – 2021/22 Total Allowable Catch and Management Unit Quotas

Western Assessment Zone

Management Unit	<i>P. borealis</i>	<i>P. montagui</i>
Nunavut West	2,545t	4,735t
Nunavik East	2,545t	4,735t
Total Allowable Catch	5,090t	9,470t

Eastern Assessment Zone

Management Unit	<i>P. borealis</i>	<i>P. montagui</i>
Davis Strait West - Offshore - Nunavik - Nunavut Total	5,250t 305.375t 2,753.375t 8,308.75 t	
Davis Strait East - Offshore - Nunavut Total	1,150t 1,845 t 2,995 t	
Davis Strait East and West - Offshore Bycatch		471.5 t
Nunavut East	TBD	TBD
Nunavik East	TBD	TBD
Total Allowable Catch	TBD	TBD



October 12, 2021

The Honourable Bernadette Jordan
Minister of Fisheries, Oceans, and the Canadian Coast Guard
15th Floor, Centennial Towers
200 Kent Street
Ottawa, Ontario
K1A 0E6

Dear Minister Jordan:

Re: Final Decisions Regarding the 2021/2022 Total Allowable Catch Levels for Northern and Striped Shrimp in the Nunavik East and Nunavut East Management Units

BACKGROUND

On June 28, 2021, the Nunavut Wildlife Management Board (NWMB) and the Nunavik Marine Region Wildlife Board (NMRWB), collectively the Boards, provided you a joint letter which outlined the Boards decisions and recommendations regarding northern shrimp (*Pandalus borealis*) and striped shrimp (*Pandalus montagui*) total allowable catch¹ levels in the Western and Eastern Assessment Zones for the 2021/2022 fishing season (Appendix 1).

On August 14, 2021, the Boards received a response letter from you (Appendix 2), in which you accepted parts of the Boards' decisions but rejected the Boards decisions of total allowable catch for both northern and striped shrimp in the Nunavut-East and Nunavik-East Management units within the Eastern Assessment Zone, pursuant to section 5.3.18 of the *Nunavut Agreement* and section 5.5.8 of the *Nunavik Inuit Land Claims Agreement*.

¹ Total allowable catch is the term used to define harvest limits in the *Nunavut Agreement*. In the *Nunavik Inuit Land Claims Agreement* harvest limits are defined as total allowable takes. For simplicity and efficiency this briefing note adopts total allowable catch to encompass both total allowable catch and total allowable takes.

For northern shrimp, you cited concerns about the increased fishing pressure near Resolution Island, which Fisheries and Oceans Canada considers to be an important shrimp spawning area. For striped shrimp, you advised caution given the large yearly fluctuations displayed by the stock, which suggest it may be at the fringes of its distribution.

Furthermore, in your August 14, 2021 letter, you established total allowable catch levels in other management units in the Eastern Assessment Zone, specifically in Davis Strait, that are not compatible with the Boards recommendations (Appendix 3). The distribution of total allowable catches are also not compatible with industry sharing agreements that the Boards accepted and recommended in their initial decision letter.

The Boards also recognize that, as of September 24, 2021, Fisheries and Oceans Canada released 100% of the 2020 total allowable catch as an interim quota.

HEARING PARTY COMMENTS ON THE MINISTERS REASONS FOR REJECTION

On September 17, 2021, the Boards invited parties who participated in the written public hearing to provide written comment on your reasons of rejecting the Boards' total allowable catch decisions. A joint submission from Makivik Corporation and Nunavut Fisheries Association was received by the deadline of September 24, 2021 (Appendix 4).

Makivik Corporation and Nunavut Fisheries Association (jointly, industry) disagreed with your reasoning of conservation concern and stated that the Boards' initial total allowable catch levels were "fully consistent with the health status of these stocks".

Furthermore, industry disagreed with your view that Resolution Island is a spawning area. They argued that this topic has not be discussed or agreed upon as acceptable decision rationale in Northern Shrimp Advisory Committee meetings nor Northern Precautionary Approach Working Group meetings, both of which Fisheries and Oceans Canada staff are active members of. Industry said they are unaware of any scientific studies that support your statement.

Based on the above discussions, industry recommended that "the NWMB and NMRWB maintain their June 28, [2021] decision on allocation increases for [northern] and [striped] in the Nunavut-East and Nunavik-East area".

NWMB AND NMRWB FINAL DECISIONS

Pursuant to section 5.6.16 of the *Nunavut Agreement* and section 5.2.10 of the *Nunavik Land Claims Agreement*, each Board has the sole authority to establish quota limitations on harvesting activities within their respective land claim area. The Nunavut-

East and Nunavik-East management units lay within the Boards respective geographic jurisdiction.

The Boards, pursuant to section 5.3.21 of the *Nunavut Agreement* and section 5.5.11 of the *Nunavik Land Claims Agreement*, have reconsidered the decision in light of the written reasons provided by you and made a final decision during their respective in-camera meetings on October 1, 2021 as follows:

WHEREAS, pursuant to section 5.3.21 of the *Nunavut Agreement* and 5.5.10 of the *Nunavik Inuit Land Claims Agreement* the NWMB and NMRWB have decided to maintain their initial decisions of total allowable catch for northern and striped shrimp in the Nunavut-East and Nunavik-East management units of the Eastern Assessment Zone, the Boards passed the following motions:

RESOLVED that, pursuant to Sections 5.6.16 of the *Nunavut Agreement*, the NWMB establish the following total allowable catch for shrimp in the Nunavut-East management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 2257 tonnes in the Nunavut-East management unit within the Nunavut Settlement Area; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 761 tonnes in the Nunavut-East management unit within the Nunavut Settlement Area; and

RESOLVED that, pursuant to Section 5.2.3 of the *Nunavik Inuit Land Claims Agreement*, the NMRWB establish the following total allowable take for shrimp in the Nunavik-East management unit for the 2021/2022 fishing season:

1. For *Pandalus borealis* (Northern shrimp):
 - a. A total allowable catch of 565 tonnes in the Nunavik-East management unit within the Nunavik Marine Region; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 326 tonnes in the Nunavik-East management unit within the Nunavik Marine Region

REASONS FOR NWMB AND NMRWB FINAL DECISIONS

After carefully considering your reasons for rejecting the NWMB and NMRWB decisions, and the evidence and arguments presented by the parties in response to your reasons for rejection, the Boards have decided to maintain their initial decisions as their final decisions.

In reaching their final decisions, the Boards carefully considered your reasons for rejecting their initial decisions. You stated that for striped shrimp, that there is need for

caution given the large yearly fluctuations displayed by the stock, which suggest it may be at the fringes of its distribution. For northern shrimp the Boards considered your concerns that their initial decision might lead to an increase in fishing pressure near Resolution Island, which Fisheries and Oceans Canada believes to be an important shrimp spawning area.

The Boards' initial decisions and recommendations considered potential ecosystem impacts and deemed the total allowable catch levels to be sustainable. Furthermore, the Boards' total allowable catch levels for the Eastern Assessment Zone employed exploitation rates (15% exploitation rate for northern shrimp and 9.9% exploitation rate for striped shrimp) that fall within the acceptable range for sustainable harvest as determined in the harvest decision rules of the Integrated Fisheries Management Plan.

As industry acknowledged, the Boards total allowable catch levels represented a greater increase than 15% from the previous year; however, there is precedence for such increases, including the Minister's approval of total allowable catch in the Western Assessment Zone in 2021.

Furthermore, while the annual fluctuations displayed by the striped shrimp may warrant additional caution, the Boards maintain that an exploitation rate of 9.9% is sufficiently cautious for this stock, which is in the healthy zone.

The Boards appreciate that based on the density of mature shrimp around Resolution Island, the area may be an important shrimp spawning area; however, given that this information is not widely researched, nor accepted, as evidenced in industry's response, the Boards are not prepared to come to the same conclusion with respect to the significance of Resolution Island as a spawning area. From the Boards' perspective, more research is needed to understand the significance of Resolution Island as an important shrimp spawning area. Additionally, it was only in your reasons for rejection that this concern was raised. Further, no data or research relied upon by your department was provided to the Boards in the request for decision or during the written hearing process. If such data and research exists, it would have been helpful for the Boards to receive so that the Boards may assess this aspect comprehensively.

CONCLUSION

The Boards hereby forward their final decision to you, for your consideration pursuant to the relevant terms of the *Nunavut Agreement* and the *Nunavik Inuit Land Claims Agreement*. Please be assured that the NWMB and the NMRWB will continue to work collaboratively with the Department of Fisheries and Oceans Canada and other co-management partners in ensuring that the management of shrimp in the Nunavut Settlement Area and the Nunavik Marine Region fully aligns with the terms of the *Nunavut Agreement* Article 5 and *Nunavik Inuit Land Claims Agreement* Article 5.

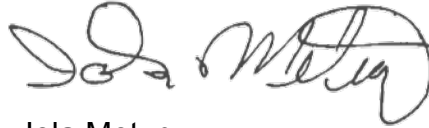
If you or your officials have any questions with respect to the content of this letter,

please do not hesitate to contact the NWMB and the NMRWB at your convenience.

Sincerely,



Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board

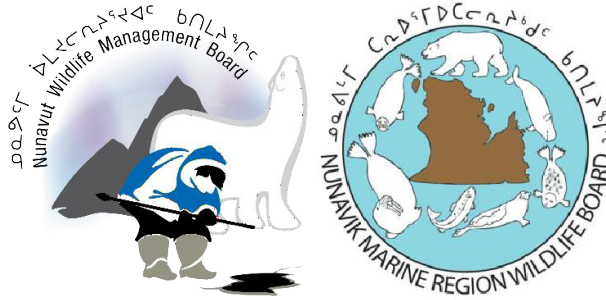


Iola Metuq
Chairperson
Nunavik Marine Region Wildlife Board

cc. Anika Bychok, Fisheries Management Biologist, Fisheries and Oceans Canada
Erika Parrill, Senior Fisheries and Aquaculture Management Officer, Resource
Management, Fisheries and Oceans Canada
Derek Mahoney, Manager, Resource Management, Fisheries and Oceans Canada

Appendix

For all appendices, please see email attachments.



June 28, 2021

The Honourable Bernadette Jordan
Minister of Fisheries, Oceans, and the Canadian Coast Guard
15th Floor, Centennial Towers
200 Kent Street
Ottawa, Ontario
K1A 0E6

Dear Minister Jordan:

Re: NWMB-NMRWB Joint Written Public Hearing to Consider the 2021/22 Total Allowable Catch Levels and Sharing Arrangements for Northern and Striped Shrimp in the Eastern and Western Assessment Zones

PROPOSAL FOR DECISION

At the Nunavut Wildlife Management Board (NWMB) regular meeting on March 10, 2021 (NWMB RM001-2021) and the Nunavik Marine Region Wildlife Board (NMRWB) meeting on March 24, 2021, Fisheries and Oceans Canada requested the following decisions and recommendations from the Boards regarding northern shrimp (*Pandalus borealis*) and striped shrimp (*Pandalus montagui*) for the 2021/22 fishing season:

1. In the Western Assessment Zone:
 - a. Decision on harvest levels for northern and striped shrimp in the Nunavut-West (within the Nunavut Settlement Area) and Nunavik-West (within the Nunavik Marine Region) management units.
 - b. Recommendation on the overall total allowable catch¹ for northern and striped shrimp.

¹ Total allowable catch is often used to define harvest limits in commercial fishery. In the *Nunavik Inuit Land Claims Agreement* (NILCA) harvest limits are defined as Total Allowable Takes. In the *Nunavut Agreement* harvest limits are defined as Total Allowable Harvest. For simplicity and efficiency this letter adopts total allowable catch to encompass both total allowable harvest and total allowable takes.



- c. Recommendation as to whether to continue the practice whereby northern and striped shrimp allocations in Nunavut-West and Nunavik-West may be harvested in either management unit, regardless of land claim boundaries.

2. In the Eastern Assessment Zone:

- a. Decision on harvest levels for northern and striped shrimp in the Nunavut-East (within the Nunavut Settlement Area) and Nunavik-East management units (within the Nunavik Marine Region).
- b. Recommendation on the overall total allowable catch for northern and striped shrimp.
- c. Recommendation on the distribution of the total allowable catch for northern shrimp between the Davis Strait management units (Davis Strait West and Davis Strait-East).
- d. Recommendation on the distribution of the total allowable catch for striped shrimp in the Davis Strait management units (Davis Strait West and Davis Strait-East).
- e. Recommendation as to whether to continue the practice whereby northern and striped shrimp allocations in Nunavut East and Nunavik East may be harvested in either management unit, regardless of land claim boundaries.

NWMB AND NMRWB JOINT PUBLIC HEARING

At the NWMB in-camera meeting on March 11, 2021 (NWMB IC001-2021) and the NMRWB in-camera meeting on March 25, 2021 (#50), the Boards passed resolutions to hold a joint written public hearing to gather submissions on the above considerations from co-management partners, industry stakeholders, and other interested parties. On April 2, 2021, the NWMB and NMRWB published public notice and sent letters of invitation to relevant parties regarding the joint written hearing.

One submission² was received by the deadline of April 30, 2021 from: A joint submission from Makivik Corporation and Nunavut Fisheries Association³.

NWMB AND NMRWB DECISIONS AND RECOMMENDATIONS

At the NWMB in-camera meeting on June 10, 2021 (NWMB IC002-2021) and the NMRWB meeting on June 15, 2021, the Boards reviewed all relevant written arguments

² A second submission was received on May 4 after the submission deadline from Northern Coalition. Northern Coalition represents Qikiqtaaluk Corporation, Makivik Corporation, Unaq Fisheries Inc. (Joint Venture between Qikiqtaaluk Corporation and Makivik), Tornqat Fish Producers Co-operative, Nunatsiavut Group of Companies, and Labrador Fishermen's Union Shrimp Company.

³ Nunavut Fisheries Association includes, Qikiqtaaluk Corporation, Baffin Fisheries, Arctic Fishery Alliance, Cumberland Sound Fisheries Ltd/Pangnirtung Fisheries Ltd.



and evidence provided through the written public hearing ⁴. Having made complementary decisions and recommendations, the NWMB and NMRWB are providing this joint letter. The Boards' decisions and recommendations are set out immediately below. More details about the Board's decisions and recommendations are presented in Appendix 1 and Appendix 2.

NWMB Nunavut Agreement Jurisdiction

To ensure there is ongoing dialogue, the NWMB wish to remind you the Board has previously determined with Shrimp Fishing Area-0 that there is a need to clarify NWMBs role in the management of commercial fisheries inside and outside of the Nunavut Settlement Area pursuant to Article 5 and Article 15 of the *Nunavut Agreement*. The Board has jurisdiction over wildlife management decisions in the Nunavut Settlement Area under Article 5. Under Article 15, the NWMB has a role to provide relevant information to the Minister of Fisheries and Oceans for marine areas beyond the Nunavut Settlement Area.

When setting the total allowable catch for Shrimp Fishing Area-0, the NWMB raised issues about the operation of administrative boundaries for management units and the *Nunavut Agreement*, particularly Article 5. The NWMB was made to understand setting a total allowable catch for the Nunavut Settlement Area would require satisfying a section 5.3.3 condition (excerpt from August 26, 2020, letter from Minister Bernadette Jordan to NWMB Chair).

The Board's decision made reference to *Nunavut Agreement* section 5.6.16 which gives authority to establish a Total Allowable Harvest as an overall limit on permissible harvest, applicable to all harvesting, including Inuit harvesting inside and outside the commercial context. In considering this decision, the Board is mindful of the purpose and implications of such a limit in the context of *Nunavut Agreement* section 5.3.3. It remains unclear, based on the information and rationale for decision submitted to the Board, how Section 5.3.3 of the *Nunavut Agreement* has been considered.

This process raises similar interpretation issues. In the addendum dated March 5, 2021, Fisheries and Oceans Canada “presents the Boards with the information needed to provide advice to the Minister of Fisheries and Oceans Canada for the 2021-22 fishery in the Western Assessment Zone and Eastern Assessment Zone”. The addendum identifies the Nunavut-East and Nunavut-West management units for northern and striped shrimp are within the Nunavut Settlement Area. It is not clear how s. 5.3.3 should be considered. The addendum states “Science cannot detect trends for either stock at this time”. The addendum clarifies that the stocks would be “situated in the Healthy Zone relative to...” pending features of the Precautionary Approach Framework. The NWMB is uncertain how this quota, which has been treated as preceding the *Nunavut Agreement* and subject to section 5.6.4, can be modified without regard to the terms of Article 5, “including the purpose and implications of such [quotas] in the context

⁴ All the relevant documents and written submissions received on time and considered by the Boards are publicly available for download from the NWMB's website, www.nwmb.com.



of *Nunavut Agreement* section 5.3.3". Despite this, and in reliance on long-standing Fisheries and Oceans Canada practice, this issue is only raised to bring attention to interpretive discrepancies in the wildlife management of certain management units subject to your ultimate jurisdiction.

The Board reminds you, in our letter of April 08, 2021, the Board authorized its staff to engage with your staff with the aim of clarifying NWMB's role in the management of commercial fisheries inside and outside of the Nunavut Settlement Area pursuant to Article 5 and Article 15 of the *Nunavut Agreement*.

Total Allowable Catch Decisions and Recommendations

RESOLVED that, pursuant to Sections 5.2.3 and 5.4 of the *Nunavik Inuit Land Claims Agreement* and Section 15.3.4 of the *Nunavut Agreement*, the NWMB and NMRWB recommend that the total allowable catch in the Western Assessment Zone for the 2021/2022 fishing season be as follows:

1. For northern shrimp (*Pandalus borealis*):
 - a A total allowable catch of 5,090 tonnes in Western Assessment Zone; and
2. For striped shrimp (*Pandalus montagui*):
 - a A total allowable catch of 9,470 tonnes in the Western Assessment Zone; and

RESOLVED that, pursuant to Sections 5.6.4 of the *Nunavut Agreement*, the NWMB establish the following total allowable catch for shrimp in the Nunavut-West management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a A total allowable catch of 2,545 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area; and
2. For striped shrimp (*Pandalus montagui*):
 - a A total allowable catch of 4,735 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area; and

RESOLVED that, pursuant to Section 5.2.3 of the *Nunavik Inuit Land Claims Agreement*, the NMRWB establish the following total allowable take for shrimp in the Nunavik-West management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a A total allowable catch of 2,545 tonnes in the Nunavik-West management unit within the Nunavik Marine Region
2. For striped shrimp (*Pandalus montagui*):
 - a A total allowable catch of 4,735 tonnes in the Nunavik-West management unit within the Nunavik Marine Region; and

RESOLVED that, the NWMB and NMRWB recommend that the practice whereby *P. borealis* and *P. montagui* allocations in Nunavut-West and Nunavik-West may be harvested in either management unit, regardless of land claim boundaries be continued;



and

RESOLVED that, pursuant to Section 15.3.4 of the *Nunavut Agreement* and Section 5.4.4 of the *Nunavik Inuit Land Claims Agreement*, the NWMB and NMRWB recommend the following total allowable catch levels in the and Eastern Assessment Zone for the 2020/2021 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 12,932 tonnes in the Eastern Assessment Zone; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 1,861 tonnes in the Eastern Assessment Zone; and

RESOLVED that, pursuant to Sections 5.6.4 of the *Nunavut Agreement*, the NWMB establish the following total allowable catch for shrimp in the Nunavut-East management unit for the 2021/2022 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 2257 tonnes in the Nunavut-East management unit within the Nunavut Settlement Area; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 761 tonnes in the Nunavut-East management unit within the Nunavut Settlement Area; and

RESOLVED that, pursuant to Section 5.2.3 of the *Nunavik Inuit Land Claims Agreement*, the NMRWB establish the following total allowable take for shrimp in the Nunavik-East management unit for the 2021/2022 fishing season:

1. For *Pandalus borealis* (Northern shrimp):
 - a. A total allowable catch of 565 tonnes in the Nunavik-East management unit within the Nunavik Marine Region; and
2. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 326 tonnes in the Nunavik-East management unit within the Nunavik Marine Region; and

RESOLVED that, the NWMB and NMRWB recommend that the practice whereby northern (*P. borealis*) and striped (*P. montagui*) shrimp allocations in Nunavut-East and Nunavik-East may be harvested in either management unit, regardless of land claim boundaries be continued; and

FURTHERMORE, the NMRWB sees no reason to object to the request from industry to continue the practice whereby *P. montagui* allocations may be harvested in either Nunavik-West / Nunavik-East, regardless of management unit boundaries, unless there is a conservation concern with harvesting between the Western Assessment Zone and Eastern Assessment Zone.



Distribution of Total Allowable Catch

RESOLVED that, pursuant to Section 15.3.4 of the *Nunavut Agreement* and Section 5.4.4 of the *Nunavik Inuit Land Claims Agreement*, the NWMB and NMRWB recommend the following distribution of the total allowable catch in the Davis Strait-West and Davis Strait-East management units for the 2020/2021 fishing season:

1. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 2415 tonnes in the Davis Strait-East management unit that is further subdivided as follows:
 - i. A total allowable catch of 1007 tonnes for the offshore; and
 - ii. A total allowable catch of 1408 tonnes for Nunavut; and
2. For northern shrimp (*Pandalus borealis*):
 - a. A total allowable catch of 7688 tonnes in the Davis Strait-West management unit that is further subdivided as follows:
 - i. A total allowable catch of 4067 tonnes for the offshore; and
 - ii. A total allowable catch of 3259 tonnes for Nunavut; and
 - iii. A total allowable catch of 362 tonnes for Nunavik; and
3. For striped shrimp (*Pandalus montagui*):
 - a. A total allowable catch of 774 tonnes in the Davis Strait-East and Davis Strait-West management units.

Additional Recommendations

RESOLVED that, the NWMB and NMRWB recommend that additional research be conducted to investigate the potential use of multi-year averaging of fishable biomass to calculate total allowable catches.

REASONS FOR THE BOARDS' DECISIONS AND RECOMMENDATIONS

The decisions and recommendations made by the Boards are meant to ensure a sustainable harvest of northern and striped shrimp in the Eastern and Western Assessment Zones. The Boards have also considered the most recent scientific information on the stocks, including that provided by Fisheries and Oceans Canada, and input from industry stakeholders.

Total Allowable Catch Decisions and Recommendations

P. borealis is a bycatch species in the Western Assessment Zone, with a significant part of the total allowable catch not regularly harvested. Given the increase in the fishable biomass, maintaining the exploitation rate at 15.5% will provide a 61% increase in total allowable catch. Although this is over the 15% increase in total allowable catch from the previous season which is the maximum recommended by Fisheries and Oceans Canada, this exploitation rate is within the range from which the stock has been shown



to recover.

P. montagui, which is the directed fishery in the Western Assessment Zone, has decreased in fishable biomass for the past two years following an increase in exploitation rate, though the stock remains in the healthy zone. Given these considerations, the Boards have decided to maintain the exploitation rate at 18.6%.

P. montagui is a bycatch species in Davis Strait-East and -West and is a directed fishery in Nunavut-East and Nunavik-East. The stock has displayed precipitous fluctuations in fishable biomass every year since 2012. Industry has stated that accidental harvest of *P. montagui* may have negative impacts on the directed *P. borealis* fishery in the Eastern Assessment Zone. Thus, the Boards recommend maintaining the exploitation rate at 9.9%, resulting in an increase in total allowable catch.

Finally, the Boards recommend that the exploitation rate for *P. borealis* in the Eastern Assessment Zone be increased to 15%. Although this is over a 15% increase in total allowable catch from the previous season, as outlined in the harvest decision rules in this area, this exploitation rate is within the range from which the stock has been shown to recover. The Boards made a conscientious decision to take a precautionary approach to *P. borealis* in the Eastern Assessment Zone total allowable catch until impacts of increased fishing pressure are known due to a higher total allowable catch for the bycatch species, *P. montagui*.

Management Measures

The Boards considered the historical context and industry recommendations in recommending the continuation of the management measures whereby shrimp allocations within Inuit land claim regions (Nunavut-West and Nunavik West of the Western Assessment Zone, and Nunavut-East and Nunavik-East management units of the Eastern Assessment Zone) may be harvested in either management unit within an assessment zone regardless of land claim boundary. Additionally, NMRWB considered the request from industry to continue the practice whereby *P. montagui* allocations may be harvested in either Nunavik-West or Nunavik East, regardless of management unit boundaries, and is supportive of the continuation of this management measure as long as there is no conservation concern posed by harvesting between the two assessment zones. Harvests are to continue being reported according to where the harvest began.

Distribution of Total Allowable Catch

For the distribution of the total allowable catch of shrimp in the Western and Eastern Assessment Zones, the Boards considered the joint feedback provided by Nunavut Fisheries Association and Makivik Corporation, who are the primary harvesters of the stocks in question. The Boards have accepted and applied industry's distribution suggestions in their decisions and recommend them to the Minister of Fisheries and Oceans Canada.



Boards' Recommendation on Two-Year Averaging

Industry used two-year averaging of the fishable biomass as an approach to calculate total allowable catches in their submission. Industry stated that the Northern Shrimp Advisory Committee generally accepts two-year averaging. The Boards considered that averaging is not detailed in the established harvest control rules in the Integrated Fisheries Management Plan. The Boards are also aware that Fisheries and Oceans Canada considers the most recent survey estimate as the clearest representation of stock status and calculates total allowable catches based on the most recent survey when considering decisions from the Boards. Consequently, the Boards decided to calculate total allowable catches based on the fishable biomass from 2020 for simplicity and consistency with how Fisheries and Oceans Canada reviews total allowable catches. However, given that industries have repeatedly expressed their preference for multi-year averaging of fishable biomass the Boards recommend that science advice be sought on the use of two-year averaging for subsequent decisions.

CONCLUSION

The Boards hereby forward their decisions and recommendations to you, for your consideration pursuant to the relevant terms of the *Nunavut Agreement* and the *Nunavik Inuit Land Claims Agreement*. Please be assured that the NWMB and the NMRWB will continue to work collaboratively with the Department of Fisheries and Oceans Canada and other co-management partners in ensuring that the management of shrimp in the Nunavut Settlement Area and the Nunavik Marine Region fully aligns with the terms of the *Nunavut Agreement* Article 5 and *Nunavik Inuit Land Claims Agreement* Article 5.

If you or your officials have any questions with respect to the content of this letter, please do not hesitate to contact the NWMB and the NMRWB at your convenience.

Sincerely,

Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board

Iola Metuq
Chairperson
Nunavik Marine Region Wildlife Board

cc. Anika Bychok, Fisheries and Oceans Canada;
Erika Parrill, Fisheries and Oceans Canada;
Derek Mahoney, Fisheries and Oceans Canada.



Appendix 1

Summary of the Boards decisions and recommendations of harvest levels and overall total allowable catches for both species of shrimp in the Western and Eastern Assessment Zones.

Assessment Zone	Species	Scenario	Total Allowable Catch (tonnes)	Exploitation Rate	% Change of Total Allowable Catch
WAZ	P. borealis	Maintain ER	5,089	15.5%	61.0%
	P. montagui	Maintain ER	9,469	18.6%	-21.0%
EAZ	P. borealis	Industry 3	12,932	15.0%	21.4%
	P. montagui	Maintain ER	1,861	9.9%	121.0%



Appendix 2

Summary of the Boards' decisions and recommendations.

Assessment Zone	Management Unit	Joint	Nunavut	Nunavik
WAZ	WAZ	<p>RESOLVED that, pursuant to Sections 5.2.3 and 5.4 of the <i>Nunavik Inuit Land Claims Agreement</i> and Section 15.3.4 of the <i>Nunavut Agreement</i>, the NWMB and NMRWB recommend that the total allowable catch in the Western Assessment Zone for the 2021/2022 fishing season be as follows:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 5,090 tonnes in Western Assessment Zone; and 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 9,470 tonnes in the Western Assessment Zone; and 		
WAZ	Nunavut-West		RESOLVED that, pursuant to Section 5.6.4 of the <i>Nunavut Agreement</i> , the NWMB	

			<p>establish the following total allowable catch for shrimp in the Nunavut-West management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 2,545 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area; and 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 4,735 tonnes in the Nunavut-West management unit within the Nunavut Settlement Area 	
WAZ	Nunavik-West			<p>RESOLVED that, pursuant to Section 5.2.3 of the <i>Nunavik Inuit Land Claims Agreement</i>, the NMRWB establish the following total allowable catch for shrimp in the Nunavik-West management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch

				<p>of 2,545 tonnes in the Nunavik-West management unit within the Nunavik Marine Region</p> <p>2. For striped shrimp (<i>Pandalus montagui</i>):</p> <p>a. A total allowable catch of 4,735 tonnes in the Nunavik-West management unit within the Nunavik Marine Region</p>
WAZ	WAZ	RESOLVED that, the NWMB and NMRWB establish that the practice whereby <i>P. borealis</i> and <i>P. montagui</i> allocations in Nunavut-West and Nunavik-West may be harvested in either management unit, regardless of land claim boundaries be continued		
EAZ	EAZ	RESOLVED that, pursuant to Section 15.3.4 and 15.3.7 of the <i>Nunavut Agreement</i> and Section 5.4.4 of the <i>Nunavik Inuit Land Claims Agreement</i> , the NWMB and NMRWB recommend the following total allowable catch levels in the and Eastern Assessment Zone for the 2020/2021 fishing		

		<p>season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 12,932 tonnes in the Eastern Assessment Zone; and 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 1,861 tonnes in the Eastern Assessment Zone 		
EAZ	Nunavut-East		<p>RESOLVED that, pursuant to Section 5.6.4 of the <i>Nunavut Agreement</i>, the NWMB establish the following total allowable catch for in the Nunavut-East management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of tonnes in the 2257 Nunavut-East management unit within the Nunavut Settlement Area; and 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 761 tonnes in the 	

			Nunavut-East management unit within the Nunavut Settlement Area	
EAZ	Nunavik-East			<p>RESOLVED that, pursuant to Section 5.2.3 of the <i>Nunavik Inuit Land Claims Agreement</i>, the NMRWB establish the following total allowable catch for shrimp in the Nunavik-East management unit for the 2021/2022 fishing season:</p> <ol style="list-style-type: none"> 1. For <i>Pandalus borealis</i> (Northern shrimp): <ol style="list-style-type: none"> a. A total allowable catch of 565 tonnes in the Nunavik-East management unit within the Nunavik Marine Region 2. For striped shrimp (<i>Pandalus montagui</i>): <ol style="list-style-type: none"> a. A total allowable catch of 326 tonnes in the Nunavik-East management unit within the Nunavik Marine Region
EAZ	Davis Strait-East and - West	RESOLVED that, pursuant to Section 15.3.4 and 15.3.7 of the <i>Nunavut Agreement</i> and Section 5.4.4 of the <i>Nunavik</i>		

		<p><i>Inuit Land Claims Agreement</i>, the NWMB and NMRWB recommend the following distribution of the total allowable catch in the Davis Strait-West and Davis Strait-East management units for the 2020/2021 fishing season:</p> <ol style="list-style-type: none"> 1. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 2415 tonnes in the Davis Strait-East management unit that is further subdivided as follows: <ol style="list-style-type: none"> i. A total allowable catch of 1007 tonnes for the offshore; and ii. A total allowable catch of 1408 tonnes for Nunavut; and 2. For northern shrimp (<i>Pandalus borealis</i>): <ol style="list-style-type: none"> a. A total allowable catch of 7688 tonnes in the Davis Strait-West management unit that is further subdivided as follows: <ol style="list-style-type: none"> i. A total allowable catch 		
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		<p>of 4067 tonnes for the offshore; and</p> <p>ii. A total allowable catch of 3259 tonnes for Nunavut; and</p> <p>iii. A total allowable catch of 362 tonnes for Nunavik; and</p> <p>3. For striped shrimp (<i>Pandalus montagui</i>):</p> <p>a. A total allowable catch of 774 tonnes in the Davis Strait-East and Davis Strait-West management units.</p>		
EAZ	Nunavut-East and Nunavik-East	RESOLVED that, the NWMB and NMRWB establish that the practice whereby northern (<i>P. borealis</i>) and striped (<i>P. montagui</i>) shrimp allocations in Nunavut-East and Nunavik-East may be harvested in either management unit, regardless of land claim boundaries be continued.		
EAZ	Nunavik-West and Nunavik-East			RESOLVED that, the NMRWB the practice whereby striped shrimp (<i>P. montagui</i>) allocations in may be harvested in either Nunavik-West or



				Nunavik-East, regardless of management unit boundaries should be continued.
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August 14, 2021

Mr. Daniel Shewchuk
Chairperson
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P.O. Box 1379
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Mr. Iola Metuq
Chairperson
Nunavik Marine Region Wildlife Board
P.O. Box 443
Inukjuak, QC
J0M 1M0

Dear Mr. Shewchuk and Mr. Metuq:

I am writing in response to your correspondence of June 28, 2021, regarding the Nunavut Wildlife Management Board's (NWMB) and the Nunavik Marine Region Wildlife Board's (NMRWB) decisions and recommendations on *Pandalus borealis* and *P. montagui* in the Eastern Assessment Zone (EAZ) and the Western Assessment Zone (WAZ).

Western Assessment Zone

I agree with the Boards that for the WAZ, aggregate Total Allowable Catches (TACs) resulting in an increase of 61 per cent (15.5 per cent Exploitation Rate [ER]) for *P. borealis* and a decrease of 21 per cent (18.6 per cent ER) for *P. montagui* are acceptable and do not pose a conservation risk.

Consistent with that approach,

In the Nunavut West management unit, within the Nunavut Settlement Area, I accept the NWMB's decision and set the harvest levels for *P. borealis* at 2,545t and *P. montagui* at 4,735t; and,

In the Nunavik West management unit, within the Nunavik Marine Region, I accept the NMRWB's decision and set the harvest levels for *P. borealis* at 2,545t and *P. montagui* at 4,735t.

This will result in TACs of 5,090t for *P. borealis* and 9,470t for *P. montagui* in the WAZ, as outlined in Appendix 1 to this letter.

.../2

Eastern Assessment Zone

I regret that I cannot accept the Boards' decisions to increase the *P. borealis* quota within Nunavut East and Nunavik East by 242 per cent, and the *P. montagui* quota within Nunavut East and Nunavik East by 121 per cent due to the risk it poses to the overall EAZ stock sustainability.

For *P. borealis*, the Boards' decision will significantly increase fishing pressure near Resolution Island, believed to be an important shrimp spawning area. For *P. montagui*, Fisheries and Oceans Canada (DFO) Science has advised caution when setting the TAC due to large yearly fluctuations displayed by the stock, which suggest that it may currently be at the fringes of its distribution.

While discussions on the quota in Nunavut East and Nunavik East continue, I have decided to increase the *P. borealis* quotas in the Davis Strait management units by 15 per cent overall as is consistent with the Harvest Decision Rules outlined within the Integrated Fisheries Management Plan for Northern and Striped shrimp. For *P. borealis* in Davis Strait West, I have set a quota of 8,308.75t. For *P. borealis* in Davis Strait East, I have set a quota of 2,995t. For *P. montagui*, I have set a quota of 471.5t in the Davis Strait management units. Full details can be found in Appendix 1 to this letter.

By way of next steps, I seek the Board's reconsideration of its decisions for Nunavut East and Nunavik East communicated in the June 28, 2021, letter.

Upper Stock Reference Points

I understand that the Boards rejected the Department's request for a decision on the Upper Stock Reference Points for *P. borealis* and *P. montagui* in the EAZ and WAZ.

At this time, I will refrain from establishing Upper Stock Reference Points for EAZ and WAZ stocks and will direct officials to continue to work with your staff members. It should be recognized that I will continue to use the best available information, which may include recommended Upper Stock Reference Points, to guide decisions.

Harvesting within assessment zones and across management unit boundaries

There are no conservation concerns pertaining to the Boards' proposal to permit the practice of harvesting shrimp allocations across the Nunavut East and Nunavik East management unit boundaries and I would support the continuance of that practice.

I understand that the NMRWB recommended the approval of industry requests to continue practices whereby *P. montagui* allocations are harvested in either Nunavik West or Nunavik East, regardless of assessment zone boundaries, provided that the practice does not represent a conservation concern. The science advice for these stocks, and therefore the identification

of sustainable levels of harvest, is underpinned by the ability to quantify and assess harvest levels in the WAZ and EAZ individually. Allowing vessels to harvest across these assessment zones undermines this ability and could compromise the provision of future science advice. It would likely increase the uncertainty in the stock assessment, and may therefore predicate more caution in fisheries management decisions.

I would encourage the Boards to engage with departmental officials on this matter to discuss the management and administration of the shrimp resource in the EAZ. Further, as per the NWMB's request, my officials will be reaching out to NWMB staff to initiate conversations on the role of the NWMB and the Department in the management of our marine fisheries.

I appreciate the Boards' collaboration and cooperation in the sustainable management of the shared shrimp resource in the North.

Yours sincerely,

A handwritten signature in blue ink, consisting of a stylized 'B' followed by a long horizontal line.

The Honourable Bernadette Jordan, P.C., M.P.
Minister of Fisheries, Oceans and the Canadian Coast Guard

Enclosure: 1

Cc: Timothy Sargent, Deputy Minister, Fisheries and Oceans Canada
J.-G. Forgeron, Senior Assistant Deputy Minister, Fisheries and Harbour
Management, Fisheries and Oceans Canada

Appendix 1 – 2021/22 Total Allowable Catch and Management Unit Quotas

Western Assessment Zone

Management Unit	<i>P. borealis</i>	<i>P. montagui</i>
Nunavut West	2,545t	4,735t
Nunavik East	2,545t	4,735t
Total Allowable Catch	5,090t	9,470t

Eastern Assessment Zone

Management Unit	<i>P. borealis</i>	<i>P. montagui</i>
Davis Strait West - Offshore - Nunavik - Nunavut Total	5,250t 305.375t 2,753.375t 8,308.75 t	
Davis Strait East - Offshore - Nunavut Total	1,150t 1,845 t 2,995 t	
Davis Strait East and West - Offshore Bycatch		471.5 t
Nunavut East	TBD	TBD
Nunavik East	TBD	TBD
Total Allowable Catch	TBD	TBD

Appendix 3.

Table 1. Minister's shrimp total allowable catch levels and sharing agreements for the 2021/22 season in the Eastern Assessment Zone.

Species	Shrimp Fishing Area total allowable catch	Management unit total allowable catch	Management unit	Fleet	Quota	% sharing of shrimp fishing area total allowable catch	%sharing of management unit total allowable catch
P. montagui	-	472	DS W/E	Offshore	472	-	100%
	-	-	Nu/Nk-E	Nunavut	-	-	-
				Nunavik	-	-	-
P. borealis	-	8309	DS-W	Offshore	5250	-	63%
				Nunavut	2753	-	33%
				Nunavik	305	-	4%
	-	2995	DS-E	Offshore	1150	-	38%
				Nunavut	1845	-	62%
				Nunavik	0	-	0%
				Nunavut	-	-	-
				Nunavik	-	-	-

Table 2. The Boards' shrimp total allowable catch levels and sharing agreements for the 2021/22 season in the Eastern Assessment Zone.

Species	Shrimp Fishing Area total allowable catch	Management unit total allowable catch	Management unit	Fleet	Quota	% sharing of shrimp fishing area total allowable catch	%sharing of management unit total allowable catch
P. montagui	1,861	774	DS W/E	Offshore	774	42%	100%
	1,861	1,087	Nu/Nk-E	Nunavut	761	41%	70%
				Nunavik	326	18%	30%
P. borealis	12,932	7,688	DS-W	Offshore	4067	31%	53%
				Nunavut	3259	25%	42%
				Nunavik	362	3%	5%
	12,932	2,415	DS-E	Offshore	1007	8%	42%
				Nunavut	1408	11%	58%
				Nunavik	0	0%	0%
	12,931	2,822	Nu/Nk-E	Nunavut	2257	17%	80%
				Nunavik	565	4%	20%



Iola Metuq
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With respect to the Minister's decision on the EAZ and WAZ shrimp stocks, which was publicly released on August 26, 2021, shrimp quota holding members of the Nunavut and Nunavik industry were pleased that the Minister accepted the decision of the Boards for the shrimp fishery in the WAZ but disappointed that the recommendations and decisions with respect to the EAZ shrimp stocks were not accepted. The Minister's decision for the DSW and DSE components of the EAZ, to limit increases to 15%, appears consistent with the decisions made for stocks in more southern SFAs for 2021. It should be noted, however, that these decisions were not consistent with the advice that was provided to DFO at the Northern Shrimp Advisory Committee (NSAC) meeting, which was a significant departure from normal practice. As further discussed below, it should also be noted that this limitation on allocation

increases is and will have the greatest impact on northern fisheries, where current exploitation rates (ER) have been maintained at low levels in comparison to normal ER targets.

Reconsideration of the Boards NU/NK-E Decisions

The Nunavut Fisheries Association (NFA) and Makivik Corporation, for the Nunavut and Nunavik shrimp industry members, are pleased to provide their comments and advice to the Boards regarding the reconsideration of the NU/NK-E decisions. The following paragraphs provide this input in a number of areas, including:

- I. Achieving balance of Total Allowable Catch (TACs) with survey distributions in the EAZ;
- II. Achieving a reasonable ER for shrimp stocks in NU/NK-E and overall in the EAZ;
- III. Use of a 15% limit on increases/decreases in TACs and achieving a reasonable level of increase for the area; and
- IV. Reference to potential spawning grounds in the area.

I. Achieving balance of TACs with survey distributions in the EAZ

The current TAC levels for both *P. borealis* and *P. montagui* in the NU/NK-E management units are very low, at totals of 824 t and 430 t respectively. These levels are not reflective of the share of total Fishable Biomass (FB) for these species in the overall EAZ that the NU/NK-E management units provide, as per the results of the annual scientific surveys. In 2020, for example, the borealis TAC of 824 t accounted for only 7.7% of the total TAC in the EAZ, while survey results from the prior year indicated that NU/NK-E accounted for 22.5% of the total FB in the EAZ. The major growth in EAZ borealis shrimp stocks which have occurred since 2018, as shown in the survey and industry experience, have disproportionately taken place in the NU/NK-E subregion.

In the view of industry and to be consistent with DFO's stated views on the most recent survey results providing the most accurate information for decision making, the TACs in each sub-area of the EAZ should be more balanced with the actual survey distributions. As outlined below, the initial decisions of the Boards for NU/NK-E would be consistent with this approach.

Table 1 presents two options for the allocation decisions for the NU/NK-E, one based on an increase of only 15% in the TAC for each species, as per the Minister's decision for the DSW and DSE, and the other reflecting the initial Boards' decisions:

Table 1: TAC Options for NU/NK-E for 2021									
NU/NK E Borealis Allocation Options for 2021									
	2020 TAC	FB 1-yr	% of FB	15% Increase	% of TAC	ER	Board Rec.	% of TAC	ER
DSW	7,225	51,525	59.7%	8,309	67.8%	16.1%	8,309	58.8%	16.1%
DSE	2,604	16,480	19.1%	2,995	24.4%	18.2%	2,995	21.2%	18.2%
NU/NKE	824	18,237	21.1%	947	7.7%	5.2%	2,822	20.0%	15.5%
Total	10,653	86,242	100.0%	12,251	100.0%	14.2%	14,126	100.0%	16.4%
NU/NK E Montagu Allocation Options for 2021									
	2020 TAC	FB 1-yr	% of FB	15% Increase	% of TAC	ER	Board Rec.	% of TAC	ER
DSW	410	6,752	30.1%	472	48.8%	6.8%	472	30.3%	6.8%
DSE		215	1.0%						
NU/NKE	430	15,486	69.0%	495	51.2%	3.2%	1,087	69.7%	7.0%
Total	840	22,453	100.0%	966	100.0%	4.3%	1,559	100.0%	6.9%

This table shows that a 15% increase in NU/NK-E would not in any way address the current balance issue of TACs amongst sub-allocation areas in the EAZ, as for borealis NU/NK-E would only have 7.7% of the overall TAC vs the 21.1% of the FB from the 2020 survey and for montagu NU/NK-E would have 51.2% of the TAC as compared to 69.0% of the FB. In contrast, maintaining the current decision of the Boards for NU/NK-E would go a long way towards addressing the current imbalance, as for borealis the share of overall TAC would be 20.0% in NU/NK-E and 69.7% for montagu, both percentages which are much closer to the survey breakdown by area.

II. Achieving a reasonable ER for shrimp stocks in NU/NK-E and overall in the EAZ

The ER for shrimp stocks in both the EAZ and WAZ have generally been maintained at relatively low levels, especially in comparison to other SFAs where stocks are in similar positions within the Precautionary Approach (PA) Framework. This is true even in the SFA 4 which is directly adjacent to the EAZ and depends on the same annual science survey.

Table 1 demonstrates that a 15% increase in the 2021 TAC for borealis and montagu in NU/NK-E would result in a very low exploitation rate for each species, i.e. 5.2% and 3.2% respectively, in comparison to the other sub-areas in the EAZ - and in comparison to normal ERs for stocks that are well into the healthy zone (20%). Conversely, the Boards initial decisions on NU/NK-E allocations would increase the ERs for this area to a more reasonable level, in line with the other sub-areas but would also leave the ERs for NU/NK-E and for the EAZ in full at very reasonable levels in comparison to other SFAs with healthy stock populations. A 2,822 t allocation for borealis in NU/NK-E would result in an ER of 15.5%, lower than the projected ERs for DSW and DSE, and the overall ER for the EAZ would be at 16.4%. Similarly, the 1,087 t decision for montagu in NU/NK-E would result in a low ER of 7.0% in NU/NK-E and 6.9% overall for the EAZ. These ER numbers also do not consider the fact that the DSE area is in large part not fishable and, as such, the actual ERs will be significantly lower than these already low levels.

As per the initial decisions and recommendations of the Boards with respect to the EAZ, the stocks in this area are well into the healthy zone, and the Boards made fair and balanced decisions and recommendations that were below those proposed by the Nunavut and Nunavik industry but reflected increases that would move this region to be more in line with other SFAs with healthy stocks. A decision by the Minister to limit increases in the DSW and DSE to 15% serves to continue to maintain ERs in this area at low levels and, if carried forward to NU/NK-E and in future years, would severely limit the ability to reach a 20% ER for this region within a reasonable timeframe, consistent with the PA approach for

healthy stocks. This approach would result in significant economic opportunity losses on an annual basis, especially for industry members in Nunavut and Nunavik.

III. Use of a 15% limit on increases/decreases in TACs and achieving a reasonable level of increase for the area

For 2021, in most SFAs DFO has limited potential allocation increases to 15%. Although referenced in management plans, this has never been implemented as a strict policy limitation by DFO in the past. Flexibility has been utilized, especially when changes in survey biomass levels were significant. For 2021, this 15% threshold did not match with the recommendations provided by stakeholders at NSAC for many Shrimp Fishing Areas (SFAs).

For the northern areas, the Minister did accept the recommendations of the Boards for increases and decreases in the WAZ, despite these being significantly above 15% for both borealis (+61%) and montagui (-21%). As such, flexibility has been demonstrated even in 2021 and there is no rationale to limit NU/NK-E changes to a 15% level, which brings into question the rationale for the Minister's decision not to approve the decision of the Boards for NU/NK-E.

Although the decision of the Boards for increases in the NU/NK-E allocations for 2021 are quite large in percentage terms, as mentioned in the Minister's letter, this relates more to the current low level of TACs in this area versus the actual nominal increase in value. The nominal increases are reasonable and warranted to bring the EAZ sub-regions more into balance. If the NU/NK-E decisions are implemented, the actual impacts on overall borealis and montagui TACs for the EAZ would be 32.6% and 85.5% respectively. Such an increase in the overall EAZ borealis TAC would actually be lower than the percentage TAC increase approved by the Minister for borealis in the WAZ. On montagui, once again the percentage increase is more a reflection on the low starting amount of TAC than the actual nominal increase.

IV. Reference to potential spawning grounds in the area

In its reply to the Boards decision, the Minister has introduced the view that the NU/NK-E area may be a spawning area and require additional consideration with respect to TAC level increases. We are not aware of any scientific support that Resolution Island is a spawning area and this matter has never been raised at management meetings, including NSAC or at the Northern Precautionary Approach Working Group (NPAWG). Furthermore, in broader NSAC terms, spawning areas have not been discussed as an agreed and accepted rationale for management decisions. In any event, although shrimp may aggregate in the area, we disagree that Resolution Island is a spawning area.

For our northern areas in the WAZ and EAZ, the stocks of shrimp and other species actually have a higher level of natural protection than other more southern areas given the level of ice coverage for many months during the year. The health of the stock in the EAZ is strong in terms of both FB and Spawning Stock Biomass (SSB), as per the survey results, and the level of TAC being considered for NU/NK-E and overall for the EAZ is well within reasonable limits.

Joint Recommendations

Based on the discussion outlined above, the NFA and Makivik Corporation, for the Nunavut and Nunavik shrimp industry members, strongly support the NWMB and NMRWB in maintaining their June 28 decision on allocation increases for borealis and montagui in the NU/NK-E area.

The request for reconsideration of TAC levels in NU/NK-E is having a direct impact on Nunavut and Nunavik industry members in terms of current access to shrimp in this area. With current interim allocations at only 50% of last year's TACs in NU/NK-E and with the low levels of allocations in this area, significant constraints are to be unequivocally experienced. Given the anticipated further delays in a final decision related to this reconsideration process and the recent federal election and appointment of a new Minister, we have requested an increase in the interim allocations to 100% of last year's levels while the reconsideration process proceeds, and a final decision receives Ministerial approval. Support from the Boards on this increase in interim allocations is therefore requested on a priority basis.

Thank you in advance for the Boards' consideration of these joint recommendations on this important issue.

Regards,

Sakiasie Sowdlooapik
A/Chairperson
For the Nunavut Fisheries Association

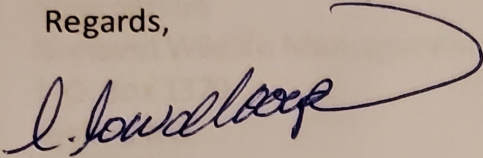
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The request for reconsideration of TAC levels in NU/NK-E is having a direct impact on Nunavut and Nunavik industry members in terms of current access to shrimp in this area. With current interim allocations at only 50% of last year's TACs in NU/NK-E and with the low levels of allocations in this area, significant constraints are to be unequivocally experienced. Given the anticipated further delays in a final decision related to this reconsideration process and the recent federal election and appointment of a new Minister, we have requested an increase in the interim allocations to 100% of last year's levels while the reconsideration process proceeds, and a final decision receives Ministerial approval. Support from the Boards on this increase in interim allocations is therefore requested on a priority basis.

Thank you in advance for the Boards' consideration of these joint recommendations on this important issue.

Regards,



Sakiasie Sowdloolik
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January 13, 2022

Mr. Daniel Shewchuk
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Mr. Iola Metuq
Chairperson
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Dear Mr. Shewchuk and Mr. Metuq:

I am writing in response to your correspondence of October 12, 2021, regarding the Nunavut Wildlife Management Board's (NWMB) and the Nunavik Marine Region Wildlife Board's (NMRWB) decisions on *Pandalus borealis* and *P. montagui* in the Nunavut-East (NU-E) and Nunavik-East (NK-E) management units within the Eastern Assessment Zone (EAZ).

I regret that I cannot accept the Boards' decisions to increase the *P. borealis* quota within NU-E and NK-E by 242 per cent, and the *P. montagui* quota within NU-E and NK-E by 153 per cent due to the risks they would pose to the overall EAZ shrimp stock sustainability.

P. borealis

As stated in my predecessor's correspondence on August 14, 2021, the Boards' decisions for *P. borealis*, would significantly increase fishing pressure near Resolution Island, believed to be an important shrimp spawning area. Fisheries and Oceans Canada (DFO) scientists have advised me that in the last two years, there has been a significant increase of shrimp biomass in the vicinity of the Resolution Island survey area. However, it is not clear if that scenario will persist. Even where a stock is in the healthy zone and there are indications that it is reasonable to increase a harvest, sudden large increases should be avoided. Rather, a more gradual approach better reflects an appropriate degree of precaution in my view. This principle is also reflected in the harvest decision rules outlined in the Integrated Fisheries Management Plan (IFMP) for Northern and Striped shrimp which state that changes should generally not exceed 15 per cent, unless the stock is declining precipitously. While rapid action to address precipitous declines can clearly be justified, the same cannot be said of rapid changes that would increase harvest pressures.

Noting the uncertainty you raised around the biological significance of the area around Resolution Island in your correspondence, you are correct that this topic has not been widely researched. It is quite reasonable to conclude, though, that the aggregation of that size would be an important source of recruitment for both the Resolution Island area and beyond. For

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this very reason, resource managers are developing a request for Canadian Science Advisory Secretariat peer-reviewed science advice to further our understanding on this important area. However, in the interim, I believe it is prudent to exercise caution given this uncertainty around the significance of the area to spawning, rather than to substantially increase pressure on the stock while this remains the subject of debate.

P. montagui

In the EAZ, DFO believes that *P. montagui* occurs at the fringes of a population distribution with its core lying further west in the Western Assessment Zone. In the last 10 years, this stock was observed to have biomass increases by 200 to 300 per cent, followed immediately by decreases at the range of 60 to 80 per cent. Accordingly, DFO scientists have advised precaution due to uncertainty surrounding the stock's trajectory given exceptionally large yearly fluctuations in fishable biomass and spawning stock biomass. This is augmented by my view that an increase of the quota by 153 per cent is too sharp an increase to be consistent with the approach to management and stewardship I consider necessary. I note further that while a 153 per cent increase for this stock would achieve an exploitation rate aligned with the guidance found in the IFMP's harvest decision rules, such an increase is many times higher than an amount which would be supported by those same rules with respect to year-to-year changes in quota. These rules are designed to guide decision-making within an acceptable range of risk and precaution, and have been accepted by the Boards for the ongoing management of these stocks.

I have therefore decided to vary the Boards' decisions and increase the *P. borealis* and *P. montagui* quotas in the NU-E and NK-E management units by 15 per cent based on the rationales above. For *P. borealis* in NU-E and NK-E, I have set a quota of 758t and 190t, respectively. For *P. montagui* in NU-E and NK-E, I have set a quota of 346t and 148t, respectively. Full details can be found in Appendix 1 to this letter.

I regret that my final decision does not align with the Boards' decisions on quota within the EAZ. I encourage the Boards to continue to engage with departmental officials moving forward as I appreciate the collaboration in the sustainable management of the shared shrimp resource in the North.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'J. Murray', with a long horizontal flourish extending to the right.

The Honourable Joyce Murray, P.C., M.P.
Minister of Fisheries, Oceans and the Canadian Coast Guard

Enclosure: 1

cc: Mr. Timothy Sargent, Deputy Minister, Fisheries and Oceans Canada
Mr. Jean-Guy Forgeron, Senior Assistant Deputy Minister, Fisheries and
Harbour Management, Fisheries and Oceans Canada

Eastern Assessment Zone

Management Unit	<i>P. borealis</i>	<i>P. montagui</i>
Davis Strait West - Offshore - Nunavik - Nunavut Total	5,250t 305.375t 2,753.375t 8,308.75 t	
Davis Strait East - Offshore - Nunavut Total	1,150t 1,845 t 2,995 t	
Davis Strait East and West - Offshore Bycatch		471.5 t
Nunavut East	758 t	346 t
Nunavik East	190 t	148 t
Total Allowable Catch	12,251.75 t	965.5 t
Potential Exploitation Rate	14.2%	5.1%